WATTS®

2026 Price list

Components and systems
for plumbing and heating
installations since 1874

ABOUT WATTS

Watts Water Technologies, Inc. is a **U.S. based multinational company** listed on the New York Stock Exchange (NYSE), with over 5,000 employees in 5 continents.

Since 1874, Watts has been contributing to technological research in the **plumbing and heating sector**, with a continuous focus on innovation and providing high-quality products and solutions. Every day for the past 150 years, Watts has been striving to **improve the comfort, safety and quality of life of people all around the world**.

The company has always been driven by technical know-how, **experience** in water-related technologies, and values such as **reliability**, **ethics** and close attention to **health**, **safety** and the **environment**. Today Watts is a partner of major companies and the best distributors of plumbing and heating products.

ENERGY EFFICIENCY

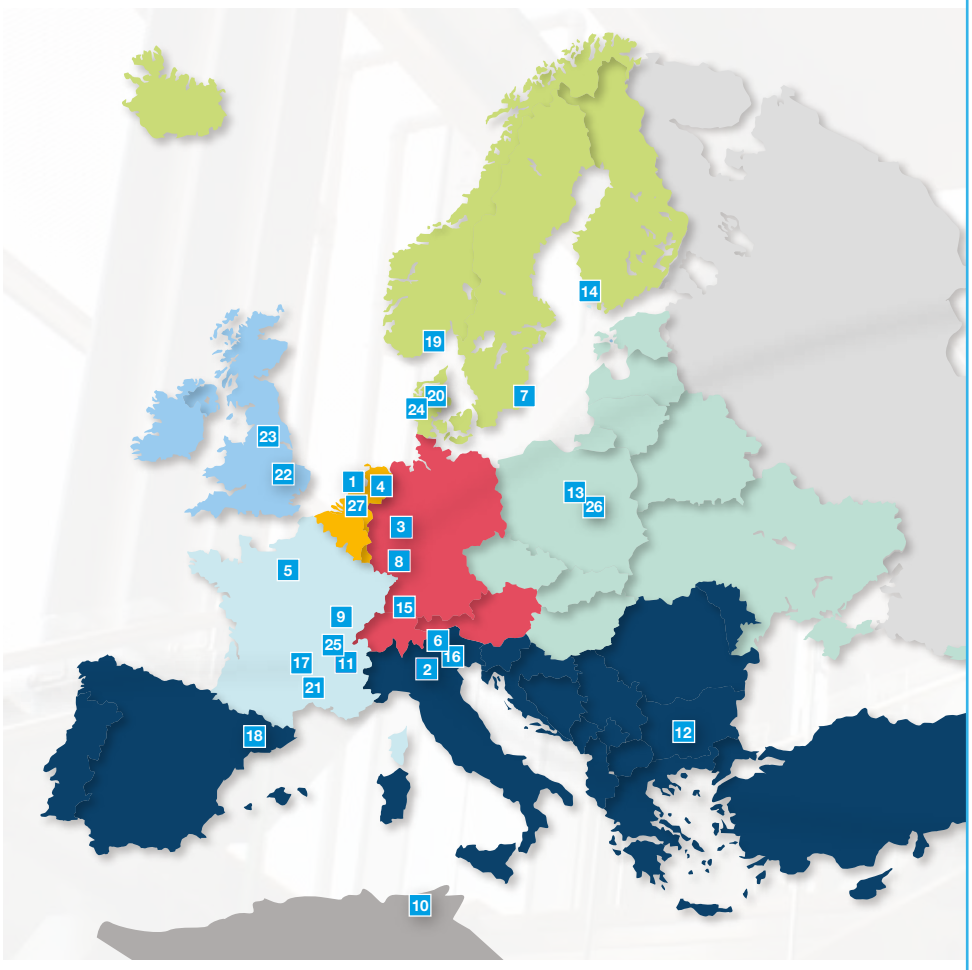
SAFETY AND CONTROL

WATER CONSERVATION

OUR SITES WORLDWIDE

Watts in Europe **7 distribution regions**

1	Amsterdam	Netherlands
2	Biassono	Italy
3	Dattenberg	Germany
4	Eerbeek	Netherlands
5	Evry	France
6	Gardolo	Italy
7	Kalmar	Sweden
8	Landau	Germany
9	Chambery	France
10	Monastir	Tunisia
11	Moirans	France
12	Plovdiv	Bulgaria
13	Piaseczno	Poland
14	Raisio	Finland
15	Reichenau	Germany
16	Rovereto	Italy
17	Rosieres	France
18	Rubí	Spain
19	Siljan	Norway
20	Skanderborg	Denmark
21	Sorgues	France
22	St. Neots	UK
23	Tadcaster	UK
24	Vildbjerg	Denmark
25	Virey le Grand	France
26	Warsaw	Poland
27	Wingene	Belgium



OUR HISTORY

Watts Italia

1874

WATTS®

Joseph Watts establishes the company in Lawrence, Massachusetts.

1992

Watts acquires **Intermes S.p.a.**, an Italian manufacturer of valves for plumbing and heating systems

1999

The historic company **CAZZANIGA S.p.a.**, based in Biassono in the Italian province of Monza and Brianza, and Italy's leading manufacturer of heating and plumbing products, joins the Watts family.

2001

FIMET

The Watts product range is extended to include **FIMET** pressure gauges and thermometers.

2002

giuliani anello

Watts Italia enters the world of gas: **GIULIANI ANELLO S.r.l.** adds components for gas, diesel and fuel oil systems to the Watts portfolio.

2007

Watts opens a new production facility in **Trento** as a joint initiative between two companies based in Northern Italy.

2009

SIOP

The production facilities achieve **Class A** accreditation from Oliver Wight.

2014

The new Trento site is extended to accommodate the production of **MICROFLEX®** pre-insulated flexible piping.

2016

Innovation needs more space: the company opens its **INNOVATION CENTER** in Rovereto (province of Trento).

2014

SOCLA
A WATTS Brand

Socla, France's leading manufacturer of components for water distribution systems, joins forces with Watts in the Italian market.

2021

The Biassono site (province of Monza and Brianza) becomes an **EU distribution hub** in Europe.

2024

WATTS 150 YEARS

2025

UNI/PdR 125:2022

Watts Italia secures **"Gender Equality" certification to UNI/ PdR 125:2022**

WATTS KEEPS INNOVATING!

OUR SERVICES

Watts provides its customers with online resources and offline technical support. Our experts have developed specific tools and software to make processes more efficient and ensure continuous updating, as well as high-quality training programmes.

Configurators and simulators

For certain series, select the most suitable product model and simulate how it works in your system.
watts.eu/it

BIM/CAD objects

Download BIM, DWG, DXF and STP files of our products free of charge, whenever you want, and incorporate them into your projects.
watts.eu/it

Software for designers

Discover STIMA10: the building energy calculation software for quick and easy system design.
idronicaline.net

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Chapter 1

Boiler room components

WATTS®

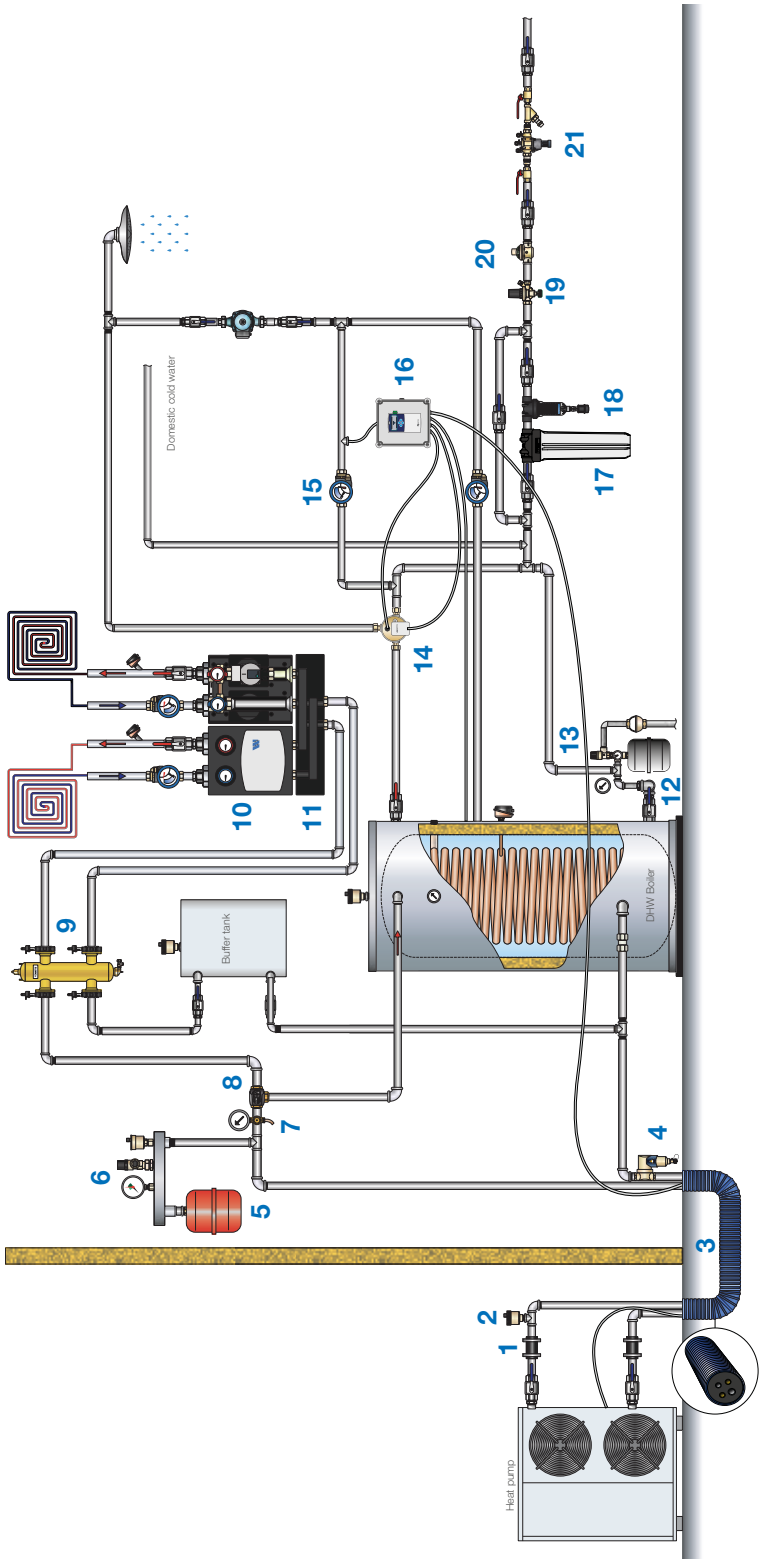
TRI - Instrument manifold

Quick installation
Horizontal or vertical fitting
Components as specified in INAIL “R” regulations

Chapter 1.1

SAFETY, PROTECTION AND CONTROL DEVICES

Heat pump solutions



All information, data, photographs and products shown in this figure and/or diagram are for illustrative and promotional purposes only. They provide no basis whatsoever for transaction or warranty purposes, and constitute neither an installation manual nor an execution scheme.

1. ZKB
Vibration-damping joint
P 32

2. INT - NEW INTERVENT
Automatic air vent valve
P 269

3. Microflex® HP
Pre-insulated flexible piping for heat pumps
P 174

4. WSS
Dirt separator
P 29

5. ERE CE
Closed expansion vessel
P 28

6. GAG
Vessel connection kit with plug valve
Note: product NOT INAIL-certified

7. M1-ABS 80/R
Pressure gauge
P 143

8. V3GB CLASSIC and WATTS CLASSIC EVO2
3-way valve with electronic actuator
Page 46 and Page 47

9. SDDF
Multifunction hydraulic separator
P 31

10. HK20
Compact domestic hot water and mixing unit
P 41

11. VB32
Distribution manifold
P 44

12. ACS CE
Expansion vessel for domestic water systems.
P 448

13. SV
Safety valve
P 19

14. e-ULTRAMIX
Thermostatic mixing valve
P 425

15. IDROSET® CF Series
Static balancing valve
P 196

16. e-ULTRAMIX®
Control unit for thermostatic mixing valve
P 425

17. ONEFLOW®
Anti-scale system
P 402

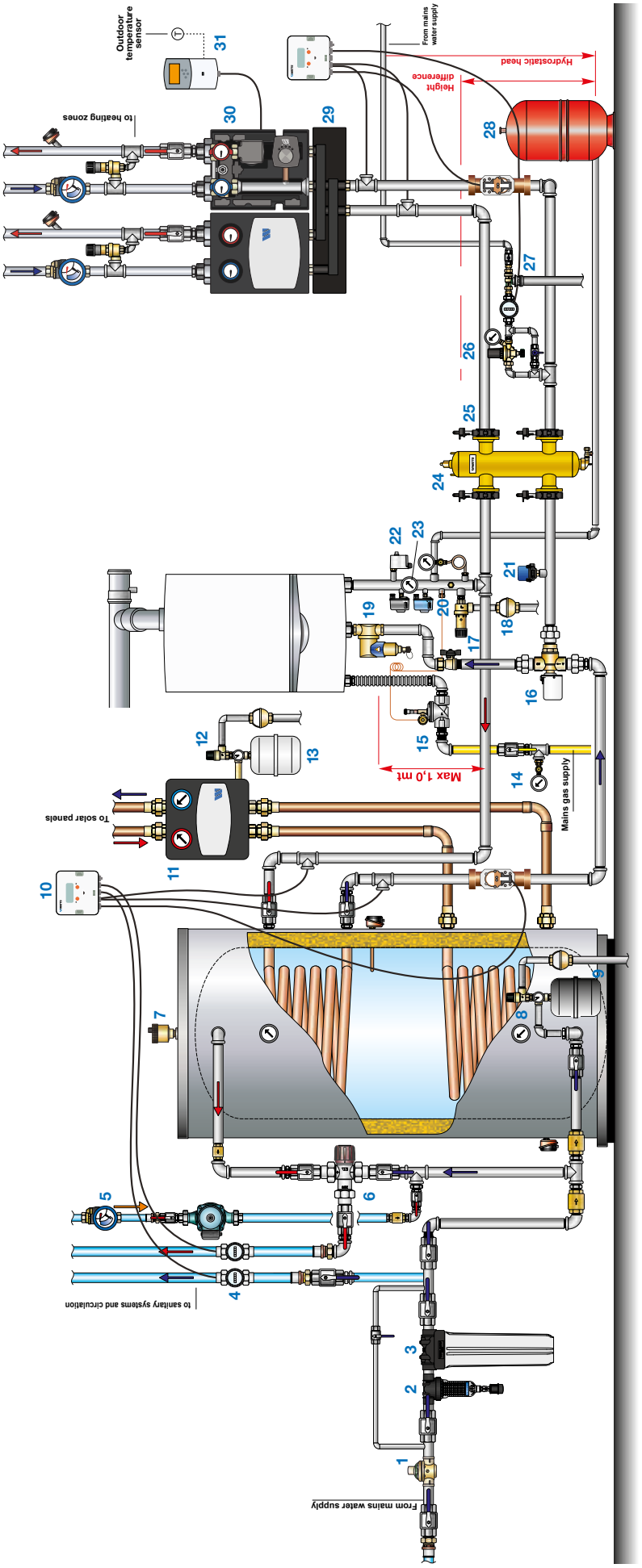
18. WHOF1
Self-cleaning filter
P 404

19. DESBORDES
Pressure reducing valve
P 413

20. ALM
Automatic filling valve
P 24

21. BABM
Backflow preventer
P 436

Boiler room components
to INAIL technical specifications



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1. DESBORDES
Pressure reducing valve
P 413

2. WHOF1
Self-cleaning filter
P 404

3. ONEFLOW®
Anti-scale system
P 402

4. WMT
Volumetric flow meter
P 235

5. iDROSET® CF Series
Static balancing valve
P 196

6. 61C
Thermostatic mixing valve for domestic water
P 424

7. INT - NEW INTERVENT
Automatic air vent valve
P 269

8. SV
Safety valve for boilers
P 19

9. ACS CE
Expansion vessel for domestic water systems.
P 448

10. Superstatic 440 N
Static meter for thermal energy metering
P 231

11. FBS20E
Return-circuit pump unit for solar thermal systems
P 462

12. SVE SOL
Safety valve for solar thermal systems
P 459

13. SOLAR
Expansion vessel for systems with solar panels
P 460

14. MP1-63
Diaphragm pressure gauge for gas
P 144

15. VIC/A
Fuel shut-off valve
P 21

16. VU3 + ETE
Servo-controlled three-way valve with electro-thermal actuator
Page 256 and Page 261

17. VST
Safety valve INAIL approved
P 16

18. IS
Exposed drain funnel
P 20

19. WSS
Dirt separator
P 29

20. PRMIN
Minimum pressure switch with manual resetting
P 26

21. PRM
Shut-off pressure switch with manual resetting
P 26

22. TRS TU
Immersion control and shut-off bi-thermostat with manual resetting
P 27

23. M1-ABS 80/R
Pressure gauge INAIL compliant.
P 143

24. SDDF
Multifunction hydraulic separator
P 31

25. XYLIA2
Butterfly valve
P 107

26. ALM
Automatic filling valve
P 24

27. CA9C
Backflow preventer with built-in filter
P 441

28. ERE CE
Closed expansion vessel
P 28

29. VB32
Distribution manifold
P 44

30. HK20
Compact domestic hot water and mixing unit
P 41

31. RCL-HC
Digital climate controller
P 76

Safety valves

VST

Diaphragm safety valve, fixed setting. CW617N brass body and cap.
F/F connections with reinforced outlet. Overpressure: 10% Blowdown: 20% PN 10.
Operating temperature: -10 to 120°C. Fluids: water with glycol up to 50%.
INAIL approved and calibrated.
Compliant with: PED 2014/68/EU.

Part no.	DN	bar	Pcs/pack	Package	€ each
0212122	1/2" x 3/4"	2,25	1	20	56,70
0212125	1/2" x 3/4"	2,5	1	20	56,70
0212127	1/2" x 3/4"	2,7	1	20	56,70
0212130	1/2" x 3/4"	3	1	20	56,70
0212135	1/2" x 3/4"	3,5	1	20	56,70
0212140	1/2" x 3/4"	4	1	20	56,70
0212145	1/2" x 3/4"	4,5	1	20	56,70
0212150	1/2" x 3/4"	5	1	20	56,70
0212154	1/2" x 3/4"	5,4	1	20	56,70
0212160	1/2" x 3/4"	6	1	20	56,70
0213122	3/4" x 1"	2,25	1	20	83,90
0213125	3/4" x 1"	2,5	1	20	83,90
0213127	3/4" x 1"	2,7	1	20	83,90
0213130	3/4" x 1"	3	1	20	83,90
0213135	3/4" x 1"	3,5	1	20	83,90
0213140	3/4" x 1"	4	1	20	83,90
0213145	3/4" x 1"	4,5	1	20	83,90
0213150	3/4" x 1"	5	1	20	83,90
0213154	3/4" x 1"	5,4	1	20	83,90
0213160	3/4" x 1"	6	1	20	83,90
0214122	1" x 1.1/4"	2,25	1	20	168,30
0214125	1" x 1.1/4"	2,5	1	20	168,30
0214127	1" x 1.1/4"	2,7	1	20	168,30
0214130	1" x 1.1/4"	3	1	20	168,30
0214135	1" x 1.1/4"	3,5	1	20	168,30
0214140	1" x 1.1/4"	4	1	20	168,30
0214145	1" x 1.1/4"	4,5	1	20	168,30
0214150	1" x 1.1/4"	5	1	20	168,30
0214154	1" x 1.1/4"	5,4	1	20	168,30
0214160	1" x 1.1/4"	6	1	20	168,30

Dimensions on page 34

VST valves: technical data and discharge flow rates

Model	Pressure of (bar)						Capacity	
	Setting	Drain	Closure	Orifice ø mm	Orifice sect. cm²	Discharge coefficient K	Steam venting kg/h	Generator kW
1/2"x3/4"	2,25	2,475	1,80				205,67	119,29
	2,50	2,75	2,00				221,40	128,41
	2,70	2,97	2,16				233,78	135,59
	3,00	3,30	2,40				253,74	147,17
	3,50	3,85	2,80	15	1,7671	0,71	284,07	164,76
	4,00	4,40	3,20				318,07	164,76
	4,50	4,95	3,60				344,78	199,97
	5,00	5,50	4,00				376,39	218,30
	5,40	5,94	4,32				399,70	231,24
	6,00	6,60	4,80				442,81	256,83

Model	Pressure of (bar)						Capacity	
	Setting	Drain	Closure	Orifice ø mm	Orifice sect. cm²	Discharge coefficient K	Steam venting kg/h	Generator kW
3/4"x1"	2,25	2,475	1,80				412,01	238,96
	2,50	2,75	2,00				443,52	257,24
	2,70	2,97	2,16				468,31	271,62
	3,00	3,30	2,40				508,30	294,81
	3,50	3,85	2,80	20	3,1416	0,80	569,04	330,04
	4,00	4,40	3,20				637,17	369,55
	4,50	4,95	3,60				690,67	400,58
	5,00	5,50	4,00				753,98	437,31
	5,40	5,94	4,32				804,25	466,50
	6,00	6,60	4,80				887,04	514,48

Model	Pressure of (bar)						Capacity	
	Setting	Drain	Closure	Orifice ø mm	Orifice sect. cm²	Discharge coefficient K	Steam venting kg/h	Generator kW
1"x1.14"	2,25	2,475	1,80				571,37	331,37
	2,50	2,75	2,00				615,03	356,71
	2,70	2,97	2,16				649,41	376,65
	3,00	3,30	2,40				704,86	408,82
	3,50	3,85	2,80	25	4,9087	0,71	789,09	457,67
	4,00	4,40	3,20				883,56	512,46
	4,50	4,95	3,60				957,75	555,49
	5,00	5,50	4,00				1045,55	606,42
	5,40	5,94	4,32				1120,24	649,79
	6,00	6,60	4,80				1230,06	713,43

TECHNICAL NOTE

INAIL approval certificates

The approval of individual VIC/A, VST, NVFN and VTFN Series valves governs the relationship between the manufacturer and INAIL; the manufacturer must produce the item within the time limits covered by the approval certificate (5 years, longer if renewed).

The expiry of these time limits does not preclude the use of items produced within the specified time limits, even if the approval certificate is not renewed. In view of their reliability and functionality, safety devices are not considered perishable, and there are no time limits for their use and installation.
In the event of loss of the original certificate, it is possible to order a conforming copy.

For repairs or servicing of INAIL approved products, please contact our sales department.

MSV

Standard diaphragm safety valve. CW617N brass body. 1/2"F/F connection.
Technopolymer manual discharge knob. Ni-Cr steel spring. PN 10.
Operating temperature: -10 to 110°C. Fluids: water with glycol up to 50%.
WRAS compliant. Compliant with: PED 2014/68/EU.

Part no.	DN	bar	Pcs/pack	Package	€ each
0206015N	1/2"	1,5	1	40	18,00
0206018N	1/2"	1,8	1	40	18,00
0206020N	1/2"	2	1	40	18,00
0206525	1/2"	2,5	1	40	18,00
0206530	1/2"	3	1	40	18,00
0206035N	1/2"	3,5	1	40	18,00
0206540	1/2"	4	1	40	18,00
0206050N	1/2"	5	1	40	18,00
0206060N	1/2"	6	1	40	18,00
0206070N	1/2"	7	1	40	18,00
0206080N	1/2"	8	1	40	18,00
0206090N	1/2"	9	1	40	18,00
0206099N	1/2"	10	1	40	18,00

Dimensions on page 34

MSL

Diaphragm safety valve. CW617N brass body. 1/2" M/F connections. Technopolymer manual discharge knob. Ni-Cr steel spring. PN 10. Operating temperature: -10 to 110°C.
Fluids: water with glycol up to 50%.
WRAS compliant. Compliant with: PED 2014/68/EU.

Part no.	DN	bar	Pcs/pack	Package	€ each
0206015N	1/2"	1,5	1	40	18,00
0206018N	1/2"	1,8	1	40	18,00
0206020N	1/2"	2	1	40	18,00
0206525	1/2"	2,5	1	40	18,00
0206530	1/2"	3	1	40	18,00
0206035N	1/2"	3,5	1	40	18,00
0206540	1/2"	4	1	40	18,00
0206050N	1/2"	5	1	40	18,00
0206060N	1/2"	6	1	40	18,00
0206070N	1/2"	7	1	40	18,00
0206080N	1/2"	8	1	40	18,00
0206090N	1/2"	9	1	40	18,00
0206099N	1/2"	10	1	40	18,00

Dimensions on page 34

SV

Diaphragm safety valve. CW617N brass body. F/F connections with reinforced outlet.
Technopolymer manual discharge knob. Ni-Cr steel spring. PN 10.
Operating temperature: -10 to 110°C. Fluids: water with glycol up to 50%.
Compliant with: PED 2014/68/EU.
Compliant with German standards TRD721, VdT V Merkblatt Sicherheitsventil 100.
Approval: ACS (Attestation de Conformité Sanitaire). Up to 3/4" models.

Part no.	DN	bar	Pcs/pack	Package	€ each
0216015N	1/2" x 3/4"	1,5	1	40	17,20
0216018N	1/2" x 3/4"	1,8	1	40	17,20
0216020N	1/2" x 3/4"	2	1	40	17,20
0215125	1/2" x 3/4"	2,5	1	40	17,20
0215130	1/2" x 3/4"	3	1	40	17,20
0216035N	1/2" x 3/4"	3,5	1	40	17,20
0215104	1/2" x 3/4"	4	1	40	17,20
0216045N	1/2" x 3/4"	4,5	1	40	17,20
0216050N	1/2" x 3/4"	5	1	40	17,20
0216055N	1/2" x 3/4"	5,5	1	40	17,20
0216060N	1/2" x 3/4"	6	1	40	17,20
0216070N	1/2" x 3/4"	7	1	40	17,20
0216080N	1/2" x 3/4"	8	1	40	17,20
0216090N	1/2" x 3/4"	9	1	40	17,20
0216099N	1/2" x 3/4"	10	1	40	17,20
0217015N	3/4" x 1"	1,5	1	40	26,50
0217018N	3/4" x 1"	1,8	1	40	26,50
0217020N	3/4" x 1"	2	1	15	26,50
0217625	3/4" x 1"	2,5	1	15	26,50
0217630	3/4" x 1"	3	1	15	26,50
0217035N	3/4" x 1"	3,5	1	15	26,50
0217604	3/4" x 1"	4	1	15	26,50
0217045N	3/4" x 1"	4,5	1	15	26,50
0217050N	3/4" x 1"	5	1	15	26,50
0217055N	3/4" x 1"	5,5	1	15	26,50
0217060N	3/4" x 1"	6	1	15	26,50
0217070N	3/4" x 1"	7	1	12	26,50
0217080N	3/4" x 1"	8	1	12	26,50
0217090N	3/4" x 1"	9	1	12	26,50
0217099N	3/4" x 1"	10	1	12	26,50
0218615	1"x1.1/4"	1,5	1	15	68,30
0218625	1"x1.1/4"	2,5	1	15	68,30
0218630	1"x1.1/4"	3	1	15	68,30
0218604	1"x1.1/4"	4	1	15	68,30
0218305	1"x1.1/4"	5	1	15	68,30
0218606	1"x1.1/4"	6	1	15	68,30
0218607	1"x1.1/4"	7	1	15	68,30
0218608	1"x1.1/4"	8	1	15	68,30
0218610	1"x1.1/4"	10	1	15	68,30
0219615	1.1/4"x1.1/2"	1,5	1	12	91,50
0219625	1.1/4"x1.1/2"	2,5	1	12	91,50
0219630	1.1/4"x1.1/2"	3	1	12	91,50
0219604	1.1/4"x1.1/2"	4	1	12	91,50
0219405	1.1/4"x1.1/2"	5	1	12	91,50
0219606	1.1/4"x1.1/2"	6	1	12	91,50
0219607	1.1/4"x1.1/2"	7	1	12	91,50
0219608	1.1/4"x1.1/2"	8	1	12	91,50
0219610	1.1/4"x1.1/2"	10	1	12	91,50

Dimensions on page 34

SFR

Safety unit with straight body for boilers up to 10kW, complete with safety valve, shut-off valve (to isolate the boiler from the supply line), inspectable check valve (to prevent the backflow of "contaminated" water into the supply line), lever for manual discharge via the safety valve.
Safety valve setting: 7 bar. 1" M discharge connection.
NF approved. ACS compliant.

Part no.	DN	Body	Pcs/pack	€ each
2254310M3	1/2" MF	Chrome-plated	1	44,00
2252550	3/4" MF	Chrome-plated	1	37,00

Dimensions on page 40

SIF

Discharge funnel for SFR safety units. White polypropylene body.
NF approved.

Part no.	DN	Pcs/pack	€ each
7092315	1" F	1	5,00

Dimensions on page 39

MSL/PT

Combined temperature and pressure safety valve for protecting storage tanks.
DZR brass body, steel spring, EPDM diaphragm. Models with threaded male/female connections or male/fitting connection for copper pipe. Vertical or horizontal installation (with bottom discharge only). PN 10.
Nominal temperature: 92°C. Fluids: domestic water.
Compliant with EN 1490 and Directive: PED 2014/68/EU.

Part no.	DN	Setting (bar)	Pcs/pack	Package	€ each
0206930	3/4"MF	3	1	1	58,90
0206940	3/4"MF	4	1	1	58,90
0206960	3/4"MF	6	1	1	58,90
0206970	3/4"MF	7	1	1	58,90
0206999	3/4"MF	10	1	1	58,90

Dimensions on page 34

IS

Exposed drain funnel for safety and thermal drain valves.

Part no.	DN	Pcs/pack	Package	€ each
0235115	1/2" FF	1	1	25,30
0235120	3/4" FF	1	1	31,80
0235125	1" FF	1	1	42,40
0235132	1.1/4" FF	1	1	73,40

Dimensions on page 34

Fuel shut-off and thermal drain valves

296

Three-way valve for boiler and expansion vessel shut-off. Threaded versions from DN 1" to DN 2" with bronze body. Flanged versions from DN 65 to DN 200 with cast iron body. The port sections inside the valve correspond to those of the piping with the same nominal diameter in accordance with INAIL technical specifications.

Part no.	DN	bar	Pcs/pack	Package	€ each
2961	1"	10	1	8	535,50
296114	1.1/4"	10	1	6	548,80
296112	1.1/2"	10	1	4	629,40
2962	2"	10	1	1	700,40
296212	65	16	1	1	2.532,70
2963	80	16	1	1	3.116,10
296100	100	16	1	1	3.884,20
296125	125	16	1	1	5.278,50
296150	150	16	1	1	7.383,80
296200	200	16	1	1	11.624,00

Dimensions on page 35

VTFN-TERMOFLUX

Positive action thermal drain valve with manual resetting and optical signal. PN10.
Set temperature 95°C. Drain capacity without filling: DN 1.1/4"-176,750 kcal/h equal to 7070 l/h. DN 1.1/2" - 318.200 kcal/h equal to 12728 l/h. Protection rating IP40.
INAIL approved and calibrated. Compliant with Directives LVD 2014/35/EU, EMC 2014/30/EU, PED 2014/68/EU.

Part no.	DN	Cable length	Pcs/pack	Package	€ each
0230232	1.1/4"	1 m	1	15	391,20
0230240	1.1/2"	1 m	1	10	592,70

Dimensions on page 34

VIC/A

Fuel shut-off valves. Compatible with natural gas, town gas, LPG, diesel and fuel oil. Positive action with manual reset. Capillary length 6 m. Aluminium body, stainless steel springs. NBR seals.
1/2"M sensor sheath connection. Max. operating pressure: 1 bar. Connections for flanged models, PN16 EN 1024. **Temperature:** - setting 96±3°C -maximum sensor side 130°C-maximum valve side 70°C - valve side 0°C.
INAIL approved and calibrated.
Compliant with: PED 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
VIC/A12	006.0150.000	1/2"	1	1	286,20
VIC/A34	006.0151.000	3/4"	1	1	357,00
VIC/A100	006.0152.000	1"	1	1	381,50
VIC/A114	006.0153.000	1.1/4"	1	1	499,80
VIC/A112	006.0154.000	1.1/2"	1	1	548,80
VIC/A200	006.0155.000	2"	1	1	666,10
VIC/A212	006.0156.100	DN 65	1	1	1.236,30
VIC/A300	006.0157.100	DN 80	1	1	1.613,70
VIC/A400	006.0158.000	DN 100	1	1	2.036,00

Dimensions on page 36

SPARE PARTS

Type	Part no.	Description	Pcs/ pack	Package	€ each
1140	014.0008.000	Bulb pocket for VIC/A 10 cm.	1	1	30,10
1153	014.0009.000	Bulb pocket for VIC/A 5 cm.	1	1	17,20

NVFN-FLAM STOP

Fuel shut-off valve compatible with natural gas, town gas, LPG, diesel and fuel oil.
DN 1/2" and 3/4" suitable for biodiesel. Positive action with manual reset. Liquid expansion thermostat. Capillary length 5 m. Compact sensor. 1/2"M sensor sheath connection. Aluminium body, stainless steel springs. Max. operating pressure: 6 bar (DN15 to 25) - 1 bar (DN 32 to 100).
Flange: DN 65 - 80 PN16 UNI 2223.
Temperature: - setting 97±3°C - maximum sensor side 120°C-maximum valve side 50°C - minimum valve side -5°C.
INAIL approved and calibrated. Compliant with ATEX Directive 2014/34/EU.
Compliant with PED Directive 2014/68/EU.

Part no.	DN	Pmax (bar)	Pcs/pack	Package	€ each
0231415	1/2" FF	6	1	1	278,00
0231420	3/4" FF	6	1	1	300,40
0231425	1" FF	1	1	1	334,60
0231432	1.1/4" FF	1	1	1	386,10
0231440	1.1/2" FF	1	1	1	418,80
0231450	2" FF	1	1	1	485,60
0231465	65	1	1	1	1.026,20
0231480	80	1	1	1	1.230,20

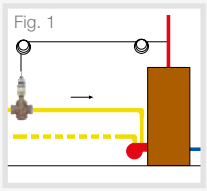
Dimensions on page 35

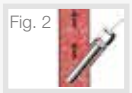
SPARE PARTS 1/2" brass sheath

Part no.	DN	Pcs/pack	Package	€ each
0299011	1/2" F x 3/4" M	1	10	14,10

TECHNICAL NOTE - **Installation notes**

- The valve must be fitted on the fuel piping, upstream of the burner (Fig. 1), observing the direction of flow shown by the arrow on the valve body.
- The flow temperature probe must be fitted on the piping within 1 m of the generator upstream of any shut-off valve. The fluid must flow over the probe inside its sheath, preferably against the direction of installation (Fig. 2 and 3).
- When connecting the valve to the piping, take the utmost care not to damage the capillary. For repair or servicing of the capillary with INAIL setting, contact the sales department.





STS - SECURFLUX

Thermal safety drain for non-atomised solid fuel boilers with double safety. Nickel-plated CW617N brass body. Functional testing device. Immersion probe with 145 mm sheath and 1/2"M connection. PN 10. Set temperature: 97°C; max. drain capacity temperature: 107°C. Max. drain capacity: 6500 l/h at 8 bar.
Compliant with PED Directive 2014/68/EU.
Compliant with DIN EN 14597 (0232220).

Part no.	DN	Capillary	Pcs/pack	Package	€ each
0232120	3/4" F	double safety 1300 mm	1	20	226,50
0232220	3/4" F	double safety 2000 mm	1	20	261,70

Dimensions on page 36

SPARE PARTS 1/2" M brass sheath

Part no.	DN	Pcs/pack	Package	€ each
0299014	1/2"	1	10	20,80

STS.S

Thermal safety drain for non-atomised solid fuel boilers with double safety and 360° adjustable capillary connection. CW617N brass body. Immersion probe with 145 mm sheath and 1/2"M connection. PN 10. Set temperature: 55°C, 85°C, 93°C, 97°C and 103°C, max. drain capacity temperature: 110°C. Max. drain capacity: 6500 l/h at 8 bar. DN 3/4" F.
Compliant with PED Directive 2014/68/EU.
Compliant with DIN EN 14597.

Part no.	T°C	Capillary	Pcs/pack	Package	€ each
0232620	97	1300 mm	1	20	131,10
0232621	85	1300 mm	1	20	138,30
0232622	93	1300 mm	1	20	138,30
0232623	55	1300 mm	1	20	138,30
0232624	103	1300 mm	1	20	138,30
0232625	97	2000 mm	1	20	138,30
0232626	97	4000 mm	1	20	138,30

Dimensions on page 36

SPARE PARTS 1/2" M brass sheath

Part no.	DN	Pcs/pack	Package	€ each
0299019	1/2"	1	10	17,10

Filler valves

AL - ALIMAT

Automatic filling valve complete with check valve, manual shut-off, stainless steel filter, and vent screw. CW617N brass body. Impact-resistant plastic cap. 1/4"F pressure gauge connection. Max. upstream pressure 10 bar. Adjustable downstream pressure 0.3 to 4 bar.

Part no.	DN	Pcs/pack	Package	€ each
0240100	1/2" MF	1	30	51,50

Dimensions on page 37

ALM

Automatic filling valve complete with check valve, manual shut-off, stainless steel filter, vent screw and pressure gauge 0-6 bar with bottom connection and 50 mm dial. CW617N brass body. Impact-resistant plastic cap. 1/4"F pressure gauge connection. Max. upstream pressure 10 bar. Adjustable downstream pressure 0.3 to 4 bar.

Part no.	DN	Pcs/pack	Package	€ each
0240200	1/2" MF	1	20	60,40

Dimensions on page 37

3110C - FILLMATIC

Automatic filling valve complete with 0-6 bar pressure gauge, self-cleaning check valve, manual shut-off and sintered bronze filter. CW617N brass body. Max. upstream pressure: 10 bar.
Adjustable downstream pressure: 0.3 to 4 bar. Set pressure: 1 bar.
Setting ratio: 1 rev. = 0.4 mWG

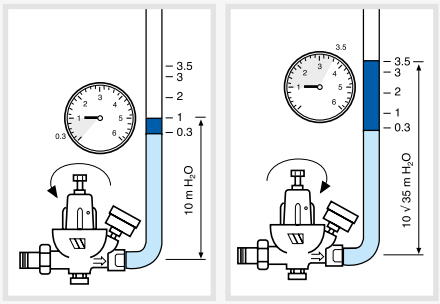
Part no.	DN	Pcs/pack	Package	€ each
3110C12	1/2" MF	1	15	90,20

Dimensions on page 37

TECHNICAL NOTE - Filling valves

Setting
The filling valve is factory-set to a pressure of 1 bar. To adjust to pressures other than the factory setting, simply turn the screw clockwise to increase the pressure (max 4 bar) or anticlockwise to decrease it (min 0,3 bar).

Installation
Install the valve according to the direction of the arrow stamped on the valve body. For quicker filling, make sure the regulating valve is fully open, although it is advisable to introduce the water slowly enough to avoid the formation of water pockets, which are difficult to expel. When filling, the device ensures that all water supplied from the mains is filtered.



Relief valves and check valves

USVR

Relief valve for systems with manual or automatic shut-off elements on the radiators (thermostatic valves, two-way zone valves). Female inlet connections, male union outlet.
CW617N brass body and cap.
Adjustment: Position “0” = Fully open

Part no.	DN	bar	Pcs/pack	Package	€ each
0265220	3/4” FM	0,03 - 0,50	1	30	70,60
0265225	1” FM	0,03 - 0,55	1	20	116,30
0265232	1.1/4” FM	0,06 - 0,46	1	15	146,90

Dimensions on page 37

USV16/L

Relief valve in straight execution for systems with automatic shut-off elements (thermostatic or electrothermal valves, two-way zone valves). DN 3/4”F connections with union nut. CW617N brass body. PN 10. Overpressure 10-15%. Max. operating temperature: 110°C. Fluids: water with glycol up to 50%.

Part no.	DN	bar	Pcs/pack	Package	€ each
0265118	3/4" F	0,03-0,50	1	45	43,30

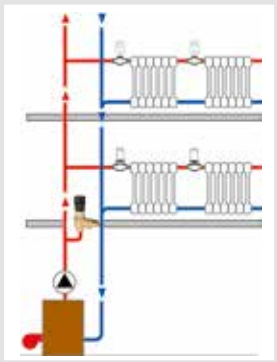
Dimensions on page 37

TECHNICAL NOTE - **Relief valves**

Selection
Valve selection is normally based on a by-pass flow rate of 25-30% of the total flow rate of the mains water system to be protected, and an overpressure of 10-15% of the head expected at that point (check curve of electric pump if necessary).
In the absence of precise data, select the model according to the TOTAL flow rate of the circuit to be protected, using the following values:

up to 1750 l/h	DN 1/2”
3500 l/h	DN 3/4”
7000 l/h	DN 1”
up to 12000 l/h	DN 1.1/4”

Installation
Install the pressure relief valve downstream of the pump delivery port, connecting the supply piping to the return piping. Observe the direction of flow indicated on the valve body.



RDF

Check valve with manual stop for systems with thermostat-controlled recirculating pump. CW617W brass body. Impact-resistant plastic knob. Adjust by turning the knob in the direction shown by the arrow.
N = normal position with operation as check valve, eliminating natural circulation when the pump is OFF;
A = open position, for operation without check valve, allowing natural circulation in the event of pump failure;
F = closed position, if you want to shut off the heating system. This must be done with the pump OFF.
The valve can be fitted either vertically or horizontally, preceded by a straight run (>70 cm). PN 10. Opening pressure 25-26 mbar. Operating temperature: 105°C. Max. temperature: 130°C.

Part no.	DN	Connection	Pcs/pack	Package	€ each
0262125	1”	FF	1	20	76,30
0262132	1.1/4”	FF	1	20	76,30

Dimensions on page 37

Water hammer arrestors

15M2

Piston-type copper water hammer arrestor with O-ring and EPDM. Can be installed in any position in relation to the pipe. Maintenance-free. Suitable for washing-machines, dishwashers, sinks, sanitary systems, etc.
Copper body, polypropylene piston, brass connection, EPDM gaskets.
Pre-charge pressure: 4.2 bar. Operating pressure: 10.3 bar.
Operating temperature: 0,5 to 82°C.

Part no.	DN	Protection	Pcs/pack	Package	€ each
471015002	1/2" M	A	1	1	38,50
471020002	3/4" M	B	1	1	63,40
471025002	1" M	C	1	1	87,30
471032002	1.1/4" M	D	1	1	180,60
471040002	1.1/2" M	E	1	1	273,90
471050002	2" M	F	1	1	361,20

Dimensions on page 36

Flow and pressure switches

FLU25PL

Flow switch for liquids for piping from DN 1" to DN 8". Plastic body. Equipped with min. and max. flow rate adjuster screw. Brass fitting. 3-contact microswitch: 10(5)A-230V. PN 10.
Max. fluid operating temperature: 110°C.
Compliant with LVD Directive 2014/35/EU.

Part no.	DN	Protection	Pcs/pack	Package	€ each
0401225	1"	IP64	1	10	146,50

Dimensions on page 37

PRM

Pressure switch with manual resetting for heating systems. Contact rating: 16A (10) - 250V.
Protection rating IP44. Factory setting: 3 bar. PN 5. Max. fluid temperature: 110°C.
Compliant with: LVD 2014/35/EU, RoHS 2011/65/EU, PED.

Part no.	DN	Control range	Pcs/pack	Package	€ each
0402101N	1/4" F	2-4,5 bar	1	50	33,50

Dimensions on page 37

PRMIN

Minimum shut-off pressure switch with manual reset pushbutton.
Degree of protection: IP44. Contact rating: 16A(10) – 250V AC. Factory setting: 0,9 bar.
Minimum reset differential 0,5 bar. PN 5. Max. fluid temperature: 110°C.
Compliant with Directives LVD 2014/35/EU, RoHS 2011/65/EU, PED.

Part no.	DN	Control range	Pcs/pack	Package	€ each
0402103N	1/4" F	0,5-1,7 bar	1	50	45,70

Dimensions on page 37

Control and safety thermostats, and boiler room accessories

TRE TU

Immersion control thermostat with 3 switching contacts. Shuts off the heat supply when the water temperature reaches the set-point, which is adjustable from 30 to 90°C (tolerance ± 3°C).
Sensitive bulb with 1/2"M sheath 100 mm long.
Plastic case with external control knob.
Contact rating: 16(5) A 250V; 400V 10(1)A.

ENEC 03 compliant.
INAIL approved. Compliant with LVD Directive 2014/35/EU.

Part no.	Protection	Pcs/pack	Package	€ each
0405101TU	IP 40	1	50	32,80

Dimensions on page 37

TS TU

Positive-safety immersion shut-off thermostat with manual resetting and fixed setpoint.
Shuts off the heat supply when the water temperature reaches the setpoint. Set temperature: 97°C (tolerance +3 to -5°C). Sensitive bulb with 1/2" M sheath 89,7 mm long. 6,3 mm. Fast-On terminals with screw fitting.
Contact rating: 16 (5)A 250V.
INAIL approved. Compliant with: LVD 2014/35/ EU, UL, ENEC.

Part no.	Protection	Pcs/pack	Package	€ each
0405201TU	IP 43	1	50	41,70

Dimensions on page 37

SPARE PARTS 1/2" M copper sheath

Part no.	DN	length	Pcs/pack	Package	€ each
LP441D	1/2" M	100 mm	1	136	13,10

TRS TU

Immersion control and shut-off bi-thermostat with manual resetting.
Control temperature: 30 to 90°C (tolerance ± 3°C). Shut-off temperature 95°C. Sensitive bulb with 1/2" M sheath 100 mm long. Plastic case with external setting knob and manual resetting.
Contact rating: 16(5) A 250V; 400V 10(1)A.

ENEC 03 compliant.
INAIL approved. Compliant with LVD 2014/35/EU.

Part no.	Protection	Pcs/pack	Package	€ each
0405301TU	IP 40	1	25	60,30

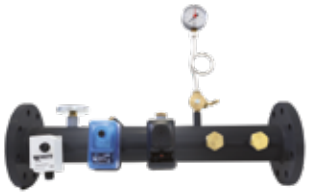
Dimensions on page 38

SPARE PARTS 1/2" M copper sheath

Part no.	DN	length	Pcs/pack	Package	€ each
LP442	1/2" M	100mm - part for TRS TU	1	136	13,10

INAIL approved safety manifold

TRI - MANIFOLD



INAIL (ex ISPESL) instrument manifold and accessories as prescribed by “R” regulations for boiler room safety and control. Steel manifold. PN 10. Max. temperature 110°C.
Complete with:
- INAIL approved TS TU Series immersion shut-off thermostat with manual resetting;
- PRM Series pressure switch with manual resetting;
- PRMIN Series minimum pressure switch with manual resetting;
- INAIL compliant DN80 TB-80/VE Series thermometer;
- INAIL compliant M1-ABS 63/R Series pressure gauge;
- INAIL compliant 403/RF Series copper alloy pressure gauge valve with flange;
- 407D/SRN Series nickel-plated copper coil;
- INAIL G50/ISPESL Series test pocket;
- NVF/N Series pocket for shut-off valve;
- provision for VST Series safety valve connection;
- connection fittings.

Part no.	DN	Pcs/pack	Package	€ each
TRI114	1 ¼”	1	1	622,20
TRI112	1 ½”	1	1	691,60
TRI200	2”	1	1	747,70
TRI065	65	1	1	884,40
TRI080	80	1	1	966,00

Dimensions on page 38

Expansion vessels

ERE CE

Expansion vessels with fixed diaphragm for heating and chilling systems. Male threaded connection at top of vessel (excluding 500-litre model). The 80–300-litre models are equipped with a circular base. The 500-litre model is equipped with support feet and bottom connection.
Operating temperature: -10 to 70°C.
Compliant with PED Directive 2014/68/EU.

Part no.	Capacity	Pmax	Pre-charge	Connection	Pcs/pack	Package	€ each
06820035C	35	5	1,5	3/4” M	1	1	95,70
06820050C	50	6	1,5	3/4” M	1	1	107,70
06820080C	80	6	1,5	3/4” M	1	1	192,70
06820100C	100	6	1,5	3/4” M	1	1	240,50
06820150C	150	6	1,5	1” M	1	1	331,80
06820200C	200	6	1,5	1” M	1	1	421,60
06820250C	250	6	1,5	1” M	1	1	494,60
06820300C	300	6	1,5	1” M	1	1	593,30
06820500C	500	6	2,5	1” M	1	1	974,40

Dimensions on page 38

PV M1-ABS 63/QG

DN 63 pressure gauge for monitoring filling pressure in expansion vessels, complete with hose L= 390 mm and V40 connection for direct hook-up to vessel.
Measuring range 0 to 12 bar – dual scale bar/psi.
EN 837-1 compliant.

Part no.	Scale	Connection	Accuracy class	Notes	Pcs/ pack	Package	€ each
PV3112DC00	0–12 bar/ psi	3/4"M	1,6	PV M1-ABS 63/QG	1	50	29,70

Dimensions on page 38

Mechanical anti-freeze valve

AFV

NEW

Male threaded connections DN 25 (1"), DN 32 (1 ¼") and DN 40 (1 ½") to ISO 228-1. Body, disc, and nut in Brass CW617N. Peroxide-cured EPDM seals. Max. operating pressure: 10 bar. Medium temperature range: 0–90 °C. Ambient temperature range: -30–60 °C. Discharge opening temperature: setting of 2 °C, 3 °C or 4 °C. Discharge closing temperature: 3 °C, 4 °C or 5 °C. Kv flow rate for DN 25: 15,5. Vertical installation with downward discharge. Integrated vacuum breaker. Does not require electrical power.

Part no.	DN	Pcs/pack	Package	€ each
AFV0A100A	1"	1	1	99,90
AFV0A114A	1 ¼"	1	1	108,00
AFV0A112A	1 ½"	1	1	109,90

Dimensions on page 36

Dirt separator

WCS - COMPACT MAGNETIC DIRT SEPARATOR

Compact dirt separator for sludge and impurities (magnetic and otherwise), complete with magnet. Available with 3/4" and 1" connections. Fast, convenient dirt removal. Easy to install horizontally, vertically or diagonally. Easy to clean. Brass body. For use with water and water/glycol (up to 50%). PN 10. Max. operating temperature: 110°C. Particle separation capacity: up to 5 microns.
EPP rigid foam insulation as per AnIV and EnEV requirements: available to order.

Part no.	DN	Flow rate/PN	Pcs/pack	Package	€ each
DSC0034W	3/4"	1,26 m3/h - PN10	1	1	158,70
DSC0100W	1"	1,98 m3/h - PN10	1	1	176,00

Dimensions on page 39

WSS - THREADED MAGNETIC DIRT SEPARATOR

Dirt separator for the removal of sludge and impurities (magnetic and otherwise) from heating/cooling systems, complete with removable external magnet and drain valve for cleaning.
Fast, convenient dirt removal. Easy to install horizontally, vertically or diagonally. Easy to clean. Brass body. For use with water and water/glycol (up to 50%). Max. operating temperature: 110°C. Particle separation capacity: up to 5 microns.
EPP rigid foam insulation as per AnIV and EnEV requirements: available to order.

Part no.	DN	Flow rate/PN	Pcs/pack	Package	€ each
DST0034W	3/4"	1,30 m3/h - PN 10	1	1	183,60
DST0100W	1"	2,00 m3/h - PN 10	1	1	198,40
DST0112W	1 ½"	5,00 m3/h - PN 10	1	1	301,50
DST0200W	2"	7,50 m3/h - PN 10	1	1	609,00

Dimensions on page 39

WBS - FLANGED MAGNETIC DIRT SEPARATOR

Dirt separator to remove sludge and debris (also magnetic) from heating/cooling system, complete with magnet and drain valve for cleaning. Fast, convenient dirt removal. For horizontal installation. Easy to clean. Body in ST37.2 carbon steel. For use with water and water/glycol (up to 50%). Max. operating temperature: 110°C.
Particle separation capacity: up to 5 microns.
EPP rigid foam insulation as per AnIV and EnEV requirements up to DN100: available to order.

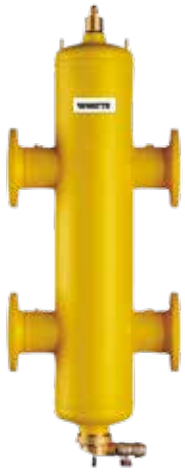
Part no.	DN	Flow rate/PN	Pcs/pack	Package	€ each
DSF0065W	DN65	20,00 m3/h - PN 10	1	1	1.694,30
DSF0080W	DN80	27,00 m3/h - PN 10	1	1	2.197,10
DSF0100W	DN100	47,00 m3/h - PN 10	1	1	2.447,00
DSF0125W	DN125	72,00 m3/h - PN 10	1	1	4.393,20
DSF0150W	DN150	108,00 m3/h - PN 10	1	1	4.644,10
DSF0200W	DN200	180,00 m3/h - PN 10	1	1	7.090,10
DSF0250W	DN250	288,00 m3/h - PN 10	1	1	16.699,50
DSF0300W	DN300	405,00 m3/h - PN 10	1	1	27.137,10

Dimensions on page 39

INSULATION SHELLS

Part no.	Description	Dirt separator model	Pcs/pack	Package	€ each
TUR100	Insulating shell for WSS 3/4"-1"	DST0034W-DST0100W-DSC0034W-DSC0100W	1	1	65,00
TUR150	Insulating shell for WSS 1"-1/2"	DST0112W	1	1	105,00
TUR200	Insulating shell for WSS 2"	DST0200W	1	1	115,00
TB050	Insulating shell for WBS DN65	DSF0065W	1	1	440,00
TB080	Insulating shell for WBS DN80-DN100	DSF0080W-DSF0100W	1	1	560,00
TB125A01	Insulating shell for WBS DN125-DN150	DSF0125W-DSF0150W	1	1	1.200,00

SDDF - MULTIFUNCTION HYDRAULIC SEPARATOR



Multifunction hydraulic separator featuring steel body and low pressure losses: hydraulic separator, magnetic dirt separator and deaerator. The multifunction separator makes the flow and head characteristics of the primary and secondary circuits independent of each other and purges the circuit of micro air bubbles and both metallic and non-metallic dirt and debris. Flanged connections from DN50 up to DN300, compliant with PN16 (DIN2633/EN1092). Maximum operating pressure PN10. Temperature 0 °C to 110 °C.

Part no.	DN	Flow rate/PN	Pcs/pack	Package	€ each
SDDF050W	DN50	12,50 m3/h	1	1	3.035,60
SDDF065W	DN65	20,00 m3/h	1	1	3.509,90
SDDF080W	DN80	27,00 m3/h	1	1	4.753,20
SDDF100W	DN100	47,00 m3/h	1	1	5.270,40
SDDF125W	DN125	72,00 m3/h	1	1	8.780,20
SDDF150W	DN150	108,00 m3/h	1	1	9.376,90
SDDF200W	DN200	180,00 m3/h	1	1	14.890,00
SDDF250W	DN250	288,00 m3/h	1	1	36.637,40
SDDF300W	DN300	405,00 m3/h	1	1	46.829,30

Dimensions on page 40

INSULATION SHELLS

Part no.	Description	Multi-function separator model	Pcs/pack	Package	€ each
TBX050A01	Insulating shell for SDDF DN50	SDDF050W	1	1	464,70
TBX065A01	Insulating shell for SDDF DN65	SDDF065W	1	1	464,70
TBX080A01	Insulating shell for SDDF DN80	SDDF080W	1	1	950,00
TBX100A01	Insulating shell for SDDF DN100	SDDF100W	1	1	950,00
TBX125A01	Insulating shell for SDDF DN125	SDDF125W	1	1	1.218,90
TBX150A01	Insulating shell for SDDF DN150	SDDF150W	1	1	1.218,90

DSPN – THREADED MAGNETIC DIRT SEPARATOR

The DSPN Series magnetic dirt separator ensures that the boiler stays continually protected, retains all impurities present in the system and prevents their circulation, consequently avoiding wear and preventing damage to other components of the system. Installed on the return circuit, at the inlet to the boiler, it is intended exclusively for use in domestic heating systems and is easy to install under the boiler because of its extremely compact size.
The magnet is easy to remove for cleaning.
Body: PA66 reinforced plastic. Filter cartridge: AISI 304 L stainless steel. Ball valve: CW 617 N brass. Connections: main body G 3/4", drain G 1/2". Complete with ball valve and swivel fitting made of brass. Compatible fluids: water, water + glycol 70/30. Max. operating pressure: 3 bar at 90°C. Operating temperature: 4 to 90°C. Particle separation capacity: 500 µm.

Part no.	DN	PN	Pcs/pack	Package	€ each
DSP0034WN	3/4"	3 bar	1	1	69,00

Dimensions on page 39

Vibration-damping joints

ZKB

Expansion joint
EPDM

Vibration-damping joint with galvanised steel flanges. Available to order: stainless steel flanges, PN 25 flanges and vacuum ring.

Part no.	Product	DN mm	PFA WATER (Bar)	PN	Pcs/pack	Package	€ each
149B12552C	EPDM	32	16	10/16	1	1	43,60
149B12553C	EPDM	40	16	10/16	1	1	44,80
149B12554C	EPDM	50	16	10/16	1	1	48,90
149B12555C	EPDM	65	16	10/16	1	1	57,30
149B12556C	EPDM	80	16	10/16	1	1	69,20
149B12557C	EPDM	100	16	10/16	1	1	85,40
149B12558C	EPDM	125	16	10/16	1	1	110,00
149B12559C	EPDM	150	16	10/16	1	1	140,60
149B12560C	EPDM	200	10	10	1	1	196,30
149B12561C	EPDM	250	10	10	1	1	300,70
149B12562C	EPDM	300	10	10	1	1	379,20
149B12563C	EPDM	350	8	10	1	1	560,30
149B12564C	EPDM	400	8	10	1	1	727,60
149B12565C	EPDM	450	8	10	1	1	854,00
149B12566C	EPDM	500	8	10	1	1	1.021,10
149B12567C	EPDM	600	8	10	1	1	1.739,20

Part no.	Product	DN mm	PFA WATER (Bar)	PN	Pcs/pack	Package	€ each
149B054065	EPDM	200	16	16	1	1	206,00
149B054066	EPDM	250	16	16	1	1	315,70
149B054067	EPDM	300	16	16	1	1	510,00
149B054068	EPDM	350	8	16	1	1	660,00
149B054069	EPDM	400	8	16	1	1	763,70
149B054070	EPDM	450	8	16	1	1	897,00
149B054080	EPDM	500	8	16	1	1	1.072,10
149B054071	EPDM	600	8	16	1	1	1.825,70

Dimensions on page 35

ZKT

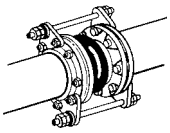
EPDM
expansion joint

Vibration-damping joint with galvanised ductile iron unions.

Part no.	Product	DN mm	PFA WATER (Bar)	PN	Pcs/pack	Package	€ each
149B12568C	EPDM	20	3/4	10	1	1	25,00
149B12569C	EPDM	25	1	10	1	1	28,00
149B12570C	EPDM	32	1 1/4	10	1	1	34,00
149B12571C	EPDM	40	1 1/2	10	1	1	41,80
149B12572C	EPDM	50	2	10	1	1	46,70
149B12573C	EPDM	65	2 1/2	10	1	1	88,20
149B12574C	EPDM	80	3	10	1	1	133,10

Dimensions on page 35

CONTROL ROD KITS

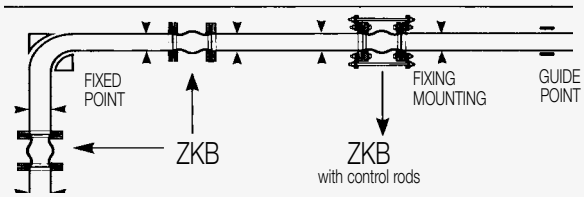


Galvanised steel control rods.

Part no.	Description	DN mm	PFA WATER (Bar)	PN	Pcs/ pack	Package	€ each
149B12575	CONTROL ROD KIT ZKB	32	1 1/4	for flange PN10/16	1	1	126,30
149B12576	CONTROL ROD KIT ZKB	40	1 1/2	for flange PN10/16	1	1	126,30
149B12577	CONTROL ROD KIT ZKB	50	2	for flange PN10/16	1	1	174,80
149B12578	CONTROL ROD KIT ZKB	65	2 1/2	for flange PN10/16	1	1	174,80
149B12579	CONTROL ROD KIT ZKB	80	3	for flange PN10/16	1	1	181,80
149B12580	CONTROL ROD KIT ZKB	100	4	for flange PN10/16	1	1	181,80
149B12581	CONTROL ROD KIT ZKB	125	5	for flange PN10/16	1	1	190,60
149B12582	CONTROL ROD KIT ZKB	150	6	for flange PN10/16	1	1	214,10
149B12583	CONTROL ROD KIT ZKB	200	8	for flange PN10	1	1	232,00
149B12584	CONTROL ROD KIT ZKB	250	10	for flange PN10	2	1	249,20
149B12585	CONTROL ROD KIT ZKB	300	12	for flange PN10	2	1	249,20
149B12586	CONTROL ROD KIT ZKB	350	14	for flange PN10	2	1	305,00
149B12587	CONTROL ROD KIT ZKB	400	16	for flange PN10	2	1	325,40
149B12588	CONTROL ROD KIT ZKB	450	18	for flange PN10	2	1	325,40
149B12589	CONTROL ROD KIT ZKB	500	20	for flange PN10	2	1	340,00
149B12590	CONTROL ROD KIT ZKB	600	24	for flange PN10	2	1	442,70
149B054087	CONTROL ROD KIT ZKB	200	8	for flange PN16	1	1	420,00
149B054088	CONTROL ROD KIT ZKB	250	10	for flange PN16	2	1	286,60
149B054089	CONTROL ROD KIT ZKB	300	12	for flange PN16	2	1	312,10
149B054090	CONTROL ROD KIT ZKB	350	14	for flange PN16	2	1	350,90
149B054091	CONTROL ROD KIT ZKB	400	16	for flange PN16	2	1	407,30
149B054092	CONTROL ROD KIT ZKB	450	18	for flange PN16	2	1	451,40
149B054093	CONTROL ROD KIT ZKB	500	20	for flange PN16	2	1	493,10
149B054094	CONTROL ROD KIT ZKB	600	24	for flange PN16	2	1	752,90

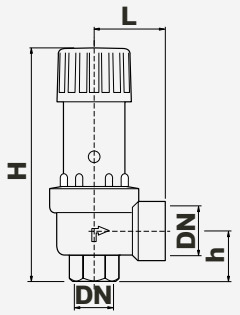
TECHNICAL NOTE

RECOMMENDED CONFIGURATION



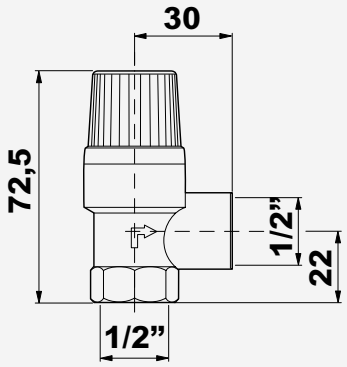
Overall dimensions

VST

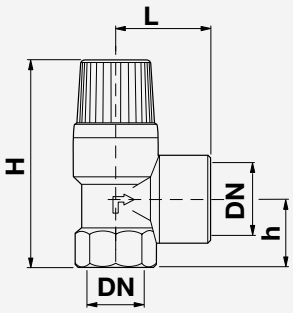


DN	L	H	h
1/2" x 3/4"	37	119	25
3/4" x 1"	48	165	29
1" x 1.1/4"	54	173	34.5

MSL/MSV

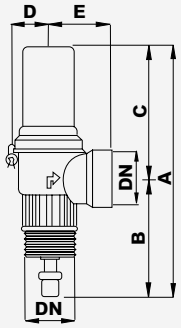


SV



DN	L	H	h
1/2" x 3/4"	30/34	70/73	22/24,5
3/4" x 1"	37	84,5	34
1" x 1.1/4"	50	109	42
1.1/4" x 1.1/2"	55	116	42

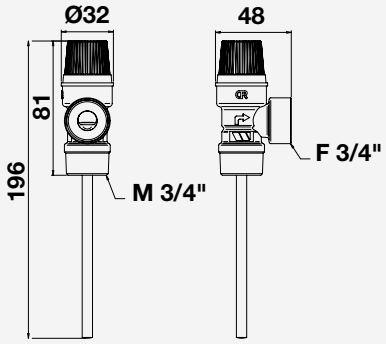
VTFN



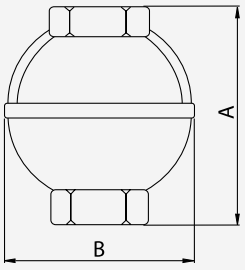
DN	A	B	C	D	E
1.1/4"	230	107	123	35	52
1.1/2"	246	120	126	38	60

MSL/PT

0206930-0206940-0206960-0206970-0206999



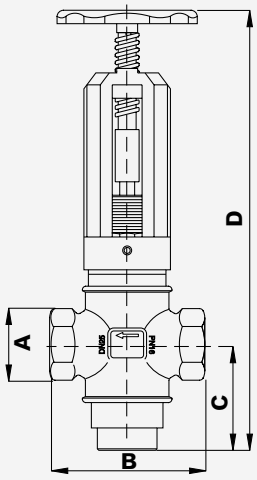
IS



DN	A	B
1/2"	61	45
3/4"	65	57
1"	78	68
1.1/4"	113	97

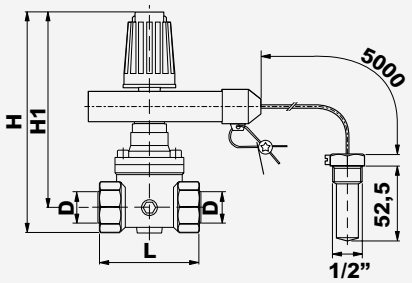
Overall dimensions

296



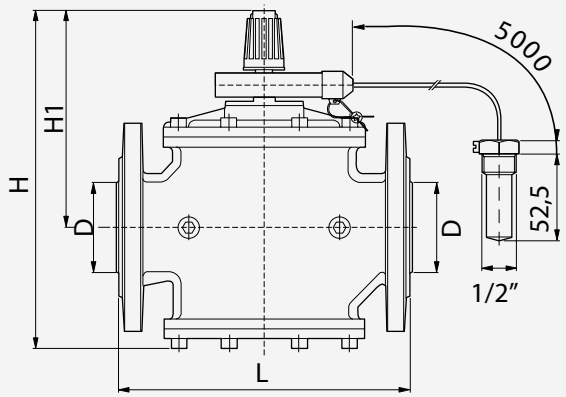
DN	B	C	D
1”F	105	72	320
1.1/4”F	120	75	330
1.1/2”F	145	80	335
2”F	165	90	360
65	290	170	500
80	310	185	490
100	350	200	520
125	400	240	600
150	480	280	680
200	600	360	750

NVFN - THREADED



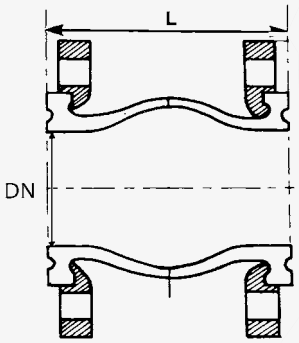
DN	L	H	H1
1/2”	70	155	138
3/4”	70	163	141
1”	90	169	143
1.1/4”	150	204	169
1.1/2”	150	204	169
2”	170	222	179

NVFN - FLANGED



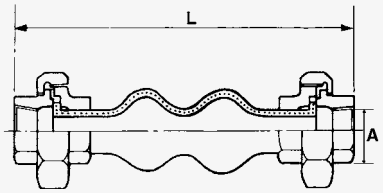
DN	L	H	h
65	260	310	200
80	310	351	234

ZKB



DN ”	A mm	L mm
1 1/4	32	95
1 1/2	40	95
2	50	105
2 1/2	65	115
3	80	130
4	100	135
5	125	170
6	150	180
8	200	205
10	250	240
12	300	260
14	350	265
16	400	265
18	450	265
20	500	265
24	600	265

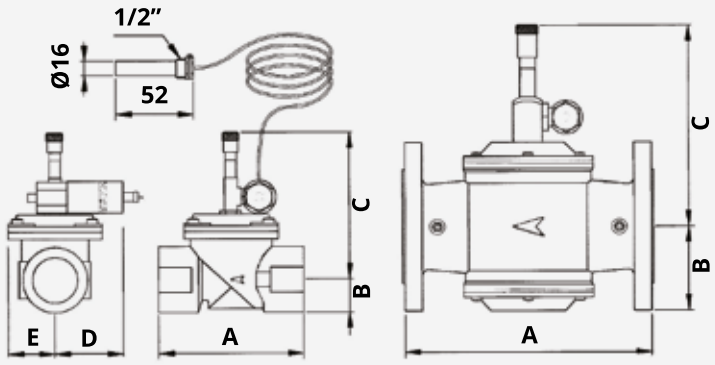
ZKT



A ”	A mm	L mm
3/4	20	200
1	25	200
1 1/4	32	200
1 1/2	40	200
2	50	200
2 1/2	65	240
3	80	240

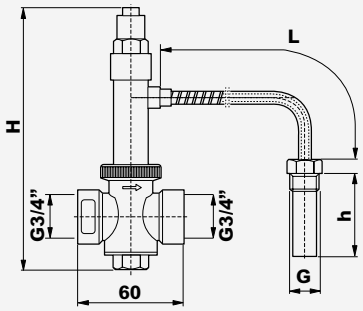
Overall dimensions

VIC/A



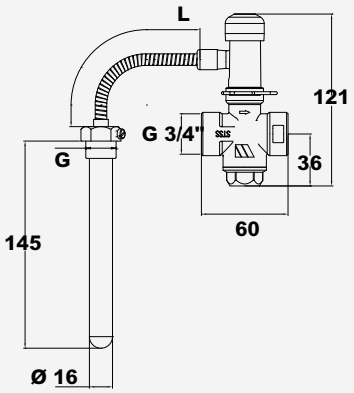
Mod. VIC/A	1/2"	3/4"	1"	1"1/4	1"1/2	2"	DN65	DN80	DN100
A	76	96	96	154	154	173	300	300	360
B	15	25	25	31	31	39	95	95	105
C	118	139	139	168	168	169	219	219	227
D	90	85	85	85	85	85	-	-	-
E	25	35	35	52	52	64	-	-	-

STS



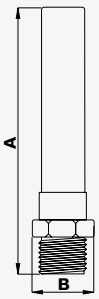
G	h	H	L
1/2"	145	129	1300
1/2"	145	129	2000
3/8"	108	127	1300

STS.S



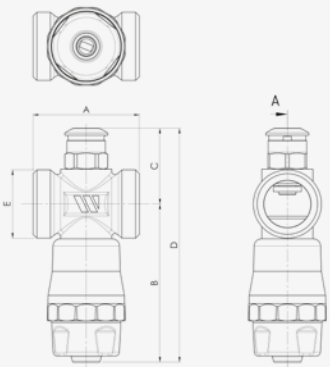
Part no.	T °C	G	L
0232620	97	1/2"	1300
0232621	85	1/2"	1300
0232622	93	1/2"	1300
0232623	55	1/2"	1300
0232624	103	1/2"	1300
0232625	97	1/2"	2000
0232626	97	1/2"	4000

15M2



DN	A	B
1/2"	152	29
3/4"	200	29
1"	229	35
1.1/4"	264	42
1.1/2"	283	54
2"	330	67

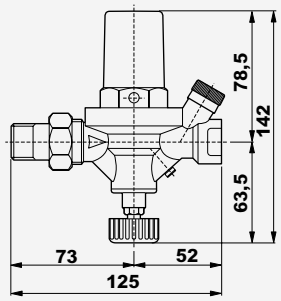
AFV



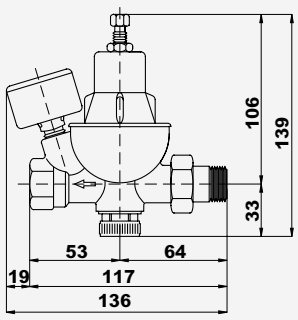
DN - E	A	B	C	D
1"	52	77	38	115
1.1/4"	62	81	42	123
1.1/2"	62	84	48	129

Overall dimensions

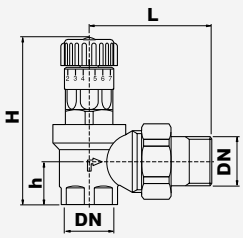
AL-ALM



3110C

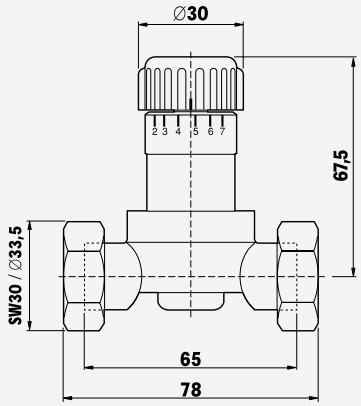


USVR

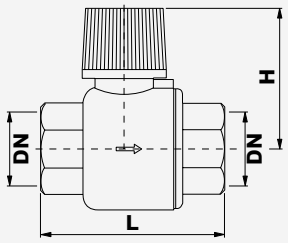


DN	L	H	h
3/4”	70	120	26
1”	83.5	138	33
1.1/4”	100	148	39

USV16/L

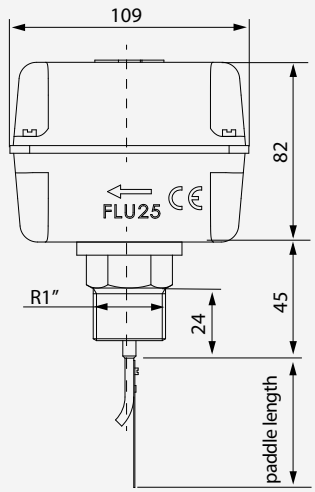


RDF

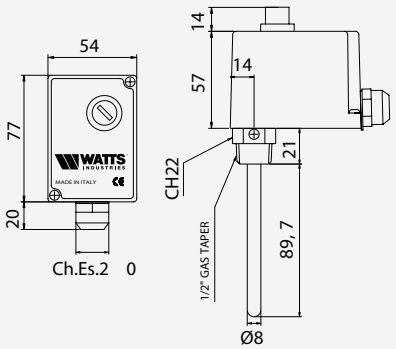


DN	L	H
1”	83.5	59
1.1/4”	83.5	59

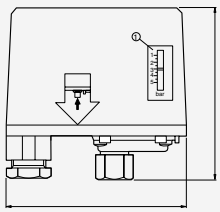
FLU25PL



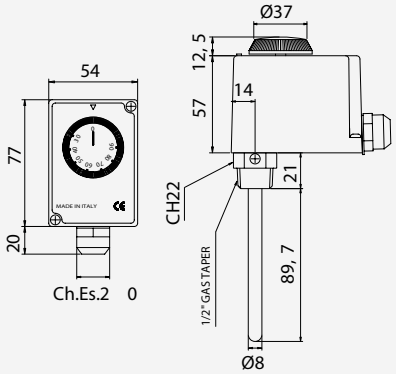
TS TU



PRM/PRMIN

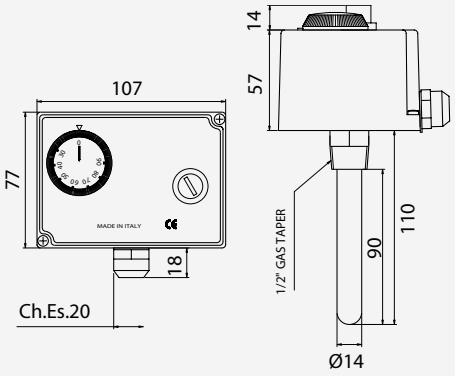


TRE TU

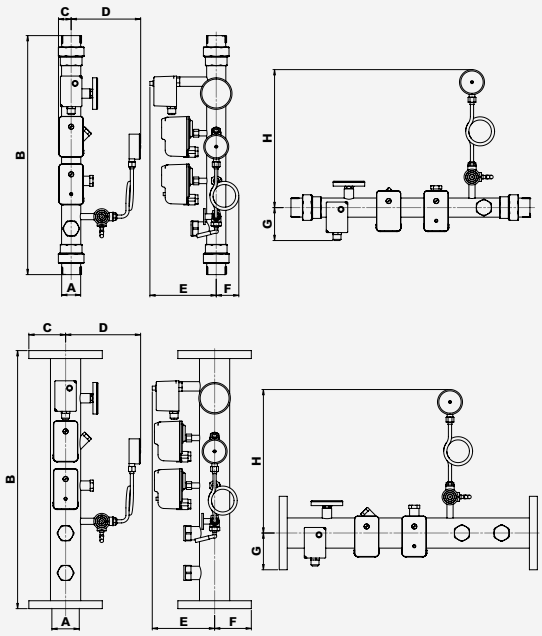


Overall dimensions

TRS TU

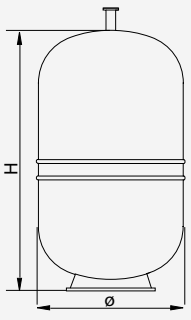


TRI



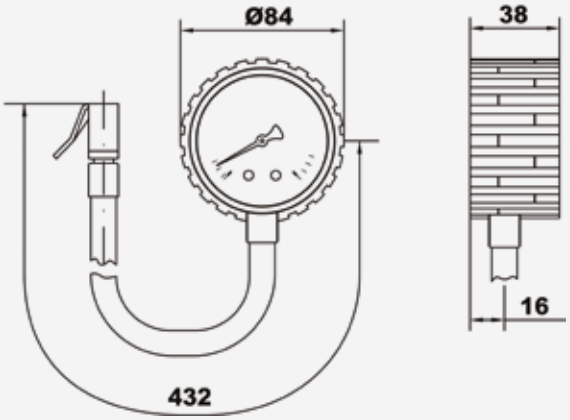
	A	B	C	D	E	F	G	H
TRI114	1 1/4"	556	32	175	167	57	83	347,5
TRI112	1 1/2"	602	32	175	167	57	83	347,5
TRI200	2"	644	41	182	163	57	83	354,5
TRI065	DN65	650	92.5	189	157	92.5	92.5	361,5
TRI080	DN80	650	100	195	157,5	100	100	367,5

ERE CE



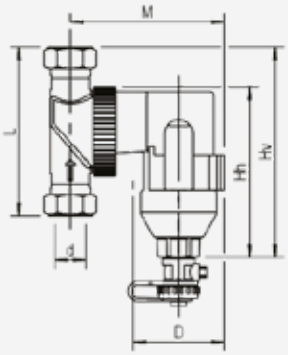
Capacity (L)	Ø	H
35	380	455
50	380	590
80	460	690
100	460	810
150	510	970
200	590	985
250	590	1230
300	650	1220
500	750	1575

PV M1-ABS 63/QG



Overall dimensions

WCS - WSS



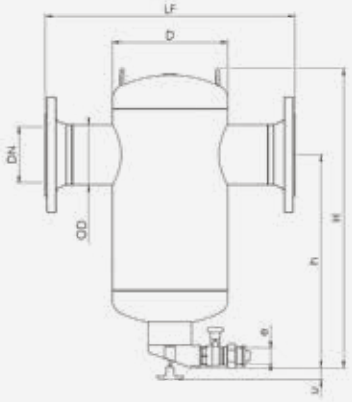
WSS

D	3/4”	1”	1 1/2”	2”
Hv (mm)	164	164	224	224
Hh (mm)	148	148	210	210
L (mm)	90	90	128	128
M (mm)	116	120	141	148
Volume (L)	0,36	0,39	0,75	0,75
Empty weight (kg)	2,20	2,30	3,67	3,85

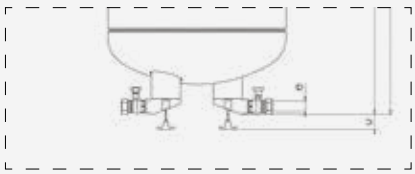
WCS

D	3/4”	1”
Hv (mm)	140	140
Hh (mm)	121	121
L (mm)	100	100
M (mm)	112	124
D (mm)	73	83
Volume (L)	0,23	0,33
Empty weight (approx. kg)	1,35	1,63

WBS

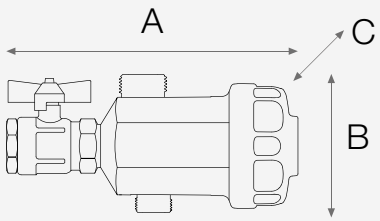


WBS 200/250/300



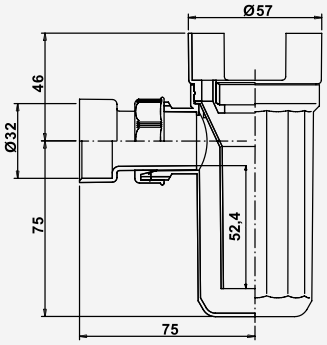
DN	65	80	100	125	150	200	250	300
OD (mm)	76.1	88.9	114.3	139.7	168.3	219.1	273	323,9
D (mm)	159	219	219	324	324	406	508	610
LF (mm)	350	470	475	635	635	775	890	1005
H (mm)	471	576	576	798	798	1063	1264	1492
h (mm)	333	424	412	605	591	773	896	1058
e (mm)	RP1	RP1	RP1	RP1	RP1	RP1	RP2	RP2
Volume (L)	5	17	17	50	50	105	210	350
Empty weight (kg)	14	24	28	58	61	107	162	261

DSPN



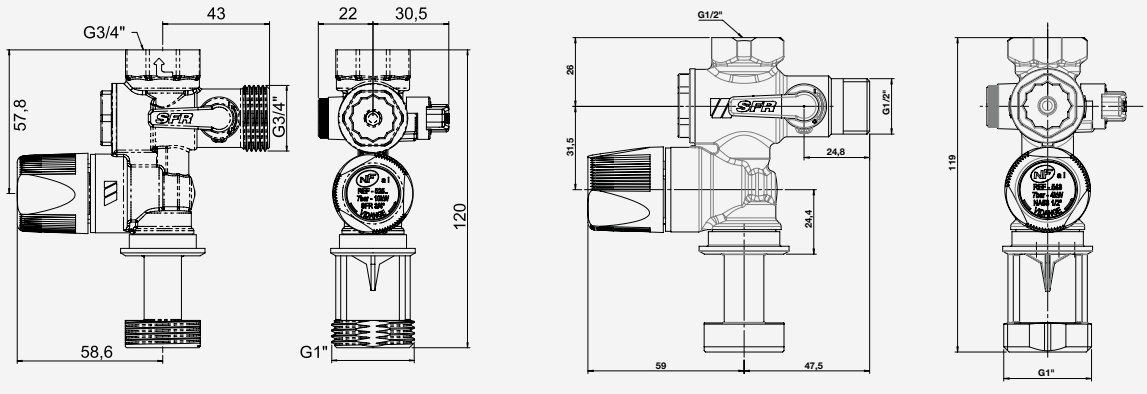
	DN	A	B	C
DSPN	3/4”	155	75	60

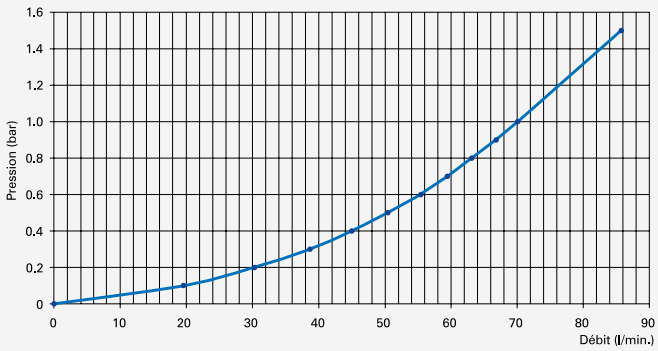
SIF



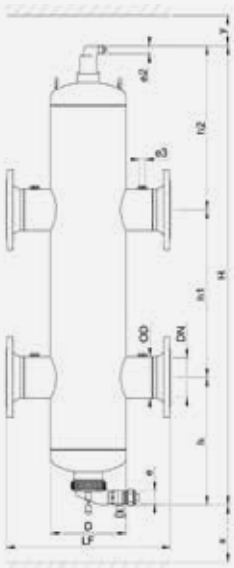
Overall dimensions

SFR®





SDDF



DN	50	65	80	100	125	150	200	250	300
OD (mm)	60,3	76,1	88,9	114,3	139,7	168,3	219,1	273	323,9
H (mm)	810	905	997	1261	1543	1778	2327	2870	3394
h (mm)	234	252	268	351	441	503	682	835	1002
h1 (mm)	240	305	360	460	560	670	870	1100	1295
h2 (mm)	337	348	369	450	542	604	776	935	1096
D (mm)	159	159	219	219	324	324	406	508	610
LF (mm)	350	350	470	475	635	635	775	890	1005
e	Rp 1	Rp 1	Rp 1	Rp 1	R 1	R 1	Rp 1	Rp 1	Rp 1
e2	R ½	R ½	R ½	R ½	R ½	R ½	R ½	R ½	R ½
x (mm)	> 75	> 75	> 100	> 100	> 100	> 100	> 100	> 100	> 100
y (mm)	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50

Chapter 1.2

MODULAR DISTRIBUTION UNITS

DHW and mixing units

HK20

Compact ready-to-mount DHW unit for heating systems DN20 90mm centre distance. Complete with 2 multi-function valves with built-in thermometer (0to120°C) and gravity flow stop system. EPP insulation, fittings and single-point bracket for wall mounting, concealed cable routing. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) length 130mm. PN 6. Minimum room temperature: -10°C, maximum: 40°C. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10088694	20	HK20 without pump, with provision for metering device*	1	1	275,50
10077144	20	HK20 without pump	1	1	234,60

*version with provision for installation of energy meter, DN20, G1", centre distance 130mm.

Dimensions on page 51

HKF20

Compact domestic hot water and mixing unit for mixed heating systems, with fixed-point thermostatic temperature control. Temperature setting range: 20-55 °C or 30-70 °C. EPP insulation, fittings and single-point bracket for wall mounting, concealed cable routing. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 130mm. PN 6. Minimum room temperature: -10°C, maximum: 40°C. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10084593	20	HKF20 Setting 20 - 55°C without pump	1	1	403,75

Dimensions on page 51

HKM20

Compact, ready-to-mount, modulating domestic hot water and mixing unit for DN20 heating systems with 3-way mixing valve and WattsClassic EVO2 Series 230V 3-point modulating actuator. Complete with 2 multi-function valves with built-in thermometer (0 to 120°C), gravity flow stop system, EPP insulation, fittings and single-point wall mounting bracket. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 130mm with adaptor. PN6. Minimum room temperature: -10°C, maximum: 40°C. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10080076	20	HKM20 6,3 without pump	1	1	417,20

Dimensions on page 51

HKFC20

Compact, ready-to-mount, fixed-point domestic hot water and mixing unit for DN 20 heating systems with 3-way mixing valve and controller, actuator and adjustable flow temperature sensor (5 to 95°C). Complete with 2 multi-function valves with built-in thermometer (0 to 120°C), gravity flow stop system, EPP insulation, fittings and bracket for wall mounting. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 130mm. PN6. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10080552	20	HKFC20 6,3 without pump	1	1	638,55

Dimensions on page 49

HK25 - HK32

Compact, ready-to-mount domestic hot water unit for DN 25 and DN 32 heating systems. Complete with shut-off valves with built-in thermometer 0 to 120°C, gravity flow stop system, EPP insulation, fittings and bracket for wall mounting. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 180 mm (and 130 mm with adaptor). PN 6. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10026450	25	DHW and mixing unit	1	1	260,10
10026881	32	DHW and mixing unit	1	1	391,20
PA-130	25	Pump adaptor 130 mm	1	1	45,90

Dimensions on page 49

HKF25

Compact, ready-to-mount, fixed-point domestic hot water and mixing unit for DN 25 heating systems with thermostatic mixing valve adjustable from 20 to 55°C or 30 to 70°C. Complete with shut-off valves with built-in thermometer (0 to 120°C), gravity flow stop system, EPP insulation, fittings and bracket for wall mounting. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 180 mm. PN 6. Operating temperature: +2°C to +90°C (see the technical specifications of the circulation pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10084599	25	DHW and mixing unit - Setting 20-55°C	1	1	496,75
10084602	25	DHW and mixing unit - Setting 30-70°C	1	1	496,75
PA-130	25	Pump adaptor 130 mm	1	1	45,90

Dimensions on page 49

HKM25 - HKM32

Compact, ready-to-mount, modulating domestic hot water and mixing unit for DN 25 and DN 32 heating systems with 3-way mixing valve and WATTS CLASSIC Series 230V 3-point modulating electronic actuator or 24V actuator with 0-10V signal. Complete with shut-off valves with built-in thermometer 0 to 120°C, gravity flow stop system, EPP insulation, fittings and bracket for wall mounting. Supplied without circulation pump, adaptable to all system requirements. Compatible with high-efficiency pumps (ErP ready) with centre distance of 180 mm (and 130 mm with adaptor). PN 6. Operating temperature: +2°C to +90°C (see the technical specifications of the pump).

Part no.	DN	Description	Pcs/pack	Package	€ each
10026451	25	Mixing valve Kvs=6,3 230V 3-point actuator	1	1	498,80
10026883	32	Mixing valve Kvs=18 230V 3-point actuator	1	1	678,30
10087087	25	Mixing valve Kvs=6,3 24V 0-10V-signal actuator	1	1	579,40
10087088	32	Mixing valve Kvs=18 24V 0-10V-signal actuator	1	1	788,50
PA-130	25	Pump adaptor 130 mm	1	1	45,90

Dimensions on page 49

HK40 - HK50

Ready-to-mount domestic hot water unit for DN 40 and DN 50 heating systems. Complete with 2" F shut-off valves (DN50), built-in thermometer 0 to 120°C, gravity flow stop system and EPP insulation. **Supplied without circulation pump,** adaptable to all system requirements. Compatible with high-efficiency circulation pumps (ErP ready).

Part no.	DN	Pump centre distance	Pcs/pack	Package	€ each
10027651	40	220 mm	1	1	951,70
10027652	50	280 mm	1	1	1.098,55

Dimensions on page 49

HKM40 - HKM50

Ready-to-mount, modulating domestic hot water and mixing unit for DN 40 and DN 50 heating systems with 3-way mixing valve and 230V 3-point modulating electronic actuator. Complete with 2" F shut-off valves (DN50), built-in thermometer 0 to 120°C, gravity flow stop system and EPP insulation. **Supplied without circulation pump,** adaptable to all system requirements.
Compatible with high-efficiency pumps (ErP ready).

Part no.	DN	Pump centre distance	Pcs/pack	Package	€ each
10027653	40	220 mm	1	1	1.581,00
10027650	50	280 mm	1	1	1.710,55

Dimensions on page 49

Hydraulic separators and distribution manifolds

HW-Q60/80

Compact steel hydraulic separator for HK Series, HKF and HKM Series domestic hot water and mixing units, complete with EPP insulation and provision for immersion temperature probe (1/2" F – Ø 6,5 mm sleeve). Flat sealing connections with union nut.

Part no.	Flow rate	Connections	Manifold compatibility	Pcs/ pack	Package	€ each
10082260	1,1 m3/h – 13,25 kW (ΔT = 10 K)	1"M x 1" F	VB20	1	1	177,00
10010424	1,5 m3/h – 17 kW (ΔT = 10 K)	1.1/2" M x 1.1/2" F	VB25/32	1	1	177,00

Dimensions on page 50

HW

Steel hydraulic separator for VB20, VB32 and HKV50 Series distribution manifolds, complete with EPP insulation, air vent valve, circuit fill/drain cock, wall-mounting brackets and provision for immersion temperature probe (1/2" F – Ø6,5 mm sleeve).
Flat sealing connections:
- HK80/120 1.1/2" M connections (4 m3/h)
- HK40/140 2" M connections complete with two 2" F x 1.1/4" F union nuts (10 m3/h).
Pre-insulated pipes available for connection of HK80/120 hydraulic separator to VB20 and VB32 Series manifolds. PN 6.

Part no.	Description	Connections	Pcs/pack	Package	€ each
10010376	Separator 4 m3/h – 44 kW (ΔT = 10 K)	1. 1/2"	1	1	250,45
10010419	Separator 10 m3/h – 114 kW (ΔT = 10 K)	2"	1	1	681,40
10082527	Pair of pipes for connecting HK80/120 to VB20 manifolds	1"F x 1" 1/2F	1	1	177,00
10010378	Pair of pipes for connecting HK80/120 to VB32 manifolds	1.1/2"F x 1.1/2"F	1	1	177,00
10006335	Set of two union nuts	1.1/2"Fx1"F	1	1	17,00

Dimensions on page 51

VB20

Steel distribution manifold for DN 20 domestic hot water and mixing units (for connecting up to 3 modules) complete with EPP insulation, compatible with systems with flow from left.
1" flat sealing coupling nut for connection to a heating system, 1" threaded M connections for boiler side connection.

Part no.	DN	Model	Pcs/ pack	Package	€ each
10077395	20"	For 2 DHW and mixing units	1	1	338,65
10077396	20"	For 3 DHW and mixing units	1	1	442,70
10026388	20"	Wall-mounting bracket for VB20/ VB32	1	1	50,60

Dimensions on page 51

VB25/32

Steel distribution manifold for HK, HKF and HKM Series DN 25 and DN 32 domestic hot water and mixing units complete with EPP insulation, compatible with systems with flow from either left or right. Equipped with 3 x 1.1/2" M flat sealing flow connections, including one with a cap, and 1.1/2" F flat sealing connections with union nut on domestic hot water and mixing units side.

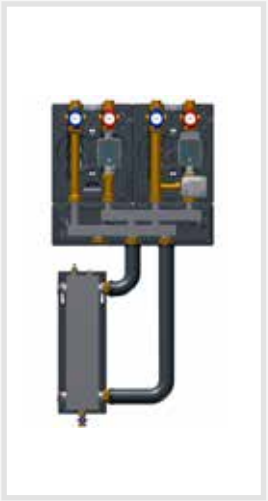
Part no.	Description	Notes	Pcs/pack	Package	€ each
10025900	for 2 DHW and mixing units	-	1	1	426,90
10025901	for 3 DHW and mixing units	-	1	1	565,10
10026672	for 4 DHW and mixing units	-	1	1	826,20
10026931	for 5 DHW and mixing units	-	1	1	1.082,25
10026388	wall-mounting kit	-	1	1	50,60

Dimensions on page 51

TECHNICAL NOTE - Selection Guide

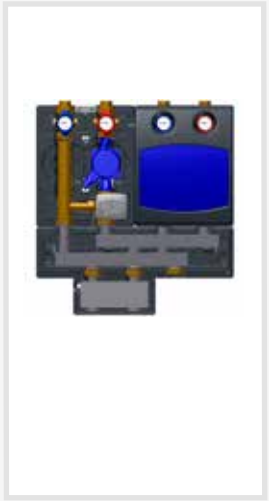
Modular connection of HK, HKF and HKM Series domestic hot water and mixing units

HK, HKF and HKM Series domestic hot water and mixing units are designed to allow modular installation. Quick, easy installation both with VB32 Series distribution manifolds and HW and HW-Q60/80 Series hydraulic separators makes it possible to meet a wide range of system requirements.



Connection with HW80/120 and primary flow on left

Connection with HW80/120 and primary flow on right



Connection with HW-Q60/80 and primary flow on left

Connection with HW-Q60/80 and primary flow on right

HKV 50

Steel distribution manifold for HK and HKM DN 40 and DN 50 Series domestic hot water and mixing units complete with EPP insulation, compatible with systems with flow from either left or right. Compatible with HK, HKF and HKM DN25 and DN32 Series domestic hot water and mixing units when used with REDU adaptor.

DN80 PN6 primary circuit flanged connections (2 blind flanges included). 2" F secondary circuit threaded flat sealing connections with union nut. Brackets not included.

Part no.	Description	Notes	Pcs/pack	Package	€ each
10011282	2 secondary circuits	-	1	1	1.392,30
10011283	3 secondary circuits	-	1	1	1.767,70

Dimensions on page 52

VB50/80-ECK

Angle connector set for HKV50 Series distribution manifold, consisting of two pre-insulated flanged corner fittings.

Part no.	Connections	Pressure	Pcs/pack	Package	€ each
10011284	Flange DN80	PN6	1	1	1.128,15

HKV-FUSS

Floor-mounting kit for HKV50 Series distribution manifolds, consisting of two height-adjustable pedestals and respective fasteners for connection to the manifolds.

Part no.	Height	Notes	Pcs/pack	Package	€ each
10011285	Adjustable from 650 to 850mm	-	1	1	350,90

Dimensions on page 52

REDU

Adaptor for connecting HK, HKF and HKM DN25 and DN32 Series domestic hot water and mixing units to HKV50 distribution manifolds, complete with EPP insulation.

Part no.	Connections	Notes	Pcs/pack	Package	€ each
10011286	2" M x 1.1/2" F	union nut	1	1	215,75

WH-HK/HKM 40/50 wall-mounting bracket

Wall-mounting bracket for HK/HKM DN40/50 DHW and mixing units.

Codice	Connessioni	Note	Pz.conf.	Imballo	€/cad
10083722	per gruppi HK/HKM DN40/50	-	1	1	283,90

Climatic control units

HKM25HC

Compact FlowBox Series Control climatic control unit for heating and air conditioning systems, equipped with RCL-HC digital controller with outdoor temperature compensation and 3-way mixing valve for flow temperature control. Weekly programming, 9 pre-set programmes and 4 custom programmes, outdoor temperature and water temperature display, maximum and minimum temperature limit, pump control, equipped for connection of a room thermostat. Predisposed for the installation of an antenna for use with RF 433 MHz thermostats and MILUX-HY Series humidistat. Complete with EPP insulation. Outdoor temperature probe, 2 water temperature probes (flow and return) and wall-mounting bracket. Ball valves with built-in thermometer on flow and return. 1" F connections. Power supply 230V AC 50 Hz. Class A variable flow circulation pump.

Part no.	Pump	Kvs mixer	Pcs/pack	Package	€ each
10084614	GRUNDFOS UPM3A/7	8,0	1	1	1.266,85
10084157	WILO PARA SC/7	8,0	1	1	1.266,85

Dimensions on page 52

Mixing valves and actuators

V3GB CLASSIC

3-way sector mixing valve complete with WattsClassic EVO2 3-point modulating bidirectional actuator. Brass body and rotor and EPDM gaskets. 1/2" to 2" F threaded connections.
Rotation angle 90° in 125s. Power supply 230 V, 50 Hz; max. power 3 VA. Cable length: 2 metres. Can also be used as a diverter. PN 10. Operating temperature: 0 to 110°C. Fluids: water with glycol up to 50%.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
W3GB0015M60230	1/2"	2,5	1	1	195,85
W3GB0204M60230	3/4"	4	1	1	195,85
W3GB0206M60230	3/4"	6	1	1	195,85
W3GB2508M60230	1"	8	1	1	201,45
W3GB2512M60230	1"	12	1	1	201,45
W3GB3215M60230	1.1/4"	15	1	1	211,65
W3GB3218M60230	1.1/4"	18	1	1	211,65
W3GB4026M60230	1.1/2"	26	1	1	296,35
W3GB5040M60230	2"	40	1	1	348,35

Dimensions on page 52

V4GB CLASSIC

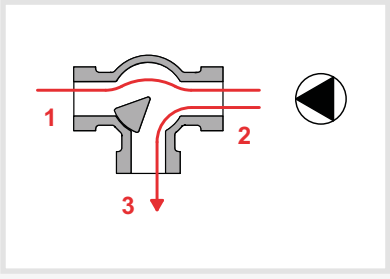
4-way sector mixing valve complete with WattsClassic EVO2 3-point modulating bidirectional actuator. Brass body and rotor and EPDM gaskets. 1/2" to 2" F threaded connections.
Rotation angle 90° in 125s. Power supply 230 V, 50 Hz; max. power 3 VA. Cable length: 2 metres. PN 10. Operating temperature: 0 to 110°C. Fluids: water with glycol up to 50%.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
W4GB0015M60230	1/2"	2,5	1	1	203,00
W4GB0204M60230	3/4"	4	1	1	203,00
W4GB0206M60230	3/4"	6	1	1	203,00
W4GB2508M60230	1"	8	1	1	210,15
W4GB2512M60230	1"	12	1	1	210,15
W4GB3215M60230	1.1/4"	15	1	1	218,80
W4GB3218M60230	1.1/4"	18	1	1	218,80
W4GB4026M60230	1.1/2"	26	1	1	329,50
W4GB5040M60230	2"	40	1	1	367,75

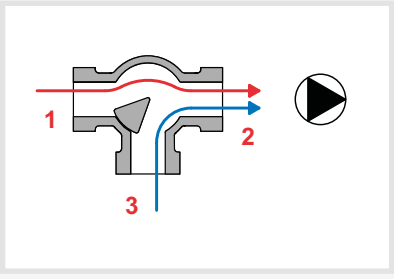
Dimensions on page 53

TECHNICAL NOTE ON INSTALLATION

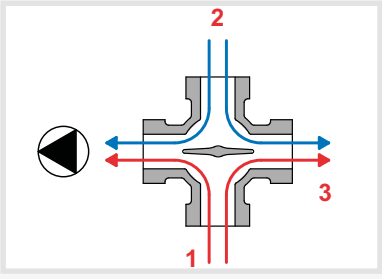
Depending on how they are connected to the system, V3GB CLASSIC Series 3-way valves operate both as diverter valves (fig.1) and mixing valves (fig. 2). V4GB CLASSIC Series 4-way valves operate as mixing valves (fig.3) and also act as a hydraulic switch between the primary and secondary circuit.



3-way diverter



3-way mixing



4-way mixing

WATTS CLASSIC EVO2

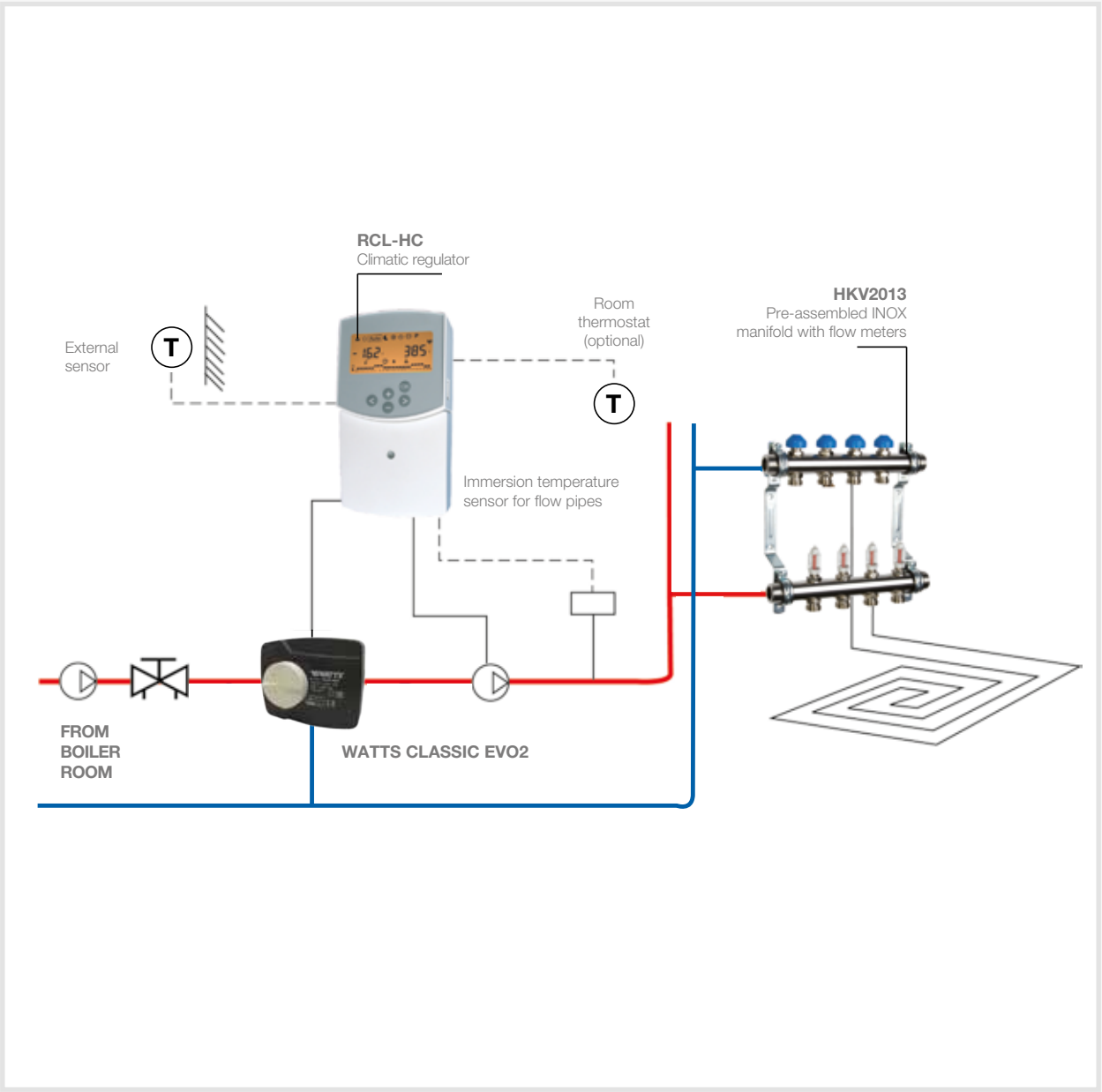
3-point bidirectional modulating electronic actuator for rotary mixing or zone valves. Rotation angle 90° in 125 seconds, automatic and manual operation. Torque: 5,5 Nm. Power supply: 230V AC 50 Hz. Power rating: 3 VA. Control signal: 3 points.
IP rating: IP41. Cable length 2m (other cable lengths are available to order).
TÜV Rheinland certified.

Part no.	Pcs/pack	Package	€ each
10028079	1	25	129,55

Dimensions on page 52

TECHNICAL NOTE

The diagram shows an application with modulating climatic control for controlling the temperature of radiant panels in relation to the outdoor temperature, using an RCL-HC Series climatic regulator and V3GB CLASSIC Series 3-way valve.



Domestic hot water mixing and circulation units

FLOWBOX CIRCU

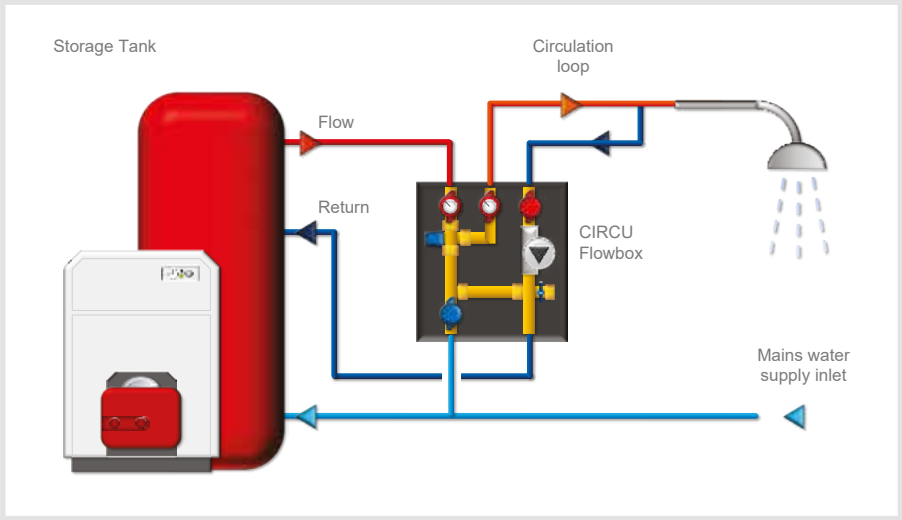
Ready-to-mount domestic hot water mixing and circulation unit complete with anti-scald thermostatic mixer valve, shut-off valves with built-in thermometer, check valves and EPP insulation.

Part no.	Pump	Pcs/pack	Package	€ each
10084639	LOWARA PRO 15-1/65B R	1	1	1.017,45

Dimensions on page 53

TECHNICAL NOTE

Flowbox CIRCU ready-to-mount domestic hot water mixing and circulation unit.
Domestic hot water distribution system with central production, storage tank and circulation circuit.



Boiler room accessories

ERD - EUROVENT

Automatic/manual double air separator with expansion vessel. Tropicalised sheet steel body. OT58 brass cover. PN 8. Max. temperature: 115°C.

Part no.	DN	Pcs/ pack	Package	€ each
0253625	1”	1	20	90,00
0253640	1.1/2”	1	12	116,05

Dimensions on page 53

SA - Discontinued series, available while stocks last

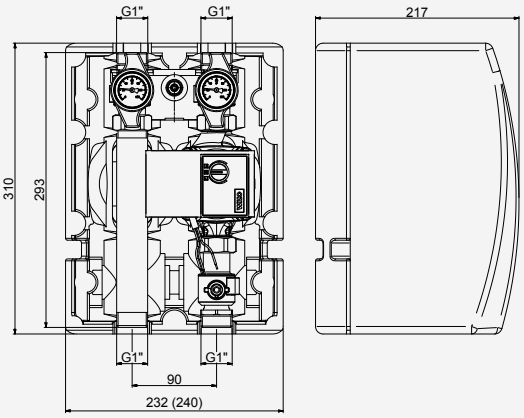
Air separator with 5 threaded female instrument connections (DN 3/8” – 1/2”). Painted, malleable, cast iron body.

Part no.	DN	Pcs/ pack	Package	€ each
0260132	1.1/4”	1	1	166,45
0260140	1.1/2”	1	1	178,50
0260165	2.1/2”	1	1	541,80

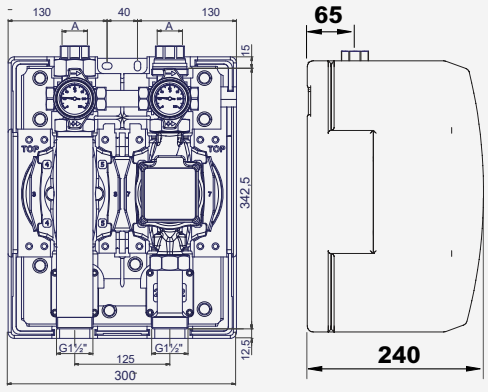
Dimensions on page 53

Overall dimensions

HKFC20

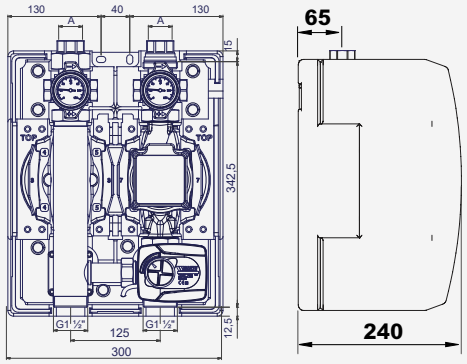


FLOWBOX HK25/32



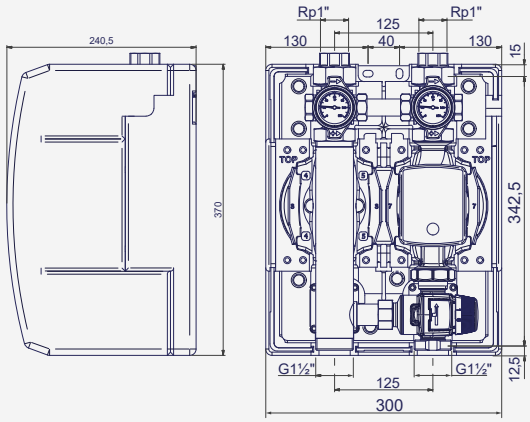
Type	A
HK25	1½“ UM
HK32	2“ UM

FLOWBOX HKM25/32

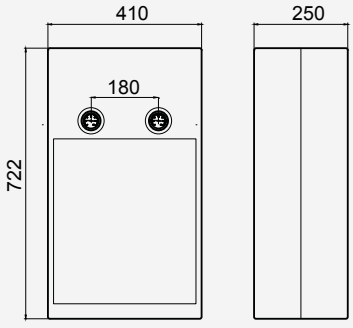


Type	A
HKM25	1½“ UM
VB20-3	2“ UM

FLOWBOX HKF25

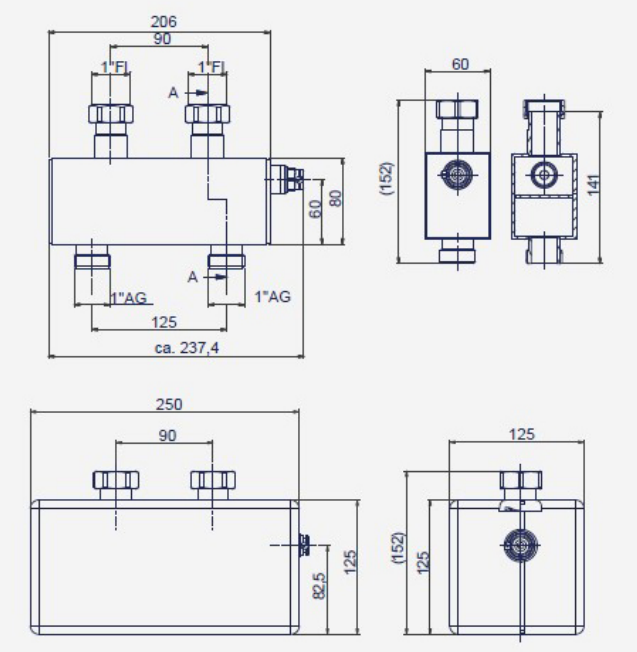


HK40/HK50/HKM40/HKM50

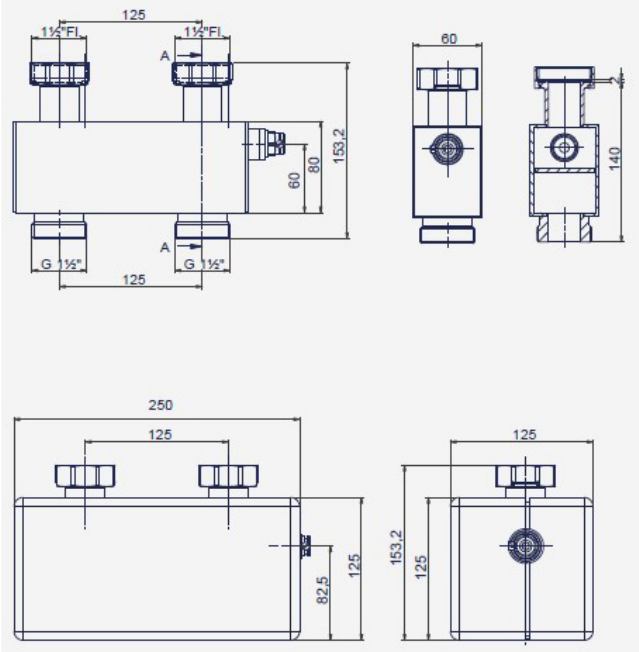


Overall dimensions

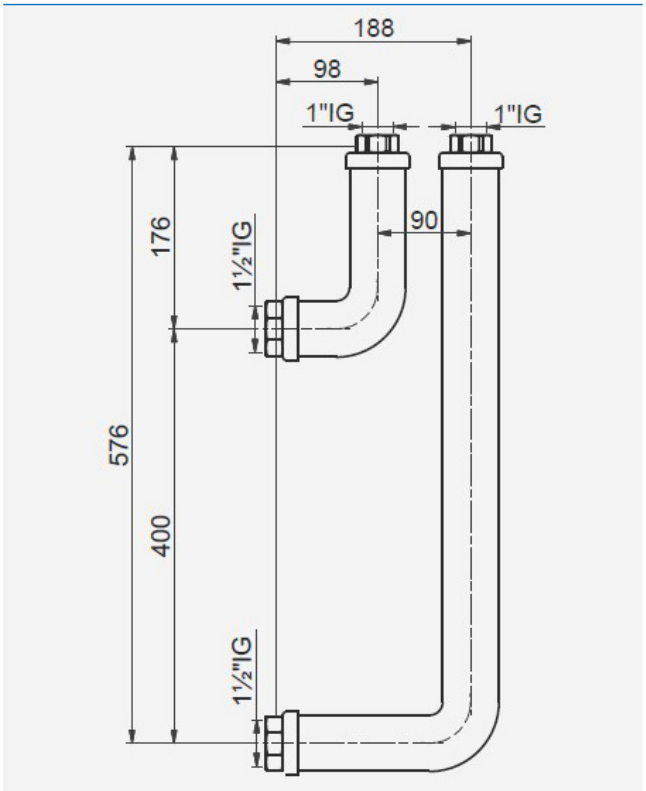
HW-Q60/80 1”, 1,1 m³/h



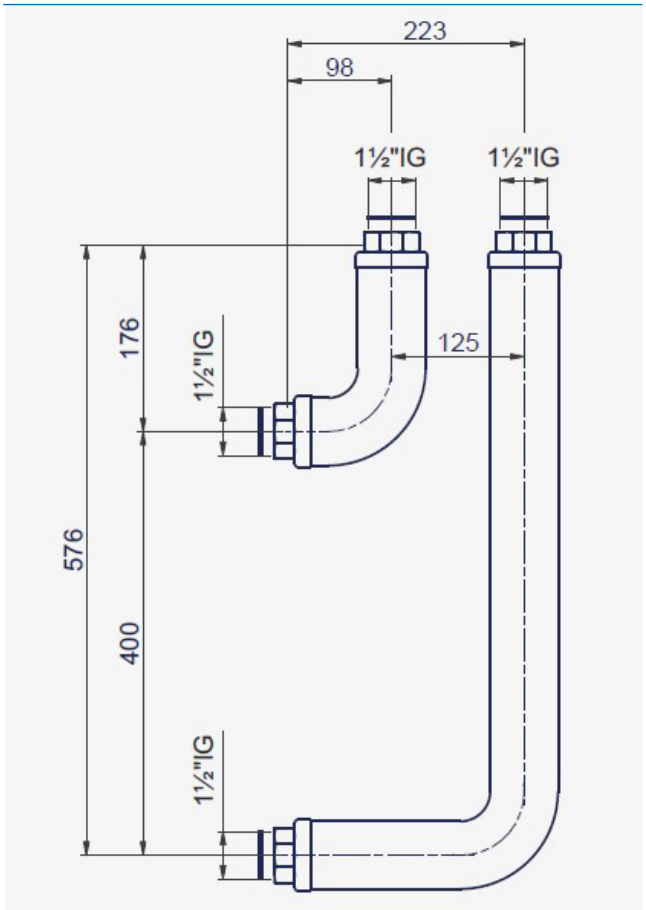
HW-Q60/80 1½”, 1,5 m³/h



RB-HW 80/120 VB20

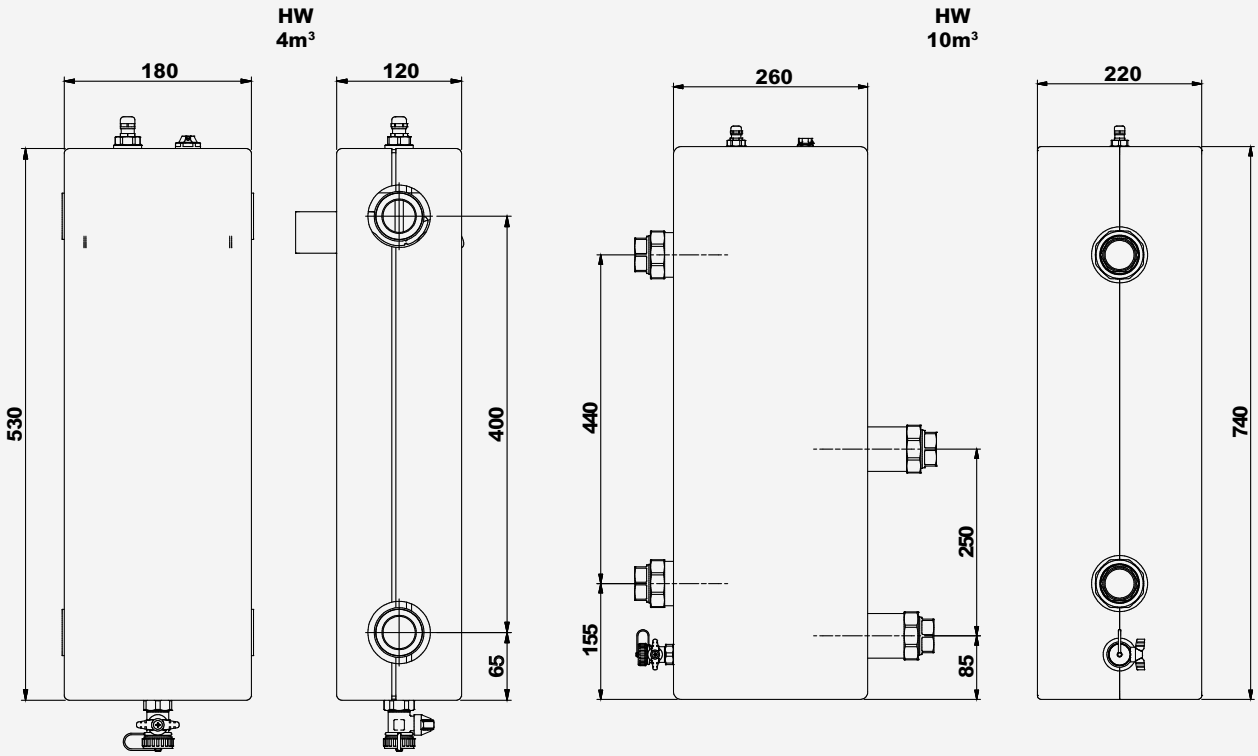


RB-HW 80/120 VB25/32

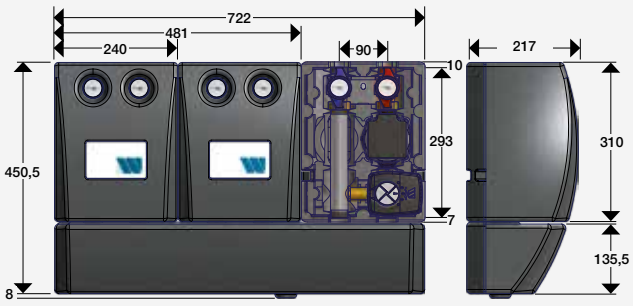


Overall dimensions

HW

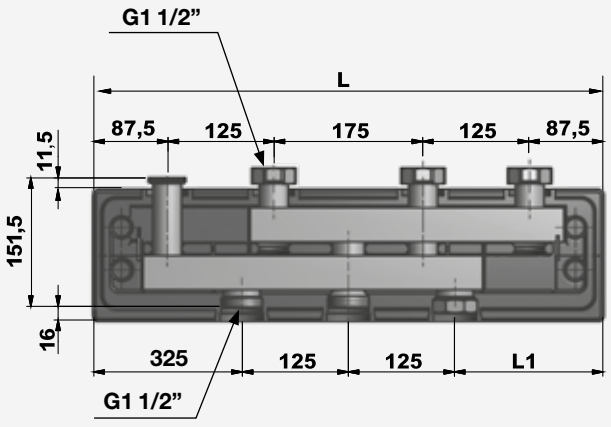


HK20/HKM20/HKF20 AND VB20



Type	L
VB20-2	472
VB20-3	713

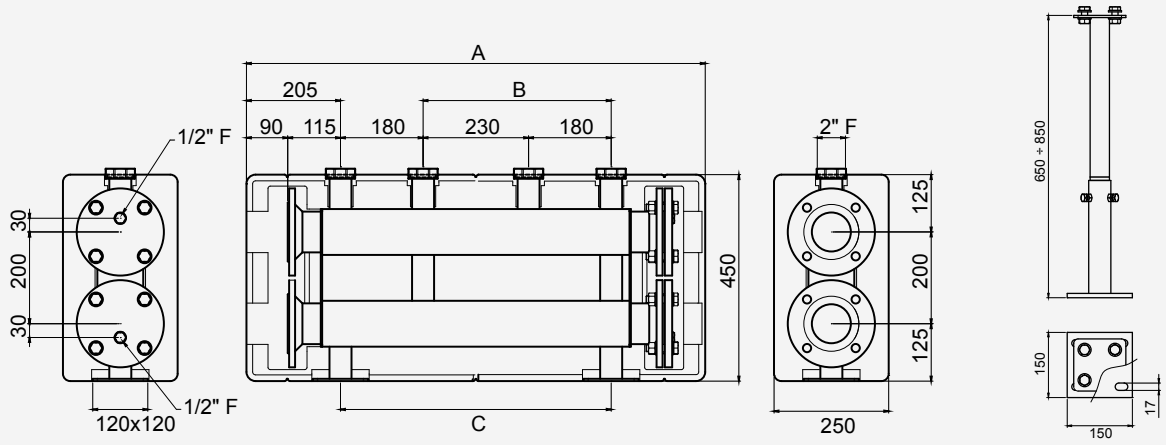
VB25/32



Type	Circuits	L	L1
VB32-2	2	600	175
VB32-3	3	900	325
VB32-4	4	1200	475
VB32-5	5	1500	625

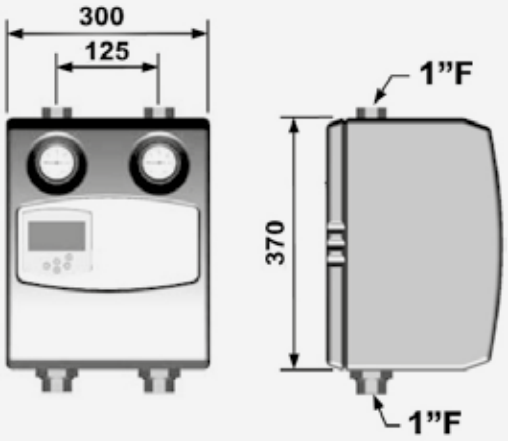
Overall dimensions

HKV50, HKV-FUSS

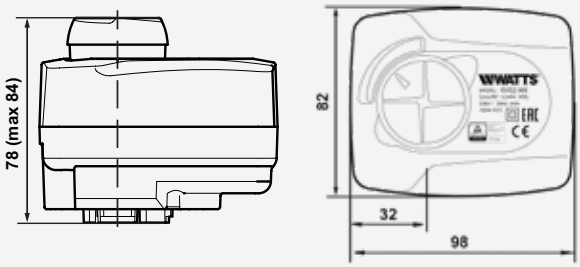


Type	Circuits	L
HKV50-2	2	1000
HKV50-3	3	1410

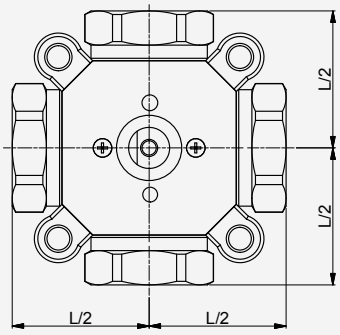
HKM25HC

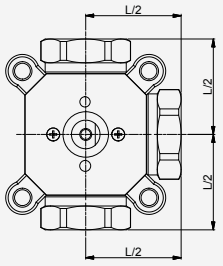


WATTS CLASSIC EVO2



V3GB CLASSIC

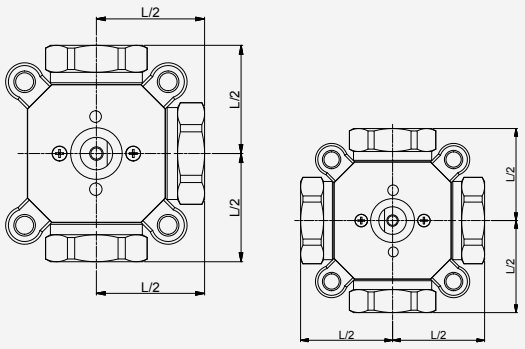




Part no.	DN	Kvs	L	H	H1
W3GB0015M60230	1/2"	2,5	80	115	35
W3GB0204M60230	3/4"	4	80	115	35
W3GB0206M60230	3/4"	6	80	115	35
W3GB2508M60230	1"	8	82	115	35
W3GB2512M60230	1"	12	82	115	35
W3GB3215M60230	1.1/4"	15	85	117	37
W3GB3218M60230	1.1/4"	18	85	117	37
W3GB4026M60230	1.1/2"	26	116	122	42
W3GB5040M60230	2"	40	125	123	43

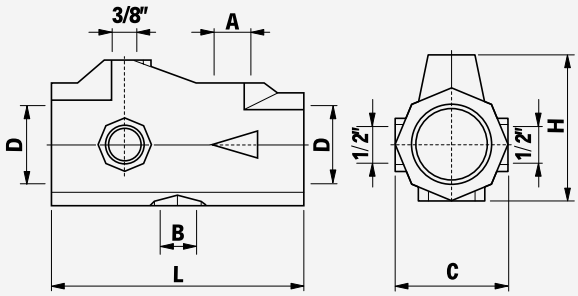
Overall dimensions

V4GB CLASSIC



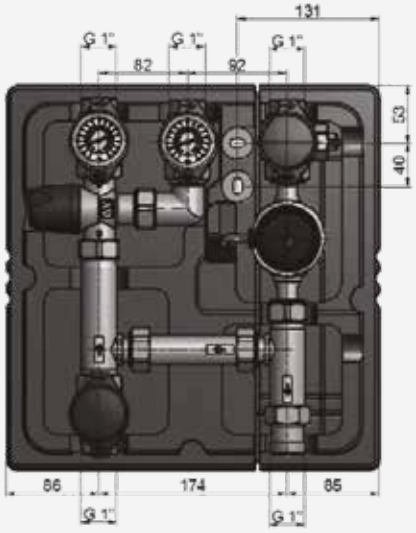
Part no.	DN	Kvs	L	H	H1
W4GB0015M60230	1/2”	2,5	80	115	35
W4GB0204M60230	3/4”	4	80	115	35
W4GB0206M60230	3/4”	6	80	115	35
W4GB2508M60230	1”	8	82	115	35
W4GB2512M60230	1”	12	82	115	35
W4GB3215M60230	1.1/4”	15	85	117	37
W4GB3218M60230	1.1/4”	18	85	117	37
W4GB4026M60230	1.1/2”	26	116	122	42
W4GB5040M60230	2”	40	125	123	43

SA

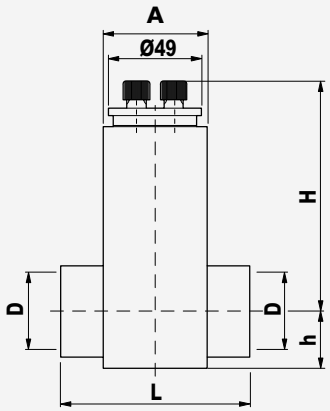


DN	A	B	C	L	H
1.1/4”	1/2”	3/4”	70	152	87
1.1/2”	1/2”	3/4”	70	152	87
2.1/2”	1”	1”	128	300	203

FLOWBOX CIRCU



ERD



DN	A	L	H	I
1”	60x50	94	153	26
1.1/2”	60x50	104	191	32

Chapter 2

Home automation and comfort control

Download Vision+ App

BTK-ST03 RF Smart programmable thermostat

Vision® Wireless

Easy to install and configure
Intuitive operation with remote control via Vision+ app

Chapter 2

VISION®: COMFORT CONTROL AND REGULATION

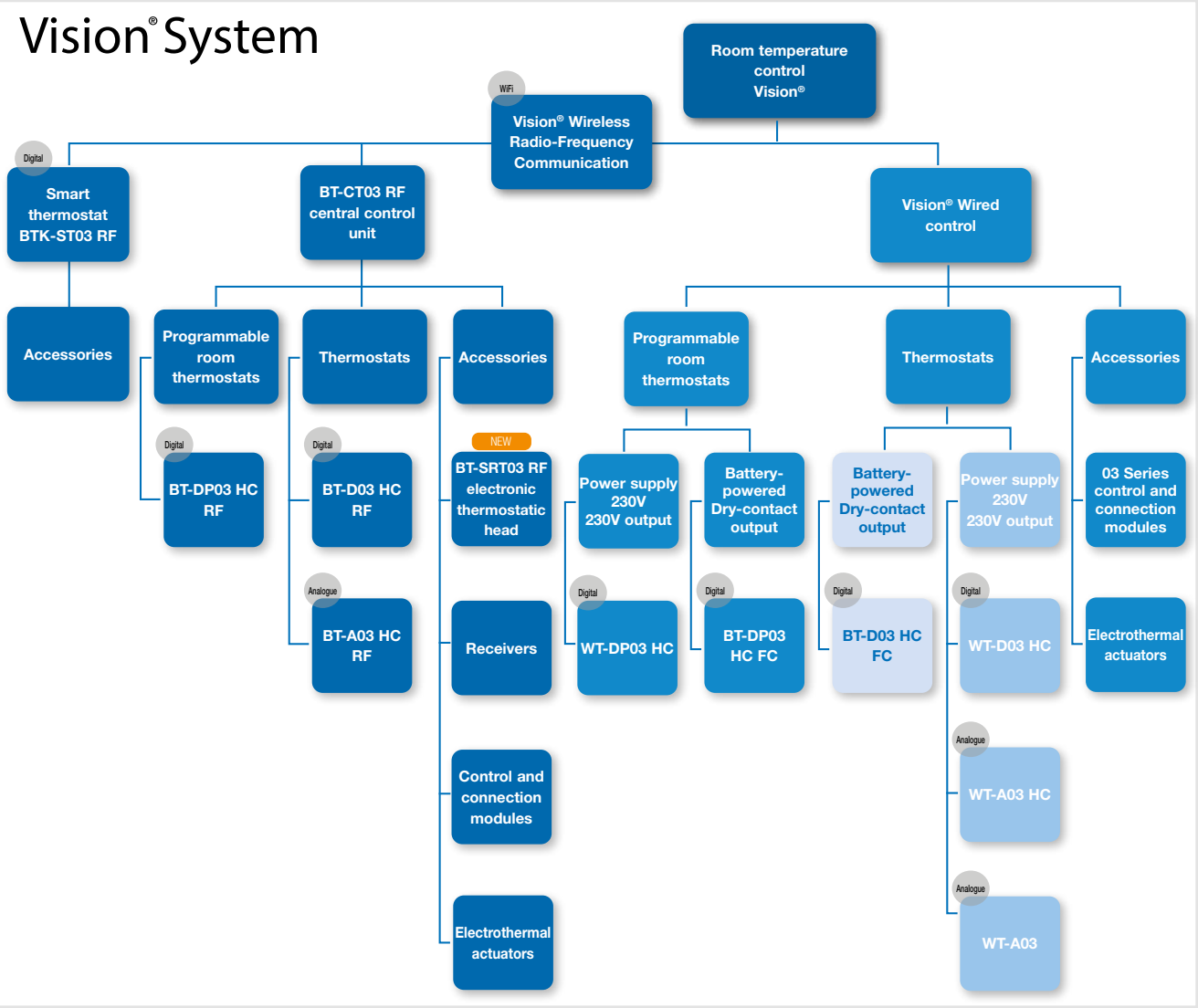
VISION® SYSTEM

WATTS has developed the new Vision® control system. Available in two versions, it is designed to maximise your comfort.

Vision® Wireless is a Smart Home system for controlling both hydronic and electric underfloor systems, radiator-based heating, lighting and other electrical appliances. It is a wireless solution associated with WATTS RF thermostats for controlling temperature on a room-by-room basis. Thanks to the central touchscreen, furthermore, you can access your home's settings from anywhere, using the Vision+ app.

Vision® Wired is a hard-wired system for managing hydronic underfloor heating and cooling systems, offering separate temperature control for each room.

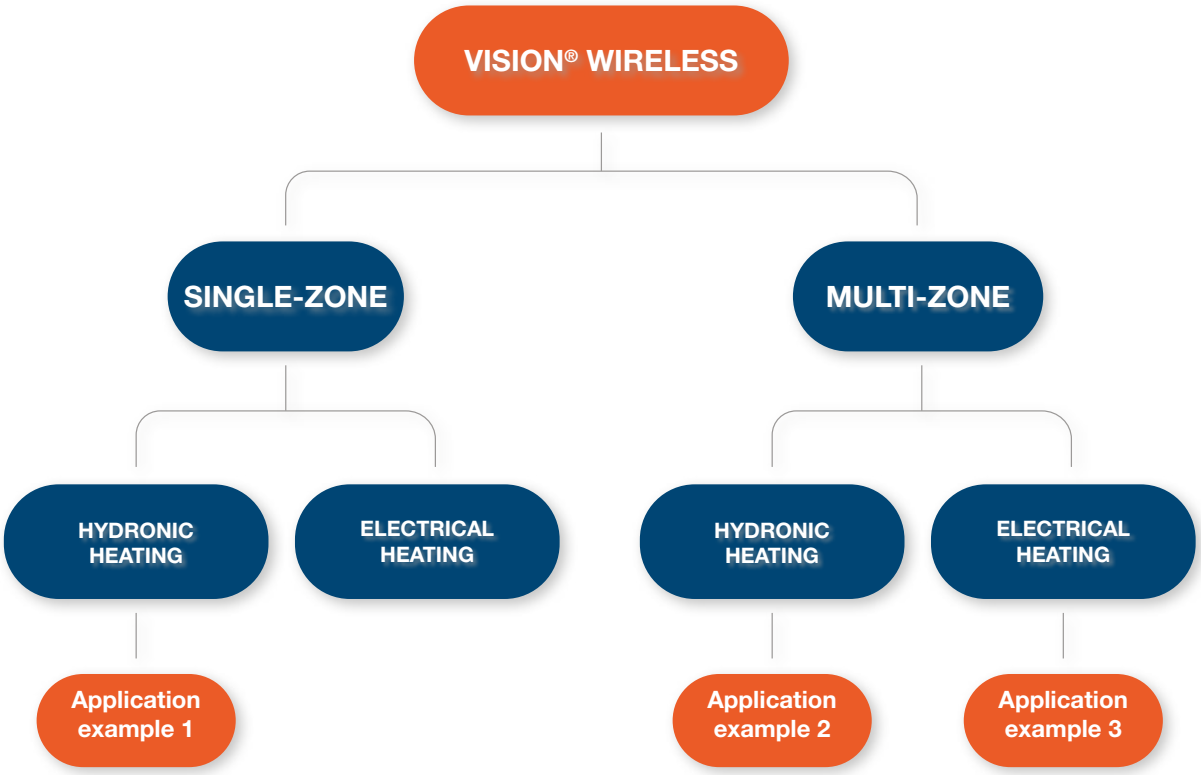
THE RANGE



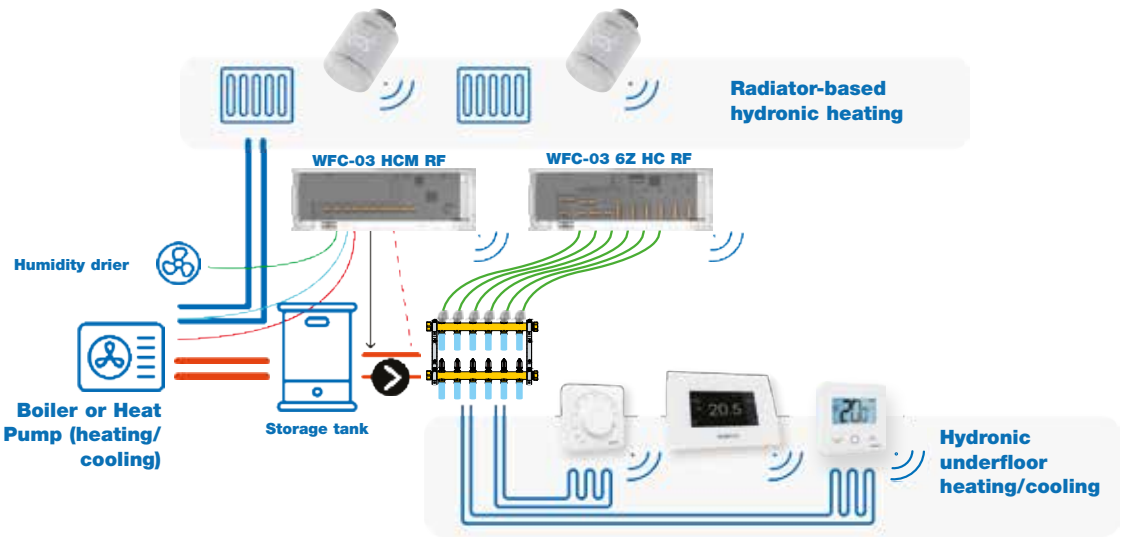
N.B. The prices shown in this price list do not include the commissioning of the individual components and/or the system as a whole. Quote provided on request.

Vision® Wireless system

OPERATION OF THE VISION® WIRELESS SYSTEM



OVERVIEW OF MULTIZONE SYSTEM



N.B. The prices shown in this price list do not include the commissioning of the individual components and/or the system as a whole. Quote provided on request.

BTK-ST03 RF

SINGLE-ZONE* SMART PROGRAMMABLE THERMOSTAT

Wireless programmable thermostat (RF 868,3MHz, <10mW) with customizable weekly programme settings, for heating and cooling systems. 4.3" capacitive colour touchscreen with choice of colour for background/character display.

Adjustable hysteresis control (min 0,2 °C - max 3,0 °C), temperature control range 5-37 °C, various operating modes (Auto, comfort, energy-saving, OFF, vacation, timer), window open detection. ITCS smart self-learning function for advance/automatic start-up of system. Built-in temperature and relative humidity sensors**.

The integrated WiFi module allows all control parameters to be managed and monitored on smartphone (iOS and Android) using the Vision+ app. Compatible with Google Home or Amazon Alexa voice control functionality.

Available with black or white screen, the product kit contains programmable thermostat BT-ST03 RF and dedicated wall-mounting receiver, BT-WR03 RF FC series with voltage-free output contact (230V AC 50Hz – Class II – IP33 power supply) - 868,3MHz radio communication, <10mW" - 30m closed-field transmission range)***.

Operating temperature (220 V): -30 to 40°C. Installation class II. Display accuracy 0,1°C. Setting range: Comfort and Energy-saving mode 5 - 37°C; Anti-Freeze mode 0,5 - 10°C. Wall-mounting, power supply 85-265V, 50-60 Hz with special built-in module supplied, or table-top installation (stand included) - power supply via USB-C power adapter (optional). Protection rating IP30.

Compliant with: EMC 2014/30/EU, RED 2014/53/EU, LVD 2014/35/EU, GPSD 2001/95/EC, RoHS 2011/65/EU, 2012/19/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08916	white screen	IP30 thermostat - IP33 receiver	1	13	280,00
P08922	black screen	IP30 thermostat - IP33 receiver	1	13	280,00

*** Option of pairing certain products in the Watts Vision® Wireless range for multizone control (max 10 rooms - heating only) or additional functions:**

- Up to 20 BT-TH02 RF or BT-SRT03 RF programmable thermostat for radiators
- Up to 10 x BT-PR03 RF smart socket allowing ON/OFF control of electrical devices and enabling weekly programming of operating cycles using increments of 15 minutes
- Up to 5 BLK01 RF wireless water leak sensors - detects leaks and alerts user by via Watts Vision® app for mobile devices (iOS and Android).

** relative humidity measured for display purposes only.

*** new BT-WR03 RF FC receiver not compatible with other products of the Vision® Wireless range.

Dimensions on page 79

POWER SUPPLY UNIT FOR BTK-ST03 RF

USB-C/USB-C cable with adapter supplying power from 230V/50Hz wall socket to BT-ST03 RF smart programmable thermostat.

Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P09026	Power supply for BT-ST03 RF smart thermostat	IP20	1	1	23,90

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

BT-CT03 RF

The Vision® Wireless central control unit enables you to programme and view the setting for each multi-zone heating and/or cooling system (up to 50 zones). It is a wireless system that requires the use of Watts 02 and 03 RF Series RF thermostats to control the temperature of individual rooms and remote contacts. Thanks to a built-in WiFi module, all control parameters can be managed and monitored from a smartphone (iOS and Android) using the Vision+ app. BT-CT03 RF is compatible with Google Home and Amazon Alexa voice control systems.
Besides controlling the temperature of hydronic and electric underfloor climate control systems and/or radiators, the Vision® Wireless central control unit can manage electrical devices and water-leak detection sensors.
Operating temperature (220 V): -30 to 40°C. Installation class II. Display accuracy: 0,1°C. Temperature setting range: Comfort and Energy-Saving mode 5 to 30; anti-freeze mode 5 to 10°C. Power supply (flush-mounted) 85-265V AC 50-60 Hz. USB-mini power supply unit (optional).
Radio frequency 868 MHz, <10mW.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2001/95/EC.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08630	white screen	IP30	1	17	462,30
P08702	black screen	IP30	1	17	462,30

Dimensions on page 79

POWER SUPPLY UNIT FOR BT-CT02 and BT-CT03

USB/USB-mini cable with adapter supplying power from 230V/50Hz wall socket to Vision® BT-CT02 or BT-CT03 RF Series touchscreen panel.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P07095	Power supply for BT-CT02 / 03 RF Central Control Unit	IP20	1	1	24,10

BT-SRT03 RF

NEW

Electronic thermostat for electronic control of individual radiators.
Can be used in stand-alone mode with local manual temperature control.
Can be used in conjunction with the WATTS Vision® touchscreen central control unit (BT-CT02 or BT-CT03 RF) or with the smart thermostat (BTK-ST03 RF) in RF mode (868,3 MHz), programmed on a weekly basis and remote controlled via the Vision+ app for mobile devices (iOS and Android).
Settings lock PIN code / retaining screw to prevent theft in public installation conditions.
Open window detection function. Valve anti-seize function.
M30x1,5 rotary fixing ring - Supplied with adapters for installation on Watts thermostat adaptable radiator valves, as well as on most commercially available radiator valves. Automatic valve actuator stroke calibration during installation.
Stroke speed: 2mm-1mm/s. Protection rating IP30. Power supply: 2 AA LR06 batteries or rechargeable batteries. Actuator force 70N.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU, RED 2014/53/EU, RoHS 2011/65/EU, GPSD 2001/95/EC.

Part no.	Temp. control range	IP	Pcs/pack	Package	€ each
P09000	5-37°C	IP30	1	30	122,30

Dimensions on page 80

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

BT-A03 HC RF

Radio electronic thermostat with knob, designed to control different types of heating/cooling systems*. Setting range 5 to 30 °C.
Status LED, hysteresis control. Room temperature 0 to 50°C. Protection rating IP 30.
Power supply: 2 AAA LR03 1,5 V batteries (included). Life ~2 years
868 MHz bidirectional radio communication.
Includes desktop stand or for wall-mounting.
*** if used in conjunction with BT-CT03 RF central control unit or WFC03 RF control module.**
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08062	5 to 30°C	IP30	1	24	83,30

Dimensions on page 79

BT-D03 RF / BT-D03 RF RH

Series BT-D03 RF wireless digital room thermostat with back-lit LCD radio frequency display (868 MHz, <10mW) designed to control different heating/cooling systems. Sensing element: internal and/or external NTC 10kOhm at 25°C (optional – P/N PPLELE06019). LED to indicate heating/cooling ON signal active/inactive condition. Operating temperature: 0 to 50°C. Electrical protection Class II. Temperature control range: 5 to 37°C. Control characteristics: Proportional band (PWM 2°C/10 min) or adjustable hysteresis from 0,2°C to 3,0°C. Display protected by means of PIN code and locking pins for installation in public spaces. For wall-mounting or desktop installation with stand (included). Power supply 2 AAA LR03 1.5V Alkaline batteries (included). Life ~2 years.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P07930	black screen	IP30	1	24	112,10
P08069	white screen - with RH sensor	IP30	1	24	119,40

Dimensions on page 80

BT-DP03 RF / BT-DP03 RF RH

Radio electronic programmable room thermostat with back-lit LCD display, designed to control different types of heating/cooling systems. Setting range 5-37°C, various operating modes (auto, comfort, energy-saving, OFF, vacation, timer) integrated weekly programmes – 3 standard, 1 customisable. Window open detection. Display lock with PIN and protection against theft for use in public buildings. Sensing element: indoor and/or outdoor NTC 10kOhm at 25°C (optional – P/N PPLELE06019) - e.g. remote sensor or floor sensor.
Power supply: 2 AAA LR03 1.5 V batteries (included). Life ~2 years
Protection rating IP 30. 868 MHz bidirectional radio communication. Includes desktop stand or for wall-mounting.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08100	5 to 37°C	IP30	1	24	124,90
P08384*	5 to 37°C	IP30	1	24	140,50

*Version with humidity sensor.

Dimensions on page 79

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

WFC-03..HC RF

Module for connecting wireless thermostats and managing actuators, of normally closed (NC) or normally open (NO) type. Heating and cooling function. Built-in radio antenna, external antenna for enhanced reception (optional) for modules installed in metal enclosures, poor RF coverage, etc.

- 1 switching signal input for heating/cooling.
- 1 230 V output for activating a circulation pump.
- 1 dry contact output for controlling a heat pump or boiler.
- 1 input for dew point sensor or inlet temperature sensor to stop cooling circulation in the event of humidity.
- 1 safety temperature limiter input for pump switch-off.
- USB port (for SW updates or datalogger).

Version for 6 or 10 zones (number of radio thermostats), multi-colour status LED.
Operating temperature 0-40°C, protection rating IP 30, protection rating I. 1,5 m power cable with Schuko plug (CEE 7/7). Quick-connect terminal block with screwless plug/clamp technology, up to 2 actuators per zone.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08397	WFC-03 6Z HC RF 230V	IP30	1	6	262,70
P08399	WFC-03 10Z HC RF 230V	IP30	1	6	299,50

Dimensions on page 79

WFC-03 HCM RF

Interface for RF connection (868 MHz) and control of underfloor heating and cooling systems. Can be integrated with the Vision® Wireless system in conjunction with the WFC-03.RF connection module. Heating/cooling switching signal input (e.g. from reversible heat pump etc.) or operating mode selection by means of BT-CT02 or BT-CT03-RF central control unit.
Using the input (dry contact) of a humidity sensor (dew point sensor or flow temperature sensor terminal) or, in conjunction with radio thermostats with built-in humidity sensor (BT-D03 and BT-DP03 RF RH Series), it manages dehumidification systems and controls/switches off the various cooling circuit zones.
5 A, 230 V dry-contact switching outputs for dehumidifiers, boiler or heat pump, cooling devices.
1 5 A, 230 V powered-contact output for circulation pump. Operating temperature 0 to 40°C, protection rating IP 30.
Built-in radio antenna, external antenna for enhanced reception (optional) for modules installed in metal enclosures, poor RF coverage, etc.
Protection rating I. 1,5 m power cable with Schuko plug (CEE 7/7). Including 35×7,5 mm DIN rail.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08401	WFC-03 HCM RF 230V	IP30	1	6	189,20

Dimensions on page 79

ACCESSORIES

Part no.	Description	Components	Pcs/pack	Package	€ each
P06105	RJ45 external antenna	868 MHz	1	1	89,40
PPLELE09995	NTC 10KOhm 25°C temperature sensor	Cylindrical sensor 5x45 mm. L cable = 3m	1	1	13,30
10087539	Humidity sensor	Contact sensor - L cable 10m	1	1	115,60

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

BLK01-RF

BLK01-RF wireless leak sensor with radio communication (868 MHz), can be integrated in the Vision® Wireless system, compatible with Central Unit BT-CT03 RF and smart thermostat BT-ST03 RF, detects water leaks and alert the user on the Vision® mobile app (iOS and Android).
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08298	RF water-leak detection sensor	IP67	1	32	93,70

Dimensions on page 79

BT-WR02 RF

The BT-WR02 Series wall-mounting RF receiver is designed to manage climate control systems in conjunction with 02 and 03 series RF thermostats, models BT-A. RF / BT-D.. RF / BT-DP.. RF.
The receiver can also be managed by means of a touch-screen central control unit (BT-CT02 or BT-CT03 RF) for complete system supervision. Supports hysteresis control and proportional band control set via the 03RF series thermostat.
Operating temperature: 0 to 40°C. Power supply 230V AC 50Hz. Electrical protection Class II.
Output (1 powered contact) 10A - 250V AC relay. Max. load up to 10A - 230V AC 50Hz (2 wires L,N).
Radio frequency and signal coverage 868 MHz <10mW (bidirectional transmission).
Coverage 100 m (open field). Coverage 30 m (residential environment).
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Coverage	Protection	Pcs/pack	Package	€ each
P06674	100m (outdoors), 30m (indoors)	IP20	1	50	92,10

Dimensions on page 80

BT-WR02 RF FC

WR02 RF FREE CONTACT is a wall-mounting RF receiver designed to control heating/cooling systems in conjunction with 02 and 03 series RF thermostats, models BT-A. RF / BT-D.. RF / BT-DP.. RF. The receiver can be controlled by means of the Vision® Wireless system (BT-CT02 or BT-CT03 RF) for complete system supervision. Supports hysteresis control and proportional band control set via the 03 RF series thermostat. Operating temperature: 0 to 40°C. Power supply 230V AC 50Hz. Electrical protection Class II. Live/free output, equipped with cables for the configuration used by the relay. 10A-230V AC relay. Maximum load up to 10A - 230V AC 50Hz (2 wires LN). Radio frequency and signal coverage 868 MHz <10mW (bidirectional transmission). Coverage 100 m (open field). Coverage 30 m (residential environment).
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Coverage	Protection	Pcs/pack	Package	€ each
P07296	100m (outdoors), 30m (indoors)	IP20	1	96	102,20

Dimensions on page 80

BT-FR02 RF

The Series BT-FR02 RF receiver is a flush-wall-mounting device designed for controlling heating systems in conjunction with 02 and 03 series radio frequency thermostats, models BT-A RF / BT-D RF / BT-DP RF. The receiver enables you to connect a hard-wired floor sensor directly in the floor temperature monitoring and control unit. The receiver can also be managed by means of a touch-screen central control unit (BT-CT02 or BT-CT03 RF) for complete system supervision. Operating temperature: 0 to 40°C. Power supply 230V AC 50Hz. Protection Class II. Optional: IP21 insulation.
Output (1 powered contact) 16A - 230V AC relay. Max. load up to 16A - 230V AC 50Hz (2 wires L,N).
Radio frequency and signal coverage: 868MHz < 10mW (bidirectional transmission).Coverage 100 m (open field). Coverage 30 m (residential environment). Optional floor sensor: NTC 10kΩ at 25°C.
Compliant with Directives: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Coverage	Protection	Pcs/pack	Package	€ each
P06675	100m (outdoors), 30m (indoors)	IP20	1	48	96,40

Dimensions on page 80

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

PR03 RF

The PR03 RF smart socket, compatible with the Vision® Wireless system, is a versatile solution for auxiliary electric heaters of up to 1150 W (5 A). It integrates perfectly with the wireless thermostats in the range, making it easy for you to maintain the room temperature you want. Can control electrical devices via the Vision+ app when used in conjunction with the BT-CT02 RF or BT-CT03 RF central control unit. With a single, intuitive button and a multi-coloured LED, the PR03 RF smart socket is easy to pair with the central control unit. The smart socket is a convenient way of controlling electrical devices up to 5 A (resistive load), in a sleek and elegant format. It can be configured for various operating modes: heating and ON/OFF.

Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P08074	PR03 RF Smart Socket	IP20	1	40	78,10

Dimensions on page 80

BT-OS02 RF

Outdoor temperature sensor compatible with Series BT-CT02 or BT-CT03 central control unit. Equipped with protective case and internal battery, 1 Lithium AA battery (LR06) 2600mAh, 10-year life. Protection rating IP65. Operating temperature: -20 to 55°C. Control range: 180m (open field).
RF communication distance approximately 30m in a residential environment.

Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Coverage	Protection	Pcs/pack	Package	€ each
P06788	100m (outdoors), 30m (indoors)	IP20	1	84	111,80

Dimensions on page 80

BT-RPT02 RF

The antenna extends the radio reception range for the following products: Series BT-CT02 or BT-CT03 RF and Series BT-M6Z02 RF and WFC-03 HC RF master box. 230V AC power supply with wall-socket and USB cable.

Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU.

Part no.	Description	Protection	Pcs/pack	Package	€ each
P06094	Repeater	IP20	1	34	132,80

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

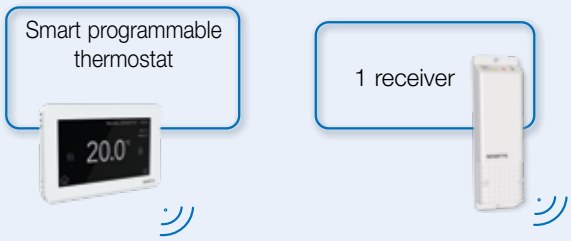
Vision® Wireless system application examples

The application diagrams shown are for illustrative purposes. For other requirements or types of system, contact our technical department and/or use the Watts Vision® online configurator on our website.

EXAMPLE 1
Single-zone hydronic heating/cooling

COMPONENTS
- 1 BTK-ST03RF KIT, comprising BT-ST03 RF smart programmable thermostat and BT-WR03 RF FC receiver

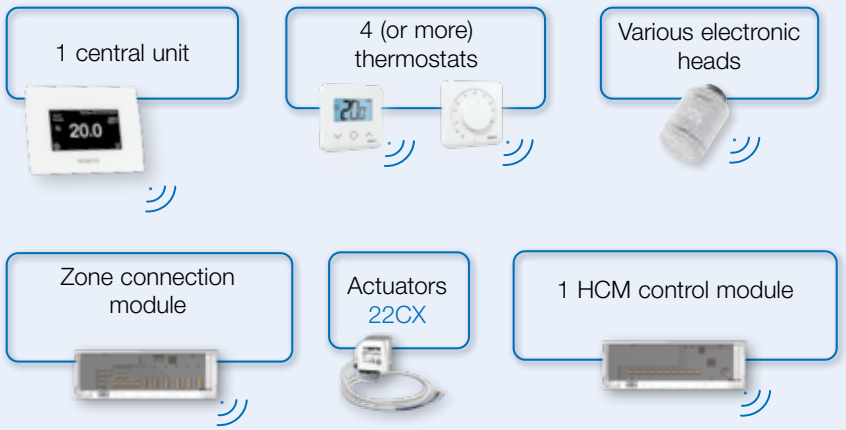
PRODUCTS



EXAMPLE 2
Multi-zone hydronic heating/cooling – mixed radiator/underfloor system

COMPONENTS
- 1 Central Unit BT-CT03 RF
- 4 (or more) x BT-D03 RF thermostat (alternative option BT-A03RF)
- Various BT-SRT03 RF electronic heads
- 1 (or more) x WFC-03 6Z HC RF connection module
- 1 x WFC-03 HCM RF control module for managing heating/cooling and dehumidifier modes
- Various 22CX230NC2 actuators

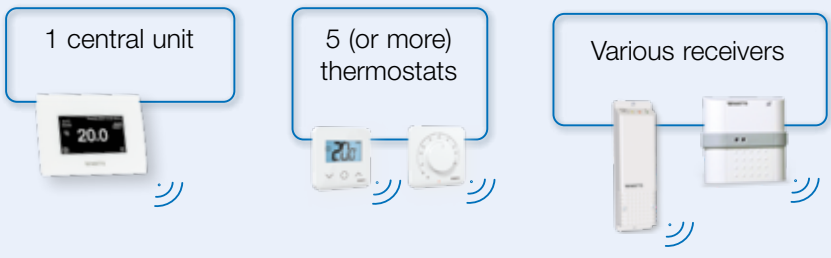
PRODUCTS



EXAMPLE 3
Multi-zone electric heating

COMPONENTS
- 1 Central Unit BT-CT03 RF
- 5 (or more) x BT-D03 RF thermostat (alternative option BT-A03RF)
- Various receivers, BT-FR02 RF (or BT-WR02 RF)

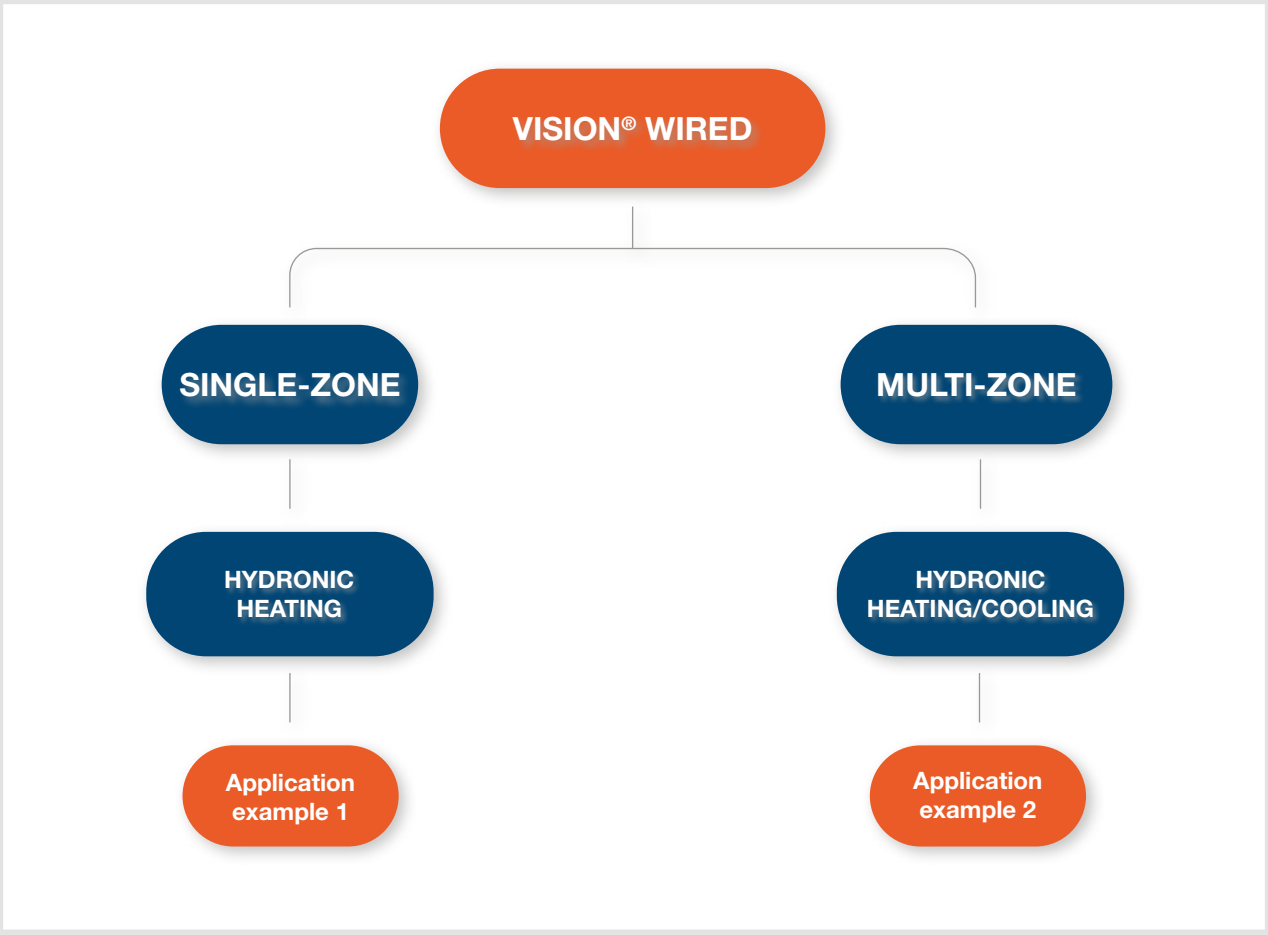
PRODUCTS



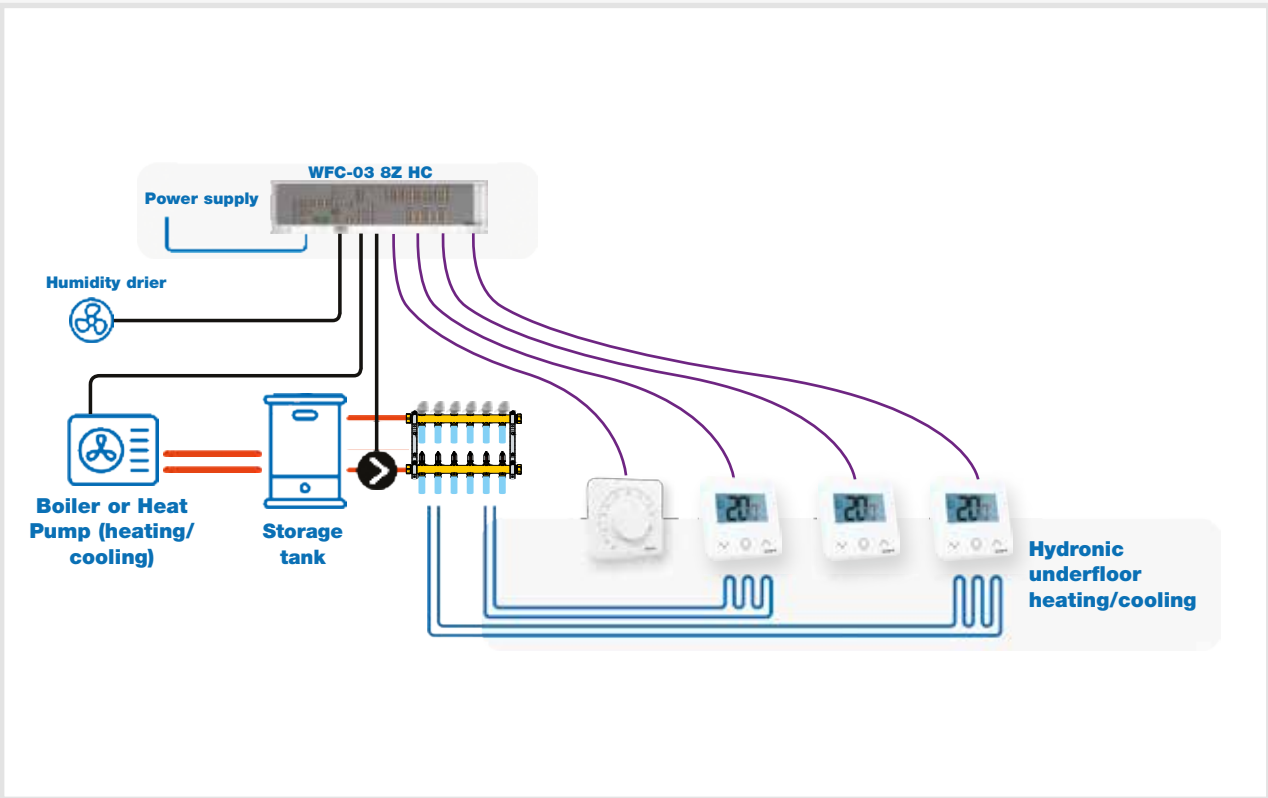
N.B. The prices shown in this price list do not include the commissioning of the individual components and/or the system as a whole. Quote provided on request.

Vision® Wired system

OPERATION OF THE VISION® WIRED SYSTEM



SYSTEM OVERVIEW



N.B. The prices shown in this price list do not include the commissioning of the individual components and/or the system as a whole. Quote provided on request.

WT-A03 - Discontinued series, available while stocks last

Hard-wired electronic room thermostat with knob, designed to control heating-only systems. Setting range 7 to 30°C, status LED. Room temperature 0 to 40°C. Protection rating IP 30. Power supply 24…230V AC with automatic voltage detection. Compatible with normally open (NO) or normally closed (NC) electrothermal actuators, by means of DIP switch selection. Max switching capacity 5 24V AC actuators (1,6 W each) or a maximum of 8 230V AC actuators (1,8 W each).
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Actuator	Pcs/pack	Package	€ each
P08016	24*...230VAC	N.O. and N.C.	1	84	33,40

* Applications with power supply voltage 24V AC could require accessory part numbers. Consult the product technical data sheets and/or contact our technical department.

Dimensions on page 81

WT-A03 HC

Hard-wired electronic room thermostat with knob, designed to control different heating/cooling systems. Setting range 7 to 30°C, status LED. Room temperature 0 to 40°C. Protection rating IP 30. Power supply 24…230V AC with automatic voltage detection. Compatible with normally open (NO) or normally closed (NC) electrothermal actuators, by means of DIP switch selection. Hysteresis or proportional control (PWM), selection by means of DIP switch. NTC 10 K outdoor temperature sensor input (e.g. remote sensor or floor sensor). Input for switching between heating/cooling, in conjunction with WFC-03 HC connection modules. Max switching capacity 5 24V AC actuators (1,6 W each) or max 8 230V AC actuators (1,8 W each).
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Actuator	Pcs/pack	Package	€ each
P08017	24*...230VAC	N.O. and N.C.	1	84	45,40

* Applications with power supply voltage 24V AC could require accessory part numbers. Consult the product technical data sheets and/or contact our technical department.

Dimensions on page 81

WT-D03 HC

Hard-wired electronic room thermostat, with back-lit LCD display, setting range 5 to 35°C. Room temperature 0 to 40°C. Protection rating IP 30. Power supply 24…230V AC with automatic voltage detection. Various operating modes: comfort, energy-saving, OFF, anti-freeze, timer. Hysteresis (selectable from 0,2 to 3,0 K) or proportional control (PWM), selectable from menu. Window open detection. Display protection with PIN code and locking pins for installation in public spaces. Sensing element: indoor - NTC 10kOhm at 25°C outdoor temperature sensor input (optional – P/N PPLELE06019) - e.g. remote sensor or floor sensor. Input for switching between heating/cooling, in conjunction with WFC-..HC connection modules. Max switching capacity 5 24V AC actuators (1,6 W each) or max 8 230V AC actuators (1,8 W each).
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Actuator	Pcs/pack	Package	€ each
P08043	24*...230VAC	N.O. and N.C.	1	84	73,50

* Applications with power supply voltage 24V AC could require accessory part numbers. Consult the product technical data sheets and/or contact our technical department.

Dimensions on page 81

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

WT-DP03 HC

Hard-wired programmable electronic room thermostat with back-lit LCD display, designed to control different heating/cooling systems. Operation is controlled by means of a rotary button. Setting range 5 to 35°C. Room temperature 0 to 40°C. Protection rating IP 30. Power supply 24…230V AC with automatic voltage detection. Various operating modes (auto, comfort, energy-saving, OFF, vacation, timer). 9 standard and 4 customisable integrated weekly programmes. Hysteresis (selectable from 0,2 to 3,0 K) or proportional control (PWM), selectable from menu. Window open detection. Display protection with PIN code and locking pins for installation in public spaces. Sensing element: indoor - NTC 10kOhm at 25°C outdoor temperature sensor input (optional – P/N PPLELE06019) - e.g. remote sensor or floor sensor. Triac output, input for switching between heating/cooling, in conjunction with WFC-..HC connection modules. Max switching capacity 5 24V AC actuators (1,6 W each) or max 8 230V AC actuators (1,8 W each).
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Actuator	Pcs/pack	Package	€ each
P08102	24*...230VAC	N.O. and N.C.	1	84	83,30

* Applications with power supply voltage 24V AC could require accessory part numbers. Consult the product technical data sheets and/or contact our technical department.

Dimensions on page 81

OUTDOOR NTC SENSOR

Part no.	Description	Dimensions	Pcs/ pack	Package	€ each
PPLELE06019	Outdoor 10kΩ NTC sensor at 25°C	Cylindrical sensor 6X30mm. L cable = 3m	1	50	10,20

WFC-03

Hard-wired connection and control module for 24 V* or 230 V room thermostats with the sole function of switching normally closed (NC) or normally open (NO) actuators ON/OFF. Heating/ cooling function**. Available in versions for 6 or 8 zones (number of room thermostats). Quick electrical connections thanks to plug-in terminals (screwless), from 1 to 4 actuators per zone***. Operating temperature 0 to 40°C, protection rating IP 30. For wall- or DIN-rail mounting. Dimensions: 265 x 90 x 56 mm. Possible dual set-point control with time ranges by means of an external timer (dedicated input) and/or at least 1 WT-DP03 HC digital programmable thermostat.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Description	Power supply - actuators	Pcs/pack	Package	€ each
P08278	6 ZONE	24*...230VAC - N.O. and N.C.	1	6	84,10
P08279	8 ZONE	24*...230VAC - N.O. and N.C.	1	6	104,10

* For applications with 24Vac power supply, the module must be paired with the WFC-TRF03 230/24 PLG ancillary transformer.
** In conjunction with at least 1 x WT-D03 / WT-DP03 HC digital thermostat.
*** zone 1 and zone 2 support up to 4 actuators per zone each – other zones support up to 2 actuators per zone.

Dimensions on page 81

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

WFC-TRF03 PLG

Transformer for 24VAC power supply of WFC-03 6Z NC/NO or WFC-03 8Z NC/NO connection modules. Operating voltage 230 V, output voltage 24 V, output power 60VA, protection rating IP 30. 1,5 m power cable with Euro plug (CEE 7/16 EN 50075). Power line to control module with 4-pole plug for easy combination. For connecting a maximum of 18 24V AC/2,5 W actuators.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Description	Compatibility	Pcs/pack	Package	€ each
P08334	Ancillary transformer	WFC03 6Z - WFC03 8Z	1	6	76,50

Dimensions on page 82

WFC-03 H+

Hard-wired connection and control module for 24 V* or 230 V room thermostats for managing normally closed (NC) actuators. Heating/cooling function**. Dry-contact output for the generator and 230V output for controlling the circulation pump. Available in versions for 6 or 10 zones (number of room thermostats), status LED. Operating temperature 0 to 40 °C, protection rating IP 30. Quick electrical connections thanks to plug-in terminals (screwless), from 1 to 6 actuators per zone***. Possible dual set-point control with time ranges by means of an external timer (dedicated input) and/or at least 1 WT-DP03 HC digital programmable thermostat.
1,5 m power cable with Schuko plug (CEE 7/7). For wall- or DIN-rail mounting
Dimensions: 6/8 zones 265 x 90 x 56 mm - 10 zones 365 x 90 x 56 mm.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Description	Power supply - actuators	Pcs/pack	Package	€ each
P08282	6 ZONE	230VAC - N.C.	1	6	117,80
P08283	8 ZONE	230VAC - N.C.	1	6	157,60
P08285	10 ZONE	230VAC - N.C.	1	6	194,50

* For applications with 24Vac power supply, use dedicated part numbers (available to order) with which to pair the WFC-TRF03 230/24 ancillary transformer (P/N P08277) – for further information, contact our technical department.
** In conjunction with at least 1 x WT-D03 / WT-DP03 HC digital thermostat.
*** Zone 1 supports up to 6 actuators per zone – other zones support up to 2 actuators per zone.

Dimensions on page 82

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

WFC-03 HC

Hard-wired connection and control module for 24 V* or 230 V room thermostats for managing normally closed (NC) actuators. Heating and cooling function.

- 2 switching signal inputs for heating/cooling (230V or dry contact).
- 2 separate outputs (dry contact) for heating and cooling permissive
- 2 circulation pump and generator outputs (230V and dry contact)
- 1 dry-contact output for a permissive for activating a dehumidifier.
- 1 dew point sensor input for zone valve/pump switch-off.
- 1 temperature limiter input for pump switch-off.
- 1 timer input for dual set-point control with time ranges**.

Available in versions for 6 or 8 zones (number of room thermostats), multi-coloured status LED. Operating temperature 0 to 40°C, protection rating IP 30, electrical protection rating I. Quick electrical connections thanks to plug-in terminals (screwless); 1 to 6 actuators per zone***; it is possible to combine two zones.
1,5 m power cable with Schuko plug (CEE 7/7). For wall- or DIN-rail mounting
Dimensions: 6 and 8 zones 365 x 90 x 56 mm.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Description	Power supply - actuators	Pcs/pack	Package	€ each
P08287	6 ZONE	230VAC - N.C.	1	6	199,70
P08289	8 ZONE	230VAC - N.C.	1	6	241,70

* For applications with 24Vac power supply, use dedicated part numbers (available to order) with which to pair the WFC-TRF03 230/24 ancillary transformer (P/N P08277) – for further information, contact our technical department.
** Alternatively, use 1 x WT-DP03 HC digital programmable thermostat to control one zone
*** Zone 1 supports up to 6 actuators per zone – other zones support up to 2 actuators per zone.

Dimensions on page 82

ACCESSORIES

Dew point sensor for detecting condensate on surfaces. To be fitted on the flow pipe of the manifold. Cable length: 10 metres.

Part no.	Description	Components	Pcs/pack	Package	€ each
10087539	Humidity sensor	Contact sensor - L cable 10m	1	1	115,60

N.B. The prices shown in this price list are for the supply of the individual components only and do not include commissioning.
Quote provided on request.

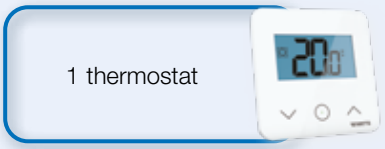
Vision® Wired system application examples

The application diagrams shown are for illustrative purposes. For other requirements or types of system, contact our technical department.

EXAMPLE 1
Single-zone hydronic heating/cooling

COMPONENTS
- 1 WT-D03 thermostat for controlling a circulation pump (or actuator) with a 230V powered contact

PRODUCTS

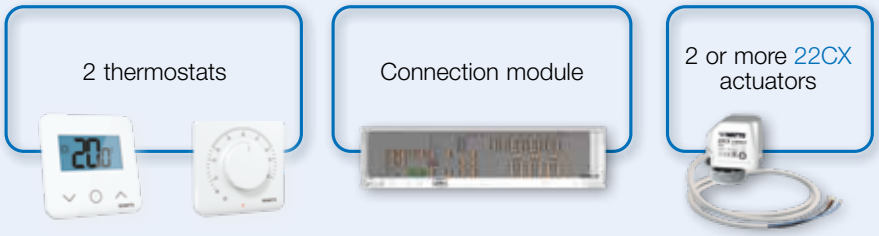


EXAMPLE 2
Multi-zone hydronic heating/cooling

COMPONENTS
- 2 (or more) x WT-D03 thermostat (alternative option WT-A03)
- 1 x WFC-03 8Z HC connection module
- Various 22CX230NC2 actuators

IMPORTANT
Vision® Wired Series 03 control and connection modules are not compatible with the WFHC Series

PRODUCTS



N.B. The prices shown in this price list do not include the commissioning of the individual components and/or the system as a whole. Quote provided on request.

Battery powered wired thermostats and programmable thermostats

BT-D03 HC FC

Digital electronic room thermostat for heating and cooling systems, with back-lit LCD display. Setting range 5 to 30°C. Room temperature 0 to 50°C. Various operating modes: comfort, energy-saving, OFF, anti-freeze, timer. Hysteresis (selectable from 0,2 to 3,0 K) or proportional control (PWM), selectable from menu. Window open detection. Display protection with PIN code and locking pins for installation in public spaces. Sensing element: indoor NTC 10kOhm at 25°C.
Protection rating IP 30. Output, 2-wire dry contact (quick connector – screwless), 3A-230V AC rating.
Complete with 2 LR03 (AAA) 1,5V alkaline batteries, battery life: ~ 2 years.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Temp. control range	Protection	Pcs/pack	Package	€ each
P08063	5-37°C	IP30	1	112	84,40

Dimensions on page 82

BT-DP03 HC FC

Digital programmable electronic room thermostat for heating and cooling systems, with back-lit LCD display. Operation is controlled by means of a rotary button. Setting range 5 to 30°C. Room temperature 0 to 50°C. Various operating modes: comfort, energy-saving, OFF, anti-freeze, timer. Hysteresis (selectable from 0,2 to 3,0 K) or proportional control (PWM), selectable from menu. Window open detection. Display protection with PIN code and locking pins for installation in public spaces. Sensing element: indoor NTC 10kOhm at 25°C. Protection rating IP 30. Output, 2-wire dry contact (quick connector – screwless), 3A-230 Vac rating.
Complete with 2 LR03 (AAA) 1,5V alkaline batteries, battery life: ~ 2 years.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Temp. control range	Protection	Pcs/pack	Package	€ each
P08101	5-37°C	IP30	1	112	97,90

Dimensions on page 82

Milux programmable room thermostats

MILUX 2 WEEKLY - Discontinued series, available while stocks last

Digital electronic programmable room thermostat with weekly programming, for heating and cooling systems. Switch between summer and winter modes directly from keypad. 5 pre-set and 2 custom programmes available. Constant display of room temperature, time and operating status on LCD display. White frame with removable front panel for access to the batteries and connections. Easy wiring: two-wire connection (three-position connector) for heating or air conditioning systems, contact rating < 5A/400V. Automatic or manual operating modes.
Complete with 2 LR3 (AAA) 1.5V batteries: life > 2 years. Batteries can be changed without losing programme settings. Temperature control range: 5 to 35°C. Two temperature levels: comfort and reduced modes. Anti-freeze (0,5 to 10°C). PWM control in 15min intervals on a band of 2°C. Power supply: 2 LR3 AAA 1.5V batteries (included). Protection rating IP 30, Class II.
Special functions:
- manual selector for standby and keypad lock mode;
- holiday mode to suspend operation temporarily when away from home;
- ITCS (optional): Intelligent Temperature Control System, automatic advance response to heating/cooling demand.

Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU. Energy class 2010/30/EU IV (2%).

Part no.	Temp. control range	Programmes	Pcs/pack	Package	€ each
P06584	5-35°C	9 +4 custom	1	48	95,00

Dimensions on page 82

BATTERY ELECTRONIC

Electronic programmable room thermostat with analogue programming, for heating systems. Protective front panel for clock and control knob.
Minimum setting range: 15 min (daily) 120 min (weekly) 2 selectable temperature levels (comfort - reduced modes). Timer OFF mode selector: the thermostat maintains the selected temperature level (comfort - reduced modes) with minimum anti-freeze temperature (5°C).
Temperature control range: 5 to 35°C. Differential: 0.5K. Operating temperature: 0 to 50°C.
Protection class: II.
Power supply: 2 LR6 (AA) 1,5V alkaline batteries (NOT INCLUDED). Contact rating: 8 (3) A 230V.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P03869 (daily)	2 x 1,5V batteries	IP30	1	38	67,70
P03865 (weekly)	2 x 1,5V batteries	IP30	1	38	79,10

Dimensions on page 83

BELUXTI - Discontinued series, available while stocks last

Room thermostat with saturated vapour expansion diaphragm temperature sensor, with 2 switching contacts. Stainless steel diaphragm. Temperature locking device on back of knob.
Adjustment range: 5 to 30°C.
Differential at 20°C: 0,8K. Contact rating: 10 (2,5) A/230V. 1000/1000 silver contacts.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
0403202	230V	IP30	1	112	18,70

Dimensions on page 83

BELUXTIC - Discontinued series, available while stocks last

Room thermostat with saturated vapour expansion diaphragm temperature sensor, with 2 switching contacts and summer/winter switch. Stainless steel diaphragm. Temperature locking device on back of knob. Adjustment range: 5 to 30°C.
Differential at 20°C: 0,8K. Contact rating: 10 (2,5) A/230V. 1000/1000 silver contacts.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
0403302	230V	IP30	1	112	28,80

Dimensions on page 83

BELUXTOF - Discontinued series, available while stocks last

Room thermostat with saturated vapour expansion diaphragm temperature sensor, with 2 switching contacts and ON/OFF switch and indicator light. Stainless steel diaphragm. Temperature locking device on back of knob. Adjustment range: 5 to 30°C.
Differential at 20°C: 0,8K. Contact rating: 10 (2,5) A/230V. 1000/1000 silver contacts.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
0403162	230V	IP30	1	112	25,90

Dimensions on page 83

Thermostats for fan coils

FAN OPEN

Mechanical thermostat for 4-pipe fan coils. ON/OFF switch (disables thermostat).
Fan speed selector (3 speeds). Temperature locking device on back of knob.
Adjustment range: 5 to 30°C. Temperature differential: 0,6°C.
Contact power rating: 6(2) A/230V.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P02023	230V	IP30	1	138	47,00

Dimensions on page 83

FAN COIL 2T

Electronic thermostat for 2-pipe fan coils. ON/OFF switch (disables thermostat).
Fan speed selector (3 speeds). Summer/Winter switch. Adjustment range: 5 to 35°C.
Temperature differential: 0,2°C. Contact power: 6(2) A/250V.
One output for controlling the heating (or cooling) valve and one output for controlling ventilation. Connections for outdoor Air and Water sensors (optional). Air recirculation function (only in Cooling mode and if a remote air sensor is connected).
ON indicator light.
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P07452	230V	IP30	1	138	84,70

Dimensions on page 83

FAN COIL 4T

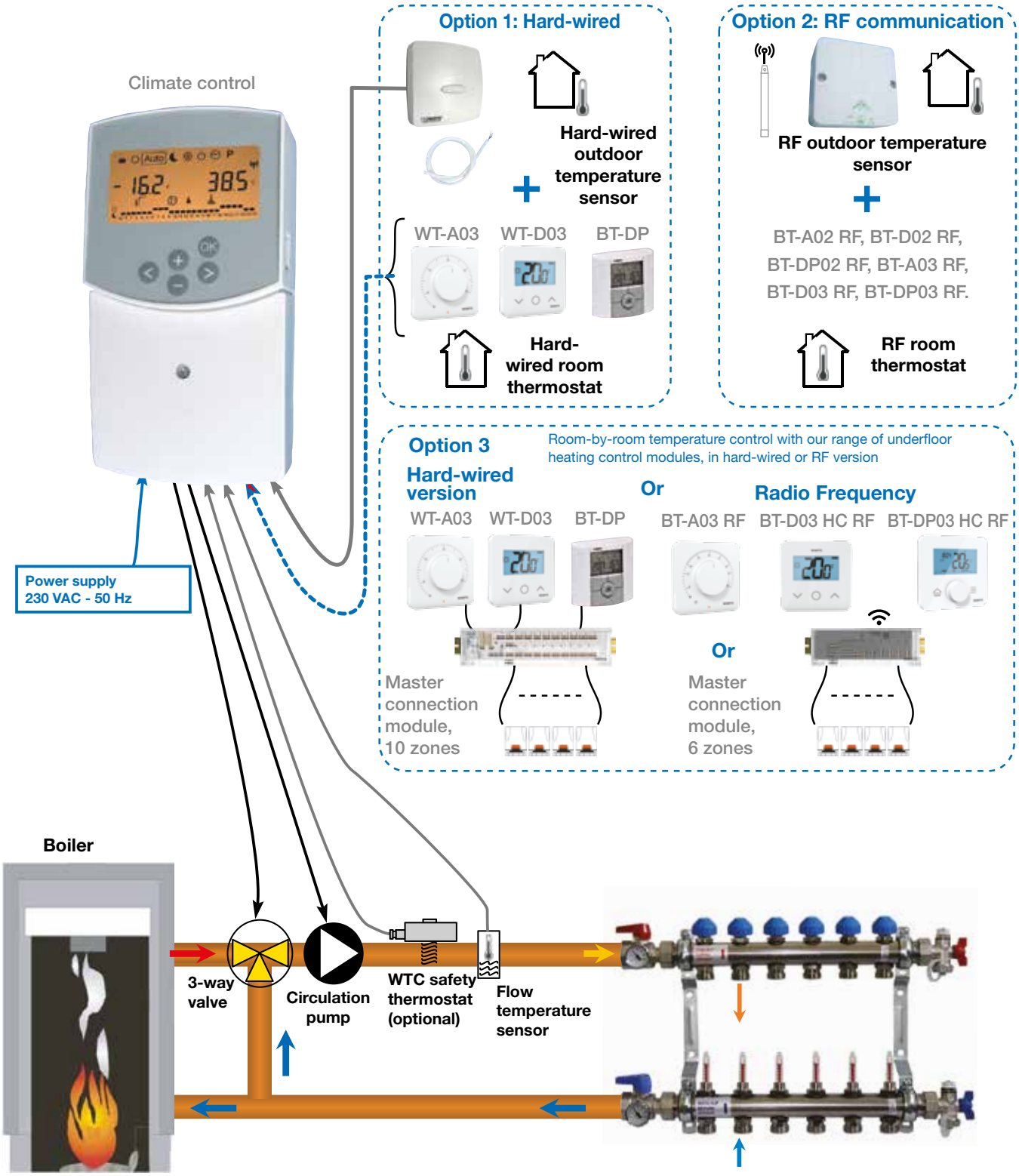
Electronic thermostat for 4-pipe fan coils. ON/OFF switch (disables thermostat). Fan speed selector (3 speeds). Summer/Winter switch. Adjustment range: 5 to 35°C. Temperature differential: 0,2°C. Contact power: 6(2) A/250V. Dead zone adjustment: 1 to 10°C.
Two independent outputs for controlling the heating and cooling valves and one output for controlling ventilation. Connections for outdoor Air and Water sensors (optional). Air recirculation function (only in Cooling mode and if a remote air sensor is connected).
Compliant with: 2014/35/EU, 2014/30/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P07453	230V	IP30	1	138	117,00

Dimensions on page 83

Climatic controllers

Option 1: Hard-wired thermostat and outdoor temperature sensor
Option 2: RF thermostat and outdoor temperature sensor
Option 3: Underfloor system management, hard-wired or RF version



RCL-HC

Digital climatic controller for heating only and heating/cooling systems with outdoor air temperature compensation. Recommended for flow temperature control with mixing valve with 230VAC 3-point actuator. Weekly programming, 9 pre-set programmes and 4 custom programmes, controlled on basis of outdoor temperature, outdoor temperature and water temperature display, maximum and minimum temperature limit, pump control, possible to connect a room thermostat. Provision for installation of an antenna that can be paired with RF 868 MHz room humidistats, BT-D03 RF RH radio thermostat/humidistat and BT-DP03 RF RH programmable thermostat/humidistat (RF868 antenna not included). Ideal for controlling radiant panel heating/cooling systems. Flow water temperature 0 to 100°C. Power supply 230V AC 50 Hz. Pump control: 5A 230V AC relay. Heating generator control: 5A 230V AC relay. Air conditioning unit control: 5A 230V AC relay. Mixing valve control: 3-point modulating (2 Triacs 75W Max 230V AC).
Kit includes:
- climatic control unit;
- outdoor temperature sensor with 2 m cable NTC 10 kΩ;
- water temperature sensor (flow) comprising 5x45 cylindrical sensor with 3 m cable NTC 10 kΩ;
Option for WSENS Series return water temperature probe.
Compliant with: 2014/35/EU, 2014/30/EU, 2014/53/EU, 2011/65/EU, 2012/19/EU, 2015/1188/EU, 2013/813EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P08674	230 VAC 50Hz	IP30	1	96	292,40

Dimensions on page 83

BT-OS03 RF

Wireless outdoor temperature sensor for RCL-HC Series climatic control units Room temperature: -10 to 55°C. Protection rating IP 45. Power supply, 2,5V battery. AAA (LR03) alkaline: life 5 years. A single sensor can communicate with multiple controllers simultaneously.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P07060	AAA 2,5V alkaline batteries	IP45	1	84	116,70

Dimensions on page 83

AN868RF

Antenna for RCL-HC Series climatic control units for receiving 868 Mhz RF signals. Enables you to connect the following to RCL control units: BT-D03 RF RH thermostat/humidistat, BT-OS03RF outdoor temperature sensor and all Watts room thermostats with radio frequency of 868 MHz. Cable length 3 metres, dimensions 25x195x9,5mm, adhesive base.

Part no.	Reception	Cable	Pcs/pack	Package	€ each
P08621	868Mhz	3 m	1	70	71,20

SPARE PARTS for previous series of RCL-HC climate control unit

Part no.	Description	Notes	Pcs/ pack	Package	€ each
P04510	AN433 external antenna	RCL-HC, previous series (P/N P04013 - P04987)	1	70	69,00

WSENS

Water temperature probe (flow or return) NTC 10 kΩ.

Part no.	Notes	Pcs/pack	Package	€ each
PPLELE09995	Cylindrical sensor 5x45 mm. Cable length = 3m for TP Series pocket	1	1	13,30

TP35B

Pocket for installation on pipe with 1/2" external thread. Suitable for WSENS temperature probes (P/N PPLELE09995).
Compliant with MID 2014/32/EU.

Part no.	Description	Length	Pcs/pack	Package	€ each
TP35B	Brass	35 mm	1	1	37,10

Control and safety thermostats

WTC-ES

Compact contact thermostat with spring for mounting on pipes up to 2". Adjustment range: 0 to 90°C. Differential at 20°C < 10 K. Contact rating: 16 (4) A/230 V. Spring: L= 230 mm.
Compliant with: LVD 2014/35/EU - EMC 2014/30/EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
P04075	230V	IP40	1	87	25,00

Dimensions on page 83

TRC100

Capillary control thermostat with 2 switching contacts. Copper capillary tube L= 900 mm (bulb 100 mm x Ø 6). Adjustment range: 30 to 90°C. Contact rating 16 (5) A-230 V.
Complete with knob.
Compliant with: LVD 2014/35/EU - EMC 2014/30/EU.

Part no.	Power supply	Temp. control range	Pcs/pack	Package	€ each
0408200	230V	30–90°C	1	100	28,00

TBC100

Capillary safety thermostat with manual resetting. Set temperature: 97°C±3°C. Copper capillary tube L= 900 mm (bulb 100 mm x Ø 6). Contact rating: 16 (5) A-230 V.
Compliant with: LVD 2014/35/EU - EMC 2014/30/EU.

Part no.	Power supply	Contact rating	Pcs/pack	Package	€ each
0408500	230V	16 (5) A - 250V	1	100	23,50

MTV

Bimetallic contact micro-thermostat for fan coils. Starts the fan at a pre-set temperature only. Faston version complete with 250 mm cables, terminal and spring for mounting on pipes. “Pre-wired” version with wired and IP 55 insulated thermostat, 300 mm connection cables and spring for mounting on pipes. Contact rating 10A (2,5) 250V. Contact opening temperature: 35°C. (Fan stops).
Contact closing temperature: 42±3°C.
(Fan starts). The 0408303 Series is supplied with cables with 6,3mm F Faston connection on the terminal.
Compliant with: LVD 2014/35/EU - EMC 2014/30/EU.

Part no.	Power supply	Connection	Pcs/pack	Package	€ each
0408301	230V	Faston	1	25	10,30
0408303	230V	Pre-wired	1	25	14,80

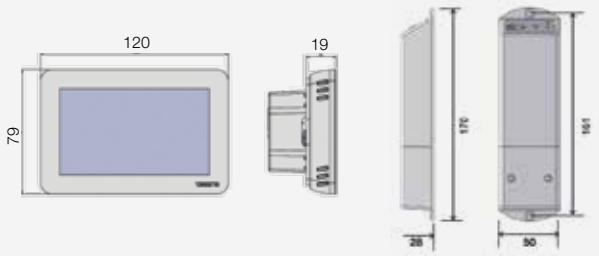
CH30

Contact thermostat for max.1/2” pipes. Suitable for automatic Summer/Winter switching for fan coil control. Operating range: 16 ±3,3°C - 26 ± 3,3°C.
T water <16°C: Red-Brown NC ➔ Summer; T water >26°C: Red-Black NC ➔ Winter.
Contact rating 5A-230V switching. Complete with 3x1mm2 cable L=0,3m.

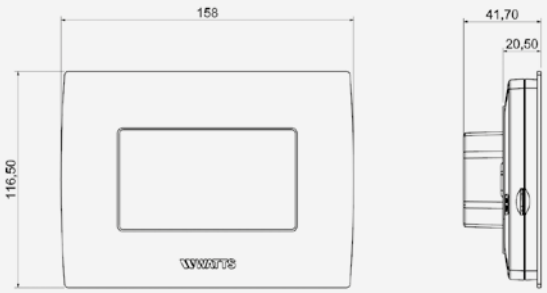
Part no.	Contact rating	Cable	Pcs/pack	Package	€ each
CH30/1626L2	5A - 230V	0,3 m	1	1	30,90

Overall dimensions

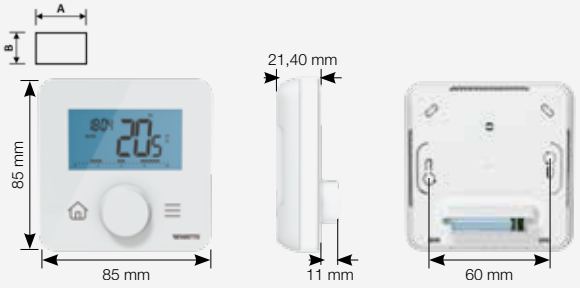
BTK-ST03 RF



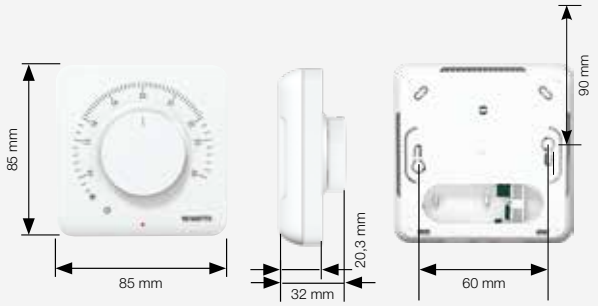
BT-CT03 RF



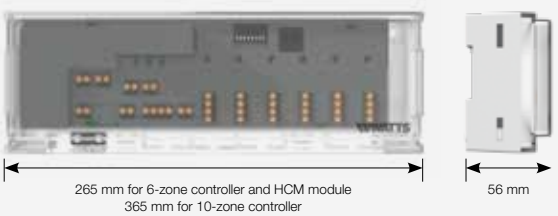
BT-DP03 RF



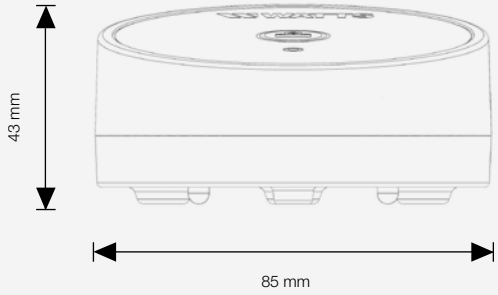
BT-A03 HC RF



WFC-03..HC RF / WFC-03 HCM RF

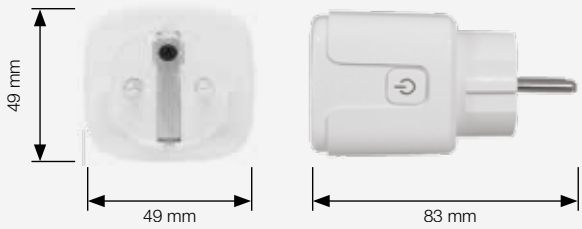


BLK01-RF

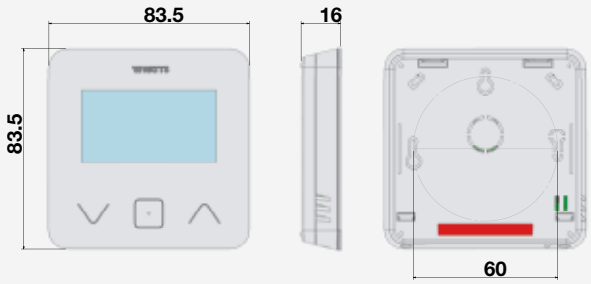


Overall dimensions

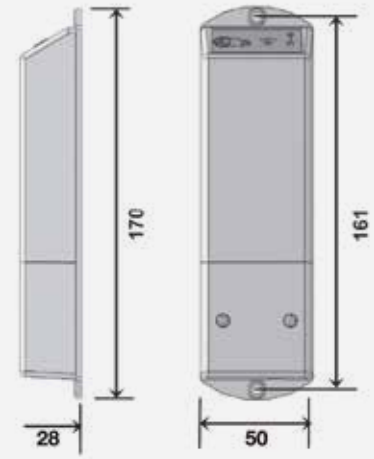
PR03 RF



BT-D03 RF

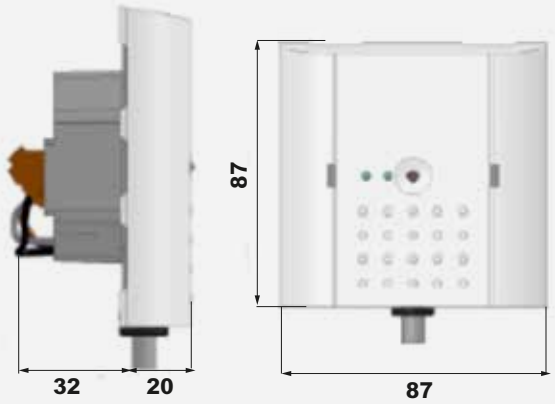


BT-WR02 RF
BT-WR02 RF FC

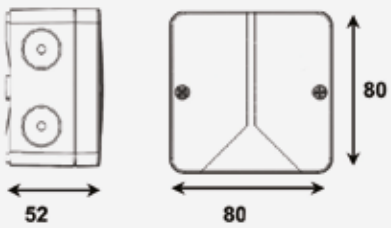


BT-SRT03 RF

BT-FR02 RF

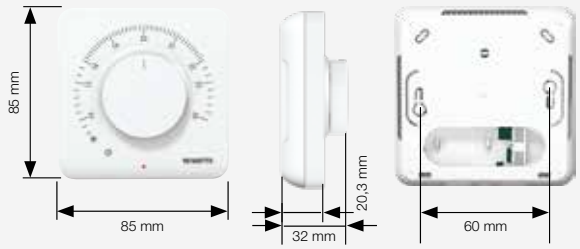


BT-OS02 RF
OS RF

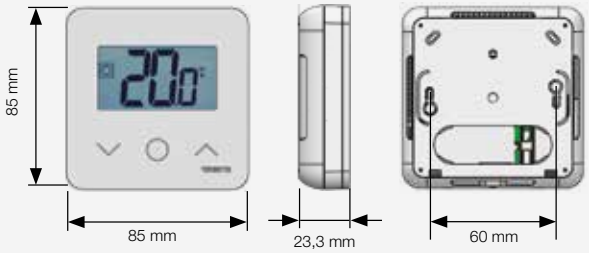


Overall dimensions

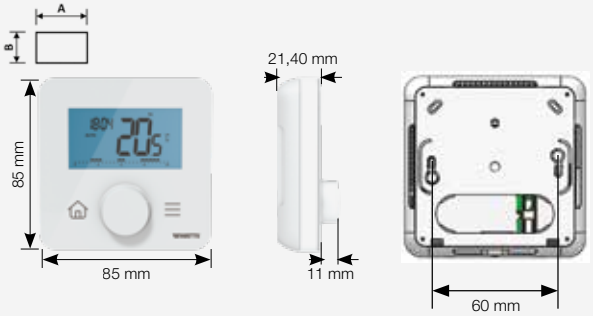
WT-A03 / WT-A03 HC



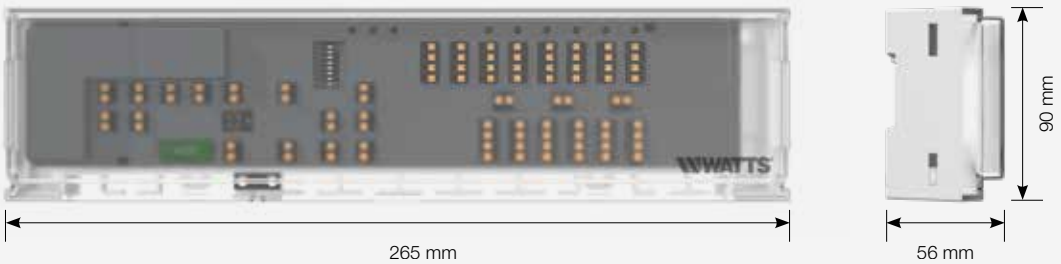
WT-D03 HC



WT-DP03 HC



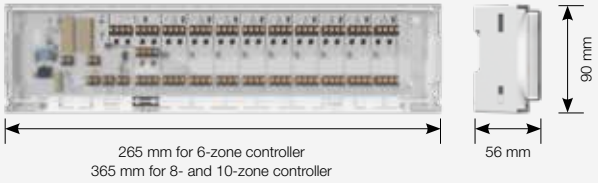
WFC-03



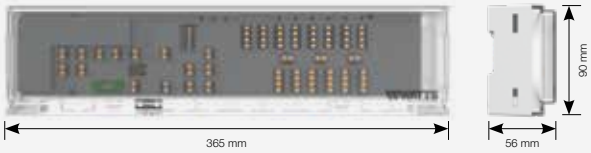
Overall dimensions

WFC-TRF03 PLG

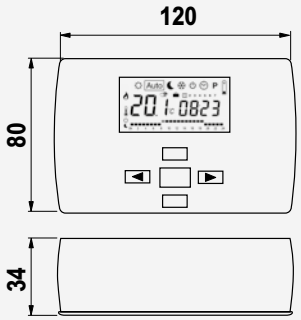
WFC-03 H+



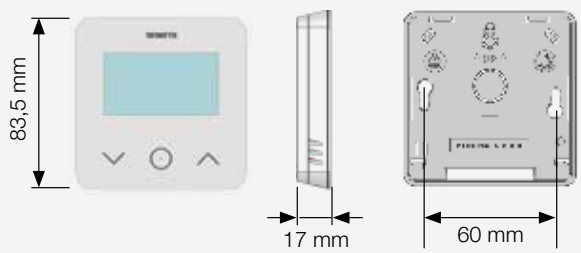
WFC-03 HC



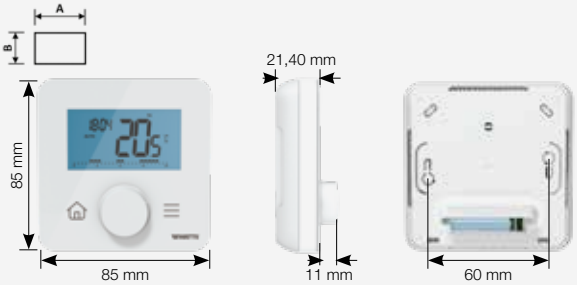
MILUX 2 WEEKLY



BT-D03 HC FC

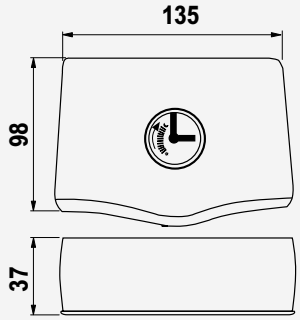


BT-DP03 HC FC

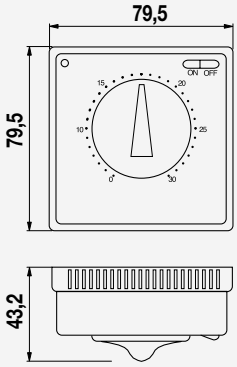


Overall dimensions

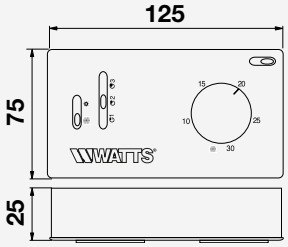
BATTERY ELECTRONIC



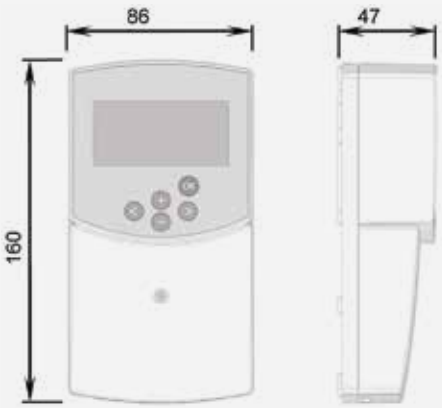
BELUXTI/TIC/TOF



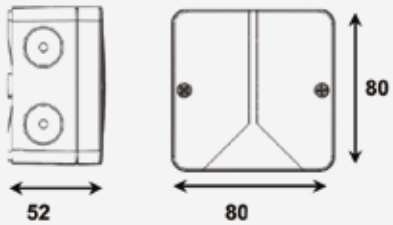
FAN OPEN
FAN COIL 2T
FAN COIL 4T



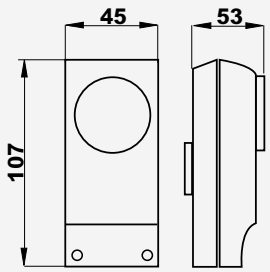
RCL-HC

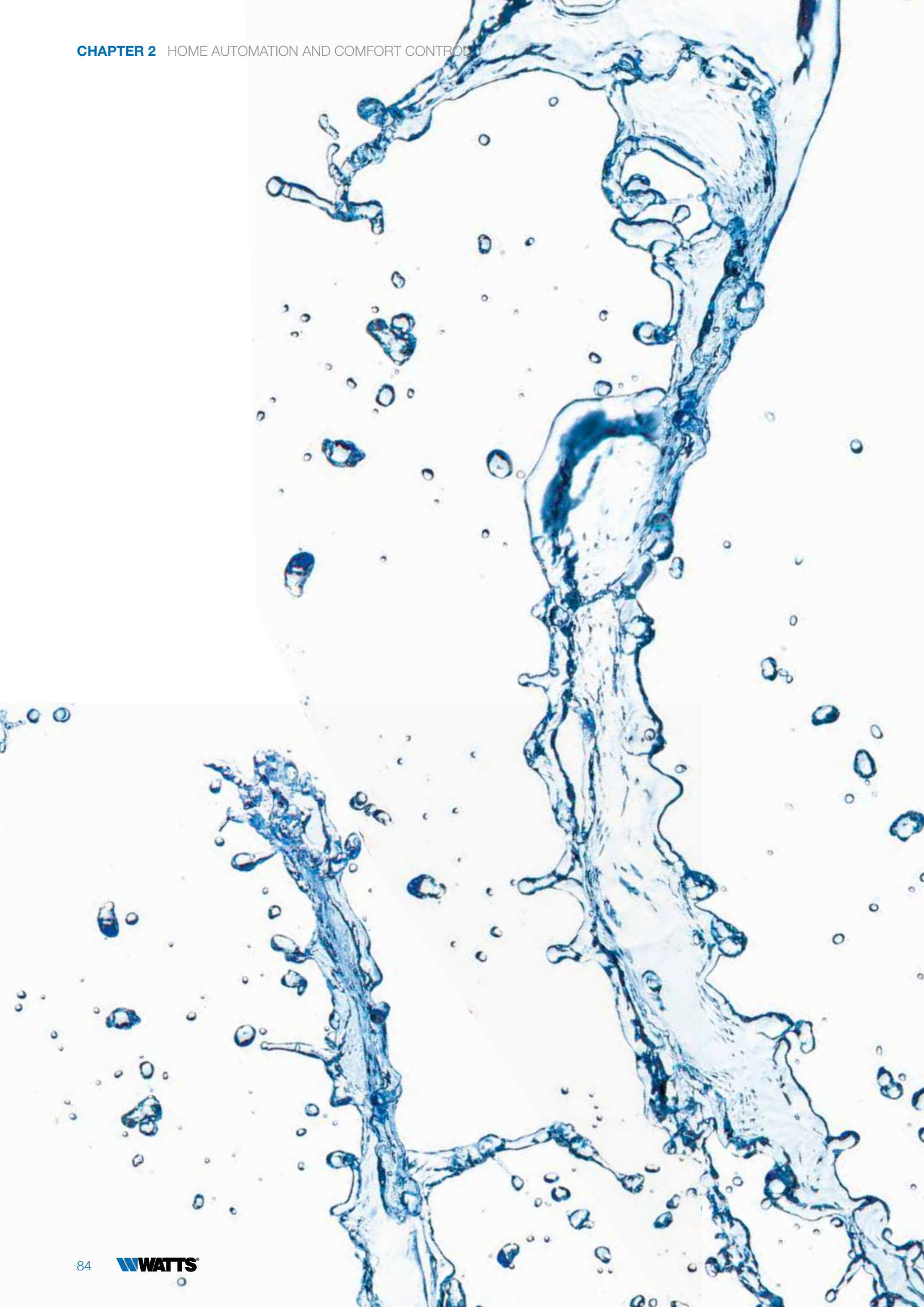


BT-OS03 RF



WTC-ES





Chapter 3

Shut-off and check valves

Check out the **Socla** site

WATTS®

SYLAX
Butterfly valve

SOCLA
A WATTS Brand

Epoxy-coated body and AISI 316 stainless steel disc
Comprehensive range from DN25 to DN1200
European certifications

Chapter 3.1

SHUT-OFF SYSTEMS

Gate valves

FLANGED GATE VALVE WITH RUBBER-COATED WEDGE MODEL E3243

Flat body, face-to-face length according to EN558-1 SERIES 14 – Flanged PN16 (EN1092-2)
Body and handwheel in GJS 450-10 ductile iron. Wedge in GJS 450-10 ductile iron coated with EPDM. Stem in 420 stainless steel. Temperature 0°C to 80°C
Approvals: ACS (Attestation de Conformité Sanitaire), WRAS. PED 2014/68/EU.

Part no.	Body	DN mm	Fittings	PFA water	Package	€ each
61070104	GGG50	40	PN10/16	16	1	109,00
61070105	GGG50	50	PN10/16	16	1	115,20
61070106	GGG50	65	PN10/16	16	1	132,40
61070107	GGG50	80	PN10/16	16	1	154,30
61070108	GGG50	100	PN10/16	16	1	199,00
61070109	GGG50	125	PN10/16	16	1	255,80
61070110	GGG50	150	PN10/16	16	1	325,30
61070160	GGG50	200	PN10	10	1	517,60
61070111	GGG50	200	PN16	16	1	522,90
61070161	GGG50	250	PN10	10	1	907,80
61070112	GGG50	250	PN16	16	1	916,90
61070162	GGG50	300	PN10	10	1	998,00
61070113	GGG50	300	PN16	16	1	1.008,00

Dimensions on page 112

REPLACEMENT HANDWHEEL FOR GATE VALVE MODEL E3243

Handwheel in GJS 450-10 ductile iron for gate valve E3243

Part no.	Material	per DN mm	Package	€ each
200K14	GGG50	40 - 50 - 65	1	10,90
254K17	GGG50	80	1	17,40
254K19	GGG50	100	1	19,40
315K19	GGG50	125-150	1	25,00
315K24	GGG50	200	1	26,00
406K27	GGG50	250-300	1	65,70

Dimensions on page 112

Ball valves

V3000

Body: brass. Full bore. Ball: chrome-plated brass. Seals: PTFE. Max. temperature: 120°C. FF fitting. Applications: general, heating, potable water and compatible fluid circuits.
Approval: ACS (Attestation de Conformité Sanitaire).

Part no.	Description	DN mm	DN"	PFA water	Package	€ each
149B5039	BRASS VALVE	10	3/8	30	30	14,30
149B5040	BRASS VALVE	15	1/2	30	20	18,70
149B5041	BRASS VALVE	20	3/4	30	15	24,00
149B5042	BRASS VALVE	25	1	30	10	36,80
149B5043	BRASS VALVE	32	1 1/4	30	10	54,00
149B5044	BRASS VALVE	40	1 1/2	30	5	76,00
149B5045	BRASS VALVE	50	2	30	2	124,80
149B5054	BRASS VALVE	65	2 1/2	30	1	260,90
149B5055	BRASS VALVE	80	3	30	1	351,30
149B5056	BRASS VALVE	100	4	30	1	660,40

Dimensions on page 113

V3000 MF

Body: brass. Full bore. Ball: chrome-plated brass. Seal: PTFE. Max. temperature: 80°C. MF fittings. Applications: general, heating, potable water and compatible fluid circuits.
Approval: ACS (Attestation de Conformité Sanitaire).

Part no.	Description	DN mm	DN"	PFA water	Package	€ each
149B5351	BRASS VALVE	10	3/8	25	1	13,80
149B5352	BRASS VALVE	15	1/2	25	1	17,90
149B5353	BRASS VALVE	20	3/4	25	1	23,00
149B5354	BRASS VALVE	25	1	25	1	35,30
149B5355	BRASS VALVE	32	1 1/4	25	1	51,90
149B5356	BRASS VALVE	40	1 1/2	25	1	73,00
149B5357	BRASS VALVE	50	2	25	1	120,00

Three-piece ball valves

X3777

Full bore. Body: 316 stainless steel (CF8M). Ball: 316 stainless steel. Seals: PTFE.
Handle with locking system. FF BSP threaded fitting.
Option: socket welding (X3777S) and butt welding (X3777B) fitting.
Applications: industry, high pressure, high temperature.
Directive 2014/68/EU.

Part no.	Description	DN mm	DN"	PFA water	Package	€ each
149B12526	3-PIECE STAINLESS STEEL VALVE	8	1/4	63	1	34,20
149B12527	3-PIECE STAINLESS STEEL VALVE	10	3/8	63	1	34,20
149B12528	3-PIECE STAINLESS STEEL VALVE	15	1/2	63	1	44,10
149B12529	3-PIECE STAINLESS STEEL VALVE	20	3/4	63	1	56,90
149B12530	3-PIECE STAINLESS STEEL VALVE	25	1	63	1	69,60
149B12531	3-PIECE STAINLESS STEEL VALVE	32	1 1/4	63	1	93,60
149B12532	3-PIECE STAINLESS STEEL VALVE	40	1 1/2	63	1	124,80
149B12533	3-PIECE STAINLESS STEEL VALVE	50	2	40	1	172,90
149B12534	3-PIECE STAINLESS STEEL VALVE	65	2 1/2	25	1	359,70
149B12535	3-PIECE STAINLESS STEEL VALVE	80	3	25	1	521,00
149B12536	3-PIECE STAINLESS STEEL VALVE	100	4	25	1	872,10

Dimensions on page 113

Two-piece ball valves

X2777

Full bore. Body: 316 stainless steel (CF8M). Ball: 316 stainless steel. Seals: PTFE.
Handle with locking system. FF BSP threaded fitting.
Applications: industry, high pressure, high temperature.
Directive 2014/68/EU.

Part no.	Description	DN mm	DN"	PFA water	Package	€ each
149B12516	2-PIECE STAINLESS STEEL VALVE	8	1/4	63	1	29,90
149B12517	2-PIECE STAINLESS STEEL VALVE	10	3/8	63	1	29,90
149B12518	2-PIECE STAINLESS STEEL VALVE	15	1/2	63	1	34,20
149B12519	2-PIECE STAINLESS STEEL VALVE	20	3/4	63	1	42,80
149B12520	2-PIECE STAINLESS STEEL VALVE	25	1	63	1	61,10
149B12521	2-PIECE STAINLESS STEEL VALVE	32	1 1/4	63	1	76,50
149B12522	2-PIECE STAINLESS STEEL VALVE	40	1 1/2	63	1	106,30
149B12523	2-PIECE STAINLESS STEEL VALVE	50	2	63	1	154,50
149B12524	2-PIECE STAINLESS STEEL VALVE	65	2 1/2	63	1	339,70
149B12525	2-PIECE STAINLESS STEEL VALVE	80	3	63	1	516,60

Dimensions on page 114

One-piece ball valves

X1666

Reduced bore. Body: 316 stainless steel (CF8M). Ball: 316 stainless steel. Seals: PTFE.
FF BSP threaded fitting. Applications: industry, high pressure, high temperature.
Directive 2014/68/EU

Part no.	Description	DN mm	DN"	PFA water	Package	€ each
149B12508	ONE-PIECE STAINLESS STEEL VALVE	8	1/4	63	1	25,40
149B12509	ONE-PIECE STAINLESS STEEL VALVE	10	3/8	63	1	27,10
149B12510	ONE-PIECE STAINLESS STEEL VALVE	15	1/2	63	1	31,50
149B12511	ONE-PIECE STAINLESS STEEL VALVE	20	3/4	63	1	35,60
149B12512	ONE-PIECE STAINLESS STEEL VALVE	25	1	63	1	48,20
149B12513	ONE-PIECE STAINLESS STEEL VALVE	32	1 1/4	63	1	68,10
149B12514	ONE-PIECE STAINLESS STEEL VALVE	40	1 1/2	63	1	82,20
149B12515	ONE-PIECE STAINLESS STEEL VALVE	50	2	63	1	113,40

Dimensions on page 114

DIRECTIVE 2014/68/EU : Pressure equipment

Meets the requirements of the directive in relation to pressure, DN and fluid.

FAMILY		SLEEVES	DN mm	Cat.	FITTING	PFA	PS			
						water	L1	L2	G1	G2
SYLAX DN25 350 mm	6 bar	EPDM, Nitrile (aluminium bronze disc), White EPDM	32 to 150	4.3	Between flanges	6	6	6		6
					End of line	4	4	4		4
			200" to 350"	I	Between flanges	6	6	6		6
					End of line	4	4	4		4
		Nitrile except for aluminium bronze disc	32" to 100"	I	Between flanges	6	6	6	6	6
					End of line	4	4	4		4
			125" to 350"	II	Between flanges	6	6	6	6	6
					End of line	4	4	4		4
	10 bar	EPDM, Nitrile (aluminium bronze disc), White Nitrile, Carboxylic Nitrile, White EPDM,	25" to 100"	4.3	Between flanges	10	10	10		10
					End of line	6	6	6		6
			125 and 150	I	Between flanges	10	10	10		10
					End of line	6	6	6		6
			200" to 350"	I	Between flanges	10	10	10		10
					End of line	6	6	6		6
		Nitrile (except for aluminium bronze disc), Fluoroelastomer	25	4.3	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			32" to 100"	I	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			125" to 350"	II	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
		Silicone.	32" to 100"	I	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			125" to 150"	II	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			200" to 350"	II	Between flanges	6	6	6	6	6
					End of line	4	4	4		4
	16 bar	EPDM, Nitrile (aluminium bronze disc)	32" to 100"	4.3	Between flanges	16	16	16		10
					End of line	12	12	12		10
			125	I	Between flanges	16	16	16		10
					End of line	12	12	12		10
			150	I	Between flanges	16	10	16		10
					End of line	12	6	12		10
			200" to 300"	I	Between flanges	16	10	16		10
					End of line	10	6	10		10
			350	I	Between flanges	16	10	16		10
					End of line	8	6	8		8
		Nitrile except for aluminium bronze disc	32" to 100"	I	Between flanges	16	16	16	10	16
					End of line	12	12	12		12
			125 and 150	II	Between flanges	16	16	16	10	16
					End of line	12	12	12		12
			200" to 300"	II	Between flanges	16	16	16	10	10
					End of line	10	10	10		10
			350	II	Between flanges	16	16	16	10	10
					End of line	8	8	8		8
	20 bar	EPDM, Nitrile (aluminium bronze disc)	32" to 150"	4.3	Between flanges	20		20		
					End of line	12		12		
		Nitrile except for aluminium bronze disc	32" to 100"	4.3	Between flanges	20	20	20		
					End of line	12	12	12		
			125" to 150"	II	Between flanges	20	20	20		
					End of line	12	12	12		
	25 bar	EPDM, Nitrile (aluminium bronze disc)	32" to 150"	4.3	Between flanges	25		25		
					End of line	16		16		
		Nitrile (except for aluminium bronze disc)	32" to 80"	4.3	Between flanges	25	25	25		
					End of line	16	16	16		
			100" to 150"	II	Between flanges	25	25	25		
					End of line	16	16	16		
SYLAX DN400 a 1200 mm	6 bar	EPDM, Nitrile, White EPDM, White Nitrile, Carboxylic Nitrile	400" to 500"	I	Between flanges	6	6	6		6
					End of line	4	4	4		
			600	I	Between flanges	6	6	6		5
					End of line	4	4	4		
			700" to 800"	I	Between flanges	6	6	6		4
					End of line	4	4	4		
			900" to 1000"	I	Between flanges	6	6	6		3,5
					End of line	4	4	4		
			1200	I	Between flanges	6	6	6		2,5
					End of line	4	4	4		
		Silicone, CSM, Fluoroelastomer	400" to 500"	I	Between flanges	6	6	6		6
					End of line	4	4	4		
			600" to 800"	II	Between flanges	6	6	6		6
					End of line	4	4	4		
			900" to 1000"	II	Between flanges	6	6	6		5
					End of line	4	4	4		
			1200	II	Between flanges	6	6	6		4
					End of line	4	4	4		
	10 bar	EPDM, Nitrile, White EPDM	400" to 1200"	I	Between flanges	10	10	10		
					End of line	6	6	6		
		CSM, Fluoroelastomer	400" to 1200"	I	Between flanges	10	10	10		
					End of line	6	6	6		
	16 bar	EPDM, Nitrile	400" to 1200"	I	Between flanges	16		16		
					End of line	8		8		

NOTE:
for category II valves, the minimum temperatures of the bodies are as follows:

- - 20°C for 5.3103 cast iron (GGG40)
- - 10°C for 5.3106 cast iron (GGG40)

For end-of-line use, the specified pressures are downgraded and shown on the valve's data plate.

Important: the temperature and pressure data for the various categories of fluids (L1/L2/G1/G2) do not, in any circumstances, constitute a guarantee of use. It is therefore essential to contact our technical department for approval.

FAMILY		SLEEVES	DN mm	Cat.	FITTING	PFA	PS			
						water	L1	L2	G1	G2
SYLAX CNPP	16 bar	EPDM (CNPP)	32 to 200	4.3	Between flanges	16		16		
					End of line	12		12		
SYLAX GAS	6 bar	Nitrile	32" to 100"	I	Between flanges	6			6	6
					End of line	4				4
			125" to 300"	II	Between flanges	6			6	6
					End of line	4				4
	8 bar	Nitrile	32" to 100"	I	Between flanges	8			8	8
					End of line	6				6
			125" to 300"	II	Between flanges	8			8	8
					End of line	6				6
XYLIA2	16 bar	EPDM	40" to 100"	4.3	Between flanges	16		16		
					End of line	12		12		
			125	4.3	Between flanges	16		16		
					End of line	12		12		
			150	4.3	Between flanges	16		16		
					End of line	12		12		
			200" to 300"	4.3	Between flanges	16		16		
					End of line	10		10		
TILIS		EPR/PTFE	50" to 100"	I	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			125 and 150	II	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			200" to 300"	II	Between flanges	6	6	6	6	6
					End of line	4	4	4		4
LYCENE		PTFE/Silicone	40" to 100"	I	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
			125" to 300"	II	Between flanges	10	10	10	10	10
					End of line	6	6	6		6
EMARIS	40bar	RTFE 15% graphite	50" to 300"	II	Between flanges	40	25	40	25	25
				I	End of line	40	18	18	18	18
	25bar			II	Between flanges	25	25	25	25	25
				I	End of line	25	18	18	18	18
	16bar			II	Between flanges	16	16	16	16	16
				I	End of line	16	16	16	16	16
	10bar			II	Between flanges	10	10	10	10	10
				I	End of line	10	10	10	10	10

STANDARDS

Our butterfly valves comply with the safety requirements of the following directives:

DIRECTIVE 2014/68/EU

PED: Pressure Equipment Directive

Applies to the design, fabrication, and conformity verification of equipment subject to maximum admissible pressure above 0,5 bar. Pressure equipment of networks for water supply, distribution, and discharge is excluded. Depending on the type of pressure equipment, the maximum admissible pressure (PS), the DN, the physical properties of the fluid (liquid, gas or steam) and the hazardousness of the fluid (group 1/2)*, the directive classifies the equipment in different categories (article 4.3, I, II, III, IV), indispensable for conformity assessment of the CE mark. The equipment as at article 4.3 of the directive cannot carry the CE mark.

(*) Group 1: fluids that are hazardous (directive 67/548/EEC) / explosive / extremely flammable / easily flammable / flammable / highly toxic / toxic / oxidising.

Group 2: all other substances and mixtures.

Important: the temperature and pressure data for the various categories of fluids (L1/L2/G1/G2) do not constitute a guarantee of use. Therefore, it is essential to validate the use of the products under given operating conditions with the assistance of our technical department. Socla rejects all liability in the event of inadequacy of products used in service conditions that have not been disclosed beforehand by the customer. Our products are not suitable for transporting unstable hazardous gas at pressures above 0,5 bar. Furthermore, the instruction manual can be downloaded from the official Watts.eu/it website or by simply making a request to our sales department.

Sylax butterfly valve

WITH COMPOSITE NOTCHED HAND-LEVER

Padlockable 5-position notched hand-lever. Insulating composite material. Corrosion-resistant.

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve:
EPDM: temperature: -15 °C to +120 °C.
Body temperature: see page 88.
NITRILE: temperature: +5°C / +85°C.
Applications:
EPDM: potable water, heating, air conditioning.
NITRILE: general and industrial circuits, hydrocarbons, untreated water.
EPDM approvals: **ACS (Attestation de Conformité Sanitaire), KIWA, UK, KIWA, BELGAQUA, PED 2014/68/EU.**

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G039302	GGG40	EPDM	32/40	PN 6/10/16/ASA 150	16	1	107,90
149G039303	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	107,90
149G039304	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	108,70
149G039305	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	124,70
149G039306	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	152,50
149G039307	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	214,80
149G039308	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	269,50

Dimensions on page 114

For details regarding the pressure/temperature curve, see the technical data sheet.

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G039316	GGG40	EPDM	32	PN 10/16	16	1	123,30
149G039317	GGG40	EPDM	40	PN 10/16	16	1	123,30
149G039318	GGG40	EPDM	50	PN 10/16	16	1	126,20
149G039319	GGG40	EPDM	65	PN 10/16	16	1	134,20
149G038236	GGG40	EPDM	80	PN 10/16	16	1	166,50
149G039320	GGG40	EPDM	100	PN 10/16	16	1	195,90
149G039321	GGG40	EPDM	125	PN 10/16	16	1	279,30
149G039322	GGG40	EPDM	150	PN 10/16	16	1	324,20

Dimensions on page 114

WITH CAST-IRON NOTCHED HAND-LEVER

Padlockable 10-position notched hand-lever.

EPOXY

Butterfly: epoxy coated GGG40 cast iron
Sleeve:
EPDM: temperature: -15 °C to +120 °C.
Body temperature: see page 88.
NITRILE: temperature: +5 °C to +85 °C.
Applications:
EPDM: potable water.
NITRILE: untreated water.
EPDM approvals: ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G036113	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	79,10
149G039453	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	84,90
149G023622	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	96,10
149G038573	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	111,90
149G038574	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	135,80
149G038575	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	154,00
149G039454	GGG40	EPDM	200	PN 6/10/16/ASA 150	16	1	275,80
H000009	GGG40	EPDM	250	PN 6/10/16/ASA 150	10	1	522,30
149G045116	GGG40	NITRILE	50	PN 6/10/16/ASA 150	16	1	82,20
149G045117	GGG40	NITRILE	65	PN 6/10/16/ASA 150	16	1	88,60
149G045118	GGG40	NITRILE	80	PN 6/10/16/ASA 150	16	1	99,90
149G045119	GGG40	NITRILE	100	PN 6/10/16/ASA 150	16	1	116,30
149G045120	GGG40	NITRILE	125	PN 6/10/16/ASA 150	16	1	141,50
149G045121	GGG40	NITRILE	150	PN 6/10/16/ASA 150	16	1	160,30
149G045122	GGG40	NITRILE	200	PN 6/10/16/ASA 150	16	1	286,90
149G045123	GGG40	NITRILE	250	PN 6/10/16/ASA 150	10	1	543,10

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G039457	GGG40	EPDM	50	PN 10/16	16	1	96,10
149G039458	GGG40	EPDM	65	PN 10/16 4 HOLES	16	1	104,10
149G039459	GGG40	EPDM	80	PN 10/16	16	1	119,00
149G039460	GGG40	EPDM	100	PN 10/16	16	1	144,60
149G039461	GGG40	EPDM	125	PN 10/16	16	1	169,70
149G039462	GGG40	EPDM	150	PN 10/16	16	1	197,40
149G039463	GGG40	EPDM	200	PN16	16	1	363,70
H000010	GGG40	EPDM	250	PN16	10	1	624,00
149G039466	GGG40	EPDM	200	PN10	10	1	363,70
149G039467	GGG40	EPDM	250	PN10	10	1	626,90
149G045134	GGG40	NITRILE	50	PN 10/16	16	1	99,90
149G045135	GGG40	NITRILE	65	PN 10/16 4 HOLES	16	1	108,40
149G045136	GGG40	NITRILE	80	PN 10/16	16	1	123,50
149G045137	GGG40	NITRILE	100	PN 10/16	16	1	150,70
149G045138	GGG40	NITRILE	125	PN 10/16	16	1	176,30
149G045139	GGG40	NITRILE	150	PN 10/16	16	1	205,30
149G045140	GGG40	NITRILE	200	PN16	16	1	378,30
149G045141	GGG40	NITRILE	250	PN16	10	1	648,90
149G045143	GGG40	NITRILE	200	PN10	10	1	378,30
149G045144	GGG40	NITRILE	250	PN10	10	1	648,90

Dimensions on page 115

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve:
EPDM: temperature: -15 °C to +120 °C.
Body temperature: see page 88.
NITRILE: temperature: +5°C / +85°C.
Applications:
EPDM: potable water, heating, air conditioning.
NITRILE: general and industrial circuits, hydrocarbons, untreated water.
EPDM approvals: **ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.**

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G012313	GGG40	EPDM	32/40	PN 6/10/16/ASA 150	16	1	101,70
149G012322	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	101,70
149G012332	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	102,50
149G012339	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	117,70
149G059541	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	143,80
149G012360	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	193,50
149G012368	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	254,30
149G42089	GGG40	EPDM	200	PN 6/10/16/ASA 150	16	1	458,90
149G104276	GGG40	EPDM	250	PN 6/10/16/ASA 150	10	1	727,00
149G019665	GGG40	NITRILE	32/40	PN 6/10/16/ASA 150	16	1	103,70
149G026594	GGG40	NITRILE	50	PN 6/10/16/ASA 150	16	1	103,70
149G012399	GGG40	NITRILE	65	PN 6/10/16/ASA 150	16	1	104,80
149G012401	GGG40	NITRILE	80	PN 6/10/16/ASA 150	16	1	120,00
149G012403	GGG40	NITRILE	100	PN 6/10/16/ASA 150	16	1	146,70
149G012406	GGG40	NITRILE	125	PN 6/10/16/ASA 150	16	1	197,30
149G012409	GGG40	NITRILE	150	PN 6/10/16/ASA 150	16	1	259,30
149G42109	GGG40	NITRILE	200	PN 6/10/16/ASA 150	16	1	468,10
149G100269	GGG40	NITRILE	250	PN 6/10/16/ASA 150	10	1	741,60

Dimensions on page 115

For details regarding the pressure/temperature curve, see the technical data sheet.

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G016753	GGG40	EPDM	32	PN 10/16	16	1	119,00
149G016754	GGG40	EPDM	40	PN 10/16	16	1	119,00
149G016219	GGG40	EPDM	50	PN 10/16	16	1	119,00
149G012574	GGG40	EPDM	65	PN 10/16 4 HOLES	16	1	126,70
149G012577	GGG40	EPDM	80	PN 10/16	16	1	157,00
149G012582	GGG40	EPDM	100	PN 10/16	16	1	184,80
149G012584	GGG40	EPDM	125	PN 10/16	16	1	268,80
149G012586	GGG40	EPDM	150	PN 10/16	16	1	306,00
149G42492	GGG40	EPDM	200	PN16	16	1	540,30
H000011	GGG40	EPDM	250	PN16	10	1	857,10
149G42489	GGG40	EPDM	200	PN10	10	1	540,30
149G42490	GGG40	EPDM	250	PN10	10	1	857,10
149G016755	GGG40	NITRILE	32	PN 10/16	16	1	121,20
149G059626	GGG40	NITRILE	40	PN 10/16	16	1	121,20
149G016303	GGG40	NITRILE	50	PN 10/16	16	1	121,20
149G059628	GGG40	NITRILE	65	PN 10/16 4 HOLES	16	1	129,30
149G038678	GGG40	NITRILE	80	PN 10/16	16	1	160,10
149G012602	GGG40	NITRILE	100	PN 10/16	16	1	188,50
149G012605	GGG40	NITRILE	125	PN 10/16	16	1	273,90
149G012607	GGG40	NITRILE	150	PN 10/16	16	1	312,00
149G42512	GGG40	NITRILE	200	PN16	16	1	551,30
149G42513	GGG40	NITRILE	250	PN16	10	1	874,30
149G42509	GGG40	NITRILE	200	PN10	10	1	551,30
149G42510	GGG40	NITRILE	250	PN10	10	1	874,30

Dimensions on page 115

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve: carboxylated nitrile.
Temperature: +5°C / +110°C.
Applications: fluids containing abrasive particles.
A version with manual gearbox and handwheel is available to order.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G035671	GGG40	CARBOXYLATED NITRILE	50	PN6/10/16/ASA150	10	1	179,50
149G035672	GGG40	CARBOXYLATED NITRILE	65	PN6/10/16/ASA150	10	1	202,50
149G035673	GGG40	CARBOXYLATED NITRILE	80	PN6/10/16/ASA150	10	1	219,20
149G093454	GGG40	CARBOXYLATED NITRILE	100	PN6/10/16/ASA150	10	1	282,70
149G017247	GGG40	CARBOXYLATED NITRILE	125	PN6/10/16/ASA150	10	1	351,90
149G035676	GGG40	CARBOXYLATED NITRILE	150	PN6/10/16/ASA150	10	1	395,30

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G045033	GGG40	CARBOXYLATED NITRILE	50	PN 10/16	10	1	193,70
149G045034	GGG40	CARBOXYLATED NITRILE	65	PN 10/16 4 HOLES	10	1	219,20
149G045035	GGG40	CARBOXYLATED NITRILE	80	PN 10/16	10	1	263,90
149G045036	GGG40	CARBOXYLATED NITRILE	100	PN 10/16	10	1	332,50
149G045037	GGG40	CARBOXYLATED NITRILE	125	PN 10/16	10	1	407,40
149G045038	GGG40	CARBOXYLATED NITRILE	150	PN 10/16	10	1	452,10

Dimensions on page 115

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve: Silicone.
Temperature: -25°C / +200°C
Applications: Dry air or gases, iced water, industrial processes.
A version with manual gearbox with handwheel is available to order.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G020775	GGG40	SILICONE	50	PN6/10/16/ASA150	10	1	167,70
149G020779	GGG40	SILICONE	65	PN6/10/16/ASA150	10	1	173,90
149G016543	GGG40	SILICONE	80	PN6/10/16/ASA150	10	1	196,50
149G020787	GGG40	SILICONE	100	PN6/10/16/ASA150	10	1	275,90
149G020791	GGG40	SILICONE	125	PN6/10/16/ASA150	10	1	344,30
149G017229	GGG40	SILICONE	150	PN6/10/16/ASA150	10	1	415,70
149G020799	GGG40	SILICONE	200	PN6/10/16/ASA150	6	1	768,00
149G020803	GGG40	SILICONE	250	PN6/10/16/ASA150	6	1	1.315,20

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G022134	GGG40	SILICONE	50	PN 10/16	10	1	203,10
149G022138	GGG40	SILICONE	65	PN 10/16 4 HOLES	10	1	217,70
149G022142	GGG40	SILICONE	80	PN 10/16	10	1	246,60
149G022146	GGG40	SILICONE	100	PN 10/16	10	1	331,50
149G022150	GGG40	SILICONE	125	PN 10/16	10	1	406,90
149G014676	GGG40	SILICONE	150	PN 10/16	10	1	503,40
149G022173	GGG40	SILICONE	200	PN16	6	1	862,40
149G022177	GGG40	SILICONE	250	PN16	6	1	1.325,30
149G022158	GGG40	SILICONE	200	PN10	6	1	862,40
149G022162	GGG40	SILICONE	250	PN10	6	1	1.325,30

Dimensions on page 115

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve: FKM.
Max. temperature: +5°C / +180°C
Applications: Industrial fluids, acids, hydrocarbons.
A version with manual gearbox with handwheel is available to order.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G012052	GGG40	FKM.	32/40	PN6/10/16/ASA150	10	1	267,90
149G012054	GGG40	FKM.	50	PN6/10/16/ASA150	10	1	267,90
149G019277	GGG40	FKM.	65	PN6/10/16/ASA150	10	1	245,30
149G016085	GGG40	FKM.	80	PN6/10/16/ASA150	10	1	252,40
149G012063	GGG40	FKM.	100	PN6/10/16/ASA150	10	1	372,70
149G012066	GGG40	FKM.	125	PN6/10/16/ASA150	10	1	503,80
149G072719	GGG40	FKM.	150	PN6/10/16/ASA150	10	1	608,70
149G036556	GGG40	FKM.	200	PN6/10/16/ASA150	10	1	1.129,10

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G022188	GGG40	FKM.	32	PN 10/16	10	1	256,50
149G022192	GGG40	FKM.	40	PN 10/16	10	1	256,50
149G014686	GGG40	FKM.	50	PN 10/16	10	1	256,50
149G022200	GGG40	FKM.	65	PN 10/16 4 HOLES	10	1	262,20
149G022204	GGG40	FKM.	80	PN 10/16	10	1	294,80
149G059993	GGG40	FKM.	100	PN 10/16	10	1	432,60
149G014692	GGG40	FKM.	125	PN 10/16	10	1	573,40
149G073770	GGG40	FKM.	150	PN 10/16	10	1	681,80
149G046220	GGG40	FKM.	200	PN16	10	1	1.231,70
149G046219	GGG40	FKM.	200	PN10	10	1	1.231,70

Dimensions on page 115

Sylax 316 stainless steel butterfly valve

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve:
EPDM: temperature: -15°C / +120°C.
Body temperature: see page 88.
NITRILE: temperature: +5°C / +85°C.
Applications:
EPDM: potable water, general circuits and industrial processes, swimming pool water.
NITRILE: general and industrial circuits, hydrocarbons.
A version with manual gearbox with handwheel is available to order.
EPDM approvals: ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G016610	316 STAINLESS STEEL	EPDM	32/40	PN 10/16	16	1	493,00
149G012987	316 STAINLESS STEEL	EPDM	50	PN 10/16	16	1	493,00
149G012991	316 STAINLESS STEEL	EPDM	65	PN 10/16	16	1	581,70
149G012993	316 STAINLESS STEEL	EPDM	80	PN 10/16	16	1	700,60
149G012998	316 STAINLESS STEEL	EPDM	100	PN 10/16	16	1	753,70
149G015990	316 STAINLESS STEEL	EPDM	125	PN 10/16	16	1	940,70
149G013005	316 STAINLESS STEEL	EPDM	150	PN 10/16	16	1	1.054,50
149G013009	316 STAINLESS STEEL	EPDM	200	PN 10/16	16	1	1.805,70
149G018560	316 STAINLESS STEEL	NITRILE	32/40	PN 10/16	16	1	502,90
149G016818	316 STAINLESS STEEL	NITRILE	50	PN 10/16	16	1	502,90
149G016819	316 STAINLESS STEEL	NITRILE	65	PN 10/16	16	1	593,30
149G016820	316 STAINLESS STEEL	NITRILE	80	PN 10/16	16	1	714,60
149G016816	316 STAINLESS STEEL	NITRILE	100	PN 10/16	16	1	768,60
149G016821	316 STAINLESS STEEL	NITRILE	125	PN 10/16	16	1	959,60
149G016817	316 STAINLESS STEEL	NITRILE	150	PN 10/16	16	1	1.075,70
149G016822	316 STAINLESS STEEL	NITRILE	200	PN 10/16	16	1	1.841,80

Dimensions on page 115

For details regarding the pressure/temperature curve, see the technical data sheet.

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G020660	316 STAINLESS STEEL	EPDM	50	PN 10/16	16	1	684,80
149G020661	316 STAINLESS STEEL	EPDM	65	PN 10/16 8 HOLES	16	1	822,90
149G020662	316 STAINLESS STEEL	EPDM	80	PN 10/16	16	1	834,80
149G020663	316 STAINLESS STEEL	EPDM	100	PN 10/16	16	1	1.074,50
149G063722	316 STAINLESS STEEL	EPDM	125	PN 10/16	16	1	1.137,30
149G020665	316 STAINLESS STEEL	EPDM	150	PN 10/16	16	1	1.289,90
149G020666	316 STAINLESS STEEL	EPDM	200	PN16	16	1	2.749,10
149G041721	316 STAINLESS STEEL	EPDM	200	PN10	10	1	2.749,10
149G020669	316 STAINLESS STEEL	NITRILE	50	PN 10/16	16	1	698,40
149G020670	316 STAINLESS STEEL	NITRILE	65	PN 10/16 8 HOLES	16	1	839,40
149G020671	316 STAINLESS STEEL	NITRILE	80	PN 10/16	16	1	851,50
149G020672	316 STAINLESS STEEL	NITRILE	100	PN 10/16	16	1	1.095,90
149G020673	316 STAINLESS STEEL	NITRILE	125	PN 10/16	16	1	1.160,10
149G020674	316 STAINLESS STEEL	NITRILE	150	PN 10/16	16	1	1.355,10
149G020675	316 STAINLESS STEEL	NITRILE	200	PN16	16	1	2.888,10
149G041724	316 STAINLESS STEEL	NITRILE	200	PN10	10	1	2.888,10

Dimensions on page 115

EPOXY

Butterfly: epoxy-coated GGG40 cast iron.
EPDM sleeve.
Max. temperature: -15°C / +120°C.
Applications: heating and air conditioning.
Approvals: ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.
A version with manual gearbox with handwheel is available to order.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G097826	GGG40	EPDM	50	PN25	25	1	236,30
149G097827	GGG40	EPDM	65	PN25	25	1	333,30
149G097828	GGG40	EPDM	80	PN25	25	1	340,00
149G097829	GGG40	EPDM	100	PN25	25	1	371,40
149G097830	GGG40	EPDM	125	PN25	25	1	416,10
149G097831	GGG40	EPDM	150	PN25	25	1	544,30

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G097832	GGG40	EPDM	50	PN25	25	1	248,00
149G097833	GGG40	EPDM	65	PN25	25	1	350,00
149G097834	GGG40	EPDM	80	PN25	25	1	356,80
149G097835	GGG40	EPDM	100	PN25	25	1	389,40
149G097836	GGG40	EPDM	125	PN25	25	1	421,10
149G097837	GGG40	EPDM	150	PN25	25	1	571,20

Dimensions on page 115

STAINLESS STEEL

Butterfly: 316 stainless steel.
EPDM sleeve.
Max. temperature: -15°C / +120°C.
Applications: potable water, heating, air conditioning.
Approvals: ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.
A version with manual gearbox with handwheel is available to order.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G045555	GGG40	EPDM	50	PN25	25	1	276,60
149G045556	GGG40	EPDM	65	PN25	25	1	335,80
149G016813	GGG40	EPDM	80	PN25	25	1	350,40
149G027934	GGG40	EPDM	100	PN25	25	1	445,30
149G045557	GGG40	EPDM	125	PN25	25	1	585,40
149G044395	GGG40	EPDM	150	PN25	25	1	618,30

Dimensions on page 115

LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G045571	GGG40	EPDM	50	PN25	25	1	298,00
149G016079	GGG40	EPDM	65	PN25	25	1	369,90
149G093463	GGG40	EPDM	80	PN25	25	1	363,00
149G045572	GGG40	EPDM	100	PN25	25	1	464,10
149G045573	GGG40	EPDM	125	PN25	25	1	701,10
149G045574	GGG40	EPDM	150	PN25	25	1	718,90

Dimensions on page 115

Sylax butterfly valve with manual gearbox

EPOXY

Butterfly: epoxy coated GGG40 cast iron
Sleeve:
EPDM: temperature: -15°C / +120°C.
Body temperature: see page 88.
NITRILE: temperature: +5 °C to +85 °C.
Applications:
EPDM: potable water.
NITRILE: untreated water.
DN 350 to DN 1000 available to order.
EPDM approvals: ACS (Attestation de Conformité Sanitaire), KIWA UK, BELGAQUA, PED 2014/68/EU.

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G080113	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	231,60
149G080114	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	240,50
149G080115	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	249,70
149G079944	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	275,10
149G080049	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	292,30
149G080050	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	327,00
149G079466	GGG40	EPDM	200	PN 6/10/16/ASA 150	16	1	438,80
149G104295	GGG40	EPDM	250	PN 6/10/16/ASA 150	10	1	708,60
149G103544	GGG40	EPDM	300	PN 6/10/16/ASA 150	10	1	809,30
149G080117	GGG40	NITRILE	50	PN 6/10/16/ASA 150	16	1	236,10
149G080118	GGG40	NITRILE	65	PN 6/10/16/ASA 150	16	1	245,30
149G080119	GGG40	NITRILE	80	PN 6/10/16/ASA 150	16	1	254,70
149G080082	GGG40	NITRILE	100	PN 6/10/16/ASA 150	16	1	280,70
149G080083	GGG40	NITRILE	125	PN 6/10/16/ASA 150	16	1	298,00
149G080084	GGG40	NITRILE	150	PN 6/10/16/ASA 150	16	1	333,40
149G080085	GGG40	NITRILE	200	PN 6/10/16/ASA 150	16	1	447,50
149G080086	GGG40	NITRILE	250	PN 6/10/16/ASA 150	10	1	722,80
149G080087	GGG40	NITRILE	300	PN 6/10/16/ASA 150	10	1	825,60

Dimensions on page 116

LUG TYPE

From DN 350 to DN 600 available to order.

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G080122	GGG40	EPDM	50	PN 10/16	16	1	254,50
149G080123	GGG40	EPDM	65	PN 10/16 4 HOLES	16	1	265,10
149G080124	GGG40	EPDM	80	PN 10/16	16	1	289,30
149G080045	GGG40	EPDM	100	PN 10/16	16	1	321,00
149G080046	GGG40	EPDM	125	PN 10/16	16	1	387,40
149G080047	GGG40	EPDM	150	PN 10/16	16	1	390,80
149G080055	GGG40	EPDM	200	PN10	10	1	531,30
149G080056	GGG40	EPDM	250	PN10	10	1	855,70
149G080057	GGG40	EPDM	300	PN10	10	1	1.184,70
149G079184	GGG40	EPDM	200	PN16	16	1	531,30
149G103550	GGG40	EPDM	250	PN16	10	1	855,70
H000012	GGG40	EPDM	300	PN16	10	1	1.184,70
149G080125	GGG40	NITRILE	50	PN 10/16	16	1	267,50
149G080126	GGG40	NITRILE	65	PN 10/16 4 HOLES	16	1	278,40
149G080127	GGG40	NITRILE	80	PN 10/16	16	1	304,10
149G080092	GGG40	NITRILE	100	PN 10/16	16	1	337,50
149G080093	GGG40	NITRILE	125	PN 10/16	16	1	370,10
149G080094	GGG40	NITRILE	150	PN 10/16	16	1	398,70
149G080089	GGG40	NITRILE	200	PN10	10	1	558,10
149G103172	GGG40	NITRILE	250	PN10	10	1	898,80
149G080091	GGG40	NITRILE	300	PN10	10	1	1.131,50
149G080095	GGG40	NITRILE	200	PN16	16	1	558,10
149G080096	GGG40	NITRILE	250	PN16	10	1	898,80
149G080097	GGG40	NITRILE	300	PN16	10	1	1.131,50

Dimensions on page 116

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve:
EPDM: temperature: -15°C / +120°C.
Body temperature: see page 70.
NITRILE: temperature: +5°C / +85°C.
From DN 400 to DN 1000 available to order.
EPDM applications: potable water, heating, air conditioning.
NITRILE: general and industrial circuits, hydrocarbons, untreated water.
EPDM approvals: **ACS (Attestation de Conformité Sanitaire), KIWA UK, KIWA, BELGAQUA, PED 2014/68/EU.**

WAFER TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G080175	GGG40	EPDM	32/40	PN 6/10/16/ASA 150	16	1	242,50
149G079065	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	242,50
149G079400	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	245,70
149G079334	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	261,40
149G080139	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	294,70
149G079096	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	361,70
149G079311	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	390,80
149G079080	GGG40	EPDM	200	PN 6/10/16/ASA 150	16	1	635,20
149G103543	GGG40	EPDM	250	PN 6/10/16/ASA 150	10	1	1.006,10
149G103564	GGG40	EPDM	300	PN 6/10/16/ASA 150	10	1	1.247,20
149G079906	GGG40	EPDM	350	PN 6/10/16/ASA 150	16	1	2.108,30
149G080176	GGG40	NITRILE	32/40	PN 6/10/16/ASA 150	16	1	247,20
149G080177	GGG40	NITRILE	50	PN 6/10/16/ASA 150	16	1	247,20
149G080178	GGG40	NITRILE	65	PN 6/10/16/ASA 150	16	1	250,80
149G080179	GGG40	NITRILE	80	PN 6/10/16/ASA 150	16	1	266,60
149G079039	GGG40	NITRILE	100	PN 6/10/16/ASA 150	16	1	300,60
149G080140	GGG40	NITRILE	125	PN 6/10/16/ASA 150	16	1	335,30
149G079470	GGG40	NITRILE	150	PN 6/10/16/ASA 150	16	1	398,50
149G079099	GGG40	NITRILE	200	PN 6/10/16/ASA 150	16	1	648,00
149G080141	GGG40	NITRILE	250	PN 6/10/16/ASA 150	10	1	1.026,20
149G104291	GGG40	NITRILE	300	PN 6/10/16/ASA 150	10	1	1.272,30
149G080190	GGG40	NITRILE	350	PN 6/10/16/ASA 150	16	1	2.150,40

Dimensions on page 116

For details regarding the pressure/temperature curve, see the technical data sheet.

LUG TYPE WITH GGG40 BODY

From DN 350 to DN 600 available to order.

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G080182	GGG40	EPDM	32	PN 10/16	16	1	262,50
149G079643	GGG40	EPDM	40	PN 10/16	16	1	262,50
149G079357	GGG40	EPDM	50	PN 10/16	16	1	262,50
149G079156	GGG40	EPDM	65	PN 10/16 4 HOLES	16	1	270,20
149G079578	GGG40	EPDM	80	PN 10/16	16	1	301,10
149G079137	GGG40	EPDM	100	PN 10/16	16	1	341,00
149G079367	GGG40	EPDM	125	PN 10/16	16	1	427,10
149G079358	GGG40	EPDM	150	PN 10/16	16	1	443,00
149G079359	GGG40	EPDM	200	PN10	10	1	762,10
149G080143	GGG40	EPDM	250	PN10	10	1	1.162,50
149G097465	GGG40	EPDM	300	PN10	10	1	1.514,70
149G079423	GGG40	EPDM	200	PN16	16	1	941,10
149G103634	GGG40	EPDM	250	PN16	10	1	1.410,60
149G103633	GGG40	EPDM	300	PN16	10	1	1.862,30
149G080183	GGG40	NITRILE	32	PN 10/16	16	1	267,70
149G080184	GGG40	NITRILE	40	PN 10/16	16	1	267,70
149G080185	GGG40	NITRILE	50	PN 10/16	16	1	267,70
149G080186	GGG40	NITRILE	65	PN 10/16 4 HOLES	16	1	275,70
149G080187	GGG40	NITRILE	80	PN 10/16	16	1	307,10
149G080144	GGG40	NITRILE	100	PN 10/16	16	1	347,70
149G080145	GGG40	NITRILE	125	PN 10/16	16	1	396,00
149G091923	GGG40	NITRILE	150	PN 10/16	16	1	451,90
149G080147	GGG40	NITRILE	200	PN10	10	1	777,30
149G080148	GGG40	NITRILE	250	PN10	10	1	1.185,70
149G080149	GGG40	NITRILE	300	PN10	10	1	1.544,80
149G097321	GGG40	NITRILE	200	PN16	16	1	777,30
149G080151	GGG40	NITRILE	250	PN16	10	1	1.185,70
H000017	GGG40	NITRILE	300	PN16	10	1	1.544,80

Dimensions on page 116

Sylax CNPP butterfly valve

ISO PN16 valves for fire sprinkler systems. Red manual gearbox, yellow flag-type position indicator, locking system with chain/padlock (CNPP only) with integrated limit switch contacts.
CNPP approval No. YO/AL/12/037 dated 02/12/2003.
Available to order: 316 stainless steel - PS 20 bar version.

POLYAMIDE

SYLAX CNPP
Butterfly: polyamide-coated GGG40 cast iron.
Sleeve: EPDM: temperature -15 °C / +120 °C.
Body temperature: see page 88.
CNPP approved for fire-suppression systems.

CNPP WAFER TYPE

Wafer No.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
WITH LIMIT SWITCH CONTACTS							
149G029208	GGG40	EPDM	50	PN 6/10/16/ASA 150	16	1	424,60
149G029211	GGG40	EPDM	65	PN 6/10/16/ASA 150	16	1	433,00
149G029214	GGG40	EPDM	80	PN 6/10/16/ASA 150	16	1	433,00
149G028861	GGG40	EPDM	100	PN 6/10/16/ASA 150	16	1	477,80
149G029219	GGG40	EPDM	125	PN 6/10/16/ASA 150	16	1	487,20
149G028862	GGG40	EPDM	150	PN 6/10/16/ASA 150	16	1	531,50
149G029224	GGG40	EPDM	200	PN 6/10/16/ASA 150	16	1	761,00

Dimensions on page 116

CNPP LUG TYPE

Lug No.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
WITH LIMIT SWITCH CONTACTS							
149G097296	GGG40	EPDM	50	PN 10/16	16	1	442,40
149G064311	GGG40	EPDM	65	PN 10/16	16	1	452,70
149G097297	GGG40	EPDM	80	PN 10/16	16	1	456,30
149G097298	GGG40	EPDM	100	PN 10/16	16	1	511,40
149G097293	GGG40	EPDM	125	PN 10/16	16	1	521,80
149G044714	GGG40	EPDM	150	PN 10/16	16	1	570,10
149G095646	GGG40	EPDM	200	PN16	16	1	851,40

Butterfly valve for gases

POLYAMIDE

SYLAX GAS

Butterfly valve with 2-position lockable cast iron hand-lever and yellow cap.
Nitrile sleeve. Temperature: +5°C / 85°C.
Body temperature: see page 70.
Approvals: NF/ROB-GAZ.
Butterfly: GGG40 cast iron coated with polyamide or 316 stainless steel.

SYLAX GAS, LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G038777	GGG40	NITRILE	50	PN 10/16	6	1	143,10
149G032810	GGG40	NITRILE	65	PN 10/16	6	1	155,30
149G032812	GGG40	NITRILE	80	PN 10/16	6	1	180,80
149G089469	GGG40	NITRILE	100	PN 10/16	6	1	231,90
149G032816	GGG40	NITRILE	125	PN 10/16	6	1	312,00
149G032818	GGG40	NITRILE	150	PN 10/16	6	1	318,40
149G038781	GGG40	NITRILE	200	PN16	6	1	495,30
149G038782	GGG40	NITRILE	250	PN16	6	1	801,40
149G038779	GGG40	NITRILE	200	PN10	6	1	495,30

Also available in wafer version with manual gearbox.
Dimensions on page 115

STAINLESS STEEL

SYLAX GAS, LUG TYPE

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G038812	GGG40	NITRILE	40	PN 10/16	6	1	143,10
149G038813	GGG40	NITRILE	50	PN 10/16	6	1	150,80
149G038814	GGG40	NITRILE	65	PN 10/16	6	1	164,40
149G038815	GGG40	NITRILE	80	PN 10/16	6	1	188,80
149G038816	GGG40	NITRILE	100	PN 10/16	6	1	263,10
149G038817	GGG40	NITRILE	125	PN 10/16	6	1	376,20
149G038818	GGG40	NITRILE	150	PN 10/16	6	1	379,70
149G038821	GGG40	NITRILE	200	PN10	6	1	659,50
149G038819	GGG40	NITRILE	200	PN16	6	1	659,50

Also available in wafer version with manual gearbox.
Dimensions on page 115

Xylia2 butterfly valve

EPOXY

Butterfly: epoxy-coated GGG40 cast iron.
Sleeve: EPDM: max. temperature: -20 °C to +120 °C.
Applications: heating and air conditioning.

WAFER TYPE WITH CAST-IRON NOTCHED HAND-LEVER

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34923P	GGG40	EPDM	50	PN10/16	16	1	46,90
149G34924P	GGG40	EPDM	65	PN10/16	16	1	47,00
149G34925P	GGG40	EPDM	80	PN10/16	16	1	54,20
149G34926P	GGG40	EPDM	100	PN10/16	16	1	66,90
149G34927P	GGG40	EPDM	125	PN10/16	16	1	90,50
149G34928P	GGG40	EPDM	150	PN10/16	16	1	99,40
149G34979P	GGG40	EPDM	200	PN10/16	16	1	170,10

Dimensions on page 117

WAFER TYPE WITH MANUAL GEARBOX

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34923R	GGG40	EPDM	50	PN 10/16	16	1	170,40
149G34924R	GGG40	EPDM	65	PN 10/16	16	1	170,40
149G34925R	GGG40	EPDM	80	PN 10/16	16	1	180,40
149G34926R	GGG40	EPDM	100	PN 10/16	16	1	191,90
149G34927R	GGG40	EPDM	125	PN 10/16	16	1	240,90
149G34928R	GGG40	EPDM	150	PN 10/16	16	1	248,90
149G34929R	GGG40	EPDM	200	PN 10/16	16	1	284,10
149G34930R	GGG40	EPDM	250	PN 10/16	16	1	493,60
149G34931R	GGG40	EPDM	300	PN 10/16	16	1	623,20

Dimensions on page 117

LUG TYPE WITH CAST-IRON NOTCHED HAND-LEVER

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34933P	GGG40	EPDM	50	PN 10/16	16	1	54,20
149G34934P	GGG40	EPDM	65	PN 10/16	16	1	58,00
149G34935P	GGG40	EPDM	80	PN 10/16	16	1	61,60
149G34936P	GGG40	EPDM	100	PN 10/16	16	1	72,50
149G34937P	GGG40	EPDM	125	PN 10/16	16	1	101,50
149G34938P	GGG40	EPDM	150	PN 10/16	16	1	126,70
149G34989P	GGG40	EPDM	200	PN 16	16	1	262,70

Dimensions on page 117

LUG TYPE WITH MANUAL GEARBOX

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34933R	GGG40	EPDM	50	PN10/16	16	1	176,80
149G34934R	GGG40	EPDM	65	PN10/16	16	1	180,00
149G34935R	GGG40	EPDM	80	PN10/16	16	1	187,00
149G34936R	GGG40	EPDM	100	PN10/16	16	1	197,00
149G34937R	GGG40	EPDM	125	PN10/16	16	1	277,20
149G34938R	GGG40	EPDM	150	PN10/16	16	1	300,10
149G34939R	GGG40	EPDM	200	PN16	16	1	523,30
149G34940R	GGG40	EPDM	250	PN16	16	1	749,70
149G34941R	GGG40	EPDM	300	PN16	16	1	928,20

Dimensions on page 117

STAINLESS STEEL

Butterfly: 316 stainless steel.
Sleeve: EPDM: max. temperature: -20°C / +120°C.
Applications: heating and air conditioning.

WAFER TYPE WITH CAST-IRON NOTCHED HAND-LEVER

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G103281	GGG40	EPDM	40	PN 10/16	16	1	50,60
149G34903P	GGG40	EPDM	50	PN 10/16	16	1	50,60
149G34904P	GGG40	EPDM	65	PN 10/16	16	1	61,60
149G34905P	GGG40	EPDM	80	PN 10/16	16	1	68,90
149G34906P	GGG40	EPDM	100	PN 10/16	16	1	90,50
149G34907P	GGG40	EPDM	125	PN 10/16	16	1	126,70
149G34908P	GGG40	EPDM	150	PN 10/16	16	1	159,40
149G34949P	GGG40	EPDM	200	PN 10/16	16	1	283,20

Dimensions on page 117

WAFER TYPE WITH MANUAL GEARBOX

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34903R	GGG40	EPDM	50	PN 10/16	16	1	173,70
149G34904R	GGG40	EPDM	65	PN 10/16	16	1	179,90
149G34905R	GGG40	EPDM	80	PN 10/16	16	1	189,60
149G34906R	GGG40	EPDM	100	PN 10/16	16	1	209,00
149G34907R	GGG40	EPDM	125	PN 10/16	16	1	294,20
149G34908R	GGG40	EPDM	150	PN 10/16	16	1	329,60
149G34909R	GGG40	EPDM	200	PN 10/16	16	1	442,50
149G34910R	GGG40	EPDM	250	PN 10/16	16	1	906,80
149G34911R	GGG40	EPDM	300	PN 10/16	16	1	1.194,60

Dimensions on page 117

LUG TYPE WITH CAST-IRON NOTCHED HAND-LEVER

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G103282	GGG40	EPDM	40	PN 10/16	16	1	58,00
149G34913P	GGG40	EPDM	50	PN 10/16	16	1	58,00
149G34914P	GGG40	EPDM	65	PN 10/16	16	1	68,90
149G34915P	GGG40	EPDM	80	PN 10/16	16	1	76,10
149G34916P	GGG40	EPDM	100	PN 10/16	16	1	97,60
149G34917P	GGG40	EPDM	125	PN 10/16	16	1	137,50
149G34918P	GGG40	EPDM	150	PN 10/16	16	1	206,40
149G34969P	GGG40	EPDM	200	PN 16	16	1	338,80

Dimensions on page 117

LUG TYPE WITH MANUAL GEARBOX

Part no.	Body	Sleeve	DN mm	Fittings	PFA water	Package	€ each
149G34913R	GGG40	EPDM	50	PN10/16	16	1	180,00
149G34914R	GGG40	EPDM	65	PN10/16	16	1	189,60
149G34915R	GGG40	EPDM	80	PN10/16	16	1	200,20
149G34916R	GGG40	EPDM	100	PN10/16	16	1	219,70
149G34917R	GGG40	EPDM	125	PN10/16	16	1	310,00
149G34918R	GGG40	EPDM	150	PN10/16	16	1	364,90
149G34919R	GGG40	EPDM	200	PN16	16	1	682,40
149G34920R	GGG40	EPDM	250	PN16	16	1	1.170,00
149G34921R	GGG40	EPDM	300	PN16	16	1	1.544,90

Dimensions on page 117

TILIS

Butterfly valve for alimentary fluids, soft drinks, pharmaceutical fluids and medium corrosive chemicals.
EPR/PTFE sleeve: max. temperature -20°C / +150°C.
Wafer, lug, with lever and manual gearbox.
Available to order

LYCENE

Butterfly valve for corrosive fluids, alimentary fluids and high-purity processes.
SILICONE/PTFE sleeve: max. temperature -25°C / +200°C.
Wafer, lug, with lever and manual gearbox.
Available to order

EMARIS

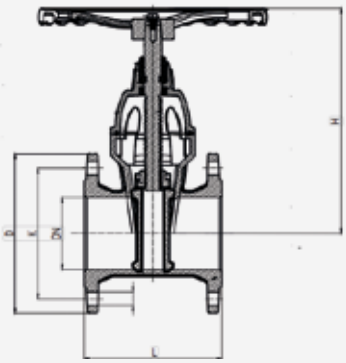
Butterfly valve for domestic heating, steam applications and industrial refrigeration.
PTFE/50% stainless steel seal: max. temperature - 50°C / +260°C.
Wafer, lug, with lever and manual gearbox.
Available to order

Motor-operated butterfly valves

Available to order: valves complete with 100-240V 50/60 Hz,100-350V DC, 15-30V AC 50/60 Hz, 12-48V DC electric motors or double-acting or single-acting pneumatic actuators and accessories.

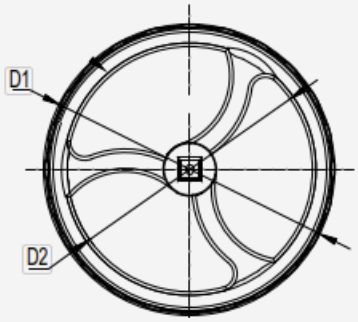
Overall dimensions

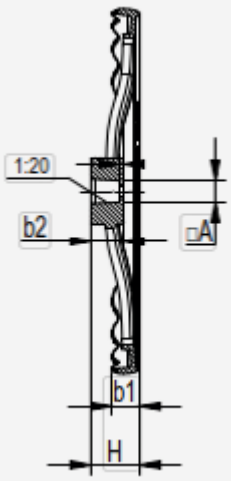
GATE VALVE E3243



DN	D	K	L	H
40	150	110	140	260
50	165	125	150	270
65	185	145	170	310
80	200	160	180	325
100	220	180	190	365
125	250	210	200	400
150	285	240	210	460
200	340	295	230	560
250	395	350	250	650
300	445	400	270	740

REPLACEMENT HANDWHEEL FOR GATE VALVE MODEL E3243

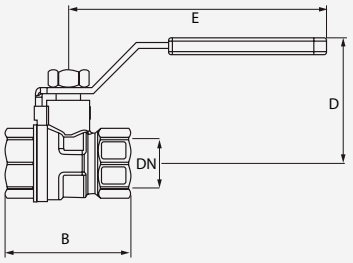




DN	D1	D2	A	H	b1	b2
40-50	200	160	14	30	20,4	18
65-80	200	214	17	38	20,3	26
100-125	254	214	19	38	20,3	26
150	350	265	19	41	23,3	28
200	350	265	24	41	23,3	28
250-300	500	346	27	45,3	22,8	30

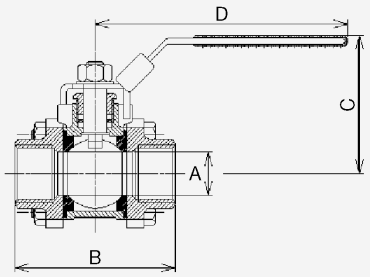
Overall dimensions

V3000



DN ”	DN mm	B mm	D mm	E mm
3/8	10	44	40	70
1/2	15	48	49	93
3/4	20	57	53	93
1	25	67	61	113
1 1/4	32	76	66	113
1 1/2	40	90	74	153
2	50	107	81	153
2 1/2	65	134	90	173
3	80	152	116	238
4	100	169	124	238

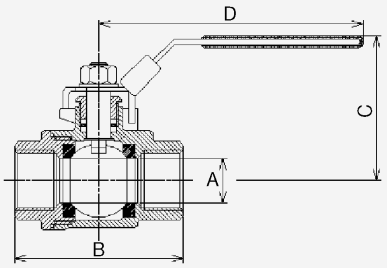
X3777



DN ”	DN mm	A mm	B mm	C mm	D mm
1/4	8	11	50	51	105
3/8	10	12,5	60	51	105
1/2	15	15	75	53	118
3/4	20	20	80	60	118
1	25	25	90	75	150
1 1/4	32	32	110	80	150
1 1/2	40	40	120	88	182
2	50	50	140	95	182
2 1/2	65	65	185	121	254
3	80	80	205	135	254
4	100	100	240	158	285

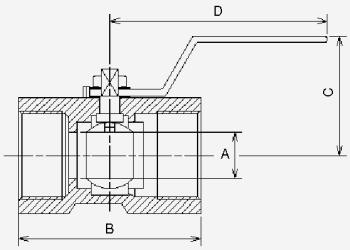
Overall dimensions

X2777



DN ”	DN mm	A mm	B mm	C mm	D mm
1/4	8	11,5	49	54	105
3/8	10	12,5	49	54	105
1/2	15	15	57	56	105
3/4	20	20	64	65	118
1	25	25	77	70	150
1 1/4	32	32	90	75	150
1 1/2	40	40	105	93	182
2	50	50	125	99	182
2 1/2	65	65	153	123	254
3	80	76	172	140	254
4	100	94	221	175	285

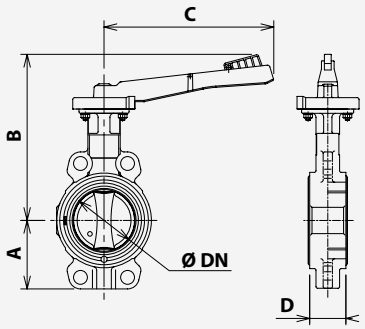
X1666



DN ”	DN mm	A mm	B mm	C mm	D mm
1/4	8	5	40	33	67
3/8	10	7	45	36	67
1/2	15	9	58	37	93
3/4	20	12,5	60	42	93
1	25	15	71	52	103
1 1/4	32	20	78	56	103
1 1/2	40	25	82	65	125
2	50	32	100	70	125

SYLAX COMPOSITE HAND-LEVER WAFER

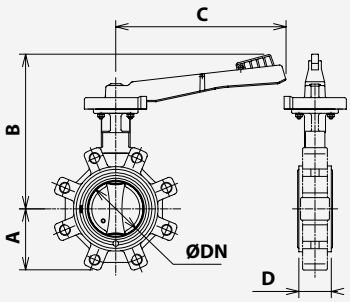
Butterfly: 316 stainless steel



DN	A	B	C	D
32	57	212	200	32
40	57	212	200	32
50	62	218	200	43
65	70	227	200	46
80	89	233	200	46
100	106	260	200	52
125	120	273	275	56
150	132	286	275	56

SYLAX COMPOSITE HAND-LEVER LUG

Butterfly: 316 stainless steel

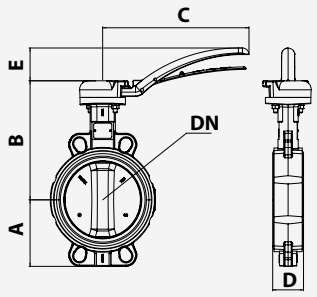


DN	A	B	C	D
32	57	212	200	32
40	57	212	200	32
50	62	218	200	43
65	70	227	200	46
80	89	233	200	46
100	106	260	200	52
125	120	273	275	56
150	132	286	275	56

Overall dimensions

SYLAX AND SYLAX GAS CAST IRON HAND-LEVER WAFER

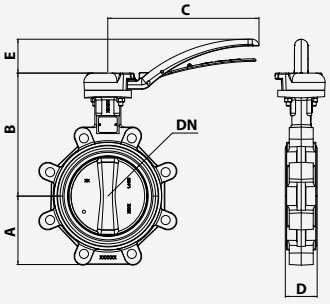
Butterfly: cast iron-316 stainless steel



DN	A	B	C	D	E
32/40	57	163	200	32	45
50	62	169	200	43	45
65	70	178	200	46	45
80	89	184	200	46	45
100	106	208	200	52	45
125	120	223	290	56	65
150	131	236	290	56	65
200	164	293	450	60	86
250	200	318	450	68	86

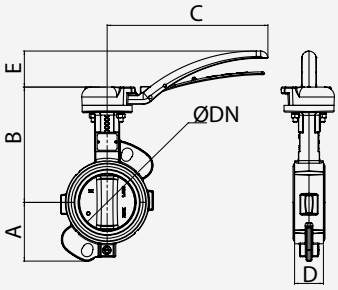
SYLAX AND SYLAX GAS CAST IRON HAND-LEVER LUG

Butterfly: cast iron-316 stainless steel



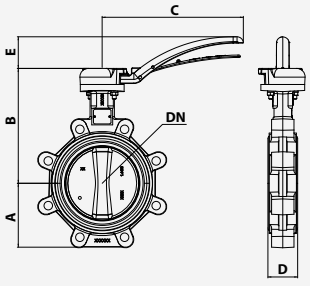
DN	A	B	C	D	E
32/40	57	163	200	32	45
50	62	169	200	43	45
65	70	178	200	46	45
80	89	184	200	46	45
100	106	208	200	52	45
125	120	223	290	56	65
150	131	236	290	56	65
200	164	293	450	60	86
250	200	318	450	68	86

SYLAX STAINLESS STEEL BODY CAST IRON HAND-LEVER WAFER



DN	A	B	C	D	E
32/40	57	163	200	32	45
50	62	169	200	43	45
65	70	178	200	46	45
80	89	184	200	46	45
100	106	208	200	52	45
125	120	223	290	56	65
150	131	236	290	56	65
200	164	293	450	60	86

SYLAX STAINLESS STEEL BODY CAST IRON HAND-LEVER LUG

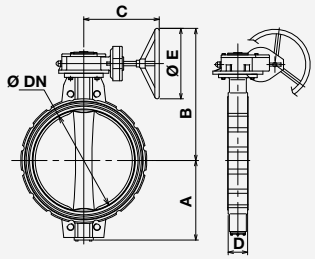


DN	A	B	C	D	E
32/40	57	163	200	32	45
50	62	169	200	43	45
65	70	178	200	46	45
80	89	184	200	46	45
100	106	208	200	52	45
125	120	223	290	56	65
150	131	236	290	56	65
200	164	293	450	60	86

Overall dimensions

SYLAX WITH MANUAL GEARBOX WAFER

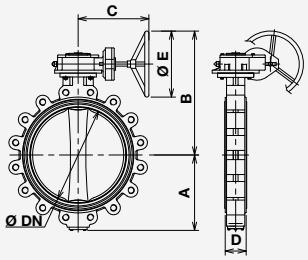
Butterfly: cast iron-316 stainless steel



DN	A	B	C	D	E
32/40	57	219,5	120	32	125
50	62	225,5	120	43	125
65	70	234,5	120	46	125
80	89	240,5	120	46	125
100	106	264,5	120	52	125
125	120	279,5	120	56	125
150	131	292,5	120	56	125
200	164	373,5	197	60	200
250	200	399	197	68	200
300	235	459	239	78	250
350	270	468	239	78	250

SYLAX WITH MANUAL GEARBOX LUG

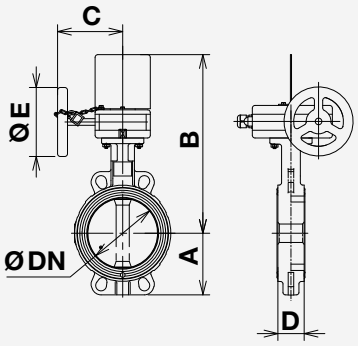
Butterfly: cast iron-316 stainless steel



DN	A	B	C	D	E
32	57	219,5	120	32	125
40	57	219,5	120	32	125
50	62	225,5	120	43	125
65	70	234,5	120	46	125
80	89	240,5	120	46	125
100	103	264,5	120	52	125
125	119	279,5	120	56	125
150	133	292,5	120	56	125
200	168	373,5	197	60	200
250	198	399	197	68	200
300	227	459	239	78	250

SYLAX CNPP WAFER

Butterfly: cast iron

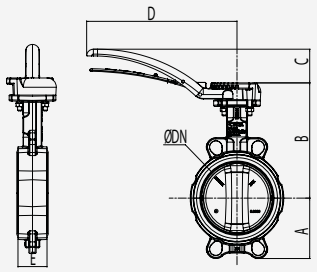


DN	A	B	C	D	E
50	62	294	118	43	125
65	70	303	118	46	125
80	89	309	118	46	125
100	106	333	118	52	125
125	120	348	118	56	125
150	132	361	118	56	125
200	164	419	205	60	200

Overall dimensions

XYLIA2 CAST IRON HAND-LEVER WAFER

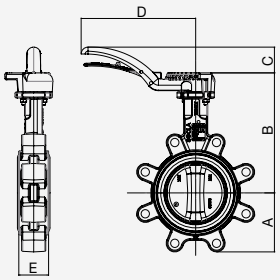
Butterfly: cast iron-316 stainless steel



DN	A	B	C	D	E
50	62	136	71,2	218	43
65	70	145	71,2	218	46
80	89	151	71,2	218	46
100	106	170	71,2	218	52
125	119	190	71,2	304	56
150	131	203	71,2	304	56
200	164	245.5	85	388	60

XYLIA2 CAST IRON HAND-LEVER LUG

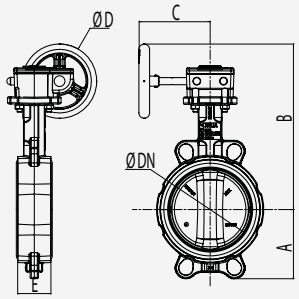
Butterfly: cast iron-316 stainless steel



DN	A	B	C	D	E
50	62	136	71,2	218	43
65	70	145	71,2	218	46
80	89	151	71,2	218	46
100	106	170	71,2	218	52
125	119	190	71,2	304	56
150	131	203	71,2	304	56
200	164	245,5	85	388	60

XYLIA2 MANUAL GEARBOX WAFER

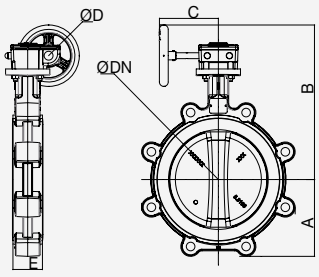
Butterfly: cast iron-316 stainless steel



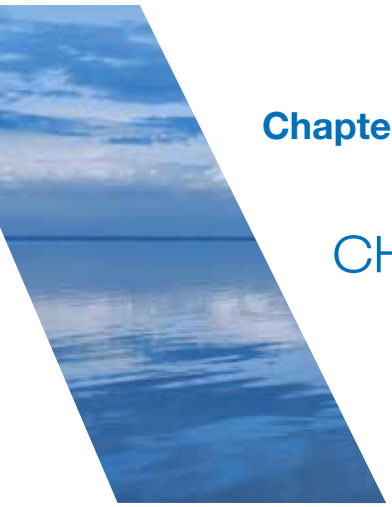
DN	A	B	C	D
50	62	196,5	142	43
65	70	205,5	142	46
80	89	211,5	142	46
100	106	230,5	142	52
125	119	250,5	142	56
150	131	263,5	142	56
200	164	317,5	258	60
250	199	343	258	68
300	230	375	258	78

XYLIA2 MANUAL GEARBOX LUG

Butterfly: cast iron-316 stainless steel



DN	A	B	C	D
50	62	196,5	142	43
65	70	205,5	142	46
80	89	211,5	142	46
100	106	230,5	142	52
125	119	250,5	142	56
150	131	263,5	142	56
200	164	317,5	258	60
250	199	343	258	68
300	230	375	258	78



Chapter 3.2

CHECK VALVES

Range of check valves/applications

THERE IS NO SUCH THING AS UNIVERSAL VALVE!
The table below provides the key parameters for selecting the right valve for your installation and use requirements.

APPLICATIONS	BUILDING DISTRIBUTION PROTECTION HEATING INDUSTRY	STORAGE PUMPING DISTRIBUTION WATER SUPPLY TREATMENT OVERPRESSURE	DISTRIBUTION PROTECTION	WATER SUPPLY TREATMENT AGRICULTURE INDUSTRY	DISTRIBUTION AGRICULTURE INDUSTRY	CONDITIONING WATER SUPPLY DISTRIBUTION	PUMPING CONDITIONING AGRICULTURE	STORAGE DISTRIBUTION OVERPRESSURE INDUSTRY	BUILDING PUMPING DISTRIBUTION HEATING INDUSTRY	BUILDING HEATING INDUSTRIES
	01	**02**	**03/03HP**	**05 Dual plate**	**05 Single plate**	**05 Flanged**	**B**	**M**	**TJO / 04**	**W**
CHECKING MECHANISM										
NATURE OF FLUID CLEAR	●	●	●	●	●	●		●	●	●
PARTICLE-LOADED						●	●			
GAS	●	●	●	●				●		●
STEAM										●
AGGRESSIVE		●		●		●	●		●	
FOOD	●	●	●			●		●		●
OPERATING POSITION										
T°C	60/80	80/140	80/90 110/230	100/130	110/180	70	60/150	60/100	60/80	100/350
PFA (PS according to PED)	10	16/25/40	16	16/25	16	16	10	6 (MI) 16/25 (M)	10	16/40
FITTINGS THREADED	1/4" to 2 1/2"	2"1/4" to 8"	1/2" to 2"	-	-	-	1" to 3"	3/4" to 4"	1/4" to 2"	1/2" to 2"
FLANGED	-	40-500 mm	40 - 250 mm	-	-	65-300 mm	50-350 mm	40-200 mm	-	-
OTHER	-	-	-	Between flanges 50-600 mm	Between flanges 40-600 mm	-	-	-	-	Between flanges 15-200 mm

System 01 - Brass/plastic check valves

601

Body: brass. Disc: POM (polyacetal). Guide: POM (polyacetal).
Spring: stainless steel. Seal: NBR.
Max. temperature: 80°C.
Applications: construction, industry, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B2503	-	3/8"	FF	10	10	16,60
149B2504	-	1/2"	FF	10	10	17,30
149B2505	-	3/4"	FF	10	10	20,90
149B2506	-	1"	FF	10	10	26,00
149B2507	-	1 1/4"	FF	10	8	38,00
149B2508	-	1 1/2"	FF	10	6	50,60
149B2509	-	2"	FF	10	6	77,90

Dimensions on page 135

601V

Body: brass. Disc: POM (polyacetal) or PPO (polyphenylene oxide).
Guide: POM (polyacetal)/PA. Spring: stainless steel.
Seal: fluoroelastomer.
Max. temperature: 80°C.
Applications: heating, circulator pumps, pumping (diesel), industry.
Approvals: Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B2447	-	3/8"	FF	10	10	16,60
149B2448	-	1/2"	FF	10	10	17,30
149B2450	-	1"	FF	10	10	32,40

Other models available to order:
601 P: PVC body - FF glue-on connection
281 P: MF fitting
211: compression fittings

Dimensions on page 135

System TJO+FL+04

290

Body: brass. Disc: DN1/4”- 1/2”, PA (polyamide), DN3/4” - 2”, POM (polyacetal).
Seal: EPDM O-Ring. Spring: stainless steel. Max. temperature: 80°C.
Applications: construction, distribution, domestic pumping, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3118	-	1/4	FF	10	10	43,30
149B3119	-	3/8	FF	10	10	40,60
149B3120	-	1/2	FF	10	10	42,70
149B3121	-	3/4	FF	10	10	54,20
149B3122	-	1	FF	10	10	68,10
149B3123	-	1 1/4	FF	10	10	96,20
149B3124	-	1 1/2	FF	10	6	130,10
149B3125	-	2	FF	10	6	198,00

Other models available to order: **290X**: made entirely of 304 stainless steel.
Dimensions on page 139

290D

Body: POM (polyacetal). Disc: DN3/8”-1/2”, PA (polyamide), DN3/4”-1”: POM (polyacetal).
Seal: EPDM O-Ring. Spring: stainless steel. Max. temperature: 80°C.
Applications: construction, distribution, domestic pumping, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3319	-	3/8	FF	10	10	20,40
149B3320	-	1/2	FF	10	10	21,10
149B3321	-	3/4	FF	10	10	21,90
149B3322	-	1	FF	10	10	33,10

Other models available to order: **290P**: polypropylene body and fluoroelastomer O-Ring.
Dimensions on page 139

297

Body: brass. Disc: DN1/4”-1/2”, PA (polyamide), DN3/4”-2”: POM (polyacetal).
Seal: fluoroelastomer O-ring. Spring: stainless steel. Max. temperature: 80°C.
Applications: heating, pumping (diesel), circulator pumps.
Approvals: Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3168	-	1/4	FF	10	10	64,80
149B3159	-	3/8	FF	10	10	59,80
149B3160	-	1/2	FF	10	10	65,70
149B3161	-	3/4	FF	10	10	78,40
149B3162	-	1	FF	10	10	98,50
149B3163	-	1 1/4	FF	10	10	139,30
149B3164	-	1 1/2	FF	10	6	187,80
149B3165	-	2	FF	10	6	285,90

Dimensions on page 139

297D

Body: POM (polyacetal). Disc: DN1/4”-1/2”, PA (polyamide), DN3/4”-2”: POM (polyacetal).
Seal: fluoroelastomer O-ring. Spring: stainless steel. Max. temperature: 80°C.
Applications: heating, pumping (diesel), circulator pumps.
Approvals: Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3359	-	3/8	FF	10	10	29,30
149B3360	-	1/2	FF	10	10	30,30
149B3361	-	3/4	FF	10	10	31,70
149B3362	-	1	FF	10	10	42,30

Dimensions on page 139

System 02 - Cast iron check valves

462

Body with integrated single-arm guide: epoxy-coated GG25 cast iron. Face-to-face dimensions to EN558-1 Series 14. Seal: EPDM. Disc: brass. Ring + Stem: bronze.
Spring: stainless steel. Max. temperature: 100°C. Operates in all positions.
Applications: supply, distribution circuits, pumping, industry, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3751	50	2	10/16	16	1	159,50
149B3752	65	2 1/2	10/16	16	1	159,50
149B3753	80	3	10/16	16	1	238,90
149B3754	100	4	10/16	16	1	332,50
149B3755	125	5	10/16	16	1	571,50
149B3756	150	6	10/16	16	1	716,70
149B3757	200	8	10	10	1	1.142,80

Dimensions on page 135

402/202

Body: epoxy-coated GG25 cast iron, 2 undrilled bosses. Seal: EPDM.
Spring: stainless steel.
Applications: supply, distribution circuits, pumping, industry, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.
Other approvals available.

Type 402 flanged: Disc: DN 40: brass, DN 50 and 65: bronze, other DNs: cast iron with bronze / stainless steel stem. Guide: DN 50: brass, other DNs: cast iron with bronze ring.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B2281	40	1 1/2	10/16	16	1	154,20
149B2282	50	2	10/16	16	1	172,00
149B2283	65	2 1/2	10/16	16	1	172,00
149B2284	80	3	10/16	16	1	257,80
149B2285	100	4	10/16	16	1	358,50
149B2226	125	5	10/16	16	1	616,50
149B2227	150	6	10/16	16	1	773,10
149B2229	200	8	10	10	1	1.232,70
149B2230	250	10	10	10	1	1.824,60
149B2231	300	12	10	10	1	2.732,00
149B002849	200	8	16	10	1	1.221,50
149B002851	250	10	16	10	1	1.807,90
149B002853	300	12	16	10	1	2.706,90

Other models available to order:
402B: 2 drilled threaded bosses with plugs - **402S**: with PN25-40 flanges- **402X**: with stainless steel body
402Z: with bronze body - **402WG**: 250 micron epoxy coating

Dimensions on page 135

Type 202 threaded: Disc: DN 2"1/2 and 3": bronze, DN 4": cast iron with bronze stem.
Guide: DN 2"1/2: bronze, other DNs: cast iron with bronze ring. Operates in all positions.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B2286	65	2 1/2	FF	16	1	190,30
149B2287	80	3	FF	16	1	294,30
149B2288	100	4	FF	16	1	472,90

Other models available to order:
202B: 2 drilled threaded bosses with plugs - **202Z**: made entirely of bronze - **202RR:** Rilsan coating
202V: with fluoroelastomer seal - **212:** male/female.

Dimensions on page 135

402V

Seal: FKM fluoroelastomer.
Other features: see model 402.
Applications: Supply, pumping, general industrial circuits, hydrocarbons.
Approvals: Bureau Veritas, PED 2014/68/EU.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B2281V	40	1 1/2	10/16	16	1	206,30
149B2346	50	2	10/16	16	1	230,30
149B2347	65	2 1/2	10/16	16	1	230,30
149B2348	80	3	10/16	16	1	345,00
149B2349	100	4	10/16	16	1	480,10
149B2226V	125	5	10/16	16	1	825,40
149B2227V	150	6	10/16	16	1	1.035,20
149B2229V	200	8	10	10	1	1.650,70
149B2230V	250	10	10	10	1	2.443,10

Dimensions on page 136

882

Body: Epoxy-coated GGG40 cast iron. Bronze disc (DN65), cast iron disc (DN 80 to DN 250).
Cast iron guide with bronze ring. Seal: EPDM
Max. temperature: 100°C
Applications: pumping, supply, pressure relief units, industry, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas, PED 2014/68/EU.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3040	65	2 1/2	PN10-16-25-40-ASA150	40	1	222,90
149B3041	80	3	PN10-16-25-40-ASA150	40	1	394,90
149B3042	100	4	PN10-16-25-40-ASA150	40	1	356,70
149B3043	125	5	PN10-16-25-40-ASA150	40	1	584,50
149B3044	150	6	PN10-16-25-40-ASA150	40	1	727,10
149B3045	200	8	PN10-16-ASA150	16	1	1.293,10
149B007936	200	8	PN25	25	1	1.293,10
149B007937	200	8	PN40	40	1	1.293,10
149B3046	250	10	PN40	40	1	1.806,10
149B007938	250	10	PN25	25	1	1.806,10

Dimensions on page 140

System 05 - Cast iron check valves with two plates between flanges

895

Body: epoxy-coated GG25 cast iron (DN50 to DN150), epoxy-coated GGG40 cast iron (DN200 to DN400). Plates: 304 stainless steel. Seal: EPDM.
Spring: stainless steel. Max. temperature: 100°C.
Applications: pumping, supply, general industrial circuits, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3000	50	2	10/16	16	1	115,60
149B3001	65	2 1/2	10/16	16	1	120,50
149B3002	80	3	10/16	16	1	125,90
149B3003	100	4	10/16/ASA150	16	1	159,90
149B3004	125	5	10/16/ASA150	16	1	220,20
149B3005	150	6	10/16/ASA150	16	1	235,60
149B3006	200	8	10/16/ASA150	16	1	432,30
149B3007	250	10	10/16/ASA150	16	1	733,20
149B3008	300	12	10/16/ASA150	16	1	1.060,50
149B3010	400	16	10/16/ASA150	16	1	3.382,20

Other models available to order:
825: made entirely of 316 stainless steel (from 50mm to 350mm).
Dimensions on page 136

895V

Seal: FKM fluoroelastomer.
Other features: see model 895.
Applications: Pumping, supply, general industrial circuits, hydrocarbons.
Approvals: Bureau Veritas, PED 2014/68/EU.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3000V	50	2	10/16	16	1	153,00
149B3001V	65	2 1/2	10/16	16	1	159,80
149B3002V	80	3	10/16	16	1	166,80
149B3003V	100	4	10/16/ASA150	16	1	211,90
149B3004V	125	5	10/16/ASA150	16	1	291,60
149B3005V	150	6	10/16/ASA150	16	1	312,40
149B3006V	200	8	10/16/ASA150	16	1	572,70
149B3007V	250	10	10/16/ASA150	16	1	971,90
149B3008V	300	12	10/16/ASA150	16	1	1.351,40

Dimensions on page 136

805

Body: GG25 cast iron with epoxy coating, except for DN 200,250,300,400: GGG40 cast iron with epoxy coating. Plates: aluminium bronze. Seal: EPDM (DN50 to DN300 + DN400), NITRILE (DN 350 and DN 450 to DN600). Spring: stainless steel.
Max. temperature EPDM: 100°C, NITRILE: 80°C
Applications: pumping, supply, general industrial circuits.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3270	50	2	10/16	16	1	140,30
149B3271	65	2 1/2	10/16	16	1	147,40
149B3272	80	3	10/16	16	1	153,20
149B3273	100	4	10/16/ASA150	16	1	205,20
149B3274	125	5	10/16/ASA150	16	1	300,10
149B3275	150	6	10/16/ASA150	16	1	333,20
149B3276	200	8	10/16/ASA150	16	1	694,60
149B3277	250	10	10/16/ASA150	16	1	1.077,70
149B3278	300	12	10/16/ASA150	16	1	1.669,70
149B2590	350	14	10/16/ASA150	16	1	3.300,30
149B3330	400	16	10/16/ASA150	16	1	AVAILABLE TO ORDER
149B2592	450	18	10/16/ASA150	16	1	AVAILABLE TO ORDER
149B2593	500	20	10/16/ASA150	16	1	AVAILABLE TO ORDER
149B2594	600	24	10/16/ASA150	16	1	AVAILABLE TO ORDER

Dimensions on page 140

815

Body: GGG40 cast iron. Epoxy. Plates: DN50>DN300+DN400: 304 stainless steel - DN350+DN450>DN600 aluminium bronze.
Seal: DN50>DN300+DN400: EPDM - DN350+DN450>DN600 NBR. Spring: stainless steel.
Max. temperature: EPDM 100°C – NBR 80°C. Maximum pressure: 25 bar.
Applications: pumping, supply, general industrial circuits.
Approvals: Bureau Veritas, PED 2014/68/EU, ACS for DN50>DN300+DN400.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3290	50	2	25	25	1	147,40
149B3291	65	2 1/2	25	25	1	150,70
149B3292	80	3	25	25	1	172,90
149B3293	100	4	25	25	1	247,20
149B3294	125	5	25	25	1	336,80
149B3295	150	6	25	25	1	369,40
149B3296	200	8	25	25	1	670,00
149B3297	250	10	25	25	1	1.054,80
149B3298	300	12	25	25	1	1.469,20
149B2650	350	14	25	25	1	AVAILABLE TO ORDER
149B3340	400	16	25	25	1	AVAILABLE TO ORDER
149B2652	450	18	25	25	1	AVAILABLE TO ORDER
149B2653	500	20	25	25	1	AVAILABLE TO ORDER
149B2654	600	24	25	25	1	AVAILABLE TO ORDER

Dimensions on page 140

System 05 - Check valves with one plate between flanges

635E

Body and plate: steel with cataphoretic coating. Seal: EPDM on seat.
Max. temperature: 110°C.
Applications: general circuits, pumping, distribution, supply.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149G3550	40	-	10/16	16	1	118,40
149G3551	50	-	10/16	16	1	126,80
149G3552	65	-	10/16	16	1	142,60
149F021283	80	-	10/16/ASA150	16	1	149,00
149F021284	100	-	10/16/ASA150	16	1	175,50
149F021285	125	-	10/16/ASA150	16	1	221,70
149F021286	150	-	10/16/ASA150	16	1	327,10
149F021287	200	-	10/16/ASA150	10	1	550,80
149F021288	250	-	10/16/ASA150	10	1	818,30
149F021289	300	-	10/16/ASA150	10	1	1.168,70

Dimensions on page 137

635V

Body and plate: steel with cataphoretic coating. Seal: FKM.
Max. temperature: 150°C.
Applications: general and industrial circuits, hydrocarbons.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149F021308	40	-	10/16	16	1	123,60
149F021309	50	-	10/16	16	1	133,00
149F021310	65	-	10/16	16	1	149,60
149F021311	80	-	10/16/ASA150	16	1	166,30
149F021312	100	-	10/16/ASA150	16	1	185,50
149F021313	125	-	10/16/ASA150	16	1	235,40
149F021314	150	-	10/16/ASA150	16	1	338,80
149F021315	200	-	10/16/ASA150	10	1	567,90
149F021316	250	-	10/16/ASA150	10	1	871,70
149F021317	300	-	10/16/ASA150	10	1	1.225,40

Dimensions on page 137

627E

Body and plate: 316 stainless steel. Seal: EPDM on seat.
Max. temperature: 110°C
Applications: general and industrial circuits, pumping.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas, PED 2014/68/EU.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149G3560	40	-	10/16	16	1	135,80
149G3561	50	-	10/16	16	1	148,50
149G3562	65	-	10/16	16	1	179,70
149F021290	80	-	10/16/ASA150	16	1	201,00
149F021292	100	-	10/16/ASA150	16	1	230,00
149F021293	125	-	10/16/ASA150	16	1	321,50
149F021294	150	-	10/16/ASA150	16	1	438,40
149F021295	200	-	10/16/ASA150	10	1	781,70
149F021296	250	-	10/16/ASA150	10	1	1.265,30
149F021297	300	-	10/16/ASA150	10	1	1.829,50

Dimensions on page 137

627V

Body and plate: 316 stainless steel. Seal: FKM.
Max. temperature: 150°C
Applications: general and industrial circuits, hydrocarbons.
Approvals: Bureau Veritas, PED 2014/68/EU.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149F021226	40	-	10/16	16	1	140,10
149F021227	50	-	10/16	16	1	153,80
149F021228	65	-	10/16	16	1	185,80
149F021318	80	-	10/16/ASA150	16	1	215,70
149F021319	100	-	10/16/ASA150	16	1	238,30
149F021320	125	-	10/16/ASA150	16	1	333,20
149F021321	150	-	10/16/ASA150	16	1	448,10
149F021322	200	-	10/16/ASA150	10	1	796,20
149F021323	250	-	10/16/ASA150	10	1	1.310,70
149F021324	300	-	10/16/ASA150	10	1	1.877,60

Dimensions on page 137

System 05 - Cast iron check valves with one plate between flanges, inspectable

405

Body: GGG40 cast iron with internal/external epoxy coating. Plate: GGG40 cast iron coated with NBR coating.
Options: plate lifting system. Max. temperature: 70°C.
Applications: clear water, waste water, supply, distribution, pumping.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3459	40	-	10/16	16	1	225,60
149B3460	50	-	10/16	16	1	225,60
149B3461	65	-	10/16	16	1	232,20
149B3462	80	-	10/16	16	1	251,70
149B3463	100	-	10/16	16	1	373,00
149B3464	125	-	10/16	16	1	448,80
149B3465	150	-	10/16	16	1	649,50
149B3466	200	-	10	10	1	978,20
149B3467	250	-	10	10	1	2.844,10
149B3468	300	-	10	10	1	3.415,40
149B028887	200		16	10	1	978,20
149B22072	250		16	10	1	3.575,50
149B24992	300	-	16	10	1	4.122,30

Dimensions on page 137

System W - Wafer check valves

802

Body: DN 32 to 50: DZR brass; DN 65 to 100: GG25 cast iron with external epoxy coating; DN 125 to 200: GGG40 cast iron with external epoxy coating. Disc: 316L stainless steel. DN 125 to 200: cast iron disc assembly. Guide: austenitic steel. Spring: austenitic steel.
DN32 to DN50 max temperature: 200°C; DN65 to DN200 max temperature: 100°C.
Applications: heating, industrial circuits, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	Between flanges	PFA water	Package	€ each
149B2413	32	1 1/4	PN6-10-16-ASA150	16	1	94,60
149B2414	40	1 1/2	PN6-10-16-ASA150	16	1	95,90
149B2415	50	2	PN6-10-16-ASA150	16	1	98,50
149B2416	65	2 1/2	PN6-10-16-ASA150	16	1	133,80
149B2417	80	3	PN6-10-16-ASA150	16	1	187,80
149B2418	100	4	PN6-10-16-ASA150	16	1	267,50
149B2439	125	5	PN10-16-ASA150	16	1	450,50
149B2440	150	6	PN10-16-ASA150	16	1	616,50
149B2441	200	8	PN10-16-ASA150	16	1	1.035,90

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812

Body: stainless steel (304); DN80-100 (316L). Mounting between flanges with centring collar.
Disc: 316L stainless steel for DN 15-100; 304 stainless steel for larger diameters.
Guide: stainless steel DN15 (316L)/DN20-100 (304L), DN125-150 (316L)/DN200 (304)
Spring: stainless steel. Max. temperature: 350°C.
Applications: industry, corrosive products, high pressure and high temperature, potable water.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	Between flanges	PFA water	Package	€ each
149B2422	25	1	PN6-10-16-25-40-ASA150-ASA300	40	1	74,80
149B2423	32	1 1/4	PN6-10-16-25-40-ASA150-ASA300	40	1	96,60
149B2424	40	1 1/2	PN6-10-16-25-40-ASA150-ASA300	40	1	101,90
149B2425	50	2	PN6-10-16-25-40-ASA150-ASA300	40	1	128,30
149B2426	65	2 1/2	PN6-10-16-25-40-ASA150-ASA300	40	1	199,30
149B2427	80	3	PN6-10-16-25-40-ASA150-ASA300	40	1	374,00
149B2428	100	4	PN6-10-16-25-40-ASA150-ASA300	40	1	470,60
149B2429	125	5	PN10-16-25-40-ASA150-ASA300	40	1	961,00
149B2430	150	6	PN10-16-25-40-ASA150-ASA300	40	1	1.379,90
149B2431	200	8	PN6-10-16-ASA150	16	1	2.211,20
149B2432	200	8	PN25-40-ASA300	40	1	AVAILABLE TO ORDER

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812X

Same characteristics as 812 but made entirely of 316L stainless steel.

Part no.	DN mm	DN"	Between flanges	PFA water	Package	€ each
149B2420X	15	1/2	PN6-10-16-25-40-ASA150-ASA300	40	1	93,30
149B2421X	20	3/4	PN6-10-16-25-40-ASA150-ASA300	40	1	117,70
149B2422X	25	1	PN6-10-16-25-40-ASA150-ASA300	40	1	121,10
149B2423X	32	1 1/4	PN6-10-16-25-40-ASA150-ASA300	40	1	134,60
149B2424X	40	1 1/2	PN6-10-16-25-40-ASA150-ASA300	40	1	138,50
149B2425X	50	2	PN6-10-16-25-40-ASA150-ASA300	40	1	186,70
149B2426X	65	2 1/2	PN6-10-16-25-40-ASA150-ASA300	40	1	230,00
149B2427X	80	3	PN6-10-16-25-40-ASA150-ASA300	40	1	388,90
149B2428X	100	4	PN6-10-16-25-40-ASA150-ASA300	40	1	483,00
149B2429X	125	5	PN10-16-25-40-ASA150-ASA300	40	1	1.094,90
149B2430X	150	6	PN10-16-25-40-ASA150-ASA300	40	1	1.479,50
149B2431X	200	8	PN6-10-16-ASA150	16	1	2.645,60
149B2432X	200	8	PN25-40-ASA300	40	1	2.829,60

Dimensions on page 139

System M - Diaphragm check valves

407

Body: GG25 cast iron with epoxy coating. Seat: DN40-80: stainless steel; DN100-200: polyamide-coated steel. Diaphragm: NR (natural rubber). Seal: EPDM. Max. temperature: 60°C.
Application: compressed air circuits, vacuum pumps.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B2164	40	1 1/2	10/16	16	1	512,90
149B2165	50	2	10/16	16	1	605,60
149B2166	65	2 1/2	10/16	16	1	765,30
149B2167	80	3	10/16	16	1	1.043,30
149B2168	100	4	10/16	16	1	1.341,10
149B2169	125	5	10/16	16	1	1.702,10
149B2170	150	6	10/16	16	1	2.562,30
149B2237	200	8	10	10	1	3.530,90
149B1536	200	8	16	10	1	3.429,80

Other models available to order:
407V: with fluoroelastomer seal - **407B**: with 2 threaded bosses and plugs - **417**: with PN25 flanges.
427 with EPDM membrane approved for drinking water.

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207

Body: Epoxy-coated GG25 cast iron. Seat: stainless steel. Seal: EPDM. Diaphragm: NR (natural rubber). Max. temperature 60°C.
Application: compressed air circuits, vacuum pumps.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B2100	-	1/2	FF	16	1	100,00
149B2101	-	3/4	FF	16	1	100,00
149B2102	-	1	FF	16	1	115,50
149B2103	-	1 1/4	FF	16	1	138,40
149B2104	-	1 1/2	FF	16	1	173,70
149B2105	-	2	FF	16	1	250,50
149B2106	-	2 1/2	FF	16	1	473,90
149B2107	-	3	FF	16	1	800,30

Other models available to order: **207V**: with fluoroelastomer seal.
217 with EPDM membrane approved for drinking water.

Dimensions on page 138

System B - Ball check valves

418/408

Body: **418**: GGG40 cast iron with epoxy coating; **408**: GGG40 cast iron body with epoxy coating. Length to EN558-1 Series 48. Seal: NBR. Ball: NBR-coated aluminium (DN50 to 100), NBR-coated cast iron (larger DNs). Max. temperature: 80°C. Operates with ascending vertical or horizontal flow. Applications: waste water, slurry, viscous liquids, sanitation.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B3140	50	2	10/16	10	1	128,60
149B3141	65	2 1/2	10/16	10	1	177,70
149B3142	80	3	10/16	10	1	216,10
149B3143	100	4	10/16	10	1	300,70
149B3144	125	5	10/16	10	1	451,10
149B3145	150	6	10/16	10	1	530,20
149B3146	200	8	10	10	1	1.030,80
149B2907	250	10	10	10	1	2.679,40
149B2908	300	12	10	10	1	4.647,80
149B15473	200	8	16	10	1	1.149,70
149B14908	250	10	16	10	1	2.654,80
149B99279	300	12	16	10	1	4.604,50

Other models available to order: **418F/408F**: with floating ball (air vent valve) - **408X**: made entirely of 304 stainless steel - **418V**: with FKM-coated ball

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REPLACEMENT BALL + COVER SEAL KIT FOR VALVE 418/408

Part no.	for DN mm	for DN"	Notes	PFA water	Package	€ each
149B055276	50	2	-	-	1	79,70
149B055400	65	2 1/2	-	-	1	92,40
149B055399	80	3	-	-	1	132,90
149B055056	100	4	-	-	1	215,10
149B055401	125	5	-	-	1	303,70
149B055402	150	6	-	-	1	385,90
149B055049	200	8	-	-	1	581,90
						€ each
149B055517	250	10	-	-	1	822,30
149B055240	300	12	-	-	1	1.201,70

508

Body: GG25 cast iron with epoxy coating. Ball: formophenolic resin. Seal: NBR. Max. temperature: 80°C. Operates with ascending vertical or horizontal flow. Applications: waste water, viscous liquids, slurry.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3202	-	1	FF	10	1	58,90
149B3203	-	1 1/4	FF	10	1	60,20
149B3204	-	1 1/2	FF	10	1	63,10
149B3205	-	2	FF	10	1	84,80
149B3206	-	2 1/2	FF	10	1	139,30

Other model available to order: **508V**: with FKM-coated ball

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KIT COMPRISING REPLACEMENT BALL + SEALS FOR 508 VALVE

Part no.	for DN mm	for DN"	Note	PFA water	Package	€ each
149B055073	-	1	-	-	1	54,40
149B055116	-	1 1/4	-	-	1	57,00
149B055113	-	1 1/2	-	-	1	60,80
149B055087	-	2	-	-	1	87,30
149B055119	-	2 1/2	-	-	1	95,00

508F

Body: GG25 cast iron with epoxy coating. Ball: floating in epoxy resin. Seal: NBR.
Max. temperature: 80°C
Applications: air venting. Vacuum breaker function.
Approvals: Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3212	-	1	FF	10	1	198,40
149B3213	-	1 1/4	FF	10	1	246,40
149B3214	-	1 1/2	FF	10	1	300,10
149B3215	-	2	FF	10	1	390,60
149B3216	-	2 1/2	FF	10	1	631,50

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KIT COMPRISING REPLACEMENT BALL + SEALS FOR 508F VALVE

Part no.	for DN mm	for DN"	Note	PFA water	Package	€ each
149B055076	-	1	-	-	1	170,40
149B055128	-	1 1/4	-	-	1	206,90
149B055130	-	1 1/2	-	-	1	267,70
149B055132	-	2	-	-	1	328,60
149B055134	-	2 1/2	-	-	1	462,30

208P

Body: PVC. Ball: NBR-coated aluminium (nitrile). DN 1 1/4": NBR-coated cast iron.
Max. temperature: 60°C. Operates with ascending vertical or horizontal flow.
Applications: waste water, viscous liquids.
Approvals: PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B5221	-	1	FF	6	1	79,50
149B5222	-	1 1/4	FF	6	1	79,50
149B3448	-	1 1/2	FF	6	1	111,20
149B5224	-	2	FF	6	1	139,40
149B5225	-	2 1/2	FF	6	1	173,60
149B3456	-	3	FF	6	1	281,40

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KIT COMPRISING REPLACEMENT BALL + COVER SEAL FOR 208P VALVE

Part no.	for DN mm	for DN"	Note	PFA water	Package	€ each
149B055526	-	1	-	-	1	65,30
149B055526	-	1 1/4	-	-	1	65,30
149B055525	-	1 1/2	-	-	1	76,00
149B055349	-	2	-	-	1	78,50
149B055449	-	2 1/2	-	-	1	81,00
149B055527	-	3	-	-	1	121,40

System TJO+FL+04 - Brass/plastic foot valves

190

Body: brass. Disc: POM (polyacetal) valve. Seal: EPDM.
Spring: stainless steel. Strainer: PE (polyethylene). Max. temperature: 60°C.
Applications: construction, pumping, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3924	-	1 1/2	FF	10	6	93,90
149B3925	-	2	FF	10	6	152,60

Available to order: **190P**: polypropylene body and FKM seal.
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190D

Body: POM (polyacetal). Disc: DN3/8”-1/2”, PA (polyamide) valve, DN3/4”-2”: POM (polyacetal) valve. Seal: EPDM. Spring: stainless steel. Strainer: PE (polyethylene).
Max. temperature: 60°C.
Applications: construction, pumping, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3719	-	3/8	F	10	10	8,40
149B3720	-	1/2	F	10	10	10,00
149B3721	-	3/4	F	10	10	16,90
149B3722	-	1	F	10	6	22,50
149B3723	-	1 1/4	F	10	6	28,90
149B3724	-	1 1/2	F	10	6	36,10
149B3725	-	2	F	10	6	50,60

Available to order: **190X**: 304L stainless steel body and FKM seal.
Dimensions on page 138

193D

Body: POM (polyacetal). Disc: DN3/8”-1/2”, PA (polyamide) valve, DN3/4”-2”: POM (polyacetal) valve. Seal: FKM. Spring: stainless steel.
Strainer: PE (polyethylene). Max. temperature: 60°C.
Applications: construction, pumping, diesel.
Approvals: Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B3619	-	3/8	F	10	10	11,60
149B3620	-	1/2	F	10	10	12,20
149B3621	-	3/4	F	10	10	18,70
149B3622	-	1	F	10	10	31,00
149B3623	-	1 1/4	F	10	10	40,00
149B3624	-	1 1/2	F	10	6	57,00
149B3625	-	2	F	10	6	84,70

Dimensions on page 138

System 02 - Cast iron foot valves

302 - GALVANIZED STEEL STRAINER

Body: GG25 cast iron with epoxy coating. Disc: DN 50 and 65: bronze; other DNs: cast iron with bronze stem. Guide: DN 50 bronze, other DNs: cast iron with bronze ring. Seal: EPDM.
Strainer: galvanised steel.
Max. temperature: 100°C.
Applications: pumping clear water, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B2754	50	2	10/16	16	1	265,20
149B2755	65	2 1/2	10/16	16	1	265,20
149B2756	80	3	10/16	16	1	341,50
149B2757	100	4	10/16	16	1	475,20
149B2701	125	5	10/16	10	1	546,30
149B2702	150	6	10/16	10	1	731,20
149B2703	200	8	10	10	1	1.582,10
149B2704	250	10	10	10	1	2.332,60
149B2705	300	12	10	10	1	3.892,90
149B2706	350	14	10	10	1	5.692,10
149B14764	200	8	16	10	1	1.582,20
149B15556	250	10	16	10	1	2.332,60

Other models available to order: **312**: with PN16 flanges - **302V**: with FKM seal - **302X**: made entirely of 304 stainless steel - **302Z**: with bronze body

Dimensions on page 136

302 - 316L STAINLESS STEEL STRAINER

Part no.	DN mm	DN"	PN	PFA water	Package	€ each
149B15094	50	2	PN10/16	16	1	362,00
149B15001	65	2 1/2	PN10/16	16	1	362,00
149B14999	80	3	PN10/16	16	1	466,50
149B15428	100	4	PN10/16	16	1	648,90
149B15002	125	5	PN10	10	1	746,10
149B15424	150	6	PN10	10	1	998,50
149B15036	200	8	PN10	10	1	2.118,50
149B14906	250	10	PN10	10	1	3.185,70
149B15505	300	12	PN10	10	1	5.423,20

102

Body: GG25 cast iron with epoxy coating. Disc: 2” and 3” bronze; other DNs: cast iron with bronze stem. Guide: 2” 1/4 to 2” 1/2 bronze, other DNs: cast iron with bronze ring. Spring: stainless steel. Seal: EPDM. Strainer: 316L stainless steel Max. temperature: 100°C.
Applications: pumping clear water, potable water.
Approvals: ACS (Attestation de Conformité Sanitaire), Bureau Veritas.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B2767	65	2 1/2	F	16	1	229,70
149B2768	80	3	F	16	1	307,10
149B2769	100	4	F	16	1	505,60
149B1163	150	6	F	16	1	1.130,80

Other models available to order.

Dimensions on page 136

Y-strainers

Y666

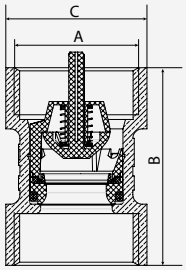
Strainer: AISI 316 stainless steel. Threaded with purge plug. Filtration: 600 microns. Max. temperature: 175°C. Applications: industrial processes, corrosive liquids, high pressure, high temperature.

Part no.	DN mm	DN"	Connection	PFA water	Package	€ each
149B5271	-	1/4	FF	40	1	146,50
149B5272	-	3/8	FF	40	1	146,50
149B5273	-	1/2	FF	40	1	159,10
149B5274	-	3/4	FF	40	1	192,70
149B5275	-	1	FF	40	1	217,70
149B5276	-	1 1/4	FF	40	1	284,60
149B5277	-	1 1/2	FF	40	1	385,20
149B5278	-	2	FF	40	1	528,20

Dimensions on page 139

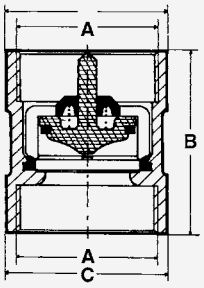
Overall dimensions

601



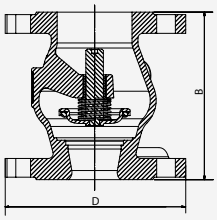
A ”	A mm	B mm	C mm
3/8	12/17	38	22
1/2	15/21	41	26
3/4	20/27	42	30
1	26/34	47	37
1 1/4	33/42	55	47
1 1/2	40/49	78	55
2	50/60	89	67

601V



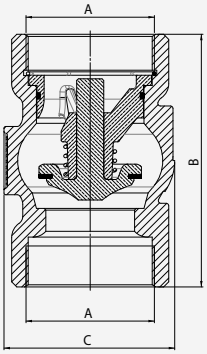
A ”	A mm	B mm	C mm
3/8	12/17	38	22
1/2	15/21	41	26
1	26/34	47	37

462



DN ”	DN mm	B mm	D mm
2	50	150	165
2 1/4	65	170	185
3	80	180	200
4	100	190	220
5	125	200	250
6	150	210	285
8	200	230	340

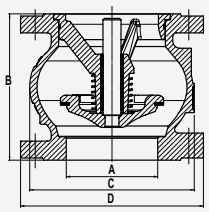
202



DN ”	A mm	B mm	C mm
2 1/2	65	148	97
3	80	174	125
4	100	203	150

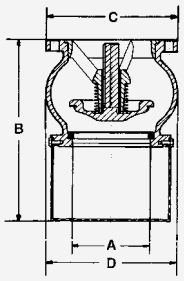
Overall dimensions

402/402V



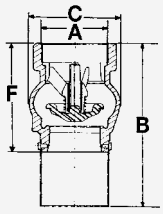
A ”	A mm	B mm	C mm	D mm
1 1/2	40	85	80	150
2	50	100	97	165
2 1/2	65	120	125	185
3	80	140	150	200
4	100	170	187	220
5	125	200	220	250
6	150	230	250	285
8	200	289	340	340
10	250	354	420	405
12	300	396	490	460
14	350	473	586	533
16	400	560	680	597
20	500	750	880	670

302



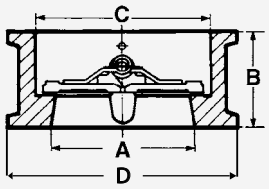
A mm	B mm	C mm	D mm
50	143	165	97
65	185	185	125
80	218	200	150
100	265	220	181
125	333	254	217
150	373	285	256
200	483	343	336
250	572	406	416
300	652	482	486
350	771	533	580
400	876	597	676
500	1094	670	880

102



A ”	A mm	B mm	C mm	F mm
2 1/4	60	167	97	123
2 1/2	65	167	97	124
3	80	212	125	152
4	100	251	150	180
5	125	345	188	230
6	150	430	223	275
7	175	508	266	333
8	200	508	266	333

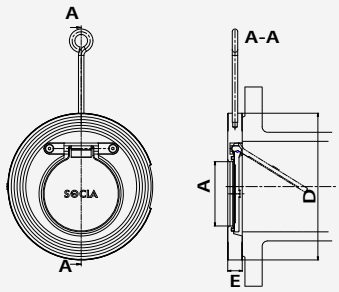
895/895V



A ”	A mm	B mm	C mm	D mm
2	50	54	60	109
2 1/2	65	54	73	129
3	80	57	89	144
4	100	64	114	164
5	125	70	141	194
6	150	76	168	220
8	200	95	219	275
10	250	108	273	330
12	300	143	324	380
16	400	191	410	491

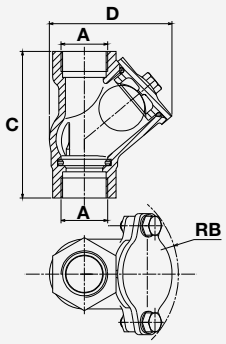
Overall dimensions

635E/635V/627E/627V



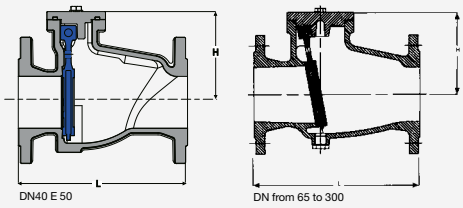
DN	A mm	D mm	E mm
40	22	94	16
50	32	106	16
65	42	129	16
80	53	144	16
100	71	162	16
125	94	194	16
150	114	220	19
200	164	275	28
250	199	331	32
300	240	380	38

508/508F



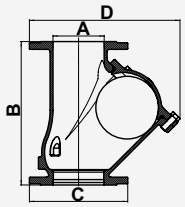
A "	A mm	RB mm	C mm	D mm
1	26/34	76	114	95
1 1/4	33/42	85	132	110,5
1 1/2	40/49	93	145	121
2	50/60	107	173,5	144
2 1/2	66/76	127	200	174,5

405



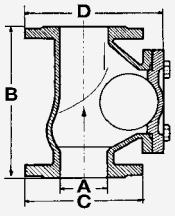
DN	L mm	H mm
40	180	89
50	200	95,5
65	240	122
80	260	140
100	300	152
125	350	162
150	400	180
200	500	205
250	600	255
300	700	293

418



A "	A mm	B mm	C mm	D mm
2	50	200	165	173
21/2	65	240	185	214
3	80	260	200	252
4	100	300	220	289
5	125	350	250	368
6	150	400	285	424
8	200	500	340	509

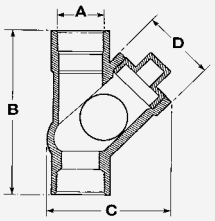
408



A "	A mm	B mm	C mm	D mm
10	250	600	400	593,50
12	300	700	455	725,50
14	350	875	505	820

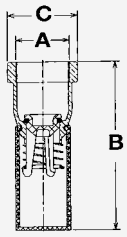
Overall dimensions

208P



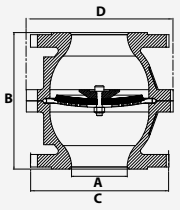
A "	A mm	B mm	C mm
1	26/34	207	114
1 1/4	33/42	143	114
1 1/2	40/49	154	135
2	50/60	179	160
2 1/2	66/76	198	189
3	80/90	276	225

190



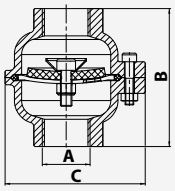
A "	A mm	B mm	C mm
1 1/2	40/49	148	53
2	50/60	179	66

407



A "	A mm	B mm	C mm	D mm
1 1/2	40	148	150	140
2	50	158	164	159
2 1/2	65	176	183	169
3	80	196	200	212
4	100	213	220	234
5	125	228	250	250
6	150	266	285	324
8	200	439	340	426

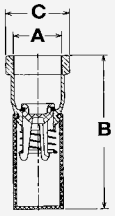
207

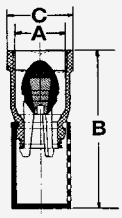


A "	A mm	B mm	C mm
1/2	15/21	86,0	88,0
3/4	20/27	86,0	88,0
1	26/34	96,0	97,5
1 1/4	33/42	100,0	107,5
1 1/2	40/49	132,0	123,5
2	50/60	172,0	139,5
2 1/2	66/76	196,0	170,0
3	80/90	234,0	214,0

190D

Ø 3/4 - 1 1/4
1 1/2 - 2



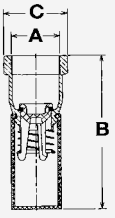


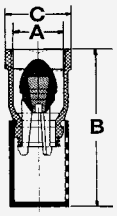
Ø 3/8 - 1/2 - 1

A "	A mm	B mm	C mm
3/8	12/17	56	23
1/2	15/21	56	27
3/4	20/27	75	31
1	26/34	95	40
1 1/4	33/42	119	49
1 1/2	40/49	148	56
2	50/60	180	66

193D

Ø 3/4 - 1 1/4
1 1/2 - 2



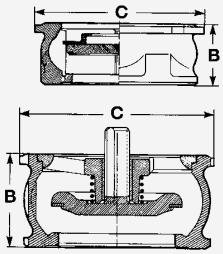


Ø 3/8 - 1/2 - 1

A "	A mm	B mm	C mm
3/8	12/17	59	23
1/2	15/21	59	24
3/4	20/27	64,5	30
1	26/34	78,5	37
1 1/4	33/42	97	47
1 1/2	40/49	148	53
2	50/60	179	66

Overall dimensions

802

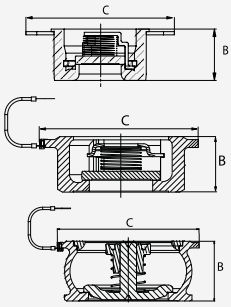


DN 1" 1/4–4

DN 5–8

DN "	DN mm	B mm	C-PN6 mm	C-PN10/16 ASA150 mm
1 1/4	32	28	78	84
1 1/2	40	31,5	88	94
2	50	40	98	109
1 1/2	65	46	118	129
3	80	50	134	144
4	100	60	154	162
5	125	90	-	194
6	150	106	-	218
8	200	140	262	273

812/812X



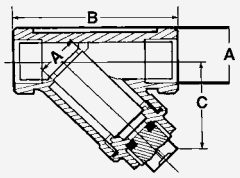
DN 1/2

DN 3/4–4

DN 5–8

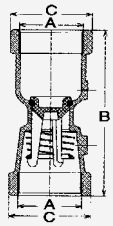
DN "	DN mm	B mm	C-PN6 mm	C-PN10/16 ASA150 mm	C-PN25/40 ASA 300 mm
1/2	15	16	44	53	53
3/4	20	19	54	63	63
1	25	22	64	73	73
1 1/4	32	28	78	84	84
1 1/2	40	31,5	88	94	94
2	50	40	98	109	109
2 1/2	65	46	118	129	129
3	80	50	134	144	144
4	100	60	154	162	170
5	125	90	-	192	192
6	150	106	-	218	224
8	200	140	262	273	-
8	200	140	-	-	284

Y666



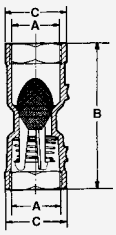
A "	B mm	C mm
1/4	57	32
3/8	57	32
1/2	61	36
3/4	70	41
1	86	44
1 1/4	100	51
1 1/2	111	59
2	138	72

290/297



A "	A mm	B mm	C mm
1/4	8/13	52,5	20
3/8	12/17	54,0	20
1/2	15/21	66,0	24
3/4	20/27	73,0	30
1	26/34	94,0	38
1 1/4	33/42	105,0	47
1 1/2	40/49	120,0	53
2	50/60	156	66

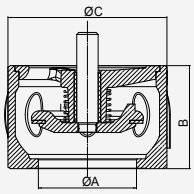
290D/297D



A "	A mm	B mm	C mm
3/8	12/17	54	23
1/2	15/21	66	28
3/4	20/27	80	34
1	26/34	100	44

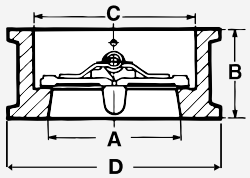
Overall dimensions

882



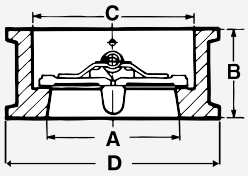
A "	B mm	C PN 10/16	C PN 25	C PN 40	ASA 150
65	75	10/16	25	40	150
80	85	142	142	142	-
100	105	162	170	170	170
125	90	194	194	194	194
150	106	218	222	222	222
200	140	273	-	-	273
200	140	-	285	-	-
200	140	-	-	289	-
250	200	-	339	-	-
250	200	328	-	352	328
350	980	587	315	1.60	
400	1100	658	370	1.60	

805



A DN "	A DN mm	B mm	C mm	D mm
2	50	54	60	109
2 1/2	65	54	73	129
3	80	57	89	144
4	100	64	114	164
5	125	70	141	194
6	150	76	168	220
8	200	95	219	275
10	250	108	273	330
12	300	143	324	380
14	350	184	356	440
16	400	191	410	491
18	450	203	457	541
20	500	213	508	596
24	600	222	610	698

815



A DN "	A DN mm	B mm	C mm	D mm
2	50	54	60	109
2 1/2	65	54	73	129
3	80	57	89	144
4	100	64	114	170
5	125	70	141	194
6	150	76	168	220
8	200	95	219	286
10	250	108	273	340
12	300	143	324	403
14	350	184	356	460
16	400	191	410	517
18	450	203	457	567
20	500	213	508	627
24	600	222	610	734

Chapter 4

Pressure gauges and thermometers

M1-80/R Bottom-connection pressure gauge

Higher precision than market standard
Adjustable red pointer (INAIL)
Made in Europe

Chapter 4.1

PRESSURE GAUGES

Pressure gauges for boiler rooms

M1-ABS 50/R+FE

DN 50 bottom-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–4 to 0–40 bar. Accuracy class 2,5. Other scales and connections available to order. **Complies with EN 837-1 and INAIL technical requirements.**

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEA2204BB10	0-4 bar	G1/4B	10	100	8,35
PZFEA2206BB13	0-6 bar	G1/4B	10	100	8,35
PZFEA2210BB12	0-10 bar	G1/4B	10	100	8,35
PZFEA2216BB09	0-16 bar	G1/4B	10	100	8,35
PZFEA2225BB04	0-25 bar	G1/4B	10	100	8,35
PZFEA2240BB00	0-40 bar	G1/4B	10	100	8,35

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M1-ABS 63/R+FE

DN 63 bottom-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–1 to 0–40 bar. Accuracy class 2,5. Other scales and connections available to order. **Complies with EN 837-1 and INAIL technical requirements.**

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEA3101BB02	0-1 bar	G1/4B	10	100	12,40
PZFEA3102BB01	0-1.6 bar	G1/4B	10	100	12,40
PZFEA3203BB02	0-2.5 bar	G1/4B	10	100	8,55
PZFEA3204BB12	0-4 bar	G1/4B	10	100	8,55
PZFEA3206BB13	0-6 bar	G1/4B	10	100	8,55
PZFEA3210BB15	0-10 bar	G1/4B	10	100	8,55
PZFEA3216BB12	0-16 bar	G1/4B	10	100	8,55
PZFEA3225BB01	0-25 bar	G1/4B	10	100	8,55
PZFEA3240BB00	0-40 bar	G1/4B	10	100	8,55

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M1-ABS 80/R

DN 80 bottom-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–1 to 0–40 bar or 0–60 mH_2O. Accuracy class 1,6.
Other scales and connections available to order.
Complies with EN 837-1 and INAIL technical requirements.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA4101BC01	0-1 bar	G3/8B	1	50	18,65
PA4102BC01	0-1.6 bar	G3/8B	1	50	18,65
PA4203BC01	0-2.5 bar	G3/8B	1	50	15,90
PA4204BC05	0-4 bar	G3/8B	1	50	15,90
PA4206BC07	0-6 bar	G3/8B	1	50	15,90
PA4210BC05	0-10 bar	G3/8B	1	50	15,90
PA4216BC02	0-16 bar	G3/8B	1	50	15,90
PA4225BC01	0-25 bar	G3/8B	1	50	15,90
PA4240BC01	0-40 bar	G3/8B	1	50	15,90
PA4101WC02	0-10 mH2O	G3/8B	1	50	18,65
PA4102WC02	0-16 mH2O	G3/8B	1	50	18,65
PA4203WC02	0-25 mH2O	G3/8B	1	50	15,90
PA4204WC01	0-40 mH2O	G3/8B	1	50	15,90
PA4206WC01	0-60 mH2O	G3/8B	1	50	15,90
PA4204BD00	0-4 bar	G1/2B	1	50	15,90
PA4206BD04	0-6 bar	G1/2B	1	50	15,90
PA4210BD03	0-10 bar	G1/2B	1	50	15,90
PA4216BD04	0-16 bar	G1/2B	1	50	15,90
PA4225BD02	0-25 bar	G1/2B	1	50	15,90

Dimensions on instrumentation price list

M1-ABS 100/R

DN 100 bottom-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–1 to 0–40 bar. Accuracy class 1,6. Other scales and connections available to order.
Complies with EN 837-1 and INAIL technical requirements.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA5101BD02	0-1 bar	G1/2B	1	30	25,65
PA5102BD01	0-1.6 bar	G1/2B	1	30	25,65
PA5203BD01	0-2.5 bar	G1/2B	1	30	22,80
PA5204BD01	0-4 bar	G1/2B	1	30	22,80
PA5206BD03	0-6 bar	G1/2B	1	30	22,80
PA5210BD02	0-10 bar	G1/2B	1	30	22,80
PA5216BD03	0-16 bar	G1/2B	1	30	22,80
PA5225BD02	0-25 bar	G1/2B	1	30	22,80
PA5240BD01	0-40 bar	G1/2B	1	30	22,80

Dimensions on instrumentation price list

M1-63/R

DN 63 bottom-connection pressure gauge with **chrome-plated steel body** and red pointer for heating systems. Measuring range 0–4 to 0–16 bar. Accuracy class 1,6. Other scales and connections available to order.
Complies with EN 837-1 and INAIL technical requirements.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA3804BB00	0-4 bar	G1/4B	1	100	16,00
PA3806BB01	0-6 bar	G1/4B	1	100	16,00
PA3810BB00	0-10 bar	G1/4B	1	100	16,00
PA3816BB00	0-16 bar	G1/4B	1	100	16,00

Dimensions on instrumentation price list

M1-80/R

DN 80 bottom-connection pressure gauge with **chrome-plated steel body** and red pointer for heating systems. Measuring range 0–4 to 0–16 bar. Accuracy class 1,6.
Other scales and connections available to order.
Complies with EN 837-1 and INAIL technical requirements.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA4804BK01	0-4 bar	G3/8B	1	50	19,80
PA4806BK01	0-6 bar	G3/8B	1	50	19,80
PA4810BK01	0-10 bar	G3/8B	1	50	19,80
PA4816BK01	0-16 bar	G3/8B	1	50	19,80

Dimensions on instrumentation price list

M3A-ABS 50/R+FE

DN 50 back-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–4 to 0–40 bar. Accuracy class 2,5. Other scales and connections available to order. **Complies with EN 837-1 and INAIL technical requirements.**

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEB2204BB16	0-4 bar	G1/4B	10	100	9,10
PZFEB2206BB10	0-6 bar	G1/4B	10	100	9,10
PZFEB2210BB09	0-10 bar	G1/4B	10	100	9,10
PZFEB2216BB04	0-16 bar	G1/4B	10	100	9,10
PZFEB2225BB00	0-25 bar	G1/4B	10	100	9,10
PZFEB2240BB00	0-40 bar	G1/4B	10	100	9,10

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M3A-ABS 63/R+FE

DN 63 back-connection pressure gauge with plastic body and red pointer for heating systems. Measuring range 0–4 to 0–40 bar. Accuracy class 2,5. Other scales and connections available to order.
Complies with EN 837-1 and INAIL technical requirements.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEB3204BB06	0-4 bar	G1/4B	10	100	9,50
PZFEB3206BB06	0-6 bar	G1/4B	10	100	9,50
PZFEB3210BB05	0-10 bar	G1/4B	10	100	9,50
PZFEB3216BB07	0-16 bar	G1/4B	10	100	9,50
PZFEB3225BB00	0-25 bar	G1/4B	10	100	9,50
PZFEB3240BB00	0-40 bar	G1/4B	10	100	9,50

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

Diaphragm pressure gauges for gas

MP1-63

DN 63 bottom-connection diaphragm pressure gauge with chrome-plated body for gas. Measuring range 0–60 to 0–600 mbar, dual scale mbar and mmH_2O. Accuracy class 2,5.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PP354410	0-600 mmH2O/0-60 mbar	G1/4B	1	50	51,10
PP354810	0-1000 mmH2O/0-100 mbar	G1/4B	1	50	51,10
PP356010	0-2500 mmH2O/0-250 mbar	G1/4B	1	50	51,10
PP356610	0-4000 mmH2O/0-400 mbar	G1/4B	1	50	51,10
PP357010	0-6000 mmH2O/0-600 mbar	G1/4B	1	50	51,10

Dimensions on instrumentation price list

MP1-80

DN 80 bottom-connection diaphragm pressure gauge with chrome-plated body for gas. Measuring range 0–60 to 0–600 mbar, dual scale mbar and mmH_2O. Accuracy class 2,5. **EN 837-1 compliant.**

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PP454411	0-600 mmH2O/0-60 mbar	G3/8B	1	50	68,40
PP454811	0-1000 mmH2O/0-100 mbar	G3/8B	1	50	68,40
PP456011	0-2500 mmH2O/0-250 mbar	G3/8B	1	50	68,40
PP456611	0-4000 mmH2O/0-400 mbar	G3/8B	1	50	68,40
PP457011	0-6000 mmH2O/0-600 mbar	G3/8B	1	50	68,40

Dimensions on instrumentation price list

MP1-100

DN 100 bottom-connection diaphragm pressure gauge with chrome-plated body for gas. Measuring range 0–60 to 0–600 mbar, dual scale mbar and mmH_2O. Accuracy class 2,5. **EN 837-1 compliant.**

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PP554412	0-600 mmH2O/0-60 mbar	G1/2B	1	12	71,30
PP554812	0-1000 mmH2O/0-100 mbar	G1/2B	1	12	71,30
PP556012	0-2500 mmH2O/0-250 mbar	G1/2B	1	12	71,30
PP556612	0-4000 mmH2O/0-400 mbar	G1/2B	1	12	71,30
PP557012	0-6000 mmH2O/0-600 mbar	G1/2B	1	12	71,30

Dimensions on instrumentation price list

Pressure gauges for dry industrial applications

M1-ABS 40 / FE

DN 40 bottom-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–40 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order. **EN 837-1 compliant**.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEA110117LF	0-1 bar/psi	R1/8	10	200	10,85
PZFEA110217LF	0-1.6 bar/psi	R1/8	10	200	10,85
PZFEA120317LF	0-2.5 bar/psi	R1/8	10	200	7,85
PZFEA120417LF	0-4 bar/psi	R1/8	10	200	7,85
PZFEA120617LF	0-6 bar/psi	R1/8	10	200	7,85
PZFEA121017LF	0-10 bar/psi	R1/8	10	200	7,85
PZFEA121217LF	0-12 bar/psi	R1/8	10	200	7,85
PZFEA121617LF	0-16 bar/psi	R1/8	10	200	7,85
PZFEA122017LF	0-20 bar/psi	R1/8	10	200	7,85
PZFEA122517LF	0-25 bar/psi	R1/8	10	200	7,85
PZFEA124017LF	0-40 bar/psi	R1/8	10	200	7,85

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M1-ABS 50/FE

DN 50 bottom-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–40 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order. **EN 837-1 compliant**.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEA210118LF	0-1 bar/psi	R1/4	10	100	11,75
PZFEA220318LF	0-2.5 bar/psi	R1/4	10	100	8,35
PZFEA220418LF	0-4 bar/psi	R1/4	10	100	8,35
PZFEA220618LF	0-6 bar/psi	R1/4	10	100	8,35
PZFEA221018LF	0-10 bar/psi	R1/4	10	100	8,35
PZFEA221218LF	0-12 bar/psi	R1/4	10	100	8,35
PZFEA221618LF	0-16 bar/psi	R1/4	10	100	8,35
PZFEA222018LF	0-20 bar/psi	R1/4	10	100	8,35
PZFEA222518LF	0-25 bar/psi	R1/4	10	100	8,35
PZFEA224018LF	0-40 bar/psi	R1/4	10	100	8,35
PZFEA220617LF	0-6 bar/psi	R1/8	10	100	8,35
PZFEA221017LF	0-10 bar/psi	R1/8	10	100	8,35
PZFEA221217LF	0-12 bar/psi	R1/8	10	100	8,35

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M1-ABS 63/FE

DN 63 bottom-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–40 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order. **EN 837-1 compliant**.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEA310118LF	0-1 bar/psi	R1/4	10	100	12,40
PZFEA310218LF	0-1.6 bar/psi	R1/4	10	100	12,40
PZFEA320318LF	0-2.5 bar/psi	R1/4	10	100	8,55
PZFEA320418LF	0-4 bar/psi	R1/4	10	100	8,55
PZFEA320618LF	0-6 bar/psi	R1/4	10	100	8,55
PZFEA321018LF	0-10 bar/psi	R1/4	10	100	8,55
PZFEA321218LF	0-12 bar/psi	R1/4	10	100	8,55
PZFEA321618LF	0-16 bar/psi	R1/4	10	100	8,55
PZFEA322018LF	0-20 bar/psi	R1/4	10	100	8,55
PZFEA322518LF	0-25 bar/psi	R1/4	10	100	8,55
PZFEA324018LF	0-40 bar/psi	R1/4	10	100	8,55

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M1-ABS 80

DN 80 bottom-connection pressure gauge with plastic body for industrial applications. Measuring range 0–10 to 0–25 bar and dual scale bar/psi. Accuracy class 1,6. Other scales and connections available to order. **EN 837-1 compliant**.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA4210DC01	0-10 bar/psi	G3/8B	1	50	15,90
PA4216DC00	0-16 bar/psi	G3/8B	1	50	15,90
PA4225DC00	0-25 bar/psi	G3/8B	1	50	15,90

Dimensions on instrumentation price list

M1-ABS 100

DN 100 bottom-connection pressure gauge with plastic body for industrial applications. Measuring range 0–2,5 to 0–40 bar and dual scale bar/psi. Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA5203DD00	0-2.5 bar/psi	G1/2B	1	30	22,80
PA5204DD01	0-4 bar/psi	G1/2B	1	30	22,80
PA5206DD00	0-6 bar/psi	G1/2B	1	30	22,80
PA5210DD00	0-10 bar/psi	G1/2B	1	30	22,80
PA5216DD00	0-16 bar/psi	G1/2B	1	30	22,80
PA5225DD00	0-25 bar/psi	G1/2B	1	30	22,80
PA5240DD00	0-40 bar/psi	G1/2B	1	30	22,80

Dimensions on instrumentation price list

M3A-ABS 40/FE

DN 40 back-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–20 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEB110117LF	0-1 bar/psi	R1/8	10	200	11,05
PZFEB120317LF	0-2.5 bar/psi	R1/8	10	200	8,05
PZFEB120417LF	0-4 bar/psi	R1/8	10	200	8,05
PZFEB120617LF	0-6 bar/psi	R1/8	10	200	8,05
PZFEB121017LF	0-10 bar/psi	R1/8	10	200	8,05
PZFEB121217LF	0-12 bar/psi	R1/8	10	200	8,05
PZFEB121617LF	0-16 bar/psi	R1/8	10	200	8,05
PZFEB122017LF	0-20 bar/psi	R1/8	10	200	8,05

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M3A-ABS 50/FE

DN 50 back-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–20 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEB210117LF	0-1 bar/psi	R1/8	10	100	12,90
PZFEB210217LF	0-1.6 bar/psi	R1/8	10	100	12,90
PZFEB220317LF	0-2.5 bar/psi	R1/8	10	100	9,10
PZFEB220417LF	0-4 bar/psi	R1/8	10	100	9,10
PZFEB220617LF	0-6 bar/psi	R1/8	10	100	9,10
PZFEB221017LF	0-10 bar/psi	R1/8	10	100	9,10
PZFEB221217LF	0-12 bar/psi	R1/8	10	100	9,10
PZFEB221617LF	0-16 bar/psi	R1/8	10	100	9,10
PZFEB222017LF	0-20 bar/psi	R1/8	10	100	9,10
PZFEB220318LF	0-2.5 bar/psi	R1/4	10	100	9,10
PZFEB220418LF	0-4 bar/psi	R1/4	10	100	9,10
PZFEB220618LF	0-6 bar/psi	R1/4	10	100	9,10
PZFEB221018LF	0-10 bar/psi	R1/4	10	100	9,10
PZFEB221218LF	0-12 bar/psi	R1/4	10	100	9,10
PZFEB221618LF	0-16 bar/psi	R1/4	10	100	9,10

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M3A-ABS 63/FE

DN 63 back-connection pressure gauge with plastic body for industrial applications. Measuring range 0–1 to 0–40 bar and dual scale bar/psi. Accuracy class 2,5. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PZFEB310118LF	0-1 bar/psi	R1/4	10	100	13,40
PZFEB310218LF	0-1.6 bar/psi	R1/4	10	100	13,40
PZFEB320318LF	0-2.5 bar/psi	R1/4	10	100	9,50
PZFEB320418LF	0-4 bar/psi	R1/4	10	100	9,50
PZFEB320618LF	0-6 bar/psi	R1/4	10	100	9,50
PZFEB321018LF	0-10 bar/psi	R1/4	10	100	9,50
PZFEB321218LF	0-12 bar/psi	R1/4	10	100	9,50
PZFEB321618LF	0-16 bar/psi	R1/4	10	100	9,50
PZFEB322018LF	0-20 bar/psi	R1/4	10	100	9,50
PZFEB322518LF	0-25 bar/psi	R1/4	10	100	9,50
PZFEB324018LF	0-40 bar/psi	R1/4	10	100	9,50

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

M3A-ABS 80

DN 80 back-connection pressure gauge with plastic body for industrial applications. Accuracy class 1,6. Other scales and connections available to order. Part numbers and prices on request.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
	0-2.5 bar	G3/8B	1	50	16,10
	0-4 bar	G3/8B	1	50	16,10
PB4206BC00	0-6 bar	G3/8B	1	50	16,10
	0-10 bar	G3/8B	1	50	16,10
PB4216BC00	0-16 bar	G3/8B	1	50	16,10
PB4225BC00	0-25 bar	G3/8B	1	50	16,10

Dimensions on instrumentation price list

M1-80/T1

DN 80 bottom-connection pressure gauge with painted steel body and chrome-plated bezel for industrial applications, particularly **steam**. Measuring range 0–2,5 to 0–25 bar. Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA4803BK00	0-2,5 bar	G3/8B	1	50	23,30
PA4804BK00	0-4 bar	G3/8B	1	50	23,30
PA4806BK00	0-6 bar	G3/8B	1	50	23,30
PA4810BK00	0-10 bar	G3/8B	1	50	23,30
PA4816BK00	0-16 bar	G3/8B	1	50	23,30
PA4825BK00	0-25 bar	G3/8B	1	50	23,30

Dimensions on instrumentation price list

M1-100/T1

DN 100 bottom-connection pressure gauge with painted steel body and chrome-plated bezel for industrial applications, particularly **steam**. Measuring range 0–2,5 to 0–25 bar. Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PA5803BL00	0-2,5 bar	G1/2B	1	30	30,80
PA5804BL00	0-4 bar	G1/2B	1	30	30,80
PA5806BL00	0-6 bar	G1/2B	1	30	30,80
PA5810BL00	0-10 bar	G1/2B	1	30	30,80
PA5816BL00	0-16 bar	G1/2B	1	30	30,80
PA5825BL00	0-25 bar	G1/2B	1	30	30,80

Dimensions on instrumentation price list

MC1-150

Bottom-connection DN 150 dry pressure gauges with AISI 316 stainless steel body, for calibration and testing of other pressure gauges or for laboratory measurements.
Also available in DN200 and/or in an eccentric back-connection version (MC3B Series), for accuracy classes 0,25 and 0,5 and scales of up to 1000 bar.
Part numbers, prices, accessories and LAT (ex SIT) calibration certificates available on request.

Part no. Cl.0,5	Part no. Cl.0,25	Scale	Connection	Pcs/ pack	Package	€ each Cl.0,5	€ each Cl.0,25
PW00035100	PW00035101	0-2.5 bar M	G1/2B	1	1	738,00	960,00
	PW00045100	0-4 bar M	G1/2B	1	1	738,00	960,00
PW000651	PW00065100	0-6 bar M	G1/2B	1	1	738,00	960,00
PW001051	PW00105100	0-10 bar M	G1/2B	1	1	738,00	960,00
PW00165100	PW00165101	0-16 bar M	G1/2B	1	1	738,00	960,00
PW00255100	PW00255101	0-25 bar M	G1/2B	1	1	738,00	960,00
PW004051	PW00405100	0-40 bar M	G1/2B	1	1	738,00	960,00

Dimensions on instrumentation price list

Part no. DCERTAR002	SIT test certificate	*Test certificate*	**€ each** available to order
Part no. available to order	SIT Accredia test certificate	*Test certificate*	**€ each** available to order
Part no. DCERTAR004	Recalibration + SIT test certificate	*Re-calibration + Test certificate*	**€ each** available to order

MX1-63

MX1 Series Bourdon tube pressure gauges made entirely of stainless steel, for special industrial applications and the chemical, food and shipbuilding industries. Dry, DN 63 mm made entirely of stainless steel, with bottom connection.
Measuring range from vacuum -1/0 to high pressure up to 1000 bar (DN 63).
Fluid temperature limits: +150°C. Accuracy class 1.6.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PZ6A3503BJ00	0-2.5 bar	G1/4B	1	1	90,00
PZ6A3504BJ00	0-4 bar	G1/4B	1	1	90,00
PZ6A3506BJ00	0-6 bar	G1/4B	1	1	90,00
PZ6A3510BJ00	0-10 bar	G1/4B	1	1	90,00
PZ6A3516BJ00	0-16 bar	G1/4B	1	1	90,00
PZ6A3525BJ00	0-25 bar	G1/4B	1	1	90,00
PZ6A3540BJ00	0-40 bar	G1/4B	1	1	90,00

Dimensions on instrumentation price list

MX1-100

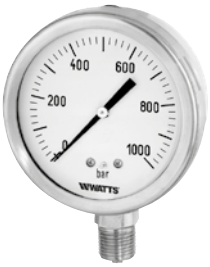
MX1 Series Bourdon tube pressure gauges made entirely of stainless steel, for special industrial applications and the chemical, food and shipbuilding industries. Dry, DN 100 mm made entirely of stainless steel, with bottom connection.
Measuring range from vacuum -1/0 to high pressure up to 1600 bar (DN 100).
Fluid temperature limits: +150°C. Accuracy class 1.0.
Also available in DN160. Part numbers and prices available on request.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PZ6A5503BL00	0-2.5 bar	G1/2B	1	1	154,00
PZ6A5504BL00	0-4 bar	G1/2B	1	1	154,00
PZ6A5506BL00	0-6 bar	G1/2B	1	1	154,00
PZ6A5510BL00	0-10 bar	G1/2B	1	1	154,00
PZ6A5516BL00	0-16 bar	G1/2B	1	1	154,00
PZ6A5525BL00	0-25 bar	G1/2B	1	1	154,00
PZ6A5540BL00	0-40 bar	G1/2B	1	1	154,00

Dimensions on instrumentation price list

Part no. DCERTAR001	SIT test certificate	*Test certificate*	**€ each** available to order
Part no. available to order	SIT Accredia test certif-icate	*Test certificate*	**€ each** available to order

MXG1-63



MXG1 Series Bourdon tube pressure gauges made entirely of stainless steel, for special industrial applications and the chemical, food and shipbuilding industries. Glycerin-filled, DN 63 mm made entirely of stainless steel, with bottom connection. Measuring range from vacuum -1/0 to high pressure up to 1000 bar. Fluid temperature limits: +100°C. Accuracy class 1.6.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PZ6E3503BJ00	0-2.5 bar	G1/4B	1	1	98,00
PZ6E3504BJ00	0-4 bar	G1/4B	1	1	98,00
PZ6E3506BJ00	0-6 bar	G1/4B	1	1	98,00
PZ6E3510BJ00	0-10 bar	G1/4B	1	1	98,00
PZ6E3516BJ00	0-16 bar	G1/4B	1	1	98,00
PZ6E3525BJ00	0-25 bar	G1/4B	1	1	98,00
PZ6E3540BJ00	0-40 bar	G1/4B	1	1	98,00

Dimensions on instrumentation price list

MXG1-100

MXG1 Series Bourdon tube pressure gauges made entirely of stainless steel, for special industrial applications and the chemical, food and shipbuilding industries. Glycerin-filled, DN 100 mm made entirely of stainless steel, with bottom connection. Measuring range from vacuum -1/0 to high pressure up to 1600 bar. Fluid temperature limits: +100°C. Accuracy class 1.0 (DN 100).
Also available in DN160. Part numbers and prices available on request.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PZ6E5503BL00	0-2.5 bar	G1/2B	1	1	175,00
PZ6E5504BL00	0-4 bar	G1/2B	1	1	175,00
PZ6E5506BL00	0-6 bar	G1/2B	1	1	175,00
PZ6E5510BL00	0-10 bar	G1/2B	1	1	175,00
PZ6E5516BL00	0-16 bar	G1/2B	1	1	175,00
PZ6E5525BL00	0-25 bar	G1/2B	1	1	175,00
PZ6E5540BL00	0-40 bar	G1/2B	1	1	175,00

Dimensions on instrumentation price list

Part no. DCERTAR001	SIT test certificate	*Test certificate*	**€ each** available to order
Part no. available to order	SIT Accredia test certificate	*Test certificate*	**€ each** available to order

Glycerin-filled pressure gauges for industrial applications

MG1-INOX 63

DN 63 bottom-connection glycerin-filled pressure gauge with stainless steel body, for industrial applications. Measuring range 0–1 to 0–600 bar and dual scale bar/psi.
Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PE340114LF	0-1 bar/psi	G1/4B	10	60	20,80
PE340214LF	0-1.6 bar/psi	G1/4B	10	60	20,80
PE350314LF	0-2.5 bar/psi	G1/4B	10	60	17,90
PE350414LF	0-4 bar/psi	G1/4B	10	60	17,90
PE350614LF	0-6 bar/psi	G1/4B	10	60	17,90
PE351014LF	0-10 bar/psi	G1/4B	10	60	17,90
PE351214LF	0-12 bar/psi	G1/4B	10	60	17,90
PE351614LF	0-16 bar/psi	G1/4B	10	60	17,90
PE352014LF	0-20 bar/psi	G1/4B	10	60	17,90
PE352514LF	0-25 bar/psi	G1/4B	10	60	17,90
PE354014LF	0-40 bar/psi	G1/4B	10	60	17,90

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

MG1-INOX 100

DN 100 bottom-connection glycerin-filled pressure gauge with stainless steel body, for industrial applications. Measuring range 0–1 to 0–600 bar and dual scale bar/psi.
Accuracy class 1,6.
Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PE540116LF	0-1 bar/psi	G1/2B	1	12	79,60
PE540216	0-1.6 bar/psi	G1/2B	1	12	79,60
PE550316LF	0-2.5 bar/psi	G1/2B	1	12	65,50
PE550416LF	0-4 bar/psi	G1/2B	1	12	65,50
PE550616LF	0-6 bar/psi	G1/2B	1	12	65,50
PE551016LF	0-10 bar/psi	G1/2B	1	12	65,50
PE551216LF	0-12 bar/psi	G1/2B	1	12	65,50
PE551616LF	0-16 bar/psi	G1/2B	1	12	65,50
PE552016LF	0-20 bar/psi	G1/2B	1	12	65,50
PE552516LF	0-25 bar/psi	G1/2B	1	12	65,50
PE554016LF	0-40 bar/psi	G1/2B	1	12	65,50

Dimensions on instrumentation price list

MG3A-INOX 63

DN 63 back-connection glycerin-filled pressure gauge with stainless steel body, for industrial applications. Measuring range 0–1 to 0–600 bar and dual scale bar/psi.
Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PF340114LF	0-1 bar/psi	G1/4B	5	50	21,10
PF340214LF	0-1.6 bar/psi	G1/4B	5	50	21,10
PF350314LF	0-2.5 bar/psi	G1/4B	5	50	18,30
PF350414LF	0-4 bar/psi	G1/4B	5	50	18,30
PF350614LF	0-6 bar/psi	G1/4B	5	50	18,30
PF351014LF	0-10 bar/psi	G1/4B	5	50	18,30
PF351214LF	0-12 bar/psi	G1/4B	5	50	18,30
PF351614LF	0-16 bar/psi	G1/4B	5	50	18,30
PF352014LF	0-20 bar/psi	G1/4B	5	50	18,30
PF352514LF	0-25 bar/psi	G1/4B	5	50	18,30
PF354014LF	0-40 bar/psi	G1/4B	5	50	18,30

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.
Bracket available to order for panel-mounting, see instrumentation price list.

MG3A-INOX 100

DN 100 back-connection glycerin-filled pressure gauge with stainless steel body, for industrial applications. Measuring range 0–1 to 0–600 bar and dual scale bar/psi.
Accuracy class 1,6. Other scales and connections available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PF540116LF	0-1 bar/psi	G1/2B	1	12	80,80
PF550316LF	0-2.5 bar/psi	G1/2B	1	12	77,70
PF550416LF	0-4 bar/psi	G1/2B	1	12	77,70
PF550616LF	0-6 bar/psi	G1/2B	1	12	77,70
PF551016LF	0-10 bar/psi	G1/2B	1	12	77,70
PF551216LF	0-12 bar/psi	G1/2B	1	12	77,70
PF551616LF	0-16 bar/psi	G1/2B	1	12	77,70
PF552016LF	0-20 bar/psi	G1/2B	1	12	77,70
PF552516LF	0-25 bar/psi	G1/2B	1	12	77,70
PF554016LF	0-40 bar/psi	G1/2B	1	12	77,70

Dimensions on instrumentation price list

MG3B-INOX 63

DN63 back-connection glycerin-filled pressure gauge for panel-mounting with 3-hole flange for industrial applications. Stainless steel body and dual scale bar/psi. Accuracy class 1,6. DN 100, for measuring ranges from 0–1 to 0–600 bar also available to order.
EN 837-1 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each*
PG340114LF	0-1 bar/psi	G1/4B	5	40	25,30
PG340214	0-1.6 bar/psi	G1/4B	5	40	25,30
PG350314LF	0-2.5 bar/psi	G1/4B	5	40	22,40
PG350414LF	0-4 bar/psi	G1/4B	5	40	22,40
PG350614LF	0-6 bar/psi	G1/4B	5	40	22,40
PG351014LF	0-10 bar/psi	G1/4B	5	40	22,40
PG351214LF	0-12 bar/psi	G1/4B	5	40	22,40
PG351614LF	0-16 bar/psi	G1/4B	5	40	22,40
PG352014LF	0-20 bar/psi	G1/4B	5	40	22,40
PG352514LF	0-25 bar/psi	G1/4B	5	40	22,40
PG354014LF	0-40 bar/psi	G1/4B	5	40	22,40

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

ACCESSORIES FOR PRESSURE GAUGES

S INOX 63

Bracket for panel-mounting supplied separately.

Part no.			Pcs/pack	Package	€ each
PMINACC047	Panel-mounting bracket	MG3A-INOX	1	1	2,89

403/RF

Pressure gauge valve with ø 40 mm test flange. PN 16. **Complies with INAIL technical requirements.**

Part no.	Connection	Pcs/pack	Package	€ each
403R14	G1/4B	1	1	14,80
403R38	G3/8B	1	1	15,90
403R12	G1/2B	1	1	18,70

RS

Pressure gauge valve. PN 5.

Part no.	Connection	Pcs/pack	Package	€ each
PZ112000	G1/4B	1	1	10,50
PZ122000	G3/8B	1	1	11,50
0335015	FF 1/2	1	1	12,00
PZ132000	MM 1/2IG x 1/2AG	1	1	14,50

RFX

STAINLESS STEEL pressure gauge valve with ø 40 mm test flange. PN 210.

Part no.	Connection	Pcs/pack	Package	€ each
PZ11010000	G1/4B	1	1	382,50
PZ12010000	G3/8B	1	1	393,50
PZ13010000	G1/2B	1	1	404,00

RP

Nickel-plated pushbutton-operated pressure gauge valve for MP1 Series diaphragm pressure gauges. PN 4.

Part no.	Connection	Pcs/pack	Package	€ each
PZ111000	G1/4B	1	1	19,30
PZ121000	G3/8B	1	1	20,50
PZ131000	G1/2B	1	1	23,60

407D/SRN

Nickel-plated copper insulation loop for pressure gauges and pressure switches.
PN 25. Male-female connections.

Part no.	Connection	Pcs/pack	Package	€ each
407D14	G1/4B	1	1	12,30
407D38	G3/8B	1	1	14,90
407D12	G1/2B	1	1	19,00

SRX

Stainless steel coil. STAINLESS STEEL insulation coil for pressure gauges.
PN 100. Male-female connections.

Part no.	Connection	Pcs/pack	Package	€ each
PZ16100000	G1/2B	1	1	105,10
PZ1410000	G1/4B	1	1	84,90

VR

Soft seal check valve. PN 10. Male-female connections.

Part no.	Connection	Pcs/pack	Package	€ each
0329008	G1/4B x G1/4B	1	1	5,90
0329010	G3/8B x G3/8B	1	1	3,40
PZ04000D00	G1/2B x G1/4B	1	1	4,25
0329015	G1/2B x G1/2B	1	1	4,35

AM

Brass damper with male-female connections.

Part no.	Connection	Pcs/pack	Package	€ each
PZ010000	G1/4B	1	1	20,60
PZ020000	G3/8B	1	1	24,00
PZ030000	G1/2B	1	1	26,30

Chapter 4.2

THERMOMETERS

Bimetallic system thermometers

TBR-80/VE

DN 80 bottom-connection bimetallic thermometer with chrome-plated steel body for heating systems complete with brass pocket - fixing with O-ring. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT8A507006	50 mm	0 to 120°C	G1/2B	1	50	29,10
PT8A987002	75 mm	-30-50°C	G1/2B	1	50	29,40
PT8A447001	75 mm	0 to 60°C	G1/2B	1	50	29,40
PT8B987002	100 mm	-30-50°C	G1/2B	1	40	32,20
PT8B447003	100 mm	0 to 60°C	G1/2B	1	40	32,20
PT8B507005	100 mm	0 to 120°C	G1/2B	1	40	32,10

Dimensions on instrumentation price list

TBC-33

DN 33 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for underfloor heating systems. Accuracy class 2.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
	8,5 mm	0-50°C	ø 15	10	250	7,55
PTAM440000	13,5 mm	0 to 60°C	ø 15	10	250	7,55
	8,5 mm	0 to 70°C	ø 15	10	250	7,55
PTAM450000	13,5 mm	0 to 80°C	ø 15	10	250	7,55
PTAM450003	8,5 mm	0 to 80°C	ø 15	10	250	7,55
PTAM450002	8,5 mm	0 to 80°C	ø 12	10	250	7,55

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TBC-40/VE

DN 40 back-connection bimetallic thermometer with galvanised steel body for underfloor heating systems. Accuracy class 2. **EN 13190 compliant.**

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
	8,5 mm	0-120°C	ø 15	10	240	7,65
PTAM450004	8,5 mm	0 to 80°C	ø 15	10	240	7,65

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TBC-40

DN 40 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for underfloor heating systems. Accuracy class 2.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PTAM450007	8,5 mm	0-80°C	ø 15	10	240	8,25

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TBE-63VE

DN 63 back-connection bimetallic thermometer with galvanised steel body for underfloor heating systems. Accuracy class 2.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT6A499002	13,5 mm	20 to 100°C	ø 15	10	100	9,10
	13,5 mm	0 to 80°C	ø 15	10	100	9,10
	13,5 mm	0 to 100°C	ø 15	10	100	9,10

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-40

DN 40 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT10457008	30 mm	0-80°C	G3/8B	50	250	10,00
PT10507011	30 mm	0-120°C	G3/8B	50	250	10,00
	50 mm	-30 to +50 °C	G1/2B	50	50	10,00
	50 mm	0-60°C	G1/2B	50	50	10,00
	50 mm	0-80°C	G1/2B	50	50	10,00
	50 mm	0-120°C	G1/2B	50	50	10,00

*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-40/VE

DN 40 back-connection bimetallic thermometer with galvanised steel body for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT1A457010	30 mm	0-80°C	G3/8B	50	250	9,70
PT1A507001	30 mm	0-120°C	G3/8B	50	250	9,70
	50 mm	-30 to +50 °C	G1/2B	50	50	9,70
PT1A447000	50 mm	0-60°C	G1/2B	50	50	9,70
	50 mm	0-80°C	G1/2B	50	50	9,70
PT1A507005	50 mm	0-120°C	G1/2B	50	50	9,70

*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-ABS 51

Bimetallic thermometer for solar control units. DN 51 plastic body with chrome-plated bezel, back connection. Measuring range from 0 to 60 at 160°C. Accuracy class 2.0.
EN 13190 compliant.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
	50,5	0 to 60°C		50	50	7,85
PT25509003	50,5	0 to 120°C		50	50	7,85
PT25559001	50,5	0 to 160°C		50	50	7,85
	90,5	0 to 60°C		50	50	9,30
PT26509004	90,5	0 to 120°C		50	50	9,30
	90,5	0 to 160°C		50	50	9,30

*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-ABS 63/ORT

DN 63 back-connection bimetallic thermometer with polycarbonate body and chrome-plated steel bezel, for heating systems complete with brass pocket – fixing with O-ring. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT30987001	50 mm	-30 to +50 °C	G1/2B	10	100	8,70
PT30447011	50 mm	0-60°C	G1/2B	10	100	8,70
PT30457001	50 mm	0-80°C	G1/2B	10	100	8,70
PT30507068	50 mm	0-120°C	G1/2B	10	100	7,85
PT31987004	100 mm	-30 to +50 °C	G1/2B	6	60	10,95
PT31447003	100 mm	0-60°C	G1/2B	6	60	10,95
PT31457000	100 mm	0-80°C	G1/2B	6	60	10,95
PT31507012	100 mm	0-120°C	G1/2B	6	60	10,10

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-63/VE

DN 63 back-connection bimetallic thermometer with galvanised steel body for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
	50 mm	-30 to +50 °C	G1/2B	10	100	10,10
PT3A447002	50 mm	0-60°C	G1/2B	10	100	10,10
	50 mm	0-80°C	G1/2B	10	100	10,10
PT3A507009	50 mm	0-120°C	G1/2B	10	100	9,10
	100 mm	-30 to +50 °C	G1/2B	6	60	12,30
	100 mm	0-60°C	G1/2B	6	60	12,30
	100 mm	0-80°C	G1/2B	6	60	12,30
PT3B507005	100 mm	0-120°C	G1/2B	6	60	11,70
	150 mm	as above	G1/2B	5	50	15,90
PT3C507001	150 mm	0-120°C	G1/2B	5	50	14,20
	200 mm	as above	G1/2B	4	40	16,90
	200 mm	0-120°C	G1/2B	4	40	14,50
	300 mm	as above	G1/2B	2	20	18,10
	300 mm	0-120°C	G1/2B	2	20	16,30

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-63

DN 63 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for heating systems, complete with brass pocket, with fixing screw.
Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT309870	50 mm	-30 to +50 °C	G1/2B	10	100	10,20
PT304470	50 mm	0-60°C	G1/2B	10	100	10,20
	50 mm	0-80°C	G1/2B	10	100	10,20
PT305070	50 mm	0-120°C	G1/2B	10	100	9,30
	50 mm	0-140°C	G1/2B	10	100	10,20
PT30587001	50 mm	0-200°C	G1/2B	10	100	10,20
PT30607000	50 mm	0-250°C	G1/2B	10	100	10,20
PT306470	50 mm	0-350°C	G1/2B	10	100	10,20
PT31987001	100 mm	-30 to +50 °C	G1/2B	6	60	12,70
PT31447001	100 mm	0-60°C	G1/2B	6	60	12,70
	100 mm	0-80°C	G1/2B	6	60	12,70
PT315070	100 mm	0-120°C	G1/2B	6	60	11,80
	100 mm	0-140°C	G1/2B	6	60	12,70
PT31587001	100 mm	0-200°C	G1/2B	6	60	12,70
PT31607001	100 mm	0-250°C	G1/2B	6	60	12,70
PT316470	100 mm	0-350°C	G1/2B	6	60	12,70
PT31687000	100 mm	0-500°C	G1/2B	6	60	12,70
	150 mm	as above	G1/2B	5	50	16,50
	150 mm	0-120°C	G1/2B	5	50	14,50
PT32687000	150 mm	0-500°C	G1/2B	5	50	16,50
	200 mm	as above	G1/2B	4	40	17,50
PT335070	200 mm	0-120°C	G1/2B	4	40	15,20
	300 mm	as above	G1/2B	2	20	18,40
PT34507000	300 mm	0-120°C	G1/2B	2	20	16,60

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-ABS 80/ORT

DN 80 back-connection bimetallic thermometer with polycarbonate body and chrome-plated steel bezel, for heating systems, complete with brass pocket – fixing with O-ring. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT40987014	50 mm	-30 to +50 °C	G1/2B	10	80	8,90
PT40447007	50 mm	0-60°C	G1/2B	10	80	8,90
PT40457001	50 mm	0-80°C	G1/2B	10	80	8,90
PT405070D4	50 mm	0-120°C	G1/2B	10	80	8,50
PT41987010	100 mm	-30 to +50 °C	G1/2B	6	48	11,40
PT41447004	100 mm	0-60°C	G1/2B	6	48	11,40
PT41457002	100 mm	0-80°C	G1/2B	6	48	11,40
PT41507047	100 mm	0-120°C	G1/2B	6	48	10,30

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-80/VE

DN 80 back-connection bimetallic thermometer with galvanised steel body for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT4A987003	50 mm	-30 to +50 °C	G1/2B	10	80	10,30
PT4A447004	50 mm	0-60°C	G1/2B	10	80	10,30
	50 mm	0-80°C	G1/2B	10	80	10,30
PT4A507011	50 mm	0-120°C	G1/2B	10	80	9,90
PT4B987002	100 mm	-30 to +50 °C	G1/2B	6	48	12,90
PT4B447003	100 mm	0-60°C	G1/2B	6	48	12,90
	100 mm	0-80°C	G1/2B	6	48	12,90
PT4B507005	100 mm	0-120°C	G1/2B	6	48	11,70
	150 mm	as above	G1/2B	2	40	15,30
PT4C507001	150 mm	0-120°C	G1/2B	2	40	15,30
	200 mm	as above	G1/2B	2	40	15,90
PT4D447000	200 mm	0-60°C	G1/2B	2	40	15,90
	200 mm	0-120°C	G1/2B	2	40	15,30
	300 mm	as above	G1/2B	2	20	17,60
	300 mm	0-120°C	G1/2B	2	20	16,60

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-80

DN 80 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT409870	50 mm	-30 to +50 °C	G1/2B	10	80	10,90
PT404470	50 mm	0-60°C	G1/2B	10	80	10,90
PT40457002	50 mm	0-80°C	G1/2B	10	80	10,90
PT405070	50 mm	0-120°C	G1/2B	10	80	10,00
	50 mm	0-140°C	G1/2B	10	80	10,90
PT406170	50 mm	0-200°C	G1/2B	10	80	10,90
	50 mm	0-250°C	G1/2B	10	80	10,90
PT40647000	50 mm	0-350°C	G1/2B	10	80	10,90
PT419870	100 mm	-30 to +50 °C	G1/2B	6	48	13,40
PT414470	100 mm	0-60°C	G1/2B	6	48	13,40
PT41457001	100 mm	0-80°C	G1/2B	6	48	13,40
PT415070	100 mm	0-120°C	G1/2B	6	48	11,80
	100 mm	0-140°C	G1/2B	6	48	13,40
PT415870	100 mm	0-200°C	G1/2B	6	48	13,40
PT41607001	100 mm	0-250°C	G1/2B	6	48	13,40
PT41647000	100 mm	0-350°C	G1/2B	6	48	13,40
PT41687001	100 mm	0-500°C	G1/2B	6	48	13,40
	150 mm	as above	G1/2B	2	40	15,60
PT42507004	150 mm	0-120°C	G1/2B	2	40	14,90
	200 mm	as above	G1/2B	2	40	16,00
PT43447000	200 mm	0-60° C	G1/2B	2	40	16,00
	200 mm	0-120°C	G1/2B	2	40	15,70
	300 mm	as above	G1/2B	2	20	18,00
PT445070	300 mm	0-120°C	G1/2B	2	20	16,80

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-100/VE

DN100 back-connection bimetallic thermometer with galvanised steel body for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT5A987002	50 mm	-30-50°C	G1/2B	6	24	14,90
PT5A447003	50 mm	0 to 60°C	G1/2B	6	24	14,90
PT5A507006	50 mm	0 to 120°C	G1/2B	6	24	14,30
PT5B987002	100 mm	-30-50°C	G1/2B	6	24	18,10
PT5B447003	100 mm	0 to 60°C	G1/2B	6	24	18,10
PT5B507006	100 mm	0 to 120°C	G1/2B	6	24	17,80

Dimensions on instrumentation price list
Other scales and stem lengths available to order.
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TB-100

DN 100 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for heating systems, complete with brass pocket, with fixing screw. Accuracy class 2.
Complies with EN 13190 and INAIL technical requirements.

Part no.	Stem	Scale	Connection	Pcs/pack	Package	€ each
PT50987004	50 mm	-30-50°C LW	G1/2B	6	24	15,30
PT504470	50 mm	0 to 60°C	G1/2B	6	24	15,30
PT505070 / PT50507027	50 mm	0-120°C LW	G1/2B	6	24	14,50
PT50587001	50 mm	0-200°C LW	G1/2B	6	24	15,30
PT519870	100 mm	-30-50°C	G1/2B	6	24	18,70
PT514470	100 mm	0 to 60°C	G1/2B	6	24	18,70
PT515070 / PT51507018	100 mm	0-120°C LW	G1/2B	6	24	18,10
PT515870	100 mm	0 to 200°C	G1/2B	6	24	18,70

Dimensions on instrumentation price list
Other scales and stem lengths available to order.
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TBX-63

DN63 back-connection bimetallic thermometer with stainless steel body and stem for industrial systems. Measuring range from 0–60 to 160°C / -20+60°C. Stem lengths 63-100-150mm, without pocket. Accuracy class 1, DIN16203 compliant. **EN 60529 compliant.**

Part no.	Stem	Scale	Pcs/pack	Package	€ each
PZ6T36460000	63	-20 to +60 °C	1	1	88,00
	63	-20 to +80 °C	1	1	88,00
	63	-20 to +120 °C	1	1	88,00
PZ6T364401	63	0-60°C	1	1	88,00
PZ6T365001	63	0-120°C	1	1	88,00
PZ6T36540001	63	0-160°C	1	1	88,00
	100	-20 to +60 °C	1	1	91,00
	100	-20 to +80 °C	1	1	91,00
	100	-20 to +120 °C	1	1	91,00
	100	0-60°C	1	1	91,00
PZ6T375001	100	0-120°C	1	1	91,00
	100	0-160°C	1	1	91,00
PZ6T38460000	150	-20 to +60 °C	1	1	95,00
	150	-20 to +80 °C	1	1	95,00
	150	-20 to +120 °C	1	1	95,00
	150	0-60°C	1	1	95,00
	150	0-120°C	1	1	95,00
	150	0-160°C	1	1	95,00

Dimensions on instrumentation price list

TBX-80

DN80 back-connection bimetallic thermometer with stainless steel body and stem for industrial systems. Measuring range from 0–60 to 160°C / -20+60°C. Stem lengths 63-100-150-200mm, without pocket. Accuracy class 1, DIN16203 compliant. **EN 60529 compliant.**

Part no.	Stem	Scale	Pcs/pack	Package	€ each
PZ6T45460000	63	-20 to +60 °C	1	1	105,00
	63	-20 to +80 °C	1	1	105,00
	63	-20 to +120 °C	1	1	105,00
PZ6T464401	63	0-60°C	1	1	105,00
PZ6T4550000	63	0-120°C	1	1	105,00
PZ6T46540000	63	0-160°C	1	1	105,00
PZ6T46460001	100	-20 to +60 °C	1	1	110,00
	100	-20 to +80 °C	1	1	110,00
	100	-20 to +120 °C	1	1	110,00
	100	0-60°C	1	1	110,00
PZ6T41507000	100	0-120°C	1	1	110,00
	100	0-160°C	1	1	110,00
	150	-20 to +60 °C	1	1	114,00
	150	-20 to +80 °C	1	1	114,00
	150	-20 to +120 °C	1	1	114,00
	150	0-60°C	1	1	114,00
PZ6T42507000	150	0-120°C	1	1	114,00
	150	0-160°C	1	1	114,00
PZ6T46460000	200	-20 to +60 °C	1	1	120,00
	200	-20 to +80 °C	1	1	120,00
	200	-20 to +120 °C	1	1	120,00
	200	0-60°C	1	1	120,00
	200	0-120°C	1	1	120,00
	200	0-160	1	1	120,00

Dimensions on instrumentation price list

TBX-100

DN100 back-connection bimetallic thermometer with stainless steel body and stem for industrial systems. Measuring range from 0–60 to 160°C / -20+60°C. Stem lengths 63-100-150-200mm, without pocket. Accuracy class 1, DIN16203 compliant. **EN 60529 compliant.**

Part no.	Stem	Scale	Pcs/pack	Package	€ each
PZ6T56460000	63	-20 to +60 °C	1	1	112,00
	63	-20 to +80 °C	1	1	112,00
	63	-20 to +120 °C	1	1	112,00
PZ6T56440000	63	0-60°C	1	1	112,00
PZ6T55500000	63	0-120°C	1	1	112,00
PZ6T56545000	63	0-160°C	1	1	112,00
PZ6T56960001	100	-20 to +60 °C	1	1	116,00
	100	-20 to +80 °C	1	1	116,00
	100	-20 to +120 °C	1	1	116,00
PZ6T51440001	100	0-60°C	1	1	116,00
PZ6T51507000	100	0-120°C	1	1	116,00
PZ6T51547000	100	0-160°C	1	1	116,00
PZ6T57960000	150	-20 to +60 °C	1	1	122,00
	150	-20 to +80 °C	1	1	122,00
	150	-20 to +120 °C	1	1	122,00
	150	0-60°C	1	1	122,00
	150	0-120°C	1	1	122,00
PZ6T57547000	150	0-160°C	1	1	122,00
PZ6T58969001	200	-20 to +60 °C	1	1	126,00
	200	-20 to +80 °C	1	1	126,00
	200	-20 to +120 °C	1	1	126,00
	200	0-60°C	1	1	126,00
	200	0-120°C	1	1	126,00
	200	0-160°C	1	1	126,00

Dimensions on instrumentation price list

Part no. DCERTAR003	SIT test certificate	*Test certificate*	**€ each** available to order
Part no. available to order	SIT Accredia test certificate	*Test certificate*	**€ each** available to order

G

Brass pockets for TB - TB-ABS ORT and TBR Series thermometers.
G50/INAIL (formerly ISPESL) model. Complies with INAIL technical requirements.

Part no.	Description	Connection	Pcs/ pack	Package	€ each
PGUAOTT011	G-30 for TB - 30mm stem	G3/8B	1	1	3,40
PGUAOTT002	G-50 for TB - 50mm stem	G1/2B	1	1	3,40
0309115	G-50/INAIL for TB - 50mm stem	G1/2B	1	1	3,40
PGUAOTT005	G-100 for TB - 100mm stem	G1/2B	1	1	6,20
PGUAOTT006	G-150 for TB - 150mm stem	G1/2B	1	1	12,80
PGUAOTT007	G-200 for TB - 200mm stem	G1/2B	1	1	13,70
PGUAOTT008	G-300 for TB - 300mm stem	G1/2B	1	1	15,30
PGUAOTT019	G-50 for TBR / TB-ABS ORT- 50mm stem	G1/2B	1	1	3,40
PGUAOTT023	G-75 for TBR - 75mm stem	G1/2B	1	1	6,40
PGUAOTT020	G-100 for TBR / TB-ABS ORT - 100mm stem	G1/2B	1	1	6,70

Dimensions on instrumentation price list

G-INOX

AISI 304 stainless steel pockets for TB and TBX Series thermometers.

Part no.	Description	Connection	Pcs/ pack	Package	€ each
PGUAINX006	G-INOX for TB - 50 stem	G1/2B	1	1	38,00
PGUAINX004	G-INOX for TB - 100 stem	G1/2B	1	1	47,00
PGUAINX013	G-INOX for TB - 150 stem	G1/2B	1	1	50,00
PGUAINX011	G-INOX for TB - 200 stem	G1/2B	1	1	51,00
PGUAINX003	G-INOX for TBX - 63 stem	G1/2B	1	1	49,00
PGUAINX014	G-INOX for TBX - 100 stem	G1/2B	1	1	52,00
PGUAINX005	G-INOX for TBX - 150 stem	G1/2B	1	1	53,00
PGUAINX001	G-INOX for TBX - 200 stem	G1/2B	1	1	55,00

Dimensions on instrumentation price list

TCM-63

DN 63 bimetallic contact thermometer with painted steel body and fixing spring for Ø 30mm to Ø 65mm pipes. Accuracy class 2.
EN 13190 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PT05447000	0 to 60°C	spring	1	50	7,60
PT05507007	0 to 120°C	spring	1	50	7,60

Dimensions on instrumentation price list

TCF-63

DN 63 bimetallic contact thermometer with painted steel body and steel fixing clamp for Ø 50 mm to Ø 76 mm pipes. Accuracy class 2.
EN 13190 compliant.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PT06447000	0 to 60°C	clamp	1	70	8,90
PT06507004	0 to 120°C	clamp	1	70	8,90

Dimensions on instrumentation price list

Flue thermometers and accessories

TB-63/FUMI

DN 63 back-connection bimetallic thermometer with galvanised steel body and chrome-plated bezel for measuring flue gas temperature (pyrometer). Measuring range 0 to 500°C. Accuracy class 2.

Part no.	Stem	Scale	Pcs/pack	Package	€ each
PT36687004	100 mm	0 to 500°C	6	60	10,30
PT37687005	150 mm	0 to 500°C	5	50	13,30
PT38687006	200 mm	0 to 500°C	4	40	13,50
PT39687006	300 mm	0 to 500°C	2	20	13,90

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

MC

COOP spring for fixing TB thermometers.

Part no.	Pcs/pack	Package	€ each
PMINACC037	1	1	1,45

Dimensions on instrumentation price list

MCL

CLIP spring for fixing TB thermometers.

Part no.	Pcs/pack	Package	€ each
PMINACC049	1	1	1,35

Dimensions on instrumentation price list

SC

Channel base for fixing TB thermometers.

Part no.	Pcs/pack	Package	€ each
PMINACC034	1	1	2,90

Dimensions on instrumentation price list

Glass thermometers

TV

Straight xylene-filled glass thermometer. Measuring range: -10 to 120°C.
Accuracy class 2.

Part no.	Length	Bulb	Scale	Pcs/pack	Package	€ each
PZ185070	200 mm	35 mm	-10 to 120°C	10	20	13,50
PZ205070	250 mm	35 mm	-10 to 120°C	10	20	16,20
PZ225070	300 mm	50 mm	-10 to 120°C	10	20	19,90

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

C

Straight brass case with pocket for TV Series glass thermometers.

Part no.	Length	Bulb	Connection	Pcs/pack	Package	€ each
PZ050000	200 mm	45 mm	1/2”	10	20	16,90
PZ060000	250 mm	45 mm	1/2”	10	20	18,30

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TVA

Right-angle xylene-filled glass thermometer. Measuring range: -10 to 120°C.
Accuracy class 2.

Part no.	Length	Bulb	Scale	Pcs/pack	Package	€ each
PZ265070	200 mm	45 mm	-10 to 120°C	10	10	25,50
PZ275070	250 mm	45 mm	-10 to 120°C	10	10	26,20

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

CA

Right-angle brass case with pocket for TVA Series glass thermometers.

Part no.	Length	Connection	Pcs/pack	Package	€ each
PZ080000	200 mm	1/2”	10	10	22,40
PZ090000	250 mm	1/2”	10	10	23,60

Dimensions on instrumentation price list
*Unit price. The articles are purchasable by pack, in accordance with the specified quantities and respective multiples.

TID

Straight immersion thermometer with aluminium body and brass sheath, PN 16.
Measuring ranges: 0 to 120°C or -30 to 50°C. Accuracy class 1.
DIN 16185 compliant.

Part no.	Bulb/Connection	Scale	Pcs/pack	Package	€ each
0307503	63mm/1/2”	0 to 120°C	1	20	54,90
0307510	100mm/1/2”	0 to 120°C	1	20	56,60
0307603	63mm/1/2”	-30-50°C	1	20	54,90
0307610	100mm/1/2”	-30-50°C	1	20	56,60

Dimensions on instrumentation price list

TIS

Right-angle immersion thermometer with aluminium body and brass sheath, PN 16.
Measuring ranges: 0 to 120°C or -30 to 50°C. Accuracy class 1.
DIN 16186 compliant.

Part no.	Bulb/Connection	Scale	Pcs/pack	Package	€ each
0307703	63mm/1/2”	0 to 120°C	1	20	60,90
0307710	100mm/1/2”	0 to 120°C	1	20	58,10
0307803	63mm/1/2”	-30-50°C	1	20	60,90
0307810	100mm/1/2”	-30-50°C	1	20	58,10

Dimensions on instrumentation price list

Chapter 4.3

COMBINED THERMOMETERS AND PRESSURE GAUGES

TIRM-ABS 80

DN 80 bottom-connection combined thermometer and pressure gauge with plastic body and red pointer for heating systems. Pressure accuracy class 4 - Temperature accuracy class 2.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PL4203VD01	0-2.5 bar/0-120°C	G1/2B	1	50	30,80
PL4204BD03	0-4 bar/0-120°C	G1/2B	1	50	30,80
PL4206BD03	0-6 bar/0-120°C	G1/2B	1	50	30,80

Dimensions on instrumentation price list

TIM-ABS 63

DN 63 back-connection combined thermometer and pressure gauge with plastic body and red pointer for heating systems. Pressure accuracy class 4 - Temperature accuracy class 2.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PN3204BD01	0-4 bar/0-120°C	G1/2B	1	50	19,30
PN3206VD03	0-6 bar/0-120°C	G1/2B	1	50	19,30

Dimensions on instrumentation price list

TIM-ABS 80

DN 80 back-connection combined thermometer and pressure gauge with plastic body and red pointer for heating systems. Pressure accuracy class 4 - Temperature accuracy class 2.

Part no.	Scale	Connection	Pcs/pack	Package	€ each
PN4203BD02	0-2.5 bar/0-120°C	G1/2B	1	50	21,10
PN4204BD12	0-4 bar/0-120°C	G1/2B	1	50	21,10
PN4206BD05	0-6 bar/0-120°C	G1/2B	1	50	21,10
PN4210BD00	0-10 bar/0-120°C	G1/2B	1	50	21,10

Dimensions on instrumentation price list

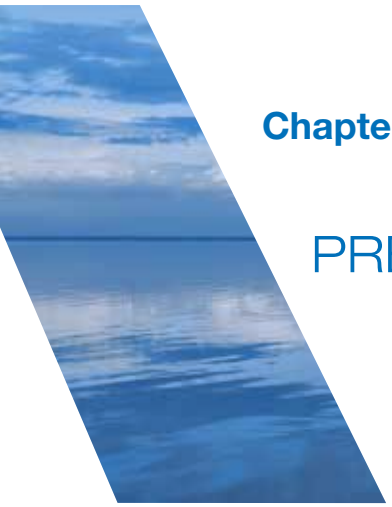
Chapter 5

Pre-insulated flexible piping

WATTS®

MICROFLEX®

Flexible and quick to install
Double-wall outer casing
10-year warranty



Chapter 5

PRE-INSULATED FLEXIBLE PIPING

Microflex

Microflex is a pre-insulated flexible piping system for fluid distribution in central heating and cooling systems and for domestic water distribution both for individual dwelling units and large district heating networks. Fixed points must be used on heating/cooling pipes (yellow) and domestic water pipes (white).

TECHNICAL NOTE: selection guide

APPLICATION	FLUID	PIPE	Δt MAX. FLUID	MAX. PRESSURE	PRODUCT RANGE
	Heating (Cooling)	PEX-a	-10 to 95°C	6 bar	M...CWI, MD...CWI, MQ
	Domestic water DHW	PEX-a	-10 to 95°C	10 bar	M...SWI, MD...SWI, MQ
	Domestic cold water	HDPE	+25°C	16 bar	M(V)...PEWI, MD...PEWI
	Cooling	HDPE	-10 to 25°C	16 bar	M(V)...PEWI, MD...PEWI

EXAMPLE OF HOW TO READ PART NUMBERS M16063CWI

Product type	External diameter of corrugated outer casing	External diameter of PEX-A/PE pipe	Pipe type	WI
M = UNO/UNO PRIMO/COOL	**mm** = 75	**mm** = 18	**C** = PEX-a for heating/cooling (Pmax=6bar)	Produced to measure Watts Italia
MD = DUO/DUO PRIMO	**mm** = 90	**mm** = 20	**S** = PEX-a domestic water (Pmax=10bar)	
MQ = QUADRO	**mm** = 125	**mm** = 22	**PE** = PE-HD domestic cold water	
MV = COOL with heating cable	**mm** = 160	**mm** = 25		
	mm = 200	**mm** = 28		
		mm = 32		
		mm = 40		
		mm = 50		
		mm = 63		
		mm = 75		
		mm = 90		
		mm = 110		
		mm = 125		

Mechanical AND THERMAL PROPERTIES OF PEX-A PIPE TO DIN 16892/16893 EN ISO 15875

Property	Test method	Unit	Typical value
Density	DIN 53479	kg/m^3	938
Elastic modulus (tensile) 20°	DIN 53457	N/mm^2	600
Tensile strength 20°C 80°C	DIN 53455	N/mm^2	 ≥ 20-26 > 9-13
Failure load 20°C 80°C 140°	DIN 53455	N/mm^2	 ≥ 20-26 9-13 1,6-2,0
Yield point elongation 20°C 80°C 140°	DIN 53455	%	 ≥ 400 ≥ 400 ≥ 250
Impact resistance 20°C -20°C	DIN 53453	KJ/m^2	 No failure No failure
Thermal conductivity	DIN 52612	W/mK	0.35
Linear expansion 20°C 100°C	DIN 43328	1/K	 1,4 X 10^{-4} 2,0 X 10^{-4}
Oxygen permeability at 40°C	DIN 4726		≥ 0.1 mg/l x day
Equivalent roughness		mm	0,007
DVGW (German Technical and Scientific Association for Gas and Water)	Work document W531		
Transverse resistance	DIN 53482	Ω cm	> 10^{18}
Specific thermal capacity	DIN 51005	kJ/kg/K	2,3

INSULATING MATERIAL

The insulating material is a microcellular cross-linked polyethylene foam.
As well as providing excellent insulating properties, the closed-cell structure of the material minimises water absorption. The material is CFC-free.

CFC free

Insulating material properties		Standard	Value
Density	-	ISO 845	30 kg/m^3
Tensile strength	longitudinal	ISO 1798	0,30 MPa
	transverse		0,25 MPa
Elongation at break	longitudinal	ISO 1798	140%
	transverse		145%
Compression strength	10%	ISO 3386-1	16,6 KPa
	25%		35,7 KPa
	50%		94 KPa
Thermal stability		ISO 2796	95° C
Residual deformation 22 h, 25%, 23°	0.5 h	ISO 1856	16,6%
	24h		8,1%
Operating temperature		from	-80 to 110°C
Water absorption after 28 days		DIN ISO 2896	< 3% vol.
Hardness	Shore A	ISO R.868	12
Thermal conductivity at 40°C		ASTM C-177	0,0372 W/mK

MICROFLEX UNO HEATING AND COOLING

Microflex pre-insulated flexible piping for heating and cooling systems with SDR11 single internal pipe in PEX-a with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures of **-10 to 95°C** and pressures up to **6 bar**, **to EN ISO 15875**.
Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
M7525CWI	25/2.3	20	75	0,68	20	6	40,60
M9032CWI	32/2.9	25	90	1,00	25	6	44,80
M12525CWI	25/2.3	20	125	1,32	30	6	58,30
M12532CWI	32/2.9	25	125	1,48	30	6	63,90
M16032CWI	32/2.9	25	160	1,96	35	6	76,70
M16040CWI	40/3.7	32	160	2,32	35	6	79,00
M16050CWI	50/4.6	40	160	2,48	45	6	87,30
M16063CWI	63/5.8	50	160	2,78	55	6	100,50
M20075CWI	75/6.8	65	200	4,16	80	6	133,00
M20090CWI	90/8.2	75	200	4,73	110	6	154,00
M200110CWI	110/10	90	200	5,64	120	6	180,20
M200125CWI	125/11.4	100	200	6,00	140	6	220,80

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
M7525CWI	MS7525	12,50	MG751832	66,00	MJ3413425/23	3/4”	25/2.3	25,60	MFP34	14,70
M9032CWI	MS9032	12,50	MG901840	71,50	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
M12525CWI	MS12525	12,50	MG1252532	74,20	MJ3413425/23	3/4”	25/2.3	25,60	MFP34	14,70
M12532CWI	MS12532	12,50	MG1252532	74,20	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
M16032CWI	MS16032	12,50	MG1603250	82,80	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
M16040CWI	MS16040	12,50	MG1603250	82,80	MJ3415440/37	1.1/4”	40/3.7	46,90	MFP54	64,80
M16050CWI	MS16050	12,50	MG1603250	82,80	MJ3416450/46	1.1/2”	50/4.6	62,20	MFP64	84,00
M16063CWI	MS16063	12,50	MG1606390	82,80	MJ341263/58	2”	63/5.8	97,70	MFP2	119,90
M20075CWI	MS20075	12,50	MG20075125	119,40	MJ34121275/68	2.1/2”	75/6.8	143,70	MFP212	178,90
M20090CWI	MS20090	12,50	MG20075125	119,40	MJ341390/82	3”	90/8.2	227,60	MFP3	245,90
M200110CWI	MS200110	12,50	MG20075125	119,40	MJ3414110/10	4”	110/10	315,00	MFP4	453,10
M200125CWI	MS200125	12,50	MG20075125	119,40	MJ3414125/114	4”	125/11.4	493,00	MFP4	453,10

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX UNO PRIMO HEATING AND COOLING

Microflex pre-insulated flexible piping for heating and cooling systems with SDR11 single internal pipe in PEX-a with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures of **-10 to 95°C** and pressures up to **6 bar, to EN ISO 15875.**
Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
M9040CWI	40/3.7	32	90	1,11	30	6	47,60
M12540CWI	40/3.7	32	125	1,72	30	6	57,00
M12550CWI	50/4.6	40	125	1,92	40	6	65,20
M12563CWI	63/5.8	50	125	2,16	50	6	76,40
M16075CWI	75/6.8	65	160	3,2	75	6	112,00
M16090CWI	90/8.2	75	160	3,85	100	6	133,70

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
M9040CWI	MS9040	12,50	MG901840	71,50	MJ3415440/37	1.1/4"	40/3.7	46,90	MFP54	64,80
M12540CWI	MS12540	12,50	MG1254063	77,80	MJ3415440/37	1.1/4"	40/3.7	46,90	MFP54	64,80
M12550CWI	MS12550	12,50	MG1254063	77,80	MJ3416450/46	1.1/2"	50/4.6	62,20	MFP64	84,00
M12563CWI	MS12563	12,50	MG1254063	77,80	MJ341263/58	2"	63/5.8	97,70	MFP2	119,90
M16075CWI	MS16075	12,50	MG1606390	82,80	MJ34121275/68	2.1/2"	75/6.8	143,70	MFP212	178,90
M16090CWI	MS16090	12,50	MG1606390	82,80	MJ341390/82	3"	90/8.2	227,60	MFP3	245,90

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX DUO HEATING AND COOLING

Microflex pre-insulated flexible piping for heating and cooling systems with two SDR11 internal pipes in PEX-a with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures of **-10 to 95°C** and pressures up to **6 bar**, **to EN ISO 15875.**
Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MD16025CWI	25/2.3	20	160	2,21	50	6	85,50
MD16032CWI	32/2.9	25	160	2,41	50	6	89,60
MD16040CWI	40/3.7	32	160	2,63	60	6	97,70
MD20050CWI	50/4.6	40	200	4,03	80	6	129,50
MD20063CWI	63/5.8	50	200	4,64	120	6	150,60

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MD16025CWI	MSD16025	12,50	MGD1602550	88,90	MJ3413425/23	3/4”	25/2.3	25,60	MFP34	14,70
MD16032CWI	MSD16032	12,50	MGD1602550	88,90	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
MD16040CWI	MSD16040	12,50	MGD1602550	88,90	MJ3415440/37	1.1/4”	40/3.7	46,90	MFP54	64,80
MD20050CWI	MSD20050	12,50	MGD2004063	118,80	MJ3416450/46	1.1/2”	50/4.6	62,20	MFP64	84,00
MD20063CWI	MSD20063	12,50	MGD2004063	118,80	MJ341263/58	2”	63/5.8	97,70	MFP2	119,90

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX DUO PRIMO HEATING AND COOLING

Microflex pre-insulated flexible piping for heating and cooling systems with two SDR11 internal pipes in PEX-a with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures of **-10°C to 95°C** and pressures up to **6 bar, to EN ISO 15875.**
Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MD12525CWI	25/2.3	20	125	1,57	30	6	55,70
MD12532CWI	32/2.9	25	125	1,77	30	6	61,10
MD16050CWI	50/4.6	40	160	3,55	50	6	109,90

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ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MD12525CWI	MSD12525	12,50	MGD1251832	79,20	MJ3413425/23	3/4"	25/2.3	25,60	MFP34	14,70
MD12532CWI	MSD12532	12,50	MGD1251832	79,20	MJ3414432/29	1"	32/2.9	34,70	MFP44	32,80
MD16050CWI	MSD16050	12,50	MGD1602550	88,90	MJ3416450/46	1.1/2"	50/4.6	62,20	MFP64	84,00

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX QUADRO PER HEATING, COOLING AND DHW

Microflex pre-insulated flexible piping for heating, cooling and domestic water systems, with four internal pipes in PEX-a **to EN ISO 15875**:
- two SDR11 pipes with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures from -10 to 95°C and pressures up to 6 bar
- two SDR7.4 pipes, suitable for water up to 95°C and pressures up to 10 bar.

Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MQ16025C2520SWI	2x25/2.3 1x25/3.5 1x20/2.8	20 20 20	160	2,40	60	6 10 10	133,00
MQ16025C2818SWI	2x25/2.3 1x28/4.0 1x18/2.5	20 20 25 15	160	2,58	60	6 10 10	134,30
MQ16032C2520SWI	2x32/2.9 1x25/3.5 1x20/2.8	25 20 20	160	2,60	60	6 10 10	135,70
MQ16032C2818SWI	2x32/2.9 1x28/4.0 1x18/2.5	25 25 15	160	2,64	60	6 10 10	143,70
MQ16032C3218SWI	2x32/2.9 1x32/4.4 1x18/2.5	25 25 15	160	2,67	60	6 10 10	149,20
MQ16032C3225SWI	2x32/2.9 1x32/4.4 1x25/3.5	25 25 20	160	2,70	60	6 10 10	156,60
MQ20040C4028SWI	2x40/3.7 1x40/5.5 1x28/4.0	32 32 25	200	4,12	130	6 10 10	210,20
MQ20040C4032SWI	2x40/3.7 1x40/5.5 1x32/4.4	32 32 25	200	4,14	130	6 10 10	216,90

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MQ16025C2520SWI	MSQ160252520	12,50	MGQ1601832	91,90	MJ3413425/23	3/4”	25/2.3	25,60	MFP34	14,70
					MJ3413425/35	3/4”	25/3.5	26,40	MFP34	14,70
					MJ3413420/28	3/4”	20/2.8	26,50	MFP34	14,70
MQ16025C2818SWI	MSQ160252818	12,50	MGQ1601832	91,90	MJ3413425/23	3/4”	25/2.3	25,60	MFP34	14,70
					MJ3414428/40	1”	28/4.0	31,00	MFP44	32,80
					MJ3411218/25	1/2"	18/2.5	25,00		
MQ16032C2520SWI	MSQ160322520	12,50	MGQ1601832	91,90	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
					MJ3413425/35	3/4”	25/3.5	26,40	MFP34	14,70
					MJ3413420/28	3/4”	20/2.8	26,50	MFP34	14,70
MQ16032C2818SWI	MSQ160322818	12,50	MGQ1601832	91,90	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
					MJ3414428/40	1”	28/4.0	31,00	MFP44	32,80
					MJ3411218/25	1/2"	18/2.5	25,00		
MQ16032C3218SWI	MSQ160323218	12,50	MGQ1601832	91,90	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
					MJ3414432/44	1”	32/4.4	34,00	MFP44	32,80
					MJ3411218/25	1/2"	18/2.5	25,00		
MQ16032C3225SWI	MSQ160323225	12,50	MGQ1601832	91,90	MJ3414432/29	1”	32/2.9	34,70	MFP44	32,80
					MJ3414432/44	1”	32/4.4	34,00	MFP44	32,80
					MJ3413425/35	3/4”	25/3.5	26,40	MFP34	14,70
MQ20040C4028SWI	MSQ200404028	12,50	n/a	n/a	MJ3415440/37	1.1/4”	40/3.7	46,90	MFP54	64,80
					MJ3415440/55	1.1/4”	40/5.5	46,80	MFP54	64,80
					MJ3414428/40	1”	28/4.0	31,00	MFP44	32,80
MQ20040C4032SWI	MSQ200404032	12,50	n/a	n/a	MJ3415440/37	1.1/4”	40/3.7	46,90	MFP54	64,80
					MJ3415440/55	1.1/4”	40/5.5	46,80	MFP54	64,80
					MJ3414432/44	1”	32/4.4	34,00	MFP44	32,80

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX HP FOR HEATING, COOLING AND CONNECTION TO HEAT PUMPS

Microflex pre-insulated flexible piping for heating and cooling systems and connection to heat pumps, consisting of:
- two SDR11 PEX-a pipes **to EN ISO 15875** with oxygen diffusion barrier (DIN 4726), suitable for fluids at temperatures from -10 to 95°C and pressures up to 6 bar
- two flame-proof corrugated casings suitable for ducting power cables and control probes.

Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø corrugated casing for ducting wires/ext./int. sensors mm		Ø outer casing mm	Weight per metre kg	Bend radius cm	PN (PEX-a pipe)	€/metre
MQ12525C3225EWI	2x25/2.3	2 x 20	25/18.8	32/25	125	1,63	30	6	65,60
MQ12532C3225EWI	2x32/2,9	2 x 25	25/18.8	32/25	125	1,79	30	6	65,60
MQ16032C3225EWI	2x32/2,9	2 x 25	25/18.8	32/25	160	2,27	50	6	85,40
MQ16040C32EWI	2x40/3,7	2 x 32	2 x 32/25		160	2,60	60	6	85,40
MQ20050C40EWI	2x50/4,6	2 x 40	2 x 40/32		200	4,00	80	6	101,80

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MQ12525C3225EWI	MSQ125253225	12,50	MGQ1251832	92,50	MJ3413425/23	3/4"	25X2,3	25,60	MFP34	14,70
MQ12532C3225EWI	MSQ125323225	12,50	MGQ1251832	92,50	MJ3414432/29	1"	32X2,9	34,70	MFP44	32,80
MQ16032C3225EWI	MSQ160323225	12,50	MGQ1601832	91,90	MJ3414432/29	1"	32X2,9	34,70	MFP44	32,80
MQ16040C32EWI	MSQ1604032	12,50	MGQ1602840	98,20	MJ3415440/37	1.1/4"	40X3,7	46,90	MFP54	64,80
MQ20050C40EWI	MSQ200504040	12,50	MGQ2002550	98,20	MJ3416450/46	1.1/2"	50X4,6	62,20	MFP64	84,00

Piping	Part n° of caps kit for corrugated wiring conduit	€ each
MQ12525C3225EWI	MKIT01/REC21	10,70
	MKIT01/REC28	18,80
MQ12532C3225EWI	MKIT01/REC21	10,70
	MKIT01/REC28	18,80
MQ16032C3225EWI	MKIT01/REC21	10,70
	MKIT01/REC28	18,80
MQ16040C32EWI	MKIT01/REC28	18,80
	MKIT01/REC28	18,80
MQ20050C40EWI	MKIT01/REC34	22,30
	MKIT01/REC34	22,30

MICROFLEX UNO FOR DOMESTIC WATER

Microflex pre-insulated flexible piping for domestic water systems with single internal pipe in PEX-a SDR7.4 suitable for water up to **95°C** and pressures up to **10 bar in accordance with EN ISO 15875.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/ metre
M7522SWI	22/3.0	20	75	0,65	20	10	46,30
M7525SWI	25/3.5	20	75	0,75	20	10	48,90
M7528SWI	28/4.0	25	75	1,00	25	10	48,90
M7532SWI	32/4.4	25	75	1,08	25	10	51,60
M9018SWI	18/2.5	15	90	0,92	25	10	47,60
M9032SWI	32/4.4	25	90	1,12	25	10	61,10
M9040SWI	40/5.5	32	90	1,32	30	10	64,30
M12525SWI	25/3.5	20	125	1,43	30	10	68,00
M12528SWI	28/4.0	25	125	1,51	30	10	70,60
M12532SWI	32/4.4	25	125	1,60	40	10	73,40
M12540SWI	40/5.5	32	125	1,89	40	10	74,70
M12550SWI	50/6.9	40	125	2,19	50	10	81,10
M12563SWI	63/8.7	50	125	2,59	55	10	101,70
M16032SWI	32/4.4	25	160	2,55	60	10	138,50
M16040SWI	40/5.5	32	160	2,84	60	10	141,10
M16050SWI	50/6.9	40	160	3,09	70	10	143,80
M16063SWI	63/8.7	50	160	3,18	80	10	146,50
M16075SWI	75/10.3	65	160	3,84	70	10	149,30
M20075SWI	75/10.3	65	200	4,16	80	10	172,30
M20090SWI	90/12.3	80	200	5,25	90	10	188,40
M200110SWI	110/15.1	100	200	6,44	95	10	223,60

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
M7522SWI	MS7522	12,50	MG751832	66,00	MJ3413422/30	3/4"	22/3.0	27,70	MFP34	14,70
M7525SWI	MS7525	12,50	MG751832	66,00	MJ3413425/35	3/4"	25/3.5	26,40	MFP34	14,70
M7528SWI	MS7528	12,50	MG751832	66,00	MJ3414428/40	1"	28/4.0	31,00	MFP44	32,80
M7532SWI	MS7532	12,50	MG751832	66,00	MJ3414432/44	1"	32/4.4	34,00	MFP44	32,80
M9018SWI	MS9018	12,50	MG901840	71,50	MJ3411218/25	1/2"	18/2.5	25,00		
M9032SWI	MS9032	12,50	MG901840	71,50	MJ3414432/44	1"	32/4.4	34,00	MFP44	32,80
M9040SWI	MS9040	12,50	MG901840	71,50	MJ3415440/55	1.1/4"	40/5.5	46,80	MFP54	64,80
M12525SWI	MS12525	12,50	MG1252532	74,20	MJ3413425/35	3/4"	25/3.5	26,40	MFP34	14,70
M12528SWI	MS12528	12,50	MG1252532	74,20	MJ3414428/40	1"	25/3.5	31,00	MFP44	32,80
M12532SWI	MS12532	12,50	MG1252532	74,20	MJ3414432/44	1"	32/4.4	34,00	MFP44	32,80
M12540SWI	MS12540	12,50	MG1254063	77,80	MJ3415440/55	1.1/4"	40/5.5	46,80	MFP54	64,80
M12550SWI	MS12550	12,50	MG1254063	77,80	MJ3416450/69	1.1/2"	50/6.9	61,40	MFP64	84,00
M12563SWI	MS12563	12,50	MG1254063	77,80	MJ341263/87	2"	63/8.7	94,80	MFP2	119,90
M16032SWI	MS16032	12,50	MG1603250	82,80	MJ3414432/44	1"	32/4.4	34,00	MFP44	32,80
M16040SWI	MS16040	12,50	MG1603250	82,80	MJ3415440/55	1.1/4"	40/5.5	46,80	MFP54	64,80
M16050SWI	MS16050	12,50	MG1603250	82,80	MJ3416450/69	1.1/2"	50/6.9	61,40	MFP64	84,00
M16063SWI	MS16063	12,50	MG1606390	82,80	MJ341263/87	2"	63/8.7	94,80	MFP2	119,90
M16075SWI	MS16075	12,50	MG1606390	82,80	MJ34121275/103	2, 1/2"	75/10.3	143,70	MFP212	178,90
M20075SWI	MS20075	12,50	MG20075125	119,40	MJ34121275/103	2, 1/2"	75/10.3	143,70	MFP212	178,90
M20090SWI	MS20090	12,50	MG20075125	119,40	MJ341390/123	3"	90/12.3	227,50	MFP3	245,90
M200110SWI	MS200110	12,50	MG20075125	119,40	MJ3414110/151	4"	110/15.1	315,00	MFP4	453,10

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX DUO FOR DOMESTIC WATER

Microflex pre-insulated flexible piping for domestic hot water systems with two SDR 7.4 internal pipes in PEX-a suitable for water up to **95°C** and pressures up to **10 bar, to EN ISO 15875.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene. Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MD1252818SWI	1x28/4.0 1x18/2.5	25 15	125	1,67	30	10	66,60
MD1253222SWI	1x32/4.4 1x22/3.0	25 20	125	1,86	30	10	78,70
MD16025SWI	2x25/3.5	20	160	2,35	50	10	85,60
MD1603218SWI	1x32/4.4 1x18/2.5	25 15	160	2,42	50	10	87,00
MD1603225SWI	1x32/4.4 1x25/3.5	25 20	160	5,50	50	10	100,50
MD1603228SWI	1x32/4.4 1x28/4.0	25 25	160	2,6	60	10	103,10
MD1604025SWI	1x40/5.5 1x25/3.5	32 20	160	2,71	60	10	108,60
MD1604028SWI	1x40/5.5 1x28/4.0	32 25	160	2,78	60	10	111,30
MD1604032SWI	1x40/5.5 1x32/4.4	32 25	160	2,88	60	10	114,00
MD1605025SWI	1x50/6.9 1x25/3.5	40 20	160	2,89	60	10	119,30
MD1605032SWI	1x50/6.9 1x32/4.4	40 25	160	3,04	60	10	127,40
MD1605040SWI	1x50/6.9 1x40/5.5	40 32	160	3,18	70	10	130,30
MD20063SWI	2x63/8.7	50	200	4,96	120	10	204,70

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MD1252818SWI	MSD1252818	12,50	MGD1251832	79,20	MJ3414428/40	1"	1x28/4.0	31,00	MFP44	32,80
					MJ3411218/25	1/2"	1x18/2.5	25,00		
MD1253222SWI	MSD1253222	12,50	MGD1251832	79,20	MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
					MJ3413422/30	3/4"	1x22/3.0	27,70	MFP34	14,70
MD16025SWI	MSD16025	12,50	MGD1602550	88,90	MJ3413425/35	3/4"	2x25/3.5	26,40	MFP34	14,70
MD1603218SWI	MSD1603218	12,50	MGD1601840	88,90	MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
					MJ3411218/25	1/2"	1x18/2.5	25,00		
MD1603225SWI	MSD1603225	12,50	MGD1602550	88,90	MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
					MJ3413425/35	3/4"	1x25/3.5	26,40	MFP34	14,70
MD1603228SWI	MSD1603228	12,50	MGD1602550	88,90	MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
					MJ3414428/40	1"	1x28/4.0	31,00	MFP44	32,80
MD1604025SWI	MSD1604025	12,50	MGD1602550	88,90	MJ3415440/55	1.1/4"	1x40/5.5	46,80	MFP54	64,80
					MJ3413425/35	3/4"	1x25/3.5	26,40	MFP34	14,70
MD1604028SWI	MSD1604028	12,50	MGD1602550	88,90	MJ3415440/55	1.1/4"	1x40/5.5	46,80	MFP54	64,80
					MJ3414428/40	1"	1x28/4.0	31,00	MFP44	32,80
MD1604032SWI	MSD1604032	12,50	MGD1602550	88,90	MJ3415440/55	1.1/4"	1x40/5.5	46,80	MFP64	84,00
					MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
MD1605025SWI	MSD1605025	12,50	MGD1602550	88,90	MJ3416450/69	1.1/2"	1x50/6,9	61,40	MFP64	84,00
					MJ3413425/35	3/4"	1x25/3,5	26,40	MFP34	14,70
MD1605032SWI	MSD1605032	12,50	MGD1602550	88,90	MJ3416450/69	1.1/2"	1x50/6,9	61,40	MFP64	84,00
					MJ3414432/44	1"	1x32/4.4	34,00	MFP44	32,80
MD1605040SWI	MSD1605040	12,50	MGD1602550	88,90	MJ3416450/69	1.1/2"	1x50/6,9	61,40	MFP64	84,00
					MJ3415440/55	1.1/4"	1x40/5.5	46,80	MFP54	64,80
MD20063SWI	MSD20063	12,50	MGD2004063	118,80	MJ341263/87	2"	2x63/8.7	94,80	MFP2	119,90

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX DUO PRIMO FOR DOMESTIC WATER

Microflex pre-insulated flexible piping for domestic water systems with two internal pipes in PEX-a SDR7.4 suitable for water up to **95°C** and pressures up to **10 bar**, **in accordance with EN ISO 15875.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PEX-a pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MD1252520SWI	25/3.5 20/2.8	20 20	125	1,65	30	10	69,20
MD1253225SWI	32/4.4 25/3.5	25 20	125	2	30	10	80,20

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting				Fixed point	
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each	Part no.	€ each
MD1252520SWI	MSD1252520	12,50	MGD1251832	79,20	MJ3413425/35	3/4”	25/3.5	26,40	MFP34	14,70
					MJ3413420/28	3/4”	20/2.8	26,50	MFP34	14,70
MD1253225SWI	MSD1253225	12,50	MGD1251832	79,20	MJ3414432/44	1”	32/4.4	34,00	MFP44	32,80
					MJ3413425/35	3/4”	25/3.5	26,40	MFP34	14,70

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX COOL UNO WITH HEATING CABLE

Microflex pre-insulated flexible piping **with self-regulating heating cable** (10 W/m)* for domestic water systems with single internal pipe in PE-HD SDR11 suitable for potable water up to **25°C** and pressures up to **16 bar**, **in accordance with EN 12201.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PE-HD pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MV7532PEWI	32/2.9	25	75	0,81	20	16	60,30
MV9040PEWI	40/3.7	32	90	1,26	30	16	80,70
MV12550PEWI	50/4.6	40	125	2,00	40	16	84,50
MV12563PEWI	63/5.8	50	125	2,25	50	16	89,60
MV16075PEWI	75/6.8	65	160	3,30	75	16	117,90
MV16090PEWI	90/8.2	75	160	3,95	100	16	124,10
MV200110PEWI	110/10	90	200	5,84	120	16	161,10
MV200125PEWI	125/11.4	100	200	6,10	140	16	176,50

(*) A version with 18W/m self-regulating heating cable is available to order

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting			
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each
MV7532PEWI	MS7532	12,50	MG751832	66,00	MJ3414432/29	1”	32/2.9	34,70
MV9040PEWI	MS9040	12,50	MG901840	71,50	MJ3415440/37	1.1/4”	40/3.7	46,90
MV12550PEWI	MS12550	12,50	MG1254063	77,80	MJ3416450/46	1.1/2”	50/4.6	62,20
MV12563PEWI	MS12563	12,50	MG1254063	77,80	MJ341263/58	2”	63/5.8	97,70
MV16075PEWI	MS16075	12,50	MG1606390	82,80	MJ34121275/68	2.1/2”	75/6.8	143,70
MV16090PEWI	MS16090	12,50	MG1606390	82,80	MJ341390/82	3”	90/8.2	227,60
MV200110PEWI	MS200110	12,50	MG20075125	119,40	MJ3414110/10	4”	110/1.0	315,00
MV200125PEWI	MS200125	12,50	MG20075125	119,40	MJ3414125/114	4”	125/11.4	493,00

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX COOL UNO

Microflex pre-insulated flexible piping for domestic water systems with single internal pipe in PE-HD SDR11 suitable for potable water up to **25°C** and pressures up to **16 bar, in accordance with EN12201.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure. Double-wall corrugated outer casing in PE-HD high-density polyethylene. Supplied in lengths to customer specification. Max. length 100m.

Part no.	PE-HD pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
M9032PEWI	32/2.9	25	90	1,00	25	16	29,50
M9040PEWI	40/3.7	32	90	1,11	30	16	43,70
M12550PEWI	50/4.6	40	125	1,92	40	16	47,50
M12563PEWI	63/5.8	50	125	2,16	50	16	51,20
M16075PEWI	75/6.8	65	160	3,20	75	16	75,60
M16090PEWI	90/8.2	75	160	3,85	100	16	82,60
M200110PEWI	110/10	90	200	5,74	120	16	115,20
M200125PEWI	125/11.4	100	200	6,10	140	16	139,50

ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting			
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each
M9032PEWI	MS9032	12,50	MG901840	71,50	MJ3414432/29	1”	32/2.9	34,70
M9040PEWI	MS9040	12,50	MG901840	71,50	MJ3415440/37	1.1/4”	40/3.7	46,90
M12550PEWI	MS12550	12,50	MG1254063	77,80	MJ3416450/46	1.1/2”	50/4.6	62,20
M12563PEWI	MS12563	12,50	MG1254063	77,80	MJ341263/58	2”	63/5.8	97,70
M16075PEWI	MS16075	12,50	MG1606390	82,80	MJ34121275/68	2.1/2”	75/6.8	143,70
M16090PEWI	MS16090	12,50	MG1606390	82,80	MJ341390/82	3”	90/8.2	227,60
M200110PEWI	MS200110	12,50	MG20075125	119,40	MJ3414110/10	4”	110/1.0	315,00
M200125PEWI	MS200125	12,50	MG20075125	119,40	MJ3414125/114	4”	125/11.4	493,00

(*) Alternatively, MK Series heat-shrink end-piece

MICROFLEX COOL DUO

Microflex pre-insulated flexible piping for domestic water systems with two internal pipes in PE-HD SDR11 suitable for potable water up to **25°C** (other fluids -10 to 25°C) and pressures up to **16 bar in accordance with EN ISO 12201.** Multi-layer thermal insulation in CFC-free expanded PEX cross-linked polyethylene with closed-cell structure.
Double-wall corrugated outer casing in PE-HD high-density polyethylene.
Supplied in lengths to customer specification. Max. length 100m.

Part no.	PE-HD pipe external Ø thk. mm	DN	Ø outer casing mm	Weight per metre kg	Bend radius cm	PN	€/metre
MD12532PEWI	32/2.9	25	125	1,82	30	16	61,50
MD16040PEWI	40/3.7	32	160	2,63	60	16	83,20
MD16050PEWI	50/4.6	40	160	3,10	60	16	87,10
MD20063PEWI	63/5.8	50	200	4,64	120	16	133,10

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ACCESSORIES

	Dust caps		EPDM end caps*		MJ341 fitting			
Piping	Part no.	€ each	Part no.	€ each	Part no.	Ø male thread	external Ø of pipe mm	€ each
MD12532PEWI	MSD12532	12,50	MGD1251832	79,20	MJ3414432/29	1”	32/2.9	34,70
MD16040PEWI	MSD16040	12,50	MGD1602550	88,90	MJ3415440/37	1.1/4”	40/3.7	46,90
MD16050PEWI	MSD16050	12,50	MGD1602550	88,90	MJ3416450/46	1.1/2”	50/4.6	62,20
MD20063PEWI	MSD20063	12,50	MGD2004063	118,80	MJ341263/58	2”	63/5.8	97,70

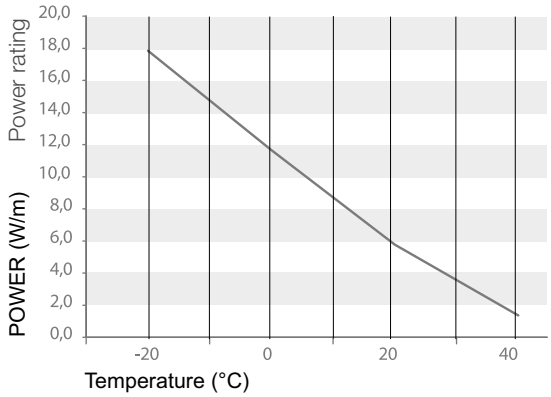
(*) Alternatively, MK Series heat-shrink end-piece

CONNECTION KIT FOR SELF-REGULATING HEATING CABLE

MVTH Room thermostat for powering self-regulating heating cable.
In IP54 case.
Measuring range -10 to 40 °C
Differential 1-2 K.
Power supply 230V AC
Contact 16A/230V AC

MVBOX Distribution box for connecting self-regulating heating cable

MVKITGR
3 shrink sleeves to insulate the power supply and earthing wires +1 shrink sleeve to insulate the power supply cable + 2 short shrink sleeves to insulate the ends of the heating cable +1 cable gland for distribution boxes



Part no.	Description	€ each
MVTH	Thermostat	319,30
MVBOX	Distribution box	16,90
MVKITGR10W	Set of shrink sleeves	62,60
MVKITM10W	1xMVBOX +2MVKITGR10W	142,10
MVKITT10W	1xMVBOX +3MVKITGR10W	204,80

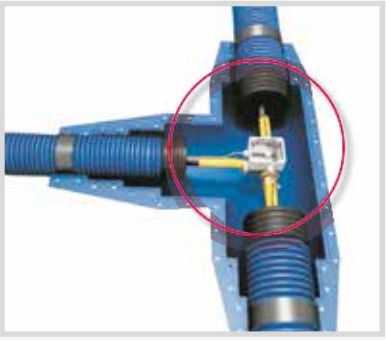
(*) A version for pipe with 18W/m heating cable is available to order

INSTALLATION EXAMPLES

MVTH + MVBOX +MVKITGR

MVKITM

MVKITT



IMPORTANT:
At a temperature of 0°C, the heating cable must not be longer than 100m.
For longer lengths, multiple power supply points are required, at least 1 every 100 metres.

Fittings for 6 bar heating and cooling pipes and 16 bar COOL pipes

MJ341

DZR threaded end fitting for Microflex PN6 pipes and Microflex COOL PN 16 pipes.

Part no.	Ø pipe / thickness mm	Ø male thread	€ each
MJ3413425/23	25/2.3	3/4”	25,60
MJ3414432/29	32/2.9	1”	34,70
MJ3415440/37	40/3.7	1.1/4”	46,90
MJ3416450/46	50/4.6	1.1/2”	62,20
MJ341263/58	63/5.8	2”	97,70
MJ34121275/68	75/6.8	2.1/2”	143,70
MJ341390/82	90/8.2	3”	227,60
MJ3414110/10	110/10	4”	315,00
MJ3414125/114	125/11.4	4”	493,00

MJ270

Straight fitting for PEX-a x PEX-a pipes in DZR brass for Microflex PN6 pipes and Microflex COOL PN 16 pipes.

Part no.	Ø pipe/thickness mm	€ each
MJ27025/23	25/2.3	48,50
MJ27032/29	32/2.9	52,40
MJ27040/37	40/3.7	82,10
MJ27050/46	50/4.6	129,80
MJ27063/58	63/5.8	179,30
MJ27075/68	75/6.8	355,10
MJ27090/82	90/8.2	481,60
MJ270110/10	110/10	635,60
MJ270125/114	125/11.4	869,90

MJ90

Elbow fitting for PEX-a x PEX-a pipes in DZR brass for Microflex PN6 pipes and Microflex COOL PN 16 pipes.

Part no.	Ø pipe/thickness mm	€ each
MJ9025/23	25/2.3	63,20
MJ9032/29	32/2.9	89,60
MJ9040/37	40/3.7	125,30
MJ9050/46	50/4.6	163,10
MJ9063/58	63/5.8	263,20
MJ9075/68	75/6.8	414,90
MJ9090/82	90/8.2	585,00
MJ90110/10	110/10	1006,70
MJ90125/114	125/11.4	1367,60

Product composed of parts to be assembled

MJ130

T-fitting for PEX-a x PEX-a x PEX-a pipes in DZR brass for Microflex PN6 pipes and Microflex COOL PN 16 pipes.

Part no.	Ø pipes	Ø pipe/thickness mm	€ each
MJ13025/23	25-25-25	25/2.3	93,70
MJ13032/29	32-32-32	32/2.9	131,10
MJ1304032/37	40-32-40	40/3,7+32/2,9	186,20
MJ13040/37	40-40-40	40/3.7	185,00
MJ1305040/46	50-40-50	50/4,6+40/3,7	225,10
MJ13050/46	50-50-50	50/4.6	240,20
MJ1306350/58	63-50-63	63/5,8+50/4,6	337,90
MJ13063/58	63-63-63	63/5,8	373,50
MJ13075/68	75-75-75	75/6,8	596,50
MJ13090/82	90-90-90	90/8,2	843,50
MJ130110/10	110-110-110	110/10	1.459,40
MJ130125/114	125-125-125	125/11.4	1.999,70

Product composed of parts to be assembled

Domestic water pipe fittings - 10 bar

MJ341

DZR brass threaded end fitting for Microflex PN10 pipes.

Part no.	Ø pipe/thickness mm	Ø male thread	€ each
MJ3411218/25	18/2.5	1/2"	25,00
MJ3413420/28	20/2.8	3/4"	26,50
MJ3413422/30	22/3.0	3/4"	27,70
MJ3413425/35	25/3.5	3/4"	26,40
MJ3414428/40	28/4.0	1"	31,00
MJ3414432/44	32/4.4	1"	34,00
MJ3415440/55	40/5.5	1.1/4"	46,80
MJ3416450/69	50/6.9	1.1/2"	61,40
MJ341263/87	63/8.7	2"	94,80
MJ34121275/103	75/10.3	2.1/2	143,70
MJ341390/123	90/12.3	3"	227,50
MJ3414110/151	110/15.1	4"	315,00

MJ270

Straight fitting for PEX-a x PEX-a pipes in DZR brass for Microflex PN10 pipes.

Part no.	Ø pipe/thickness mm	€ each
MJ27025/35	25/3.5	62,10
MJ27032/44	32/4.4	83,90
MJ27040/55	40/5.5	116,10
MJ27050/69	50/6.9	151,70
MJ27063/87	63/8.7	247,40
MJ27075/103	75/10.3	277,00
MJ27090/123	90/12.3	318,20
MJ270110/151	110/15.1	456,20

Product composed of parts to be assembled

MJ90

Elbow fitting for PEX-a x PEX-a pipes in DZR brass for Microflex PN10 pipes.

Part no.	Ø pipe/thickness mm	€ each
MJ9025/35	25/3.5	65,50
MJ9032/44	32/4.4	88,50
MJ9040/55	40/5.5	125,30
MJ9050/69	50/6.9	162,00
MJ9063/87	63/8.7	257,50
MJ9075/103	75/10.3	329,10
MJ9090/123	90/12.3	538,60
MJ90110/151	110/15.1	776,80

Product composed of parts to be assembled

MJ130

T-fitting for PEX-a x PEX-a pipes in DZR brass for Microflex PN10 pipes.

Part no.	Ø pipes	Ø pipe/thickness mm	€ each
MJ13025/35	25-25-25	25/3,5	96,50
MJ13032/44	32-32-32	32/4,4	128,80
MJ1304032/55	40-32-40	40/5,5+32/3,5	172,40
MJ13040/55	40-40-40	40/5,5	185,00
MJ1305040/69	50-40-50	50/6,9+40/5,5	240,20
MJ13050/69	50-50-50	50/6,9	239,00
MJ1306350/87	63-50-63	63/8,7+50/6,9	355,10
MJ13063/87	63-63-63	63/8,7	365,40
MJ13075/103	75-75-75	75/10.3	376,20
MJ13090/123	90-90-90	90/12.3	510,10
MJ130110/151	110-110-110	110/15.1	748,50

Product composed of parts to be assembled

ACCESSORIES

MFP

Brass threaded fitting used to create a fixed point for absorbing expansion forces on Microflex PN 6/10/16 pipes.

Part no.	DN	€ each
MFP34	3/4”	14,70
MFP44	1”	32,80
MFP54	1.1/4”	64,80
MFP64	1.1/2”	84,00
MFP2	2”	119,90
MFP212	2.1/2”	178,90
MFP3	3”	245,90
MFP4	4”	453,10

VW270

Brass F-F threaded sleeve - PN 6/10/16.

Part no.	DN	€ each
VW27034	3/4”	9,40
VW27044	1”	16,10
VW27054	1.1/4”	23,20
VW27064	1.1/2”	29,90
VW2702	2”	47,50
VW270212	2.1/2”	93,90
VW2703	3”	128,90
VW2704	4”	251,80

VW90

Brass F-F threaded elbow - PN 6/10/16.

Part no.	DN	€ each
VW9034	3/4”	12,70
VW9044	1”	20,90
VW9054	1.1/4”	32,10
VW9064	1.1/2”	41,00
VW902	2”	71,10
VW90212	2.1/2”	133,70
VW903	3”	160,00
VW904	4”	395,10

ACCESSORIES

VW130

Brass F-F threaded T-fitting - PN 6/10/16.

Part no.	DN	€ each
VW13034	3/4”	17,70
VW13044	1”	27,90
VW13054	1.1/4”	46,20
VW13064	1.1/2”	56,20
VW1302	2”	84,30
VW130212	2.1/2”	173,50
VW1303	3”	168,70
VW1304	4”	537,20

* other versions of reducing T-fittings available to order.

VW241

DZR brass M-F threaded adaptor - PN 6/10/16.

Part no.	male thread	female thread	€ each
VW2414434	1”	3/4”	9,60
VW2415434	1.1/4”	3/4”	24,10
VW2415444	1.1/4”	1”	9,60
VW2416434	1.1/2”	3/4”	30,10
VW2416444	1.1/2”	1”	24,10
VW2416454	1.1/2”	1.1/4”	24,10
VW241234	2”	3/4”	45,80
VW241244	2”	1”	45,80
VW241254	2”	1.1/4”	30,10
VW241264	2”	1.1/2”	30,10
VW24121254	2.1/2”	1.1/4”	96,40
VW24121264	2.1/2”	1.1/2”	96,40
VW2412122	2.1/2”	2”	96,40
VW241344	3”	1”	190,30
VW241354	3”	1.1/4”	190,30
VW241364	3”	1.1/2”	191,60
VW24132	3”	2”	191,60
VW2413212	3”	2.1/2”	191,60
VW24142	4”	2”	222,90
VW2414212	4”	2.1/2”	222,90
VW24143	4”	3”	222,90

ACCESSORIES

VW280

DZR brass M-M threaded nipple - PN 6/10/16.

Part no.	DN	€ each
VW28034	3/4”	7,00
VW28044	1”	9,00
VW28054	1.1/4”	15,90
VW28064	1.1/2”	19,20
VW2802	2”	35,90
VW280212	2.1/2”	54,20
VW2803	3”	151,70
VW2804	4”	248,10

VW290

DZR brass M-M threaded stop - PN 6/10/16.

Part no.	DN	€ each
VW29034	3/4”	5,60
VW29044	1”	6,10
VW29054	1.1/4”	8,70
VW29064	1.1/2”	17,90
VW2902	2”	20,70
VW290212	2.1/2”	102,40
VW2903	3”	141,00
VW2904	4”	375,80

MDF

Galvanised steel threaded flange - PN 6/10. Dimensions in accordance with EN 1092-1 - Flanges PN16.

Part no.	DN	€ each
MDF34	3/4”	46,20
MDF44	1”	48,70
MDF54	1.1/4”	53,30
MDF64	1.1/2”	60,00
MDF2	2”	67,40
MDF212	2.1/2”	69,80
MDF3	3”	107,30
MDF4	4”	128,90

MK - UNO

Shrink caps to prevent water infiltration into Microflex UNO pipes.

Part no.	Ø outer casing mm	Ø pipe mm	€ each
MK2000	75	25	64,45
MK2100	75 / 90	32 or 40	77,25
MK2200	125	40 or 50	79,20
MK2400	125	63	90,90
MK2340	160	40 or 50	95,10
MK2500	160	63 to 90	115,55
MK2600	200	75 to 125	118,10

ACCESSORIES

MK - DUO

Shrink caps to prevent water from entering pipes Microflex DUO.

Part no.	Ø outer casing mm	Ø pipe mm	€ each
MK3250-P604	125	1 x 25 / 1 x 20	127,10
MK3250-P604	125	2 x 25	127,10
MK3250-P604	125	1 x 32 / 1 x 25	127,10
MK3280	125	2 x 32	250,15
MK3350-01	160	2 x 25 or 2 x 32	214,45
MK3350-02	160	2 x 40	237,45
MK3350-01	160	1 x 32 / 1 x 25	214,45
MK3350-02	160	1 x 40 / 1 x 25	237,45
MK3360-01	160	1 x 50 / 1 x 25	258,00
MK3350-03	160	2 x 50	258,00
MK3350-03	200	2 x 50	258,00
MK3350-05	200	2 x 63	261,80

LS

MICRO SEAL wall feed-through sealing sleeves.

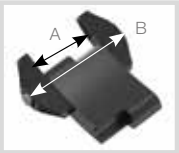
Part no.	Ø outer casing mm	width including bolts	ø hole in the wall mm	tightening torque Nm	€ each
9LS200	75	75	100 - 102	min. 3,0 - max. 3,5	175,90
7LS300	75	100	110 - 115	min. 9,0 - max. 11,0	225,30
8LS300	90	100	128 - 132	min. 9,0 - max. 11,0	256,50
9LS315	90	100	134 - 136	min. 10,0 - max. 12,0	433,60
7LS475	125	135	194 - 210	min. 26,0 - max. 32,5	644,50
6LS325	125	125	175 - 180	min. 11,8 - max. 14,5	344,50
7LS325	160	125	209 - 212	min. 11,8 - max. 14,5	443,30
7LS400	160	135	240 - 245	min. 30,0 - max. 37,0	709,60
13LS300	160	100	200 - 202	min. 9,0 - max. 11,0	416,80
9LS325	200	125	250 - 255	min. 11,8 - max. 14,5	516,80
8LS400	200	135	275 - 282	min. 30,0 - max. 37,0	736,00
10LS575	200	145	301 - 320	min. 47,0 - max. 61,0	1445,50

TECHNICAL NOTE

1. Drill a hole according to minimum and maximum dimensions

2. Fit the LS sleeve around the outer casing. Make sure that there is a straight line of at least 60 cm before and after the sleeve.
Bends are not allowed.

3. Slide the pipe complete with sleeve into the through-hole in the wall.



4. Tightening the bolts of the evenly spaced links uniformly compresses the pressure plates, thus filling the annular space between the pipe and the through-hole in the wall.

ACCESSORIES

MICRO PRESS

MICRO PRESS wall feed-through seals are designed for systems of pre-insulated flexible pipes and PE-coated pipes. Available for all diameters of Microflex corrugated outer casing: in 2x40 and 1x40 mm versions. The extremely soft rubber allows a low tightening torque and ensures low risk of pipe deformation. MFPA-certified up to a pressure of 5 bar. Facilitates installation by making it possible to move and angle the pipe as necessary.

MICRO PRESS - STANDARD VERSION 1X40MM

Stainless steel pressure plates. S304 bolts. EPDM rubber.

Part no.	Central hole (mm)	Outer casing (mm)	€ each
M10527	125	75	205,70
M10532	150	75	293,10
M10534	150	90	293,10
M10540	200	90	402,30
M10543	200	125	402,30
M10553	250	160	563,20
M10557	250	200	563,20
M10567	300	200	743,30

MICRO PRESS - SPLIT VERSION

Stainless steel pressure plates. S304 bolts. EPDM rubber.

Part no.	Central hole (mm)	Outer casing (mm)	€ each
M10627	125	75	235,30
M10632	150	75	337,10
M10634	150	90	337,10
M10641	200	90	455,90
M10643	200	125	455,90
M10653	250	160	616,80
M10657	250	200	616,80
M10667	300	200	858,10

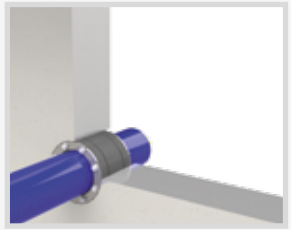
MICRO PRESS - STANDARD VERSION 2X40MM

Stainless steel pressure plates. S304 bolts. EPDM rubber.

Part no.	Central hole (mm)	Outer casing (mm)	€ each
M10701	125	75	475,00
M10705	150	75	586,10
M10706	150	90	586,10
M10709	200	90	701,20
M10711	200	125	701,20
M10718	250	160	915,60
M10722	250	200	915,60
M10727	300	200	1195,30

TECHNICAL NOTE

1. Drill a hole according to minimum and maximum dimensions



2. Insert the pipe complete with MICRO PRESS sleeve into the hole in the wall.

3. Use a torque wrench to tighten the bolts to the torque values specified in the installation manual.

ACCESSORIES

MMDV

MMDV wall feed-through sleeves.

Part no.	Ø pipe outer casing	external Ø sleeve	ø hole in the wall mm	€ each
MMDV75	75	110	210	39,00
MMDV90	90	110	210	39,00
MMDV125	125	160	260	53,80
MMDV160	160	200	300	68,10
MMDV200	200	250	350	87,90

MHM

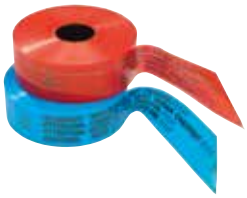
MHM shrink sleeve for repairing the outer casing of Microflex pipes.

Part no.	Ø pipe outer casing	Width of sleeve mm	€ each
MHM75/90	75-90	220 mm	32,30
MHM125	125	220 mm	39,90
MHM160	160	220 mm	43,90
MHM200	200	220 mm	46,20
MHM235	200	220 mm	66,20

MH

Tape for repairing the outer casing of Microflex pipes.

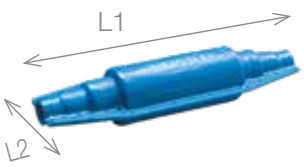
Part no.	Description	Length m	Width mm	€ each
MHB200	Heat-shrink tape	10	200	348,20
MHK100	Cold-applied tape	10	100	350,00



MTR

Warning tape to indicate the location of underground Microflex pipes during excavation work.

Part no.	Description	Size	€ each
MTRW	pipe marking tape (red)	250 x 0,08	186,70
MTRB	pipe marking tape (blue)	250 x 0,08	132,50
MTRW50	pipe marking tape (red)	50 x 0,08	30,00



MM

Insulated I-piece kit for straight, underground joints, complete with insulation material, sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	L1 mm	L2 mm	€ each
MM129075	125/90/75	960	290	475,00
MM201612	200/160/125	1170	345	509,00

ACCESSORIES

MM

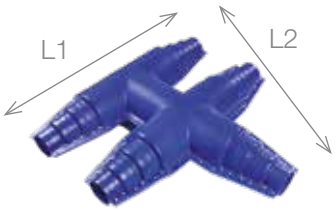
Insulation kit I-variant for straight, underground joints, complete with insulation material and shrink sleeves.

Part no.	Ø pipe outer casing	Length mm	€ each
MM75/90	75/90	700	103,60
MM125	125	850	132,50
MM160	160	1000	184,30
MM200	200	1000	254,20

MT

Insulated T-piece kit for underground T-joints, complete with insulation material, sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	L1 mm	L2 mm	€ each
MT129075	125/90/75	960	590	590,00
MT201612	200/160/125	1170	750	630,00



MDT

Insulated T-piece kit for underground double T-joints, complete with insulation material, sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	L1 mm	L2 mm	€ each
MDT201612	200/160/125	1200	1200	1092,00

MH

Insulated elbow kit for underground elbow-joints, complete with insulation material, sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	LxWxH (mm)	€ each
MH201612	200/160/125	740x740x270	574,00

MBR

Insulated trouser piece kit for joining two single pipes to one double pipe, complete with insulation material, sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	LxWxH (mm)	Notes	€ each
MBR201612	200/160/125	1170X460X230	IN: 200/160/125 - OUT: 160/125	675,00

ACCESSORIES

MR

Adaptor for using pipes with outer casing diameter of less than 160 mm with insulated I-piece kit MM201612 and insulated T-piece kit MT201612. Length 1m.

Part no.	Ø pipe outer casing	€ each
MR24116075	Reduces from 160 to 75 mm	168,70

MIS

Inspection chamber with six connection points for creating inspectable underground branches. Complete with sealant and stainless steel fasteners.

Part no.	Ø pipe outer casing	Ø pocket	Height mm	€ each
MIS	200/160/125	810	770	1305,00

MHM

Shrink sleeves for inspection chambers.

Part no.	Ø corrugated outer casing	Width of sleeve	€ each
MHM125	125	220	39,90
MHM160	160	220	43,90
MHM235	200	220	66,20

Chapter 6

Balancing devices for water distribution systems

WATTS®

iDROSET® CF Series
Static balancing valve

Single-step flow rate control
Constant flow rate
Energy saving and comfort

Chapter 6

BALANCING DEVICES FOR WATER DISTRIBUTION SYSTEMS

Direct-reading static balancing valves

iDROSET® CF Series

Balancing and control valve with threaded connections, union nut and female threaded versions, for heating and cooling distribution systems.
Shut-off function. Flow rate setting and reading integrated into the valve without the use of special tools. Brass and composite body. Fluids: water with glycol up to 50%.
PN: 16 bar. Operating temperature range: -10 to 110°C.
Complies with the specifications required by Italian Ministerial Decree 174 of 06/04/2004.

Union nut, female thread

Part no.	DN	Kvs	Flow rate [l/h]	Weight (kg)	Pcs/pack	Package	€ each
PAP-S015	1/2”	1,70	35/700	1,0	1	1	142,40
PAP-S020	3/4”	1,70	35/700	1,0	1	1	147,90
PAP-M025	1”	4,40	50/1600	1,1	1	1	170,10
PAP-L032	1 1/4”	14,00	250/6000	2,6	1	1	261,50
PAP-L040	1 1/2”	14,00	250/6000	2,6	1	1	301,50
PAPXL050	2”	25,00	400/10000	5,1	1	1	387,50

Dimensions on page 204

Female thread

Part no.	DN	Kvs	Flow rate [l/h]	Weight (kg)	Pcs/pack	Package	€ each
PAP-S015-FFG	1/2”	1,70	35/700	1,40	1	1	153,40
PAP-S020-FFG	3/4”	1,70	35/700	1,35	1	1	160,40
PAP-M025-FFG	1”	4,40	50/1600	1,20	1	1	179,60
PAP-L032-FFG	1 1/4”	14,00	250/6000	2,80	1	1	290,50
PAP-L040-FFG	1 1/2”	14,00	250/6000	3,00	1	1	335,00
PAPXL050-FFG	2”	25,00	400/10000	5,80	1	1	427,00

Dimensions on page 205

iDROSET® CF Series shells

Insulating shells for balancing valves in the iDROSET© CF Series.
Thermal conductivity λ: 0,036 W/mK.
Fire-resistance: Class B2 - DIN 4102.

Part no.	For model	Pcs/pack	Package	€ each
PAP-001	PAP-S015	1	1	48,45
PAP-002	PAP-S020	1	1	48,45
PAP-003	PAP-M025	1	1	63,80
PAP-004	PAP-S015-FFG PAP-S020-FFG PAP-M025-FFG	1	1	63,80
PAP-006	PAP-L032 PAP-L032-FFG PAP-L040 PAP-L040-FFG	1	1	80,30
PAP-005	PAPXL50 PAPXL50-FFG	1	1	95,40

Dimensions on page 206

TECHNICAL NOTE - use and operation

All distribution networks, even the simplest, are made up of different branches, whose flow rates need to be defined at the design stage and must then correspond to the values calculated in the course of operation.
In an unbalanced system (Fig.1) the flow rate is too high in the circuits closest to the pump, and too low in the ones furthest away from it.
The temperature differences between the various rooms not only reduce comfort but also increase energy consumption.
The use of thermostatic or control valves in this situation can cause noise.
The installation and correct setting of CF Series balancing valves (Fig. 3) on boiler room manifolds, at the bottom of risers and upstream of heat production and exchange units or zones ensures correct flow distribution, thus offering immediate benefits in terms of comfort and energy saving, as well as optimising efficiency. CF Series valves also act as shut-off valves. They are particularly recommended for use in heating, cooling and domestic water distribution systems.
The CF Series is based on innovative technology that makes it possible to read and control the flow rate directly from the valve without using any kind of external tool.
The operation is very simple:
- Fully open the handwheel on the valve during installation
- After start-up, set the desired flow rate in L/h according to the design. Turn the handwheel clockwise to reduce the flow rate or anti-clockwise to increase it.

This done, you can read the actual flow rate on the dial. The position of the handwheel can be locked with the relative screw, to prevent tampering.

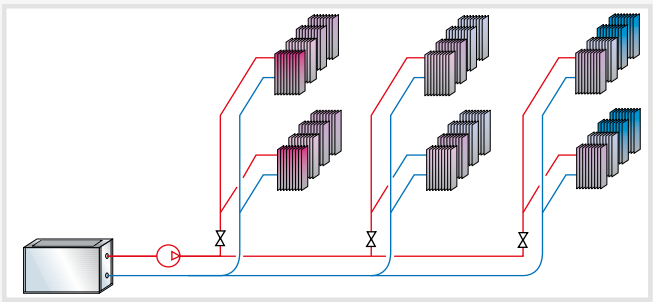


Fig.1 - Unbalanced system

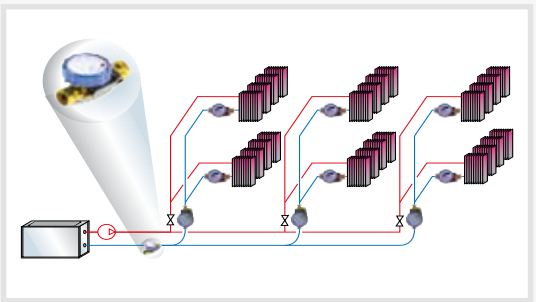


Fig.2 - Balanced system

Fig.3 - Opening the handwheel

WATTFLOW OL

Inclined-seat balancing valve with threaded connections for heating and cooling systems, complete with built-in flow meter for direct flow rate reading. PN 10 with fluid at 70°C (PN6 with fluid at 100°C). Operating temperature: -10 to 100°C. Measuring accuracy ± 10% of flow rate read. Brass body, EPDM seals, impact-resistant and temperature-resistant plastic flow meter. Can be installed in any position and suitable for water with glycol. Supplied with adjuster wrench.
Approvals: PED 2014/68/EU.

Part no.	DN	Flow rate	Kvs	Pcs/pack	Package	€ each
10010101	1/2"F	1-8 L/MIN	1.7	1	1	45,75
10010108	3/4"F	2-16 L/MIN	2.00	1	1	55,80

Dimensions on page 206

WATTFLOW BP

Inclined-seat balancing valve with threaded connections for heating and cooling systems, complete with built-in flow meter for direct flow rate reading and mechanical memory of setting position. PN 10. Operating temperature: -20 to 100°C. Measuring accuracy ± 10% of flow rate read. Brass body, EPDM seals, impact-resistant and temperature-resistant plastic flow meter. Can be installed in any position and suitable for water with glycol. Adjust with hex wrench. **Approvals: PED 2014/68/EU.**

Part no.	DN	Flow rate	Kvs	Pcs/pack	Package	€ each
10010156	1"	5-50 L/MIN	5,5	1	1	147,90
10010159	1.1/4"	10-80 L/MIN	9,0	1	1	166,20
10010160	1.1/2"	15-120 L/MIN	13,0	1	1	176,70
10010162	2"	20-200 L/MIN	18,0	1	1	190,50

Dimensions on page 206

Static balancing valves

STBV-25

Fixed-orifice balancing and control valve with threaded connections for heating and cooling systems. Shut-off function, pre-setting function with positions visible on the handwheel, and flow rate and differential pressure measuring function with a computerised instrument. Bronze valve body, PTFE seal. Fluid temperature: 0 to 120°C (temperatures above 100°C exclusively for water with anti-freeze and anti-boil additives). Female threaded connections: BS21. PN25

Part no.	DN	Kvs	Pcs/pack	Package	€ each
61991880E	15	2,2	1	1	67,70
61991881E	20	4,6	1	1	72,40
61991882E	25	8,5	1	1	82,80
61991883E	32	16,7	1	1	111,50
61991884E	40	26,1	1	1	141,50
61991885E	50	43,2	1	1	192,30

Dimensions on page 206

FO-BV

Fixed-orifice balancing and control valve with threaded connections for heating and cooling systems. Shut-off function, pre-setting function with 40 positions visible on the handwheel, and flow rate and differential pressure measuring function with a computerised instrument (BVT-SET). DZR (CW602N) brass valve body, PTFE gasket. Accuracy KVs ± 3% (tested to BS 7350). Fluid temperature: -10 to 120°C (temperatures below 0°C or above 100°C only for water with anti-freeze and anti-boil added to it). Female threaded connections: ISO 228/1 for 1/2" and 3/4"; ISO 7/1 Rp from 1" to 2".
PN 25 up to 110°C (PN 20 at 120°C).

Part no.	DN	Kvs	Kvs tp	Flow rate [l/min]	Pcs/pack	Package	€ each
FO-BV015	15	1,92	2,80	3,7-8,9	1	1	86,90
FO-BV020	20	3,67	5,33	8,3-19,5	1	1	94,60
FO-BV025	25	6,24	9,72	15,5-36,2	1	1	109,00
FO-BV032	32	12,54	20,25	32,4-75,0	1	1	130,30
FO-BV040	40	19,59	30,23	48,6-112,8	1	1	164,50
FO-BV050	50	29,72	55,07	91,2-210,6	1	1	232,50

Dimensions on page 206

STAD

Balancing and control valve with threaded connections for heating, cooling and domestic water systems. Shut-off function, pre-setting function with 40 positions, and drain function (optional accessory kit); diagnosis using computerised instrument (BVT-SET) on self-sealing pressure tapping points. AMETAL® (DZR alloy) valve body. Polyamide plastic digital handwheel. Seat seal: disc with EPDM O-ring. PN 25.
Operating temperature: -20 to 120°C.
Approvals: WRAS, PED 2014/68/EU, DM174.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
STAD10	10	1,47	1	1	131,10
STAD15	15	2,52	1	1	132,60
STAD20	20	5,7	1	1	135,80
STAD25	25	8,7	1	1	160,10
STAD32	32	14,2	1	1	196,50
STAD40	40	19,2	1	1	240,00
STAD50	50	33	1	1	329,50

Dimensions on page 207

TECHNICAL NOTE - Fixed-orifice valve: one Kv only for all settings

The FO-BV Series fixed-orifice balancing valves (Fig.1) are based on the measuring principle that makes use of the Venturi effect.
They are equipped with an insert with orifice calibrated to a known Kv (1)
connected to two external high-pressure (2) and low-pressure (3) tapping points.

By measuring the differential pressure ΔP (in bar) at the two tapping points, it is possible to calculate the flow rate Q (in m³/h) of fluid **using the formula:** $Q = Kv \cdot \sqrt{\Delta p}$

The same formula also applies to variable-orifice valves (Fig.2), where the orifice (1), however, corresponds to the area of flow of the fluid at the valve disc, so is variable. The Kv is not fixed either, but depends on the position of the disc, i.e. on the setting of the valve.

Measuring flow rates for different settings with fixed-orifice valves is easier because:
- with a fixed orifice, you can simply measure the ΔP and apply the formula, because the Kv is independent of the setting position;
- with a variable-orifice valve, you need to measure the ΔP and know the value of Kv in the corresponding setting (which can normally determined from tables or nomograms).

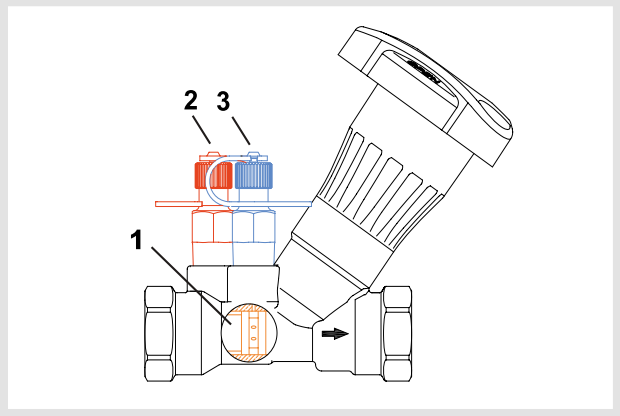


Fig.1 - fixed-orifice valve (STBV-25 and FO-BV)

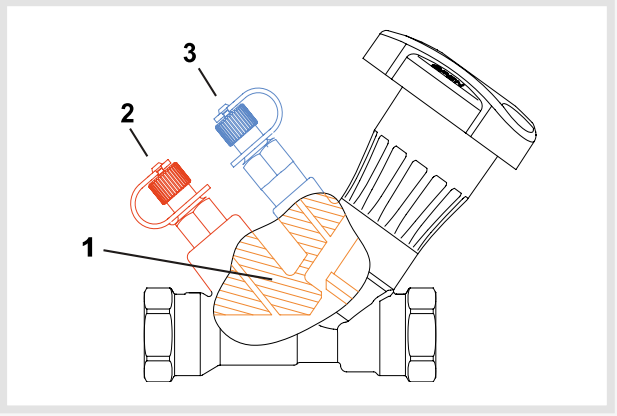


Fig.2 - variable-orifice valve (STAD)

To adjust static valves without direct reading, you need to use the appropriate computerised measuring instrument with a differential pressure gauge - see BVT-SET.

52189 - STAD shells

CFC-free polyurethane insulators for balancing valves.
Thermal conductivity λ at 50°C: 0.028 W/mK.
Fire-resistance: Class B2 - DIN 4102.

Part no.	DN	Pcs/pack	Package	€ each
52189-615	10-15-20	1	1	89,40
52189-625	25	1	1	99,90
52189-632	32	1	1	110,40
52189-640	40	1	1	120,90
52189-650	50	1	1	178,70

Dimensions on page 207

W-STBV-16Q

Variable-orifice static balancing and control valve with flanged connections for heating and cooling systems. Functions: shut-off, pre-setting, diagnosis with instrument on self-sealing pressure test points. Spheroidal graphite cast iron body with epoxy paint finish. Flanges EN 1092-2. EPDM seat seal. DN from 65 to 300. Handwheel in polyamide (DN 65 to 200) and Die-cast Aluminium (DN 250 to 300). Operating temperature: -10 to 120°C. PN 16. Fluid: water or water/glycol (max 50%). Temperature >100 °C and <0 °C exclusively with water containing anti-freeze and anti-boil additives.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
61170067E	65	94,47	1	1	670,50
61170068E	80	137,31	1	1	979,00
61170069E	100	211,20	1	1	1.175,00
61170070E	125	330,22	1	1	1.599,00
61170071E	150	408,32	1	1	2.004,00
61170072E	200	759,21	1	1	5.095,00
61170073E	250	1162,45	1	1	8.060,00
61170074E	300	1703,45	1	1	9.868,00

Dimensions on page 207

STAF

Balancing and control valve with flanged connections for heating and cooling systems. Shut-off and pre-setting functions; diagnosis using computerised instrument (TA-SCOPE, CMI) on self-sealing pressure test points. PN 16. Body centre distance ISO 5752 Series 1 and EN 558-1 Series 1, flange ISO 7005-2, EN 1092-2. Seat seal: disc with EPDM O-ring.
DN 65–150. Operating temperature: -10 to 120 °C. EN-GJL-250 (GG25) grey cast iron valve body with epoxy paint surface treatment, other parts in AMETAL® (DZR alloy).
Polyamide plastic digital handwheel with 80 setting positions. Surface treatment in epoxy paint or two-component enamel (according to DN). Aluminium digital handwheel with 120-160 setting positions (according to DN). Bronze disc and AMETAL® (DZR alloy) stem. Bronze models available.
Approvals: PED 2014/68/EU.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
STAF65	65	85	1	1	855,00
STAF80	80	120	1	1	1.631,00
STAF100	100	190	1	1	2.408,00
STAF125	125	300	1	1	3.521,00
STAF150	150	420	1	1	4.510,00

Dimensions on page 207

STAF-SG

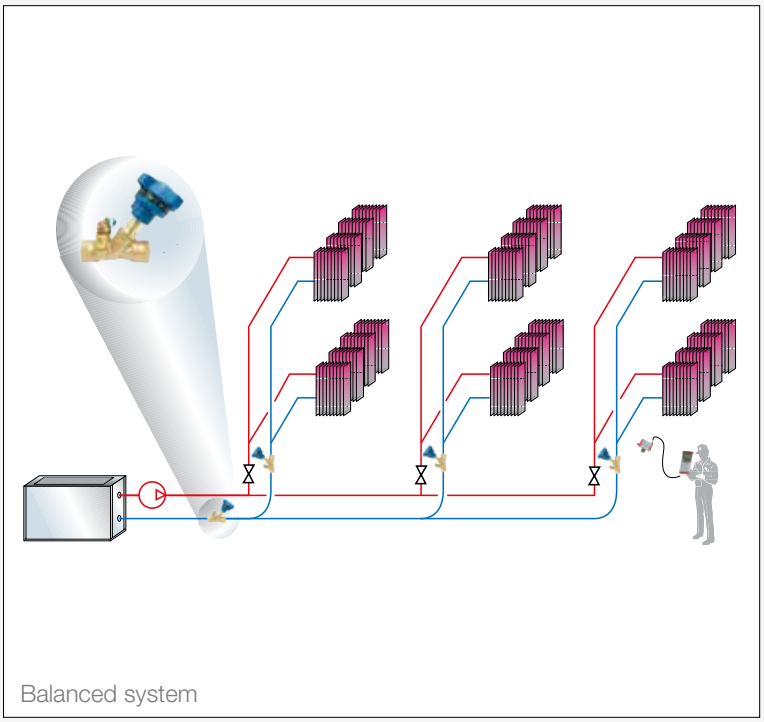
Balancing and control valve with flanged connections for heating and cooling systems. Shut-off and pre-setting functions; diagnosis using computerised instrument (TA-SCOPE, CMI) on self-sealing pressure tapping points. PN 25. Body centre distance ISO 5752 Series 1 and EN 558-1 Series 1 (the DN 20-50 versions can also use counterflanges for PN16), flange ISO 7005-2, EN 1092-2. Seat seal: disc with EPDM O-ring. Operating temperature: -20 to 120°C. EN-GJS-400-15 ductile iron valve body with epoxy paint surface treatment, other parts in AMETAL® (DZR alloy). Polyamide plastic digital handwheel with 40-80 setting positions (according to DN). DN 350-400 models available to order.
Approvals: PED 2014/68/EU.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
STAF-SG20	20	5,7	1	1	456,00
STAF-SG25	25	8,7	1	1	491,00
STAF-SG32	32	14,2	1	1	564,50
STAF-SG40	40	19,2	1	1	698,50
STAF-SG50	50	33	1	1	744,00
STAF-SG65	65	85	1	1	982,00
STAF-SG80	80	120	1	1	1.920,00
STAF-SG100	100	190	1	1	3.139,00
STAF-SG125	125	300	1	1	3.886,00
STAF-SG150	150	420	1	1	5.150,00
STAF-SG200	200	765	1	1	8.669,00
STAF-SG250	250	1185	1	1	14.748,00
STAF-SG300	300	1450	1	1	23.462,00

Dimensions on page 207

TECHNICAL NOTE - Balanced System

To adjust static valves without direct reading, you need to use the appropriate computerised measuring instrument - differential pressure gauge (see BVT-SET).



Balanced system

ANCILLARY SHELLS FOR STAF AND STAF-SG

CFC-free polyurethane insulation shells for balancing valves.

Thermal conductivity λ at 50°C: 0.028 W/mK.
Fire-resistance: Class B2 - DIN 4102.

Part no.	DN	Pcs/pack	Package	€ each
52189-850	50	1	1	652,00
52189-865	65	1	1	652,00
52189-880	80	1	1	652,00
52189-890	100	1	1	652,00
52189-891	125	1	1	652,00
52189-892	150	1	1	652,00

Dimensions on page 207

Dynamic balancing valves

W-DPBV-20T

Differential pressure control valve with threaded connections for variable-flow heating and cooling systems. To be installed on the return pipe, in conjunction with STBV-25 on the supply piping. Function: differential pressure (Δp) setting. Brass body, EPDM seal. ISO 7/1 female threaded connections. DN from 15 to 50. PN 20. Adjustable Δp: from 5 to 30 kPa or from 30 to 70 kPa. Δp max: 300 kPa. Temperature: -10 to 120 °C. Fluid: water or water/glycol (max 25%). Temperature >100 °C and <0 °C exclusively with water containing anti-freeze and anti-boil additives. Connection capillary and adapter fitting supplied.

Part no.	DN	Kvs	Setting range (kPa)	Pcs/pack	Package	€ each
61180000E	15	2,50	5-30	1	1	211,50
61180001E	20	4,00	5-30	1	1	228,50
61180002E	25	6,50	5-30	1	1	250,50
61180003E	32	11,50	5-30	1	1	401,00
61180004E	40	15,50	5-30	1	1	438,50
61180005E	50	23,30	5-30	1	1	463,00
61180006E	15	2,50	30-70	1	1	211,50
61180007E	20	4,00	30-70	1	1	228,50
61180008E	25	6,50	30-70	1	1	250,50
61180009E	32	11,50	30-70	1	1	401,00
61180010E	40	15,50	30-70	1	1	438,50
61180011E	50	23,30	30-70	1	1	463,00

Dimensions on page 208

W-DPBV-16Q

Differential pressure balancing valve with flanged connections for variable-flow heating and cooling systems. To be installed on the return pipe, in conjunction with W-STBV-16Q on the supply piping. Function: differential pressure (Δp) setting. Spheroidal graphite cast iron body with paint finish, internal components in stainless steel, HNBR membranes, EPDM/FKM seals. Flanges EN 1092-2. DN from 65 to 150. PN 16. Adjustable Δp: from 20 to 80 kPa or from 40 to 150 kPa. Δp max: 400 kPa. Temperature: -10 to 120 °C. Fluid: water or water/glycol (max 50%). Temperature >100 °C and <0 °C exclusively with water containing anti-freeze and anti-boil additives. Connection capillary and adapter fitting with shut-off supplied.

Part no.	DN	Kvs	Setting range (kPa)	Pcs/pack	Package	€ each
61180040E	65	60,00	20-80	1	1	1.439,00
61180041E	80	80,00	20-80	1	1	1.609,00
61180042E	100	110,00	20-80	1	1	1.830,00
61180043E	125	180,00	20-80	1	1	2.365,00
61180044E	150	250,00	20-80	1	1	3.493,00
61180045E	65	60,00	40-150	1	1	1.475,00
61180046E	80	80,00	40-150	1	1	1.649,00
61180047E	100	110,00	40-150	1	1	1.888,00
61180048E	125	180,00	40-150	1	1	2.365,00
61180049E	150	250,00	40-150	1	1	3.493,00

Dimensions on page 208

DYN - Discontinued series, available while stocks last

Dynamic balancing valve, made of DZR brass, acts as a pressure-independent control valve (PICV). Modulates the flow rate along the full stroke of the actuator, regardless of pre-setting. PN20. Equipped with a regulating cartridge for Δp of up to 400kPa. M/M thread for union (ISO228/1). M30x1,5 threaded connection, can be used in conjunction with WATTS **22C, 22CX, 22CX5 and 26LC Series** electrothermal ON/OFF actuators or **EMUJC Series** electronic actuators, in ON/OFF or modulating versions. 3/4" and larger size valves will only accept 22CX5 Series or EMUJC Series actuators.
Operating conditions:
- Water: -10 to 130°C
  T < 0°C only with water containing anti-freeze
  T >100°C only with water containing anti-boil
- Not suitable for group 1 and 2 gases or group 1 liquids (Dir.2014/68/EU).

Part no.	DN	Valve body	Flow rate	Kvs	Pcs/pack	Package	€ each
213112DYN	15	without test points	0,030-0,150	0,9	1	1	147,50
21311DYN	25	without test points	0,120-0,600	3,8	1	1	276,00
213112DYN-P	15	with test points	0,030-0,150	0,9	1	1	161,50
213134DYN-P	20	with test points	0,062-0,311	1,86	1	1	171,00
21311DYN-P	25	with test points	0.120-0.600	3,8	1	1	295,00

Dimensions on page 208

Measuring instruments

BVT-SET

Computerised instrument for measuring the static pressure, differential pressure and flow rate of the fluid in a circuit. Connection to smartphone (not included) via Bluetooth and a dedicated app for calculating flow rate. Supplied in a carrying case containing: battery-powered differential pressure sensor; pair of measuring probes complete with adaptors for the various models of valve.
Pre-defined valves stored in the app and custom valves. Rated pressure range 1000 kPa.
Operating temperature: -5 to 50°C. Fluid temperature: -5 to 90°C.
Power supply: AAA alkaline or NiMH rechargeable batteries.

Part no.	Pcs/pack	Package	€ each
BVT-SET2	1	1	5.500,00

BALANCING ACCESSORIES

STK

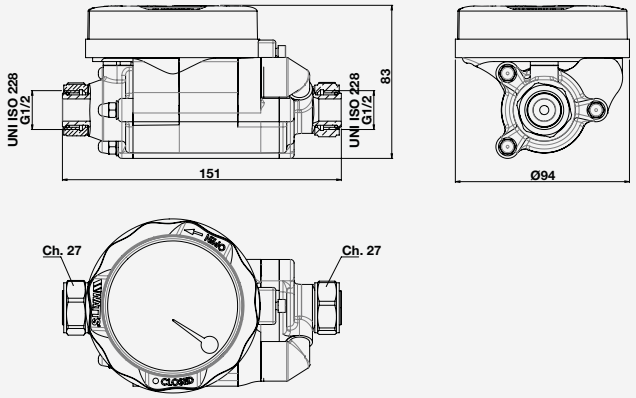
Shut-off lockshield valve for balancing terminal units in heating, cooling and domestic water distribution systems. Set with snap-on wrench by positioning the special insert in the graduated ring. PN16. Operating temperature: -10 to 120°C. Nickel-plated AMETAL® body, disc, stem and fittings. Nitrile rubber O-ring. 1/2" F/F connections

Part no.	DN	Kvs	Pcs/pack	Package	€ each
STK15	15	1,8	1	30	47,95
STK20	20	4,5	1	15	82,90
52187-003	Adjuster wrench		1	1	22,40

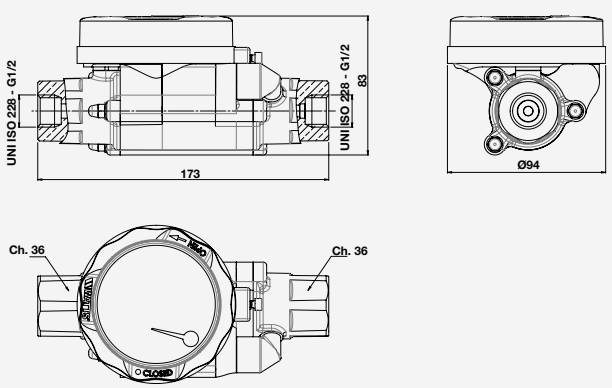
Dimensions on page 208

Overall dimensions

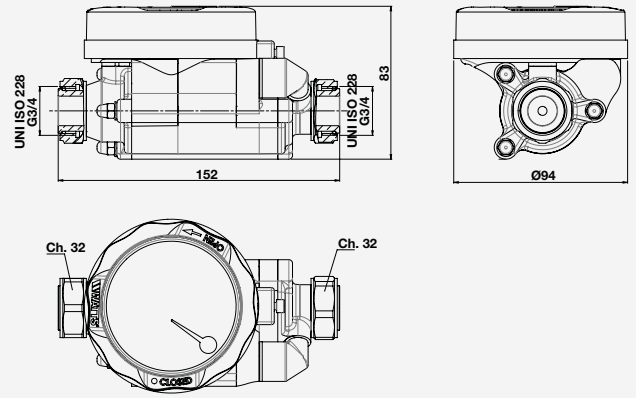
iDROSET® CF SERIES - 1/2”
Union nut, female threaded



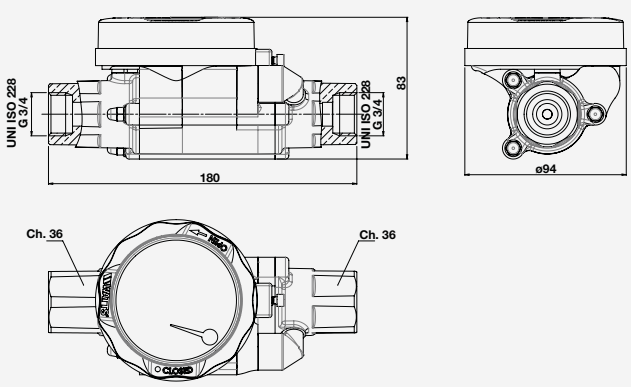
iDROSET® CF SERIES - 1/2”
Female threaded



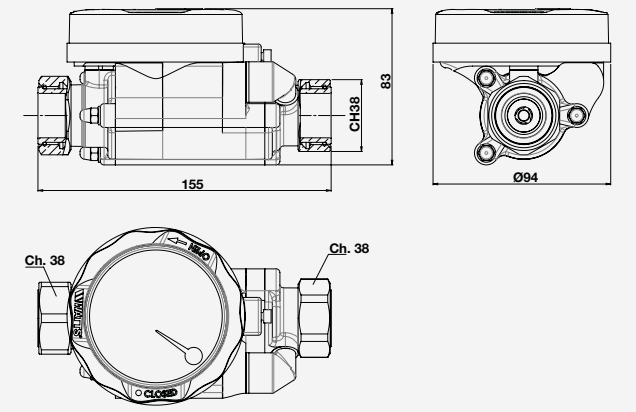
iDROSET® CF SERIES - 3/4”
Union nut, female threaded



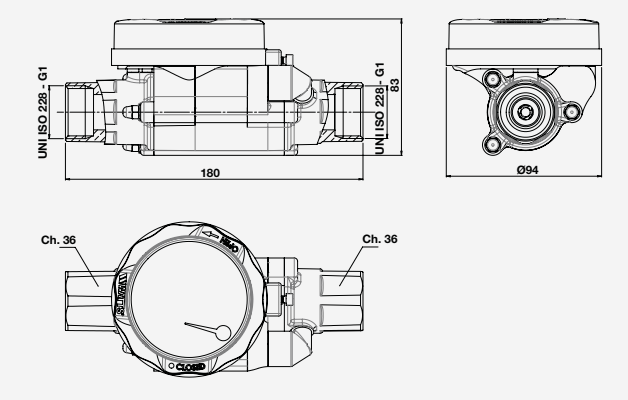
iDROSET® CF SERIES - 3/4”
Female threaded



iDROSET® CF SERIES - 1”
Union nut, female threaded

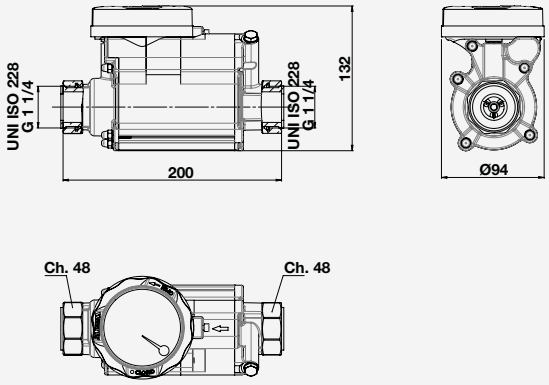


iDROSET® CF SERIES - 1”
Female threaded

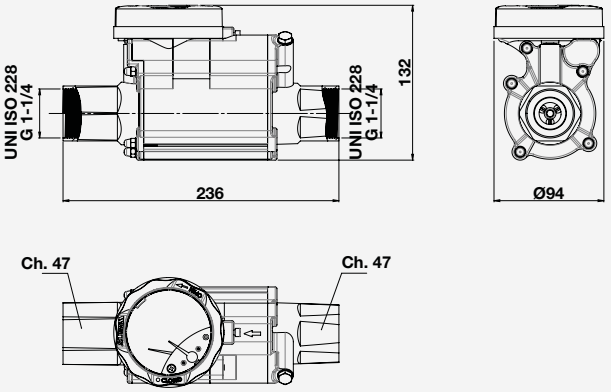


Overall dimensions

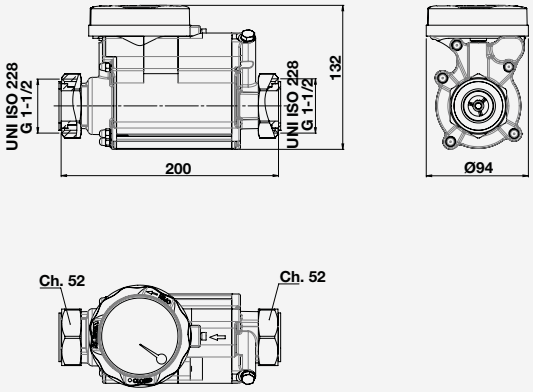
iDROSET® CF SERIES - 1 1/4”
Union nut, female threaded



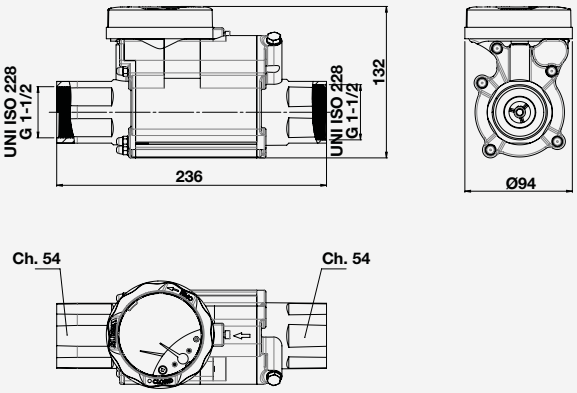
iDROSET® CF SERIES - 1 1/4”
Female threaded



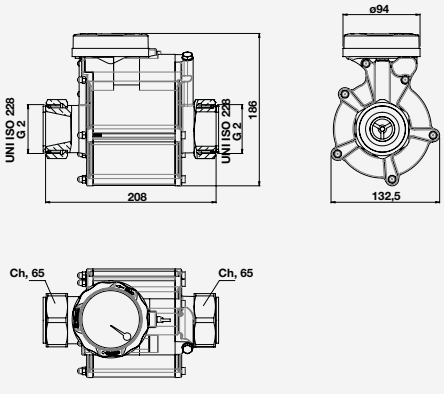
iDROSET® CF SERIES - 1 1/2”
Union nut, female threaded



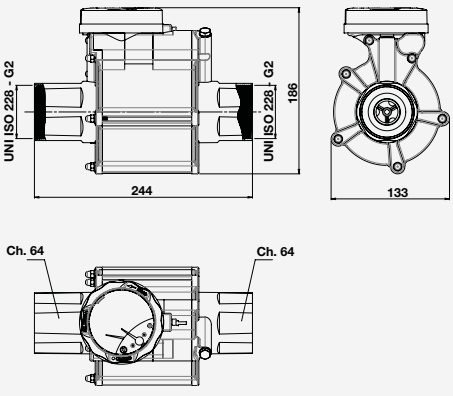
iDROSET® CF SERIES - 1 1/2”
Female threaded



iDROSET® CF SERIES - 2”
Union nut, female threaded

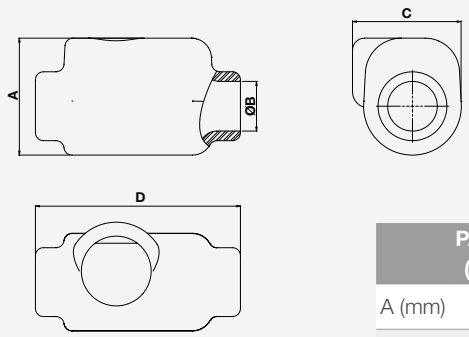


iDROSET® CF SERIES - 2”
Female threaded



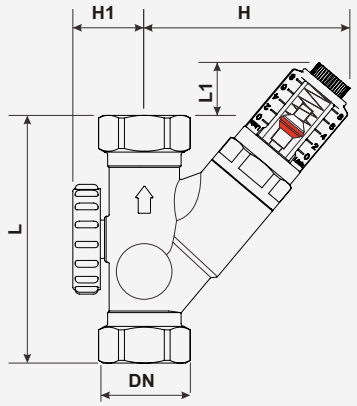
Overall dimensions

SHELLS iDROSET® CF Series



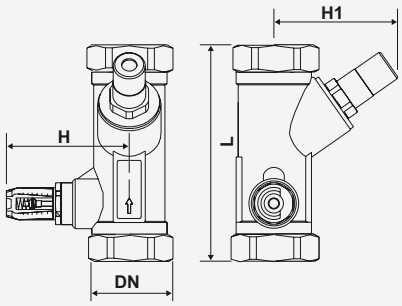
	PAP-001 (DN15)	PAP-002 (DN20)	PAP-003 (DN25/15UNS	PAP-004 (NPT GAS)	PAP-005 (DN50)	PAP-006 (DN32/DN40)
A (mm)	125	125	100	125	160	135
B (mm)	Ø30	Ø35	42	Ø40	Ø72	Ø65
C (mm)	100	100	125	100	190	150
D (mm)	150	150	151	188	235	250

WATTFLOW OL



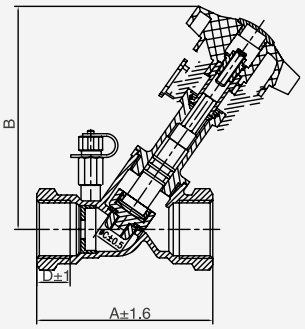
DN	L	L1	H	H1
15	81	17	67	26
20	86	15	71	27

WATTFLOW BP



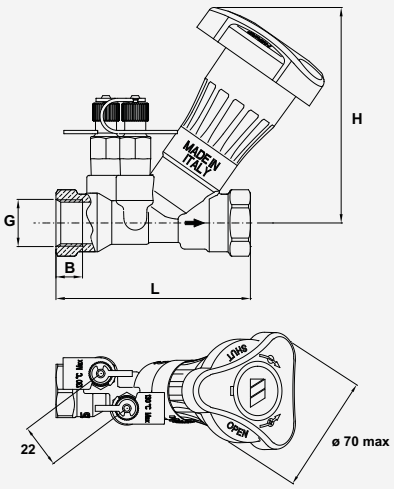
DN	L	H	H1
25	120	73	69
32	135	77	77
40	153	80	78
50	176	85	87

STBV-25



DN	A	B	C
15	87	105	10
20	96	106	13,7
25	100	127	17,4
32	114	128	24,6
40	125	143	31,8
50	146	144	38,9

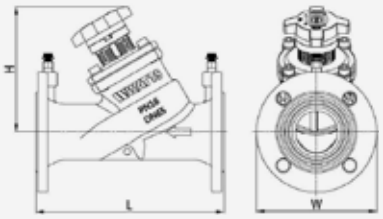
FO-BV



DN	G	H	L	B
15	1/2"	98	87,8	17,5
20	3/4"	98	95,9	19,0
25	1"	98	100,0	22,5
32	1.1/4"	118,3	117,5	24,8
40	1.1/2"	120,4	127,0	24,8
50	2"	130,6	145,3	29,2

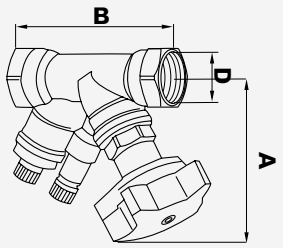
Overall dimensions

W-STBV-16Q



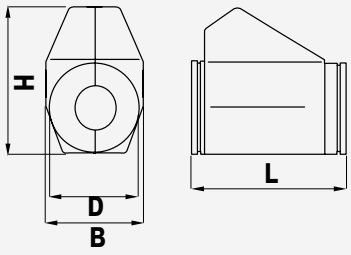
DN	L (mm)	H (mm)	W (mm)
65	290	195	185
80	310	215	200
100	350	230	220
125	400	330	250
150	480	350	285
200	600	420	340
250	730	460	405
300	850	600	460

STAD



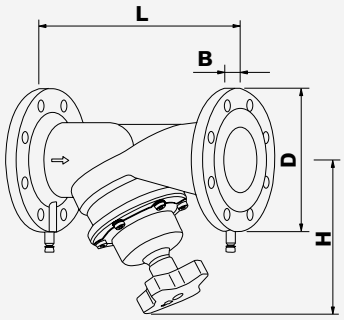
DN	A	B	D	L
10	100	83	3/8"	155
15	100	90	1/2"	155
20	100	97	3/4"	155
25	105	110	1"	175
32	110	124	1.1/4"	195
40	120	130	1.1/2"	214
50	120	155	2"	245

52189 - STAD SHELLS



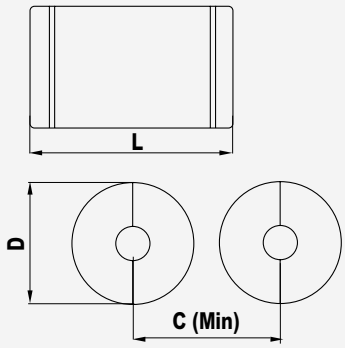
DN	H	D	B	L
10	135	90	103	155
15	135	90	103	155
20	135	90	103	155
25	142	94	103	175
32	156	106	103	195
40	169	108	113	214
50	178	108	114	245

STAF/STAF-SG



DN	L	H	D	B
20	150	100	105	16
25	160	109	115	16
32	180	111	140	18
40	200	122	150	19
50	230	122	165	19
65	290	205	185	19
80	310	220	200	19
100	350	240	235	19
125	400	275	270	19
150	480	285	300	19
200	600	430	360	21
250	730	420	425	23.5
300	850	480	485	24.6

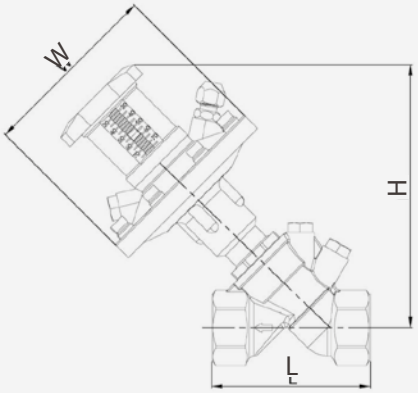
52189 - STAF/STAF-SG SHELLS



DN	L	D	C
50	390	250	252
65	450	270	272
80	480	290	292
100	520	320	322
125	570	350	352
150	660	380	382

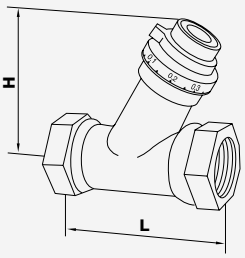
Overall dimensions

W-DPBV-20T



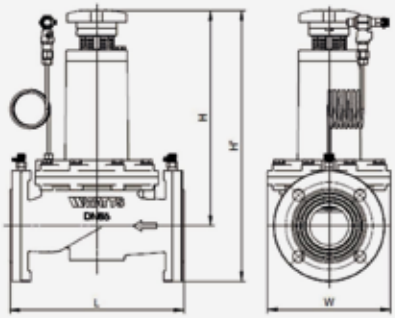
DN	L	H	W
15	80	160	112
20	85	160	112
25	100	165	112
32	110	180	112
40	120	185	112
50	150	200	112

STK



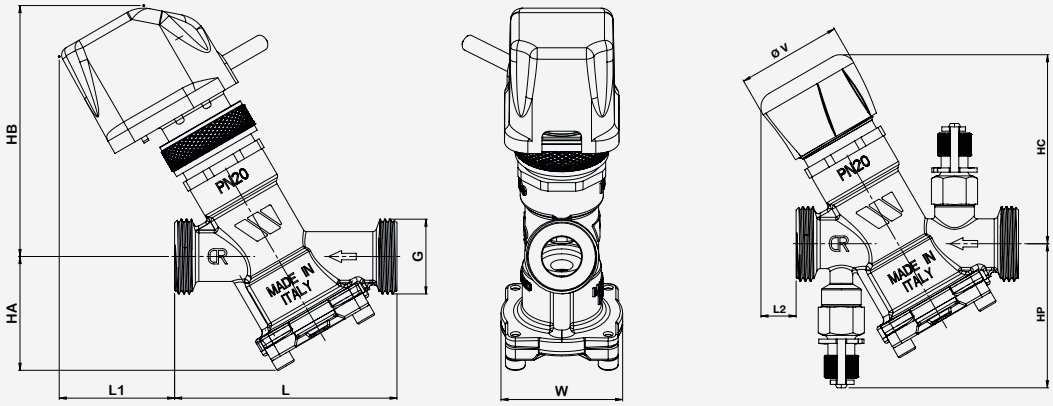
DN	L	H
15	63	55
20	80	69

W-DPBV-16Q



DN	L	H	H'	W
65	290	360	453	205
80	310	392	492	225
100	350	470	581	255
125	400	519	644	293
150	480	592	735	371

DYN



DN	G	L	L1	L2	HA	HB	HC	HP	ØV	W	Flow rate (l/s)
15	3/4"	78,6	41	12,5	38,9	87,8	66,8	60,9	36,8	43	0,030-0,15
20	1"	92	45	16,5	47,4	87,8	66,8	69,4	36,8	52	0,062-0,311
25	1 1/4"	115	27,8	0	56,2	99,7	79,2	73,3	36,8	62,32	0,12/0,6

Chapter 7

Thermal energy metering

WATTS®

DOMOCOMPACT

A comprehensive range of metering products
Data transmission with EN1434-4 standard protocol
Available in various versions

Chapter 7

THERMAL ENERGY METERING

Domocompact: temperature control and thermal energy metering modules

Product range

The DOMOCOMPACT Series temperature control and heat metering modules are available in various product ranges - MyHome, MyHome2, Family and Suite - to meet a wide variety of design, installation and maintenance requirements. The range can be divided according to actual system requirements, on the basis of the flow rate needed. For all products, the module can be fitted either as a finished product or in separate stages (installation of the frame first and the functional parts later). The FAMILY and SUITE modules are fitted with a Watts patented multi-function valve, which includes three-way zone valve, balancing valve, bypass setting and debris filter.

Application

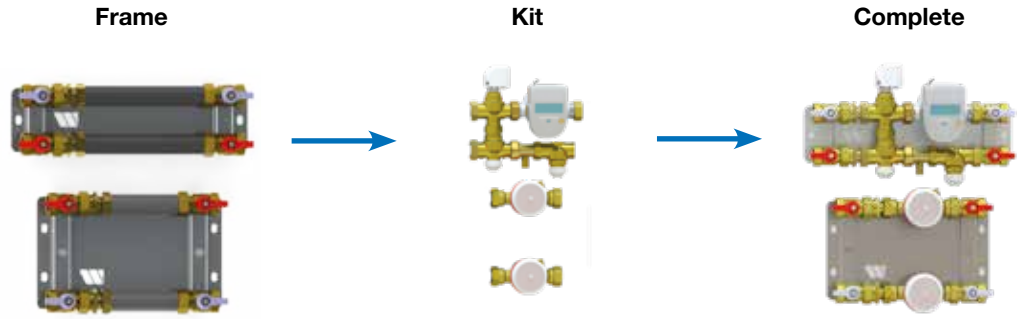
The universal installation system and transparent metering of consumption make DOMOCOMPACT models the number one choice for anyone who wants to design a system with a high level of energy efficiency, enable end-users to manage the activation times and room temperature of their home autonomously, and ensure correct allocation of costs on the basis of the actual energy consumed for heating/cooling, and domestic hot and/or cold water. DOMOCOMPACT models are also market leaders in sections for thermal energy metering designed to operate separately from sections for domestic water use. All components intended for metering comply with the Measuring Instruments Directive currently in force.

Works aimed at improving the energy efficiency of systems can be eligible for tax incentives if they meet the technical requirements set down in Italian Ministerial Decree 06-08-2020 and related legislation.

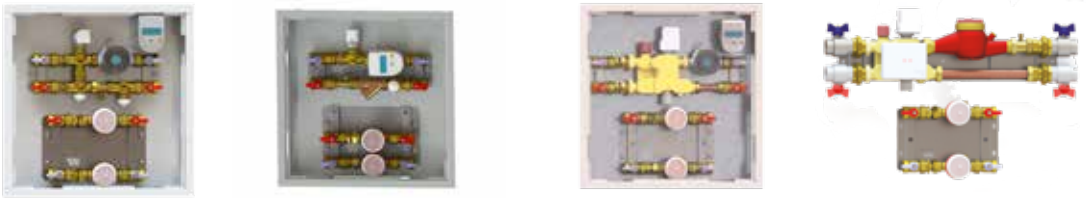
Installation

All DOMOCOMPACT models can be supplied for installation in a single phase or according to the progress of construction work: a single frame complete with shut-off ball valves and removable flushing pipes supplied in the early stages of installation makes it possible to carry out initial commissioning of the network and connect the module at a later stage. The modules are therefore designed in such a way that the primary network can be constructed and completed without necessarily having to fit the chosen DOMOCOMPACT unit. This reduces possible damage and deterioration of the DOMOCOMPACT module caused by construction work, because the module is fitted at the time of first commissioning for each individual consumer (to be planned at the works kick-off stage).

INSTALLATION PHASES



PRODUCT RANGE: GENERAL FEATURES



	My Home Basic	My Home2	Family Basic	Suite
Flow rate Qn [l/h]	<800	<1500	800 – 2000	2000 – 2800
Energy section and domestic water section connections	1”	1”	1”	1-1/4” (dom. wat. sect. 1")
DN	15	20	20	25
Metering	Heating Cooling	Heating Cooling	Heating Cooling	Heating Cooling
Power supply	230V AC/24V AC	230V AC/24V AC	230V AC/24V AC	230VAC/24V AC
Electronic Management	Local (LCD) or M-bus (EN1434) or RF (433 Mhz, 10 mW)	Local (LCD) or M-bus (EN1434) or RF (433 Mhz, 10 mW)	Local (LCD) or M-bus (EN1434) or RF (433 Mhz, 10 mW)	Local (LCD) or M-bus (EN1434) or RF (433 Mhz, 10 mW)
Dimensions (LxHxD)	390x240 (open frame) 520x520x110 (closed frame)	390x240 (open frame) 550x550x110 (closed frame)	515x250 (open frame) 550x550x110 (closed frame)	750x265 (open frame)

Note: for full data, consult the technical data sheets for the individual modules.

DOMOCOMPACT MY HOME BASIC with open frame

Temperature control and thermal energy metering module for consumers with flow rate requirements of up to 800 l/h and metering of domestic water (hot, cold and dual), pre-mounted on a sheet steel frame. Observe the direction of flow required by the volumetric flow meter.

The module consists of:
Energy metering section (heating and cooling)
- 3-way zone valve
- balancing valve;
- by-pass control valve
- Supercal 739 series energy meter with single-jet volumetric meter or Superstatic 789 Series energy meter with fluidic oscillation (optional)
- complete with Pt500 temperature sensor
- remote reading possible by means of M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW)
- battery-powered (battery life 12+1 years)

Domestic Water (DHW and DCW) and Dual Water (DW) metering section
- single-jet turbine flow meter (WMT Series), compliant with MID MI001 (DCW and DHW)
- additional flow meter for DW, compliant with MID MI001 with M-Bus or Radio Frequency transmission

Domestic hot or cold water circuit flow metering (Qn=4.0) by one or more single-jet turbine flow meters (WMT Series).
The module is suitable for horizontal and/or vertical installation, with right/left or left/right inlets.
Insulation and flushing pipes included for all models.
1" F heating section connections.
1" F domestic water section connections.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Dimensions on page 241

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

CODE CREATION MATRIX

DCB[*]-[**] [**] [*] [**]

Model	Model	Frame	Sections	Supply voltages	Options
DCB = DomoCompact Basic	**H** = HOME	**DA** = Open frame	**E** = Energy Section Only	**A** = 230 V	**M1** = MBUS, BATT
		DC = Closed frame	**E1** = Energy + 1 DW	**B** = 24 V	**R1** = RADIO, BATT
			E2 = Energy + 2 DW		**M1U**= MBUS, BATT, ULTRA
			E3 = Energy + 3 DW		**R1U** = RADIO, BATT, ULTRA

FRAME-DCH[*]-[**]

Model	Frame	Sections
DCH = DomoCompact Home	**A =** Open frame	**E** = Energy Section Only
	C = Closed frame	**E1** = Energy + 1 DW
		E2 = Energy + 2 DW
		E3 = Energy + 3 DW

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCHAE	227,50	DCBH-EAM1	740,00	DCBH-DAEAM1	1021,00
		x			DIMA-DCHAE1	325,00	DCBH-E1AM1	861,00	DCBH-DAE1AM1	1.258,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2AM1	983,00	DCBH-DAE2AM1	1.456,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3AM1	1228,00	DCBH-DAE3AM1	1.782,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCHAE	227,50	DCBH-EAM1U	835,00	DCBH-DAEAM1U	1.116,00
		x			DIMA-DCHAE1	325,00	DCBH-E1AM1U	955,00	DCBH-DAE1AM1U	1.354,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2AM1U	1078,00	DCBH-DAE2AM1U	1.552,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3AM1U	1322,00	DCBH-DAE3AM1U	1.877,00
230 VAC	RADIO, BATT				DIMA-DCHAE	227,50	DCBH-EAR1	780,00	DCBH-DAEAR1	1.061,00
		x			DIMA-DCHAE1	325,00	DCBH-E1AR1	901,00	DCBH-DAE1AR1	1.300,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2AR1	1024,00	DCBH-DAE2AR1	1.497,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3AR1	1268,00	DCBH-DAE3AR1	1.823,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCHAE	227,50	DCBH-EAR1U	875,00	DCBH-DAEAR1U	1.156,00
		x			DIMA-DCHAE1	325,00	DCBH-E1AR1U	995,00	DCBH-DAE1AR1U	1.394,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2AR1U	1119,00	DCBH-DAE2AR1U	1.592,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3AR1U	1362,00	DCBH-DAE3AR1U	1.917,00
24 VAC	MBUS, BATT				DIMA-DCHAE	227,50	DCBH-EBM1	740,00	DCBH-DAEBM1	1.021,00
		x			DIMA-DCHAE1	325,00	DCBH-E1BM1	861,00	DCBH-DAE1BM1	1.258,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2BM1	983,00	DCBH-DAE2BM1	1.456,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3BM1	1228,00	DCBH-DAE3BM1	1.782,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCHAE	227,50	DCBH-EBM1U	835,00	DCBH-DAEBM1U	1.116,00
		x			DIMA-DCHAE1	325,00	DCBH-E1BM1U	955,00	DCBH-DAE1BM1U	1.354,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2BM1U	1078,00	DCBH-DAE2BM1U	1.552,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3BM1U	1322,00	DCBH-DAE3BM1U	1.877,00
24 VAC	RADIO, BATT				DIMA-DCHAE	227,50	DCBH-EBR1	780,00	DCBH-DAEBR1	1.061,00
		x			DIMA-DCHAE1	325,00	DCBH-E1BR1	901,00	DCBH-DAE1BR1	1.300,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2BR1	1024,00	DCBH-DAE2BR1	1.497,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3BR1	1268,00	DCBH-DAE3BR1	1.823,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCHAE	227,50	DCBH-EBR1U	875,00	DCBH-DAEBR1U	1.156,00
		x			DIMA-DCHAE1	325,00	DCBH-E1BR1U	995,00	DCBH-DAE1BR1U	1.394,00
		x	x		DIMA-DCHAE2	391,00	DCBH-E2BR1U	1119,00	DCBH-DAE2BR1U	1.592,00
		x	x	x	DIMA-DCHAE3	461,00	DCBH-E3BR1U	1362,00	DCBH-DAE3BR1U	1.917,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT MY HOME BASIC with closed frame

Like Domocompact Myhome Basic with open frame but with components installed in a frame closed with a front panel (white RAL 9010) with lock.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.
Dimensions on page 241

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCHCE	423,00	DCBH-EAM1	740,00	DCBH-DCEAM1	1.216,00
		x			DIMA-DCHCE1	526,00	DCBH-E1AM1	861,00	DCBH-DCE1AM1	1.460,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2AM1	983,00	DCBH-DCE2AM1	1.658,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3AM1	1228,00	DCBH-DCE3AM1	1.975,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCHCE	423,00	DCBH-EAM1U	835,00	DCBH-DCEAM1U	1.312,00
		x			DIMA-DCHCE1	526,00	DCBH-E1AM1U	955,00	DCBH-DCE1AM1U	1.555,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2AM1U	1078,00	DCBH-DCE2AM1U	1.753,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3AM1U	1322,00	DCBH-DCE3AM1U	2.070,00
230 VAC	RADIO, BATT				DIMA-DCHCE	423,00	DCBH-EAR1	780,00	DCBH-DCEAR1	1.257,00
		x			DIMA-DCHCE1	526,00	DCBH-E1AR1	901,00	DCBH-DCE1AR1	1.502,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2AR1	1024,00	DCBH-DCE2AR1	1.699,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3AR1	1268,00	DCBH-DCE3AR1	2.015,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCHCE	423,00	DCBH-EAR1U	875,00	DCBH-DCEAR1U	1.352,00
		x			DIMA-DCHCE1	526,00	DCBH-E1AR1U	995,00	DCBH-DCE1AR1U	1.596,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2AR1U	1119,00	DCBH-DCE2AR1U	1.794,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3AR1U	1362,00	DCBH-DCE3AR1U	2.110,00
24 VAC	MBUS, BATT				DIMA-DCHCE	423,00	DCBH-EBM1	740,00	DCBH-DCEBM1	1.216,00
		x			DIMA-DCHCE1	526,00	DCBH-E1BM1	861,00	DCBH-DCE1BM1	1.460,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2BM1	983,00	DCBH-DCE2BM1	1.658,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3BM1	1228,00	DCBH-DCE3BM1	1.975,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCHCE	423,00	DCBH-EBM1U	835,00	DCBH-DCEBM1U	1.312,00
		x			DIMA-DCHCE1	526,00	DCBH-E1BM1U	955,00	DCBH-DCE1BM1U	1.555,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2BM1U	1078,00	DCBH-DCE2BM1U	1.753,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3BM1U	1322,00	DCBH-DCE3BM1U	2.070,00
24 VAC	RADIO, BATT				DIMA-DCHCE	423,00	DCBH-EBR1	780,00	DCBH-DCEBR1	1.257,00
		x			DIMA-DCHCE1	526,00	DCBH-E1BR1	901,00	DCBH-DCE1BR1	1.502,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2BR1	1024,00	DCBH-DCE2BR1	1.699,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3BR1	1268,00	DCBH-DCE3BR1	2.015,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCHCE	423,00	DCBH-EBR1U	875,00	DCBH-DCEBR1U	1.352,00
		x			DIMA-DCHCE1	526,00	DCBH-E1BR1U	995,00	DCBH-DCE1BR1U	1.596,00
		x	x		DIMA-DCHCE2	593,00	DCBH-E2BR1U	1119,00	DCBH-DCE2BR1U	1.794,00
		x	x	x	DIMA-DCHCE3	653,50	DCBH-E3BR1U	1362,00	DCBH-DCE3BR1U	1.896,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT MY HOME2 with open frame

Temperature control and thermal energy metering module for consumers with flow rate requirements of up to 1500 l/h and metering of domestic water (hot, cold and dual), pre-mounted on a sheet steel frame. Observe the direction of flow required by the volumetric flow meter.
The module consists of:
Energy metering section (heating and cooling)
- Supercal 739 Series compact energy meter with single-jet volumetric meter or Superstatic 789 Series with fluidic oscillation static meter
- complete with Pt500 temperature sensor
- remote reading possible by means of M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW)
- battery-powered (battery life 12+1 years)Domestic Water (DHW and DCW) and Dual Water (DW) metering section
- single-jet turbine flow meter (WMT Series), compliant with MID MI001 (DCW and DHW)
- additional flow meter for DW, compliant with MID MI001 with M-Bus or Radio Frequency transmission
Domestic hot or cold water circuit flow metering (Qn=4.0) by one or more single-jet turbine flow meters (WMT Series).
The module is suitable for horizontal or vertical installation.
Insulation and flushing pipes included for all models.
1" F heating section connections.
1" F domestic water section connections.

Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Dimensions on page 241

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

CODE CREATION MATRIX

DC[**]-[**] [**] [*] [**]

Model	Frame	Sections	ON/OFF actuator	Options
H2 = HOME	**DA** = Open frame	**E** = Energy only	**A** = 230V AC	**M1** = MBUS, BATT
	DC = Closed frame	**E1** = Energy + 1 DW	**B** = 24V AC/VDC	**R1** = RADIO, BATT
		E2 = Energy + 2 DW		**M1U**= MBUS, BATT, ULTRASOUND
		E3 = Energy + 3 DW		**R1U** = RADIO, BATT, ULTRASOUND

FRAME-DCH2[*]-[**]

Frame	Sections
A = Open frame	**E** = Energy only
C = Closed frame	**E1** = Energy + 1 DW
	E2 = Energy + 2 DW
	E3 = Energy + 3 DW

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCH2AE	253,00	DCH2-EAM1	740,00	DCH2-DAEAM1	1.047,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1AM1	861,00	DCH2-DAE1AM1	1.295,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2AM1	983,00	DCH2-DAE2AM1	1.492,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3AM1	1.228,00	DCH2-DAE3AM1	1.827,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCH2AE	253,00	DCH2-EAM1U	835,00	DCH2-DAEAM1U	1.142,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1AM1U	955,00	DCH2-DAE1AM1U	1.390,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2AM1U	1.079,00	DCH2-DAE2AM1U	1.588,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3AM1U	1.322,00	DCH2-DAE3AM1U	1.922,00
230 VAC	RADIO, BATT				DIMA-DCH2AE	253,00	DCH2-EAR1	780,00	DCH2-DAEAR1	1.088,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1AR1	901,00	DCH2-DAE1AR1	1.335,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2AR1	1.024,00	DCH2-DAE2AR1	1.534,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3AR1	1.268,00	DCH2-DAE3AR1	1.868,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCH2AE	253,00	DCH2-EAR1U	876,00	DCH2-DAEAR1U	1.183,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1AR1U	997,00	DCH2-DAE1AR1U	1.431,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2AR1U	1.119,00	DCH2-DAE2AR1U	1.628,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3AR1U	1.362,00	DCH2-DAE3AR1U	1.963,00
24 VAC	MBUS, BATT				DIMA-DCH2AE	253,00	DCH2-EBM1	740,00	DCH2-DAEBM1	1.047,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1BM1	861,00	DCH2-DAE1BM1	1.295,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2BM1	983,00	DCH2-DAE2BM1	1.492,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3BM1	1.228,00	DCH2-DAE3BM1	1.827,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCH2AE	253,00	DCH2-EBM1U	835,00	DCH2-DAEBM1U	1.142,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1BM1U	955,00	DCH2-DAE1BM1U	1.390,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2BM1U	1.079,00	DCH2-DAE2BM1U	1.588,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3BM1U	1.322,00	DCH2-DAE3BM1U	1.922,00
24 VAC	RADIO, BATT				DIMA-DCH2AE	253,00	DCH2-EBR1	780,00	DCH2-DAEBR1	1.088,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1BR1	901,00	DCH2-DAE1BR1	1.335,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2BR1	1.024,00	DCH2-DAE2BR1	1.534,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3BR1	1.268,00	DCH2-DAE3BR1	1.868,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCH2AE	253,00	DCH2-EBR1U	876,00	DCH2-DAEBR1U	1.183,00
		x			DIMA-DCH2AE1	360,50	DCH2-E1BR1U	997,00	DCH2-DAE1BR1U	1.431,00
		x	x		DIMA-DCH2AE2	427,50	DCH2-E2BR1U	1.119,00	DCH2-DAE2BR1U	1.628,00
		x	x	x	DIMA-DCH2AE3	506,00	DCH2-E3BR1U	1.362,00	DCH2-DAE3BR1U	1.963,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT MY HOME2 with closed frame

Like Domocompact Myhome2 with open frame but with components installed in a frame closed with a front panel (white RAL 9010) with lock.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.
Dimensions on page 241

ACCESSORIES

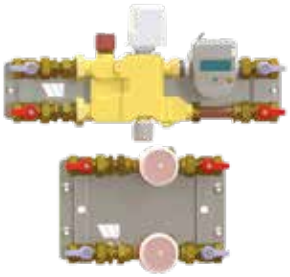
Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCH2CE	442,85	DCH2-EAM1	740,00	DCH2-DCEAM1	1.238,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1AM1	861,00	DCH2-DCE1AM1	1.462,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2AM1	983,00	DCH2-DCE2AM1	1.703,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3AM1	1.228,00	DCH2-DCE3AM1	2.023,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCH2CE	442,85	DCH2-EAM1U	835,00	DCH2-DCEAM1U	1.331,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1AM1U	955,00	DCH2-DCE1AM1U	1.556,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2AM1U	1.079,00	DCH2-DCE2AM1U	1.797,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3AM1U	1.322,00	DCH2-DCE3AM1U	2.118,00
230 VAC	RADIO, BATT				DIMA-DCH2CE	442,85	DCH2-EAR1	780,00	DCH2-DCEAR1	1.278,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1AR1	901,00	DCH2-DCE1AR1	1.502,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2AR1	1.024,00	DCH2-DCE2AR1	1.742,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3AR1	1.268,00	DCH2-DCE3AR1	2.064,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCH2CE	442,85	DCH2-EAR1U	876,00	DCH2-DCEAR1U	1.371,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1AR1U	997,00	DCH2-DCE1AR1U	1.597,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2AR1U	1.119,00	DCH2-DCE2AR1U	1.838,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3AR1U	1.362,00	DCH2-DCE3AR1U	2.158,00
24 VAC	MBUS, BATT				DIMA-DCH2CE	442,85	DCH2-EBM1	740,00	DCH2-DCEBM1	1.238,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1BM1	861,00	DCH2-DCE1BM1	1.462,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2BM1	983,00	DCH2-DCE2BM1	1.703,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3BM1	1.228,00	DCH2-DCE3BM1	2.023,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCH2CE	442,85	DCH2-EBM1U	835,00	DCH2-DCEBM1U	1.331,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1BM1U	955,00	DCH2-DCE1BM1U	1.556,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2BM1U	1.079,00	DCH2-DCE2BM1U	1.797,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3BM1U	1.322,00	DCH2-DCE3BM1U	2.118,00
24 VAC	RADIO, BATT				DIMA-DCH2CE	442,85	DCH2-EBR1	780,00	DCH2-DCEBR1	1.278,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1BR1	901,00	DCH2-DCE1BR1	1.502,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2BR1	1.024,00	DCH2-DCE2BR1	1.742,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3BR1	1.268,00	DCH2-DCE3BR1	2.064,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCH2CE	442,85	DCH2-EBR1U	876,00	DCH2-DCEBR1U	1.371,00
		x			DIMA-DCH2CE1	526,65	DCH2-E1BR1U	997,00	DCH2-DCE1BR1U	1.597,00
		x	x		DIMA-DCH2CE2	637,65	DCH2-E2BR1U	1.119,00	DCH2-DCE2BR1U	1.838,00
		x	x	x	DIMA-DCH2CE3	701,40	DCH2-E3BR1U	1.362,00	DCH2-DCE3BR1U	2.158,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT FAMILY BASIC with open frame



Temperature control and thermal energy metering module for a single consumer with flow rate of 800-2000 l/h and metering of domestic water (hot, cold and dual), pre-mounted on a compact open frame. The module can receive the main inlets from the risers on any of the four sides. Observe the direction of flow required by the volumetric flow meter.

The module consists of a WATTS PATENTED multifunction brass valve comprising:
- 3-way zone valve complete with 24V AC or 230V AC electrothermal actuator and normally open auxiliary microswitch (Series ETE) connected to a bypass setting valve;
- removable steel mesh debris filter basket;
- balancing device;

Energy metering section (heating and cooling):
- Supercal 739 series energy meter with single-jet volumetric meter or Superstatic 789 Series with fluidic oscillation (optional)
- complete with Pt500 temperature sensor
- remote reading possible by means of M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW)
- battery-powered (battery life 12+1 years)

Domestic Water (DHW and DCW) and Dual Water (DW) metering section
- single-jet turbine flow meter (WMT Series), compliant with MID MI001 (DCW and DHW)
- additional flow meter for DW, compliant with MID MI001

Domestic hot or cold water circuit flow metering (Qn=4.0) by one or more single-jet turbine flow meters (WMT Series).
The module is easy to maintain because it is fitted with shut-off ball-valves upstream and downstream of the individual circuit sections assembled with the volumetric meters with appropriate extendable fittings.
The module is suitable for horizontal and/or vertical installation, with right/left or left/right inlets.
Insulation and flushing pipes included for all models.
1" F heating section connections.
1" F domestic water section connections.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Dimensions on page 242

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

CODE CREATION MATRIX

DCB[*]-[**] [**] [*] [**]

Model	Model	Frame	Sections	Supply voltages	Options
DCB = DomoCompact Basic	**F** = FAMILY	**DA** = Open frame	**E** = Energy Section Only	**A** = 230 V	**M1** = MBUS, BATT
		DC = Closed frame	**E1** = Energy + 1 DW	**B** = 24 V	**R1** = RADIO, BATT
			E2 = Energy + 2 DW		**M1U**= MBUS, BATT, ULTRA
			E3 = Energy + 3 DW		**R1U** = RADIO, BATT, ULTRA

FRAME-DCF[*]-[**]

Model	Frame	Sections
DCF = DomoCompact Family	**A =** Open frame	**E** = Energy Section Only
	C = Closed frame	**E1** = Energy + 1 DW
		E2 = Energy + 2 DW
		E3 = Energy + 3 DW

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCFAE	281,50	DCBF-EAM1	1.039,00	DCBF-DAEAM1	1.375,00
		x			DIMA-DCFAE1	401,00	DCBF-E1AM1	1.173,00	DCBF-DAE1AM1	1.647,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2AM1	1.419,00	DCBF-DAE2AM1	1.975,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3AM1	1.666,00	DCBF-DAE3AM1	2.322,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCFAE	281,50	DCBF-EAM1U	1.133,00	DCBF-DAEAM1U	1.469,00
		x			DIMA-DCFAE1	401,00	DCBF-E1AM1U	1.266,00	DCBF-DAE1AM1U	1.741,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2AM1U	1.514,00	DCBF-DAE2AM1U	2.070,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3AM1U	1.761,00	DCBF-DAE3AM1U	2.417,00
230 VAC	RADIO, BATT				DIMA-DCFAE	281,50	DCBF-EAR1	1.080,00	DCBF-DAEAR1	1.415,00
		x			DIMA-DCFAE1	401,00	DCBF-E1AR1	1.213,00	DCBF-DAE1AR1	1.688,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2AR1	1.459,00	DCBF-DAE2AR1	2.015,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3AR1	1.706,00	DCBF-DAE3AR1	2.362,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCFAE	281,50	DCBF-EAR1U	1.175,00	DCBF-DAEAR1U	1.508,00
		x			DIMA-DCFAE1	401,00	DCBF-E1AR1U	1.307,00	DCBF-DAE1AR1U	1.781,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2AR1U	1.554,00	DCBF-DAE2AR1U	2.110,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3AR1U	1.802,00	DCBF-DAE3AR1U	2.458,00
24 VAC	MBUS, BATT				DIMA-DCFAE	281,50	DCBF-EBM1	1.039,00	DCBF-DAEBM1	1.375,00
		x			DIMA-DCFAE1	401,00	DCBF-E1BM1	1.173,00	DCBF-DAE1BM1	1.647,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2BM1	1.419,00	DCBF-DAE2BM1	1.975,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3BM1	1.666,00	DCBF-DAE3BM1	2.322,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCFAE	281,50	DCBF-EBM1U	1.133,00	DCBF-DAEBM1U	1.469,00
		x			DIMA-DCFAE1	401,00	DCBF-E1BM1U	1.266,00	DCBF-DAE1BM1U	1.741,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2BM1U	1.514,00	DCBF-DAE2BM1U	2.070,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3BM1U	1.761,00	DCBF-DAE3BM1U	2.417,00
24 VAC	RADIO, BATT				DIMA-DCFAE	281,50	DCBF-EBR1	1.080,00	DCBF-DAEBR1	1.415,00
		x			DIMA-DCFAE1	401,00	DCBF-E1BR1	1.213,00	DCBF-DAE1BR1	1.688,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2BR1	1.459,00	DCBF-DAE2BR1	2.015,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3BR1	1.706,00	DCBF-DAE3BR1	2.362,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCFAE	281,50	DCBF-EBR1U	1.175,00	DCBF-DAEBR1U	1.508,00
		x			DIMA-DCFAE1	401,00	DCBF-E1BR1U	1.307,00	DCBF-DAE1BR1U	1.781,00
		x	x		DIMA-DCFAE2	475,00	DCBF-E2BR1U	1.554,00	DCBF-DAE2BR1U	2.110,00
		x	x	x	DIMA-DCFAE3	562,50	DCBF-E3BR1U	1.802,00	DCBF-DAE3BR1U	2.458,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT FAMILY BASIC with closed frame

Like Domocompact Family with open frame but with components installed in a frame closed with a front panel (white RAL 9010) with lock.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.
Dimensions on page 242

ACCESSORIES

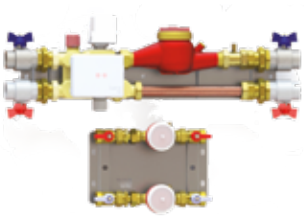
Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCFCE	470,50	DCBF-EAM1	1.039,00	DCBF-DCEAM1	1.563,00
		x			DIMA-DCFCE1	560,00	DCBF-E1AM1	1.173,00	DCBF-DCE1AM1	1.806,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2AM1	1.419,00	DCBF-DCE2AM1	2.178,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3AM1	1.666,00	DCBF-DCE3AM1	2.506,00
230 VAC	MBUS, BATT, ULTRA				DIMA-DCFCE	470,50	DCBF-EAM1U	1.133,00	DCBF-DCEAM1U	1.659,00
		x			DIMA-DCFCE1	560,00	DCBF-E1AM1U	1.266,00	DCBF-DCE1AM1U	1.901,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2AM1U	1.514,00	DCBF-DCE2AM1U	2.273,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3AM1U	1.761,00	DCBF-DCE3AM1U	2.601,00
230 VAC	RADIO, BATT				DIMA-DCFCE	470,50	DCBF-EAR1	1.080,00	DCBF-DCEAR1	1.604,00
		x			DIMA-DCFCE1	560,00	DCBF-E1AR1	1.213,00	DCBF-DCE1AR1	1.846,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2AR1	1.459,00	DCBF-DCE2AR1	2.218,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3AR1	1.706,00	DCBF-DCE3AR1	2.547,00
230 VAC	RADIO, BATT, ULTRA				DIMA-DCFCE	470,50	DCBF-EAR1U	1.175,00	DCBF-DCEAR1U	1.699,00
		x			DIMA-DCFCE1	560,00	DCBF-E1AR1U	1.307,00	DCBF-DCE1AR1U	1.942,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2AR1U	1.554,00	DCBF-DCE2AR1U	2.313,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3AR1U	1.802,00	DCBF-DCE3AR1U	2.641,00
24 VAC	MBUS, BATT				DIMA-DCFCE	470,50	DCBF-EBM1	1.039,00	DCBF-DCEBM1	1.563,00
		x			DIMA-DCFCE1	560,00	DCBF-E1BM1	1.173,00	DCBF-DCE1BM1	1.806,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2BM1	1.419,00	DCBF-DCE2BM1	2.178,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3BM1	1.666,00	DCBF-DCE3BM1	2.506,00
24 VAC	MBUS, BATT, ULTRA				DIMA-DCFCE	470,50	DCBF-EBM1U	1.133,00	DCBF-DCEBM1U	1.659,00
		x			DIMA-DCFCE1	560,00	DCBF-E1BM1U	1.266,00	DCBF-DCE1BM1U	1.901,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2BM1U	1.514,00	DCBF-DCE2BM1U	2.273,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3BM1U	1.761,00	DCBF-DCE3BM1U	2.601,00
24 VAC	RADIO, BATT				DIMA-DCFCE	470,50	DCBF-EBR1	1.080,00	DCBF-DCEBR1	1.604,00
		x			DIMA-DCFCE1	560,00	DCBF-E1BR1	1.213,00	DCBF-DCE1BR1	1.846,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2BR1	1.459,00	DCBF-DCE2BR1	2.218,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3BR1	1.706,00	DCBF-DCE3BR1	2.547,00
24 VAC	RADIO, BATT, ULTRA				DIMA-DCFCE	470,50	DCBF-EBR1U	1.175,00	DCBF-DCEBR1U	1.699,00
		x			DIMA-DCFCE1	560,00	DCBF-E1BR1U	1.307,00	DCBF-DCE1BR1U	1.942,00
		x	x		DIMA-DCFCE2	678,00	DCBF-E2BR1U	1.554,00	DCBF-DCE2BR1U	2.313,00
		x	x	x	DIMA-DCFCE3	746,00	DCBF-E3BR1U	1.802,00	DCBF-DCE3BR1U	2.641,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT SUITE with open frame



Temperature control and thermal energy metering module for a single consumer with high flow rate of 2000 - 2800 l/h and metering of domestic water (hot, cold and dual), pre-mounted on a compact open frame.
The module can be adapted to receive the main inlets from the risers on any of the four sides. Observe the direction of flow required by the volumetric flow meter.
The module can receive the main inlets from the risers on any of the four sides.
Observe the direction of flow required by the volumetric flow meter.

The module consists of a WATTS PATENTED multifunction brass valve comprising:
- 3-way zone valve complete with 24V AC or 230V AC electrothermal actuator and ETE Series normally open auxiliary microswitch connected to a bypass setting valve;
- removable steel mesh debris filter basket;
- balancing device;

Energy metering section (heating and cooling)
- Supercal 5 Series energy meter complete with Pt500 temperature sensors
- single-jet turbine flow meter (MTW Series), compliant with MID MI004.

Energy meter with the possibility of remote reading via M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW) powered by battery or 230V AC or 24V DC (all options according to system requirements).
Digital outputs (energy and volume) for direct connection to data centralisation systems. Other transmission systems available to order (4-20mA, 0-10V DC analogue outputs, relay modules, RS232)*.

Domestic Water (DHW and DCW) and Dual Water (DW) metering section
- single-jet turbine flow meter (WMT Series), compliant with MID MI001 (DCW and DHW)
- additional flow meter for DW, compliant with MID MI001

Domestic hot or cold water circuit flow metering (Qn=4.0) by one or more single-jet turbine flow meters (WMT Series).
The module is easy to maintain because it is fitted with shut-off ball-valves upstream and downstream of the individual circuit sections assembled with the volumetric meters with appropriate extendable fittings.
The module is suitable for horizontal and/or vertical installation, with right/left or left/right inlets.
Insulation and flushing pipes included for all models.
1.1/4" F heating connections. 1" F domestic water connections.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

(*) For all options, consult the technical documentation for the Supercal 5 energy meter
Dimensions on page 242

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

CODE CREATION MATRIX

DC[*]-[**] [**] [*] [**]

Model	Model	Frame	Sections	Supply voltages	Options
DC = DomoCompact	**S** = SUITE	**DA** = Open frame	**E** = Energy Section Only	**A** = 230 V	**M1** = MBUS, BATT
		DC = Closed frame	**E1** = Energy + 1 DW	**B** = 24 V	**M2** = MBUS, 230V
			E2 = Energy + 2 DW		**M3** = MBUS, 24V*
			E3 = Energy + 3 DW		**R1** = RADIO, BATT
					R2 = RADIO, 230V
					R3 = RADIO, 24V*

(*) only for module with supply voltage of 24V

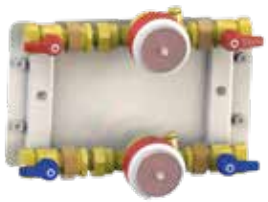
FRAME-DCS[*]-[**]

Model	Frame	Sections
DCS = DomoCompact Suite	**A =** Open frame	**E** = Energy Section Only
	C = Closed frame	**E1** = Energy + 1 DW
		E2 = Energy + 2 DW
		E3 = Energy + 3 DW

Functions					Product for installation in two stages				Complete module	
		Volumetric domestic water			FRAME		BODY			
Actuator power supply	Energy integrator	Hot water	Cold water	Dual/ Rec. Water	Part no.	€ each	Part no.	€ each	Part no.	€ each
230 VAC	MBUS, BATT				DIMA-DCSAE	519,50	DCS-EAM1	2.033,00	DCS-DAEAM1	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1AM1	2.159,00	DCS-DAE1AM1	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2AM1	2.307,00	DCS-DAE2AM1	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3AM1	2.454,00	DCS-DAE3AM1	3.372,00
230 VAC	MBUS, 230 VAC				DIMA-DCSAE	519,50	DCS-EAM2	2.033,00	DCS-DAEAM2	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1AM2	2.159,00	DCS-DAE1AM2	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2AM2	2.307,00	DCS-DAE2AM2	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3AM2	2.454,00	DCS-DAE3AM2	3.372,00
230 VAC	RADIO, BATT				DIMA-DCSAE	519,50	DCS-EAR1	2.033,00	DCS-DAEAR1	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1AR1	2.159,00	DCS-DAE1AR1	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2AR1	2.307,00	DCS-DAE2AR1	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3AR1	2.454,00	DCS-DAE3AR1	3.372,00
230 VAC	RADIO, 230 VAC				DIMA-DCSAE	519,50	DCS-EAR2	2.033,00	DCS-DAEAR2	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1AR2	2.159,00	DCS-DAE1AR2	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2AR2	2.307,00	DCS-DAE2AR2	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3AR2	2.454,00	DCS-DAE3AR2	3.372,00
24 VAC	MBUS, BATT				DIMA-DCSAE	519,50	DCS-EBM1	2.033,00	DCS-DAEBM1	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1BM1	2.159,00	DCS-DAE1BM1	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2BM1	2.307,00	DCS-DAE2BM1	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3BM1	2.454,00	DCS-DAE3BM1	3.372,00
24 VAC	MBUS, 24 VAC				DIMA-DCSAE	519,50	DCS-EBM3	2.033,00	DCS-DAEBM3	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1BM3	2.159,00	DCS-DAE1BM3	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2BM3	2.307,00	DCS-DAE2BM3	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3BM3	2.454,00	DCS-DAE3BM3	3.372,00
24 VAC	RADIO, BATT				DIMA-DCSAE	519,50	DCS-EBR1	2.033,00	DCS-DAEBR1	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1BR1	2.159,00	DCS-DAE1BR1	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2BR1	2.307,00	DCS-DAE2BR1	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3BR1	2.454,00	DCS-DAE3BR1	3.372,00
24 VAC	RADIO, 24 VAC				DIMA-DCSAE	519,50	DCS-EBR3	2.033,00	DCS-DAEBR3	2.611,00
		x			DIMA-DCSAE1	714,50	DCS-E1BR3	2.159,00	DCS-DAE1BR3	2.955,00
		x	x		DIMA-DCSAE2	774,00	DCS-E2BR3	2.307,00	DCS-DAE2BR3	3.170,00
		x	x	x	DIMA-DCSAE3	814,00	DCS-E3BR3	2.454,00	DCS-DAE3BR3	3.372,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCOMPACT DOMESTIC WATER



Module for metering the domestic hot water, cold water, recirculation and/or dual circuits by means of one or more single-jet turbine meters (WMT Series). Compact open frame with nominal flow rate of 4,0 m^3 each. It is necessary to observe the direction of flow required by the volumetric flow meter.

The module is easy to maintain because it is fitted with shut-off ball-valves upstream and downstream of the individual circuit sections assembled with the volumetric meters with appropriate extendable fittings.

The module is suitable for horizontal or vertical installation. Flushing pipes included with the frame. 1" F section connections.

Models with pressure reducing valve available to order.
Compliant with: MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Dimensions on page 242

ACCESSORIES

Part no.	Description	Domestic Water Circuit	Pcs/ pack	Package	€ each
MIX-DMS	mixing DHW	DHW, DCW	1,00	1,00	177,30

NB: only for models equipped with two domestic water sections (DHW and DCW)

Configure the product by selecting the frame and the number and type of volumetric domestic water meters.

Part no.	Description	No. Domestic water	Pcs/pack	Package	€ each
DIMA-DCASAN1	Open frame complete with shut-off valves and flushing pipes	1	1	1	151,80
DIMA-DCASAN2	Open frame complete with shut-off valves and flushing pipes	2	1	1	215,00
DIMA-DCASAN3	Open frame complete with shut-off valves and flushing pipes	3	1	1	310,50

Part no.	Description	Pcs/pack	Package	€ each
DC-SANAFL	Body with WMT Series volumetric meter with PULSE TRANSMITTER 4,0 m3/h for DCW	1	1	107,30
DC-SANACL	Body with WMT Series volumetric meter with PULSE TRANSMITTER 4,0 m3/h for DHW	1	1	116,70
DC-SANAFM	Body with WMT Series volumetric meter with MBUS module 4,0 m3/h for DCW	1	1	218,00
DC-SANACM	Body with WMT Series volumetric meter with MBUS module 4,0 m3/h for DHW	1	1	227,50
DC-SANAR	Body with SUPERAQUA1 Series volumetric meter with RADIO module 4,0 m3/h for DHW and DCW	1	1	191,00

Remote thermal modules

DOMOCAL

Multi-function thermal module that acts as a water and heat distribution interface between central heat generation and the independent supply of heating (room comfort) and domestic hot water. The module is installed in a metal frame that can be surface wall-mounted or flush wall-mounted. Temperature control and metering functions for each individual consumer by means of an MID-compliant direct (hot/cold) thermal energy metering system, which enables costs to be allocated fairly on the basis of the energy actually consumed.
Device based on WEB system electronic logic (zero consumption in thermal off-line mode).
Possibility of data and consumption reading concentrated, transmitted and processed by means of M-Bus hard-wired network (EN1434) or Radio Frequency (433 Mhz, 10mW).
Domestic cold water management and metering by means of MID-compliant instruments.
Multi-function one-piece valve that combines the functions of low-loss header, primary flow balancing and, on request, modulating flow temperature control, by mixing the primary flow and return fluid to and from the consumer. There are also models equipped with an electric pump and uprated heat exchanger, which are suitable for use with condensing boilers and in applications requiring high performance for DHW.
The modules are supplied in an open frame, with or without front panel closure (white RAL 9010).
All modules feature versatile design and are outstandingly compact.
Compliant with MID 2004/22/EC, Italian legislative decree No. 22 of 2/02/07.

WEB system

Multi-function valve

Special features

As well as being highly versatile and extremely compact, the DOMOCAL thermal module comes in a vast range of models, mounting several high-tech devices.
These include:
- DOMOCAL WEB system (Waste Energy Blocking system – zero consumption in thermal off-line mode), which electronically controls switch-on and switch-off of heating and instantaneous DHW production.
When there is no demand for heating or hot water, it ensures separation from the risers, thus preventing 100% of unwanted consumption.
- Multi-function valve that combines the functions of low-loss header, primary flow balancing and uprated plate-type heat exchanger suitable for conventional or condensing boilers.

Installation

Systems designed to include peripheral thermal modules are generally constructed and completed over a medium to long time-frame, and must therefore follow the various stages of construction of the building.
The modules are designed to allow the construction and completion of the primary network that originates in the boiler room and terminates near the dwelling, without necessarily having to fit the chosen DOMOCAL peripheral module.
This therefore prevents possible damage and deterioration of the DOMOCAL module caused by construction work, because the module is fitted at the time of first commissioning for each individual consumer.
For the initial installation phase, Watts provides a frame complete with shut-off ball valves on each circuit section (heating, DHW and DCW).
Before the final start-up phase, install the DOMOCAL product.
The module can be left without its front panel if fitted in a service closet (wall-mounting Domocal with open frame) or a protected, sheltered place as required by the customer (flush-mounting or wall-mounting Domocal with closed frame).
Thanks to these DOMOCAL assembly features, the system operator can take action during the course of system operation in the event of any kind of fault, and remove the thermal module without having to shut down the entire system, by closing the shut-off ball valves.
It is advisable, especially for medium to large systems, to allow at least one back-up thermal module so as to ensure continuity of service in the event of emergencies, pending repair by expert personnel.
The DOMOCAL thermal module is equipped with high-quality components and built to ensure long service-life, provided it is properly maintained.

INSTALLATION PHASES

Frame

Unit

Complete

DOMOCAL FLUSH WALL-MOUNTING

Multi-function thermal module that acts as a water and heat distribution interface between central heat generation and the independent supply of heating (room comfort controlled by a room thermostat, not supplied with the module) and domestic hot water.
The module is installed in a metal frame that can be flush wall-mounted, with front panel (white RAL 9010)
Temperature control and metering by individual consumer by means of an MID-compliant direct heat metering system (heating/cooling).
Three-way solenoid valve with WEB system electronic logic (zero consumption in thermal off-line mode).
Supercal 739 Series energy meter with the possibility of remote reading via M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW) powered by battery (12+1 years).
Models equipped with an electronic pump are also available. Uprated heat exchanger, suitable for use in conjunction with condensing boilers where high DHW performance is required, and for traditional boilers for standard installations, including versions for remote heating.
3/4"F primary, secondary and domestic water circuit connections.
Compact dimensions.
Compliant with MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.
Dimensions on page 242

ACCESSORIES

Part no.	Description	Pcs/ pack	Package	€ each
471015002	water hammer arrestor	1,00	1,00	38,50

CODE CREATION MATRIX

DKR[*]-C [*] [*] [*] [**]

Model	Frame	Pump	Mix modul	DCW	Options
DKR= DomoCal	**I** = Flush-mounting	**P** = With pump	**M** = Mix modul	**F**= With DCW	**M1** = MBUS, BATT
					R1 = RADIO, BATT

FRAME-DKRI[*]

Frame	Frame
DKRI = DomoCal Flush-mounting	**A** = With DCW
	B = No DCW

Functions				Product for installation in two stages				Complete module	
				FRAME		BODY			
Energy integrator	Pump	Mix modul	DCW meter	Part no.	€ each	Part no.	€ each	Part no.	€ each
MBUS, BATT	X	X	X	DIMA-DKRIA	648,50	DKRF-CPMFM1	3.090,00	DKRI-CPMFM1	3.833,00
	X	X		DIMA-DKRIB	511,50	DKRF-CPMM1	3.004,00	DKRI-CPMM1	3.610,00
	X		X	DIMA-DKRIA	648,50	DKRF-CPFM1	2.957,00	DKRI-CPFM1	3.699,00
	X			DIMA-DKRIB	511,50	DKRF-CPM1	2.851,00	DKRI-CPM1	3.456,00
			X	DIMA-DKRIA	648,50	DKRF-CFM1	2.563,00	DKRI-CFM1	3.306,00
				DIMA-DKRIB	511,50	DKRF-CM1	2.468,00	DKRI-CM1	3.074,00
RADIO, BATT	X	X	X	DIMA-DKRIA	648,50	DKRF-CPMFR1	3.186,00	DKRI-CPMFR1	3.931,00
	X	X		DIMA-DKRIB	511,50	DKRF-CPMR1	3.102,00	DKRI-CPMR1	3.707,00
	X		X	DIMA-DKRIA	648,50	DKRF-CPFR1	3.054,00	DKRI-CPFR1	3.797,00
	X			DIMA-DKRIB	511,50	DKRF-CPR1	2.947,00	DKRI-CPR1	3.553,00
			X	DIMA-DKRIA	648,50	DKRF-CFR1	2.660,00	DKRI-CFR1	3.403,00
				DIMA-DKRIB	511,50	DKRF-CR1	2.565,00	DKRI-CR1	3.171,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

DOMOCAL SURFACE WALL-MOUNTING

Multi-function thermal module that acts as a water and heat distribution interface between central heat generation and the independent supply of heating (room comfort controlled by a room thermostat, not supplied with the module) and domestic hot water.
The module is installed in a metal frame that can be surface wall-mounted without a front panel.
Temperature control and metering by individual consumer by means of an MID-compliant direct heat metering system (heating/cooling).
Three-way solenoid valve with WEB system electronic logic (zero consumption in thermal off-line mode).
739 Series energy meter with the possibility of remote reading via M-Bus (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW) powered by battery (12+1 years).
Models equipped with an electronic pump are also available. Uprated heat exchanger, suitable for use in conjunction with condensing boilers where high DHW performance is required, and for traditional boilers for standard installations, including versions for remote heating.
3/4"F primary, secondary and domestic water circuit connections.
Compact dimensions.
Compliant with MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.
Dimensions on page 242

ACCESSORIES

Part no.	Description	Pcs/ pack	Package	€ each
DKA-MANT	Protective covering	1,00	1,00	206,10
471015002	water hammer arrestor	1,00	1,00	38,50

CODE CREATION MATRIX

DKR[*]-C [*] [*] [*] [**]

Model	Frame	Pump	Mix modul	DCW	Options
DKR= DomoCal	**A =** Open	**P** = With pump	**M** = Mix modul	**F**= With DCW	**M1 =** MBUS, BATT **R1 =** RADIO, BATT

FRAME-DKRA[*]

Frame	Frame
DKRA = DomoCal Open	**A** = With DCW **B** = No DCW

Functions				Product for installation in two stages				Complete module	
				FRAME		BODY			
Energy integrator	Pump	Mix modul	DCW meter	Part no.	€ each	Part no.	€ each	Part no.	€ each
MBUS, BATT	X	X	X	DIMA-DKRAA	408,00	DKRF-CPMFM1	3.090,00	DKRA-CPMFM1	3.592,00
	X	X		DIMA-DKRAB	317,00	DKRF-CPMM1	3.004,00	DKRA-CPMM1	3.416,00
	X		X	DIMA-DKRAA	408,00	DKRF-CPFM1	2.957,00	DKRA-CPFM1	3.459,00
	X			DIMA-DKRAB	317,00	DKRF-CPM1	2.851,00	DKRA-CPM1	3.261,00
			X	DIMA-DKRAA	408,00	DKRF-CFM1	2.563,00	DKRA-CFM1	3.066,00
				DIMA-DKRAB	317,00	DKRF-CM1	2.468,00	DKRA-CM1	2.880,00
RADIO, BATT	X	X	X	DIMA-DKRAA	408,00	DKRF-CPMFR1	3.186,00	DKRA-CPMFR1	3.690,00
	X	X		DIMA-DKRAB	317,00	DKRF-CPMR1	3.102,00	DKRA-CPMR1	3.513,00
	X		X	DIMA-DKRAA	408,00	DKRF-CPFR1	3.054,00	DKRA-CPFR1	3.556,00
	X			DIMA-DKRAB	317,00	DKRF-CPR1	2.947,00	DKRA-CPR1	3.359,00
			X	DIMA-DKRAA	408,00	DKRF-CFR1	2.660,00	DKRA-CFR1	3.163,00
				DIMA-DKRAB	317,00	DKRF-CR1	2.565,00	DKRA-CR1	2.977,00

N.B. The price shown does not include commissioning of the individual model. Quote provided on request.

Thermal energy metering

SUPERCAL 5

Multi-function calculation unit for thermal energy metering for heating/cooling systems:
- NFC technology for simplified configuration that is easy to use with Superprog Android;
- Illuminated matrix display (128×64);
- LED indication of calculation status;
- Powered by battery with life of 12+1 years, or by 220V AC (other power supplies available to order)
- Large data storage capacity;
- Two pulse inputs for additional meters (domestic hot and cold water);
- two digital outputs (energy and volume) for direct connection to data centralisation;
- Native M-Bus interface (EN1434) or Radio Frequency (bidirectional, 433 Mhz 10mW) compatible with SUPERCOM 636, 646 concentrator and 656 repeater;
- Other transmission systems available to order (4-20mA, 0-10V DC analogue outputs, relay modules, BACnet, ModBus, wM-BUS radio, LoRaWAN*);
- Protection rating IP65;
- Compatible with Pt500 temperature sensors, Series PS and Series 0531R.

Complies with MID 2014/32/EU and RED 2014/53/EU.

(*) For all options, consult the technical documentation for the Supercal 5 energy meter.

Part no.	Communication type	Power supply	l/pulse	Pcs/pack	Package	€ each
SC5I0100W-2.5	M-Bus (EN1434)	Battery	2,5	1	1	576,00
SC5I0100W-10	M-Bus (EN1434)	Battery	10	1	1	576,00
SC5I0100W-25	M-Bus (EN1434)	Battery	25	1	1	576,00
SC5I0100W-100	M-Bus (EN1434)	Battery	100	1	1	576,00
SC5I0100W-250	M-Bus (EN1434)	Battery	250	1	1	576,00
SC5I0100W-1000	M-Bus (EN1434)	Battery	1000	1	1	576,00
SC5I0200W-2.5	M-Bus (EN1434)	230VAC	2,5	1	1	585,00
SC5I0200W-10	M-Bus (EN1434)	230VAC	10	1	1	585,00
SC5I0200W-25	M-Bus (EN1434)	230VAC	25	1	1	585,00
SC5I0200W-100	M-Bus (EN1434)	230VAC	100	1	1	585,00
SC5I0200W-250	M-Bus (EN1434)	230VAC	250	1	1	585,00
SC5I0200W-1000	M-Bus (EN1434)	230VAC	1000	1	1	585,00
SC5IR100W-2.5	Radio (433 Mhz, 10mW)	Battery	2,5	1	1	589,50
SC5IR100W-10	Radio (433 Mhz, 10mW)	Battery	10	1	1	589,50
SC5IR100W-25	Radio (433 Mhz, 10mW)	Battery	25	1	1	589,50
SC5IR100W-100	Radio (433 Mhz, 10mW)	Battery	100	1	1	589,50
SC5IR100W-250	Radio (433 Mhz, 10mW)	Battery	250	1	1	589,50
SC5IR100W-1000	Radio (433 Mhz, 10mW)	Battery	1000	1	1	589,50
SC5IR200W-2.5	Radio (433 Mhz, 10mW)	230VAC	2,5	1	1	598,50
SC5IR200W-10	Radio (433 Mhz, 10mW)	230VAC	10	1	1	598,50
SC5IR200W-25	Radio (433 Mhz, 10mW)	230VAC	25	1	1	598,50
SC5IR200W-100	Radio (433 Mhz, 10mW)	230VAC	100	1	1	598,50
SC5IR200W-250	Radio (433 Mhz, 10mW)	230VAC	250	1	1	598,50
SC5IR200W-1000	Radio (433 Mhz, 10mW)	230VAC	1000	1	1	598,50

Dimensions on page 244

PS/0531R-2S15

Pair of immersion temperature sensors. Can be used in conjunction with TP Series brass pocket (for PS) and G21 Series brass pocket (for 0531R) for heating and cooling system pipes. PT500 sensor, diameter 5,2mm (mod. PS) and 3,6mm (mod. 0531R-2S15). Operating temperature: 0 to 150°C. **Compliant with MID 2014/32/EU.**

Part no.	Cable length	Operating temp.	Pcs/pack	Package	€ each
PS02	2 m	0 to 150°C	1 pair	1 pair	122,40
PS10	10 m	0 to 150°C	1 pair	1 pair	269,50
0531R-2S15	1.5mt	0 to 150°C	1 pair	1 pair	154,70

TP/G21

Pocket for installation on pipe with 1/2" external thread. Suitable for housing PS Series (mod. TP) and 0531R-2S15 (mod. G21) temperature sensors. **Compliant with MID 2014/32/EU.**

Part no.	Description	Length	Pcs/pack	Package	€ each
TP35B	Brass	35 mm	1	1	37,10
TP52B	Brass	52 mm	1	1	65,10
TP85B	Brass	85 mm	1	1	88,80
TP120B	Brass	120 mm	1	1	94,60
TP85S	Steel	85 mm	1	1	94,60
TP120S	Steel	120 mm	1	1	99,30
G21.1CU	Brass	18 mm	12	240	11,90

SUPERSTATIC 440N

Fluidic oscillation static meter for thermal energy metering in heating and cooling systems, compliant with EN1434, class 2. Based on the principle of fluidic oscillation measurement, it is compatible with a wide range of flow rates and is suitable for any remote heating, air conditioning or building automation application. The oscillating-jet principle provides a high degree of stability and repeatability for precise, reliable metering of thermal energy and flow rate. The meter includes an oscillating-jet flow rate sensor, a dedicated Supercal 5 calculation unit, a pair of temperature sensors and a pair of sensor pockets.

Features:

- Interchangeable measuring head
- Comprehensive range of pipes from G 3/4" to DN150
- Corrosion-resistant materials
- IP rating of flow rate sensor: IP68
- Threaded and flanged connections
- No need for a straight run of pipe (up to DN40)
- No moving parts, so maximum wear-resistance
- Unaffected by dirt
- Stable measurement
- Independent installation position for horizontal, ascending or descending pipes
- Dynamic range:

1:100 for qp 1 – 25 m^3/h
1:50 for qp 40 – 400 m^3/h
1:25 for qp 800 – 1500 m^3/h

- Direct sampling of voltage pulses without reflectors
- Metering independent of heat-carrier
- Stable, precise, reliable metering over time, even with poor quality water

Also compatible for metering water/glycol mixtures for solar energy systems (compensation value can be set in the Supercal 5 electronic unit supplied with the volumetric meter).
Approved to MID 2014/32/EU (EN1434) Class 2.

Part no.	Description	DN	PN	Qn (m3/h)	Pcs/ pack	Package	€ each
0440M02W	superstatico mid 110mm mbus brass	G3/4"	16	1,5	1	1	895,00
0440M04W	superstatico mid 190mm mbus brass	G1"	16	1,5	1	1	895,00
0440M05W	superstatico mid 190mm mbus brass	G1"	16	2,5	1	1	895,00
0440M07W	superstatico mid 260mm mbus brass	G1.1/4"	16	6	1	1	1.446,00
0440M08W	superstatico mid 300mm mbus brass	G2"	16	10	1	1	1.824,00
0440M10W	superstatico mid 260mm mbus brass	DN25	16	6	1	1	1.688,00
0440M11W	superstatico mid 300mm mbus brass	DN40	16	10	1	1	2.149,00
0440M36W	superstatico mid 270mm mbus ductile iron	DN50	16	15	1	1	2.429,00
0440M37W	superstatico mid 300mm mbus ductile iron	DN65	16	25	1	1	2.786,00
0440M38W	superstatico mid 300mm mbus ductile iron	DN80	16	40	1	1	3.325,00
0440M39W	superstatico mid 360mm mbus ductile iron	DN100	16	60	1	1	3.940,00
0440M40W	superstatico mid 250mm mbus ductile iron	DN125	16	100	1	1	4.559,00
0440M41W	superstatico mid 300mm mbus ductile iron	DN150	16	150	1	1	5.618,00
0440R02W	superstatico mid 110mm radio brass	G3/4"	16	1,5	1	1	941,00
0440R04W	superstatico mid 190mm radio brass	G1"	16	1,5	1	1	941,00
0440R05W	superstatico mid 190mm radio brass	G1"	16	2,5	1	1	941,00
0440R07W	superstatico mid 260mm radio brass	G1.1/4"	16	6	1	1	1.459,00
0440R08W	superstatico mid 300mm radio brass	G2"	16	10	1	1	1.837,00
0440R10W	superstatico mid 260mm radio brass	DN25	16	6	1	1	1.701,00
0440R11W	superstatico mid 300mm radio brass	DN40	16	10	1	1	2.161,00
0440R36W	superstatico mid 270mm radio ductile iron	DN50	16	15	1	1	2.443,00
0440R37W	superstatico mid 300mm radio ductile iron	DN65	16	25	1	1	2.799,00
0440R38W	superstatico mid 300mm radio ductile iron	DN80	16	40	1	1	3.339,00
0440R39W	superstatico mid 360mm radio ductile iron	DN100	16	60	1	1	3.954,00
0440R40W	superstatico mid 250mm radio ductile iron	DN125	16	100	1	1	4.573,00
0440R41W	superstatico mid 300mm radio ductile iron	DN150	16	150	1	1	5.632,00

Dimensions on page 243

SUPERCAL 739

Compact thermal energy meter for heating and cooling systems, consisting of: single-jet turbine volumetric flow meter, electronic energy meter, temperature probes.
Operating temperature: 5to90°C. Battery life: 12 years + 1. Protection rating IP65.
Reading with bidirectional radio module. Available in models for reading with M-Bus.
For metering heating and cooling, with two additional pulse inputs.
Dimensions: DN15, G 3/4", 110mm DN20, G 1", 130mm.
Unions non included, compatible with model RDRV (see chapter 11).
Complies with MID MI004, EN 1434 Class 3.

Part no.	DN	Description	Qn m³/h	Pcs/ pack	Package	€ each
073915CFR	15	Cooling/Heating + Radio Module	1,5	1	1	401,00
073915CFIR	15	Cooling/Heating + 2 pulse inputs + Radio Module	1,5	1	1	439,50
073915CFM	15	Cooling/Heating + M-Bus Module	1,5	1	1	388,50
073915CFIM	15	Cooling/Heating + 2 pulse inputs + M-Bus Module	1,5	1	1	427,50
073920CFR	20	Cooling/Heating + Radio Module	2,5	1	1	415,50
073920CFIR	20	Cooling/Heating + 2 pulse inputs + Radio Module	2,5	1	1	454,50
073920CFM	20	Cooling/Heating + M-Bus Module	2,5	1	1	422,50
073920CFIM	20	Cooling/Heating + 2 pulse inputs + M-Bus Module	2,5	1	1	442,00

Dimensions on page 245

SUPERSTATIC 789

The Superstatic 789 is a rugged, compact, lightweight energy meter consisting of a volumetric meter made of high-tech composite material, an energy meter with various options and two temperature sensors. It is used for calculating heating and/or cooling energy consumption in all appropriate domestic and commercial applications. Volumetric metering is handled by an exclusive fluidic oscillation measurement system.

The meter contains no moving parts and is therefore immune to wear and unaffected by dirt or air bubbles in the metered fluid. The fluidic oscillation system ensures high stability and an extremely high degree of repeatability of the readings. It is also compatible with water mixed with glycol and other mixes, with a fluid temperature of 0 to 110°C.

Available in two different versions: Qp 1,5 m^3/h, G3/4", 110mm; Qp 2,5 m^3/h, G1", 130mm. Pt1000 temperature sensors ø5,2 mm. Powered by a battery with life of 12+1 years. Connection options (available to order): M-Bus (EN1434); bidirectional (433Mhz, 10mW); two pulse outputs; two additional pulse inputs for domestic water (hot and cold).

Unions non included, compatible with model RDRV (see chapter 11).

Complies with the Measuring Instruments Directive (2014/32/EU) and standard EN 1434 class 2.

Part no.	Description	DN	Qn (m3/h)	Pcs/ pack	Package	€ each
078915CFR	Cooling/Heating + Radio Module	15	1,5	1	1	469,00
078915CFIR	Cooling/Heating + 2 pulse inputs + Radio Module	15	1,5	1	1	514,50
078915CFM	Cooling/Heating + M-Bus Module	15	1,5	1	1	454,50
078915CFIM	Cooling/Heating + 2 pulse inputs + M-Bus Module	15	1,5	1	1	500,00
078920CFR	Cooling/Heating + Radio Module	20	2,5	1	1	486,00
078920CFIR	Cooling/Heating + 2 pulse inputs + Radio Module	20	2,5	1	1	531,00
078920CFM	Cooling/Heating + M-Bus Module	20	2,5	1	1	494,00
078920CFIM	Cooling/Heating + 2 pulse inputs + M-Bus Module	20	2,5	1	1	517,50

Dimensions on page 245

Flow measurement

WMT

Single-jet turbine flow meter for hot water. PN 16. Max. fluid temperature: 90°C. Direct dry-dial reading with magnetic transmission. Brass body complete with nuts and sleeves. Threaded connections. Suitable for both horizontal and vertical installation. Complete with pulse transmitter. The part numbers with extension SE denote products used for thermal energy metering (MI004 marking for MID purposes). The part numbers with extension AF and AFOEM denote products used for domestic cold water metering (MI001 marking). The part numbers with extension AC and ACOEM denote products used for domestic hot water metering (MI001 marking). **Approved to MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.**

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
WMT15-15SE	15	1,5	2,5	1	1	248,50
WMT15-15AF	15	2,5	2,5	1	18	97,20
WMT15-15AC	15	2,5	2,5	1	18	109,00
WMT20-25SE	20	2,5	2,5	1	1	259,00
WMT20-20AFOEM	20	4,0	2,5	1	18	109,00
WMT20-20ACOEM	20	4,0	2,5	1	18	119,60

Dimensions on page 244

MTW90

Multi-jet turbine flow meter for hot water. PN16. Max. fluid temperature: 90°C. Direct dry-dial reading with magnetic transmission. Brass body complete with nuts and sleeves. Threaded connections. For horizontal installation only. Complete with pulse transmitter.
The part numbers with extension E (product identification marking MI004 - art .1 of the decree) denote products used for thermal energy metering. Part numbers with extension V (product identification marking MI001) denote products used for volumetric metering of hot and cold water.
Approved to MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
MTW15E	15	1,5	2,5	1	1	416,00
MTW15V	15	2,5	2,5	1	1	402,50
MTW20E	20	2,5	2,5	1	1	422,00
MTW20V	20	4	2,5	1	1	406,50
MTW25E	25	3,5	2,5	1	1	511,50
MTW25V	25	6,3	2,5	1	1	499,50
MTW32E	32	6	25	1	1	534,00
MTW32V	32	10	25	1	1	519,00
MTW40E	40	10	25	1	1	832,00
MTW40V	40	16	25	1	1	816,00
MTW50E	50	15	25	1	1	1.175,00
MTW50V	50	25	25	1	1	1.163,00

Dimensions on page 244

MTW130

Multi-jet turbine flow meter for hot water. Max. fluid temperature: 130°C. Dry-dial reading. Magnetic transmission. Horizontal installation only. PN16. Complete with pulse transmitter (K=10). **Complies with MID 2004/22/EU MI004.**

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
MTW15-130	15	1,5	10	1	1	443,00
MTW20-130	20	2,5	10	1	1	475,00
MTW25-130	25	3,5	10	1	1	492,50
MTW32-130	32	6	10	1	1	517,50
MTW40-130	40	10	10	1	1	807,00
MTW50-130	50	15	10	1	1	1.397,00

Dimensions on page 244

MTW-V

Multi-jet turbine flow meter for hot water. PN16. Max. fluid temperature: 90°C. Direct dry-dial reading with magnetic transmission. Brass body complete with nuts and sleeves. Threaded connections. Suitable for vertical installation with fluid inlet from bottom. Complete with pulse transmitter.
The part numbers with extension E (product identification marking MI004 - art .1 of the decree) denote products used for thermal energy metering.
Part numbers with extension V (product identification marking MI001) denote products used for volumetric metering of hot and cold water.
Approved to MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
MTW-V20E	20	2,5	2,5	1	1	461,50
MTW-V20V	20	4	2,5	1	1	450,00
MTW-V25E	25	3,5	2,5	1	1	640,00
MTW-V25V	25	6,3	2,5	1	1	620,50
MTW-V32E	32	6	25	1	1	693,50
MTW-V32V	32	10	25	1	1	693,50
MTW-V40E	40	10	25	1	1	922,00
MTW-V40V	40	16	25	1	1	911,00

Dimensions on page 244

MTW-VA

Multi-jet turbine flow meter for hot water. PN16. Max. fluid temperature: 90°C. Direct dry-dial reading with magnetic transmission. Brass body complete with nuts and sleeves. Threaded connections. Suitable for vertical installation with fluid inlet from top. Complete with pulse transmitter.
The part numbers with extension E (product identification marking MI004 - art .1 of the decree) denote products used for thermal energy metering. Part numbers with extension V (product identification marking MI001) denote products used for volumetric metering of hot and cold water.
Approved to MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
MTW-VA20E	20	2,5	2,5	1	1	514,00
MTW-VA20V	20	4	2,5	1	1	501,00
MTW-VA25E	25	3,5	2,5	1	1	669,50
MTW-VA25V	25	6,3	2,5	1	1	638,50
MTW-VA32E	32	6	25	1	1	742,00
MTW-VA32V	32	10	25	1	1	789,00
MTW-VA40E	40	10	25	1	1	1.088,00
MTW-VA40V	40	16	25	1	1	1.085,00

Dimensions on page 244

WPMM

Woltmann turbine flow meter for water. PN16.
Max. fluid temperature: 130°C. Direct dry-dial reading with magnetic transmission. Cast iron body. Suitable for horizontal, vertical and inclined installation.
Complete with pulse transmitter.
Approved to MID 2014/32/EU, Italian legislative decree No. 22 of 2/02/07.

Part no.	DN	Qn (m3/h)	l/pulse	Pcs/ pack	Package	€ each
WPMM50	50	15	100	1	1	1.085,00
WPMM65	65	25	100	1	1	1.163,00
WPMM80	80	40	100	1	1	1.351,00
WPMM100	100	60	100	1	1	1.440,00
WPMM125	125	100	100	1	1	1.629,00
WPMM150	150	150	1000	1	1	2.256,00
WPMM200	200	250	1000	1	1	3.256,00
WPMM250	250	400	1000	1	1	5.109,00
WPMM300	300	600	1000	1	1	6.319,00

Dimensions on page 244

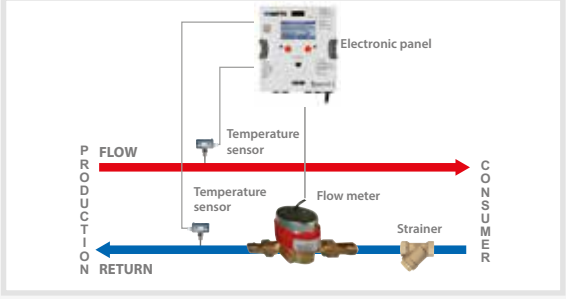
SUPERAQUA1

Single-jet volumetric meter for domestic water (DHW and DCW), for vertical or horizontal installation, maximum temperature 90°C, MID-certified, with built-in bidirectional radio (433 Mhz) for remote reading with a Supercom 636 unit or a Supercom 646 concentrator. NFC interface for reading and configuration. LCD display for on-board reading. Long-term data registry. Battery life 12+1 years. Features: G3/4, 2,5 m3/h (centre distance 80 and 110mm), G1", 4 m3/h (centre distance 130mm). Unions non included, compatible with model RDRV (see chapter 11).

Part no.	Description	DN	Temperature	Qn (m3/h)	Pcs/ pack	Package	€ each
SQ1S122R0	T. max, 90°C. L=80 mm. For DHW and DCW	G 3/4"	+0,1°C to +90°C	2,5	1	1	175,80
SQ1S222R0	T. max, 90°C. L=110 mm. For DHW and DCW	G 3/4"	+0,1°C to +90°C	2,5	1	1	175,80
SQ1S822R0	T. max, 90°C. L=130 mm. For DHW and DCW	G 1"	+0,1°C to +90°C	4,0	1	1	189,00

TECHNICAL NOTE - **Water circuit diagram.**
5 Series thermal energy meter

Series 5 thermal energy meters, combined with volumetric flow meters, provide a direct metering system in modern, multi-consumer systems.
Using these devices in conjunction with temperature control units aligns the heating system with regulatory requirements (Italian legislative decree 192/05 as amended) and enables the user to manage and optimise indoor comfort conditions, and save energy.



WEBLOG

Concentrator for centralized reading of energy meters by way of cable communication using M-Bus communication protocol. Provided with various outputs and inputs (serial RS232C, Ethernet, USB). Integrated web server allows configuration and full access via network interface (LAN), or optional WLAN module, with web browser. The WebLog250 model also has a multi-function display for local reading of operating data/parameters. Power supply 110 to 240V AC. Compatible with commercially available routers having Ethernet or WiFi connection, with optional WLAN module.

Part no.	Description	Pcs/pack	Package	€ each
WEBLOG120	For max 120 thermal energy meters	1	1	2.570,20
WEBLOG250	For max 250 thermal energy meters	1	1	5.042,00
EWLAN	External WiFi adapter	1	1	186,10
IM003GCB	2-channel M-Bus pulse converter	1	1	254,40
IM002GC	4-channel M-Bus pulse converter	1	1	379,70

Instrumentation

SUPERCOM 636

Bidirectional (433 MHz,10 mW) walk-by radio modem interface (works in motion outside building) for the parameter setting and reading of all bidirectional RF metering devices covered in Chapter 7. Free-field coverage radius of up to 300 metres from the building. Bluetooth communication to a portable terminal (Android tablet) or PC (running Microsoft Windows). Powered by 3 x 1,2 V AAA 1000 mAh rechargeable battery.
Supplied in rigid, impact-resistant carrying case complete with battery charger.
Reading management software included for the first two years.

Part no.	Pcs/ pack	Package	€ each
0636R102	1	1	1.845,00

566

Electronic heat cost allocator for use with 4 W to 16,000 W radiators. Operation with one probe or two probes with automatic de-activation in critical room temperature reading conditions. Bidirectional radio communication (433 MHz, 10 mW) and optical interface for setting parameters and reading consumption data. Stores 18 monthly values or 144 monthly values (via infrared), 36 monthly radiator temperature values (programmable). 6-digit display with user browse button. Lithium battery (life 10 years + 1). Pre-fitted with tamper-proof seal. Up to 3 anti-tamper passwords.
Automatic switch-on at installation stage. Minimum design temperature: 35/55°C (operation with one probe/two probes). Maximum design temperature: 90°C. Standard mounting kit included. Can be connected to a remote sensor instead of the internal probe.
Approved to EN834.

Part no.	Power supply	Temp. Sensor	Display	Length Cable	Pcs/ pack	Package	€ each
566	battery	0-120°C	LCD 6 digits		10	50	AVAILABLE TO ORDER
0565A004	remote sensor			1,75 m	1	1	AVAILABLE TO ORDER

Dimensions on page 245

SUPERCOM 646

Radio concentrator for reading and storing data acquired by all bidirectional RF metering devices covered in Chapter 7. Indoor coverage radius of up to 30 metres, the equivalent of 5 storeys of an average tower block (according to type of structure). Coverage radius can be extended by installing up to a maximum of 6 SUPERCOM 656 repeaters connected in series, plus a further 3 for amplified branch. Data reading and storage from up to 1000 radio addresses. 433.82 MHz bidirectional radio communication (angle-adjustable antenna), GSM/GPRS module USB port. Data download via USB or stored on FTP server by means of GSM 3G/GPRS connection (SIM and FTP not supplied). Software for reading and exporting data in Excel format supplied as standard.

Part no.	Description	Pcs/pack	Package	€ each
0646RX291	230 V - GSM 3G communication module	1	1	1.626,00

Dimensions on page 245

SUPERCOM 656

Radio signal repeater for extending the coverage radius of 646 Series radio data concentrators. Coverage radius of up to 30 metres, the equivalent of 3 storeys of an average tower block. Coverage radius can be extended by installing 3 additional repeaters of the same series (maximum 6 amplifiers per series).
433,82 MHz bidirectional radio communication (angle-adjustable antenna) and USB port

Part no.	Power supply	Pcs/ pack	Package	€ each
0656RX101	Battery	1	1	792,00

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MOUNTINGS - mounting accessories

Screws and anchors for fitting electronic heat cost allocators to different types of radiator.

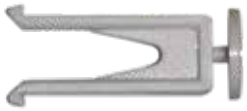
Part no.	Description	Notes	Pcs/pack	Package	€ each
0499P26300	Fastener 60x10mm	standard	50	50	3,31
0499P26200	Fastener 36mm	multi-purpose	50	50	5,10
07	Small fastener 25x10mm	aluminium radiators	50	50	2,82
14	Dovetail fastener	tubular radiators	50	50	7,31
0499P28100	Expansion bolt	order 2 pcs.	50	50	4,28
0499P27300	Screw M4x40	for std fastener and dovetail fastener	50	50	1,47
06	Screw M3x25	for small fastener	50	50	1,20

PROFILE - mounting accessories

Aluminium base for electronic heat cost allocators.

Part no.	Description	Pcs/pack	Package	€ each
0555P005	Aluminium profile	50	50	3,42

SEAL - mounting accessories



Tamper-proof mechanical seal for electronic heat cost allocators.

Part no.	Description	Pcs/pack	Package	€ each
0555P004	Anti-tamper seal	50	50	1,09

PACTAN - mounting accessories

Special adhesive with high thermal performance for fitting allocators and external probes to all types of radiator.

Part no.	Description	Pcs/pack	Package	€ each
555P036	Silicone 6060	1	1	125,00

SUPERCOM 541

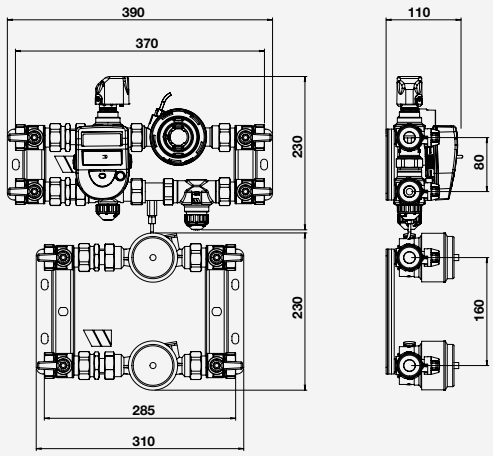
Radio module for pulse conversion and transmission, for remote reading for devices with pulse output. Two configurable inputs (ideal for domestic hot and cold water meters), bidirectional radio communication (433 MHz) compatible with SUPERCOM 636 Series, 646 Series concentrator and 656 Series repeater. Lithium battery (life 12 years).
Wall or DIN-rail mounting.

Part no.	Power supply	Pcs/pack	Package	€ each
0541R000	Battery	1	1	190,20

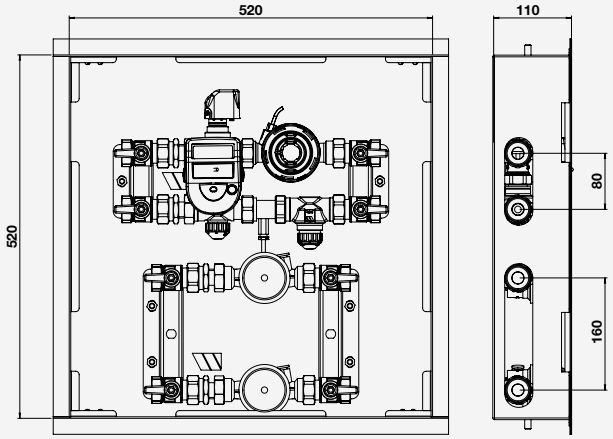
Dimensions on page 245

Overall dimensions

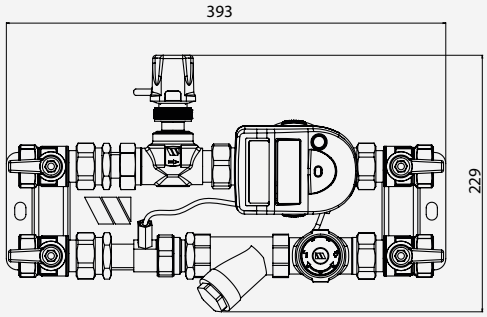
DOMOCOMPACT MY HOME BASIC (open frame)



DOMOCOMPACT MY HOME BASIC (closed frame)



DOMOCOMPACT MY HOME2 (open frame)



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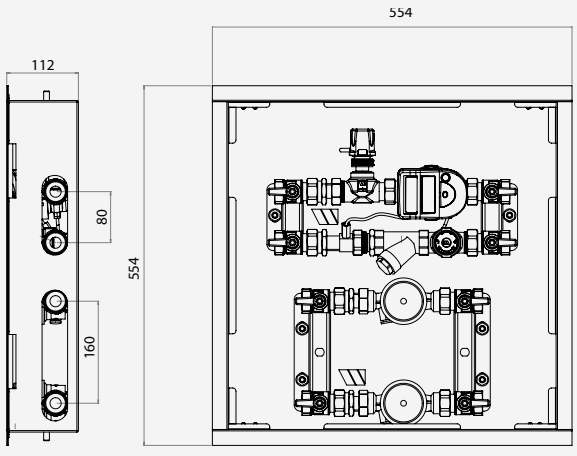
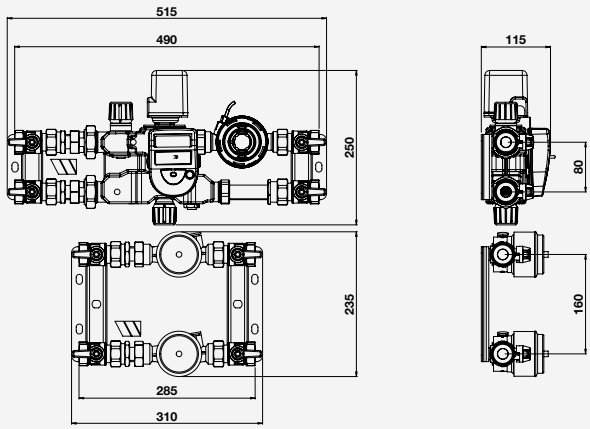
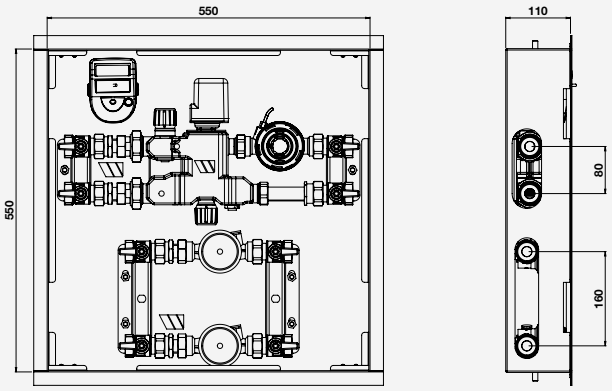


Overall dimensions

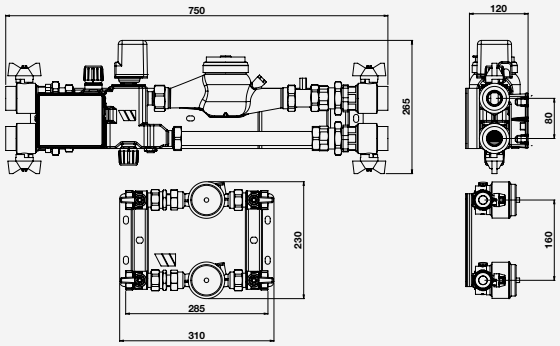
DOMOCOMPACT FAMILY BASIC (open frame)



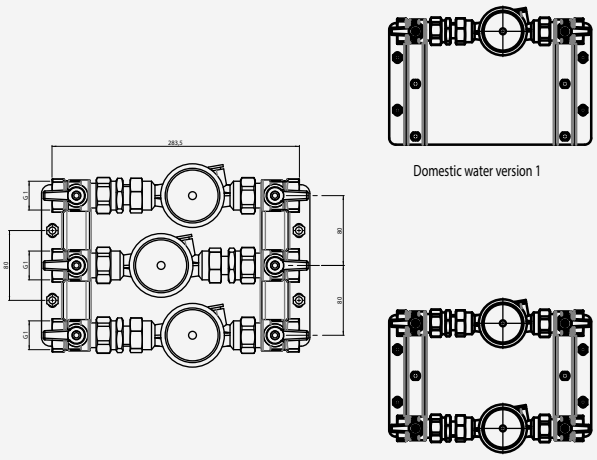
DOMOCOMPACT FAMILY BASIC (closed frame)



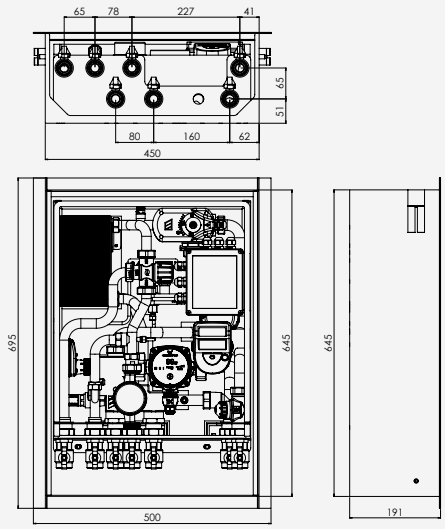
DOMOCOMPACT SUITE (open frame)



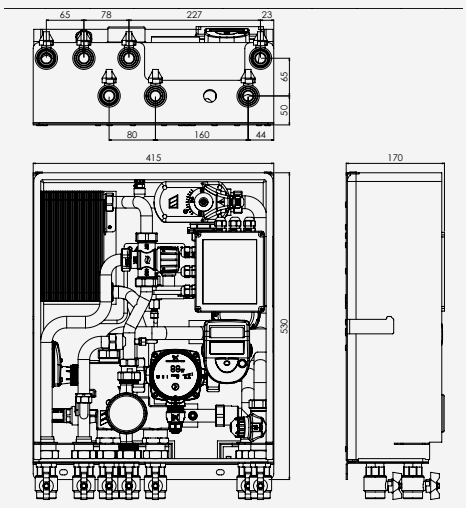
DOMOCOMPACT DOMESTIC WATER



DOMOCAL - Flush wall-mounting model



DOMOCAL - Surface wall-mounting model



Overall dimensions

SUPERSTATIC 440N

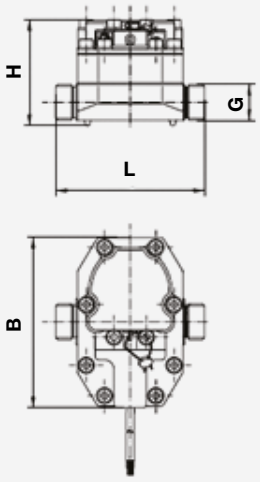


Fig.1

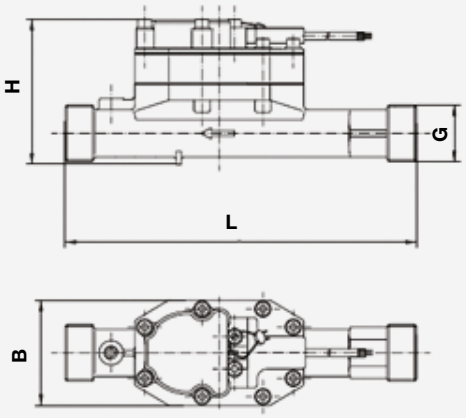


Fig.2

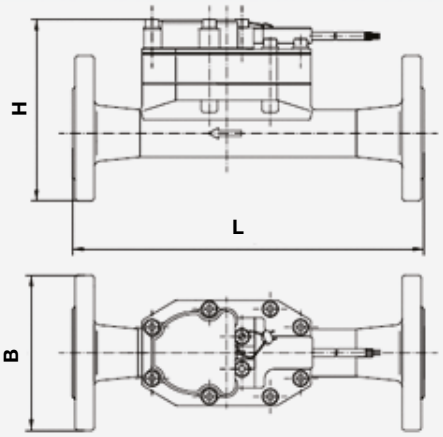
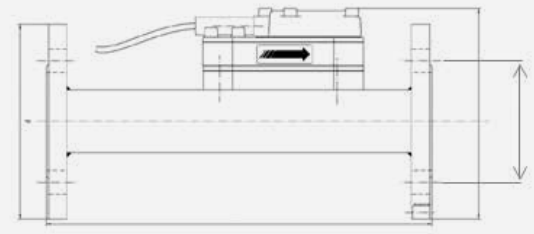


Fig.3

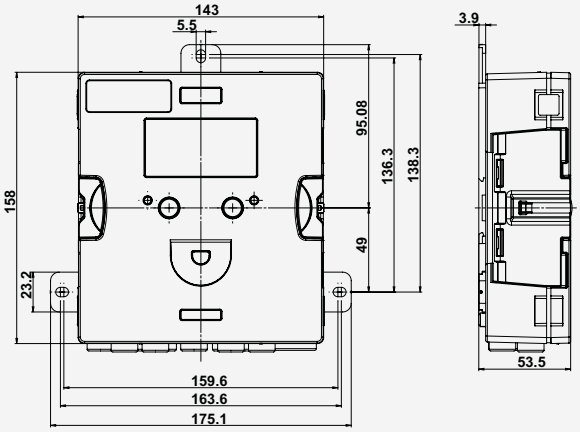
Qp	DN	G	PN	Fig.	B (mm)	H (mm)	L(mm)	h (Ø mm)	# bolts (M)
1,5 m³/h	-	¾"	16	1	125	79	110		-
1,5 m³/h	-	1"	16		125	79	190		-
2,5 m³/h	-	1"	16		125	79	190		-
6 m³/h	-	1 ¼"	16	2	78	105	260		
6 m³/h	25	-	16	3	115	134	260	Ø 85	4 (M 12)
10 m³/h	-	2"	16	2	78	122	300		-
10 m³/h	40	-	16	3	150	157	300	Ø 110	4 (M 16)



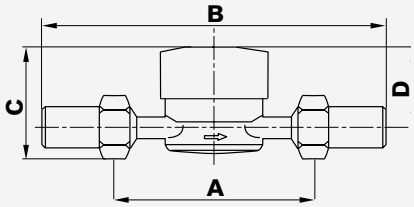
Qp	DN	PN	L(mm)	D (mm)	H (mm)	h (Ø mm)	# bolts (M)
15 m³/h	50	16	270	165	171	Ø 125	4 (M 16)
25 m³/h	65	16	300	185	189	Ø 145	8 (M 16)
40 m³/h	80	16	300	200	203	Ø 160	8 (M 16)
60 m³/h	100	16	360	220	226	Ø 180	8 (M 16)
100 m³/h	125	16	250	250	254	Ø 210	8 (M 16)
150 m³/h	150	16	300	285	286	Ø 240	8 (M 20)

Overall dimensions

SUPERCAL 5

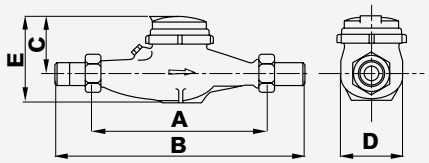


WMT



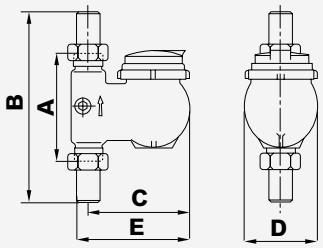
DN	A	B	C	D	Base
15	110	205	72	54	80
20	130	225	75	54	80

MTW90-MTW130



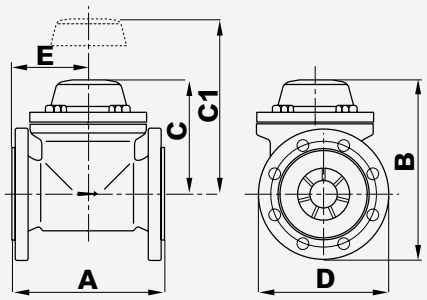
DN	A	B	C	D	E
15	165	244	100	95	143
20	190	318	109	95	149
25	260	378	116	101	159
32	260	378	116	100	159
40	300	438	139	137	185
50	300	438	142	150	199

MTW-V/MTW-VA



DN	A	B	E	F	G
20	105	203	130	95	148
25	150	268	145	100	171
32	150	268	146	103	171
40	200	338	162	134	186

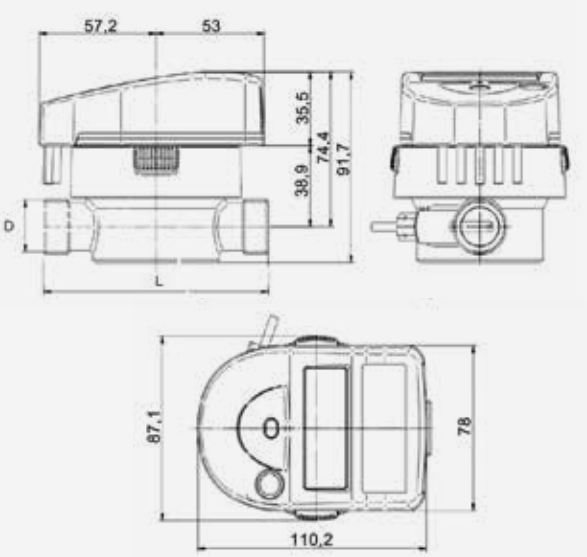
WPMM



DN	A	B	C	C1	D
50	200	193	120	200	165
65	200	205	120	200	185
80	225	245	150	270	200
100	250	255	150	270	220
125	250	278	160	280	250
150	300	312	177	356	285
200	350	368	206	441	340
250	450	425	231	466	405
300	500	482	256	491	460

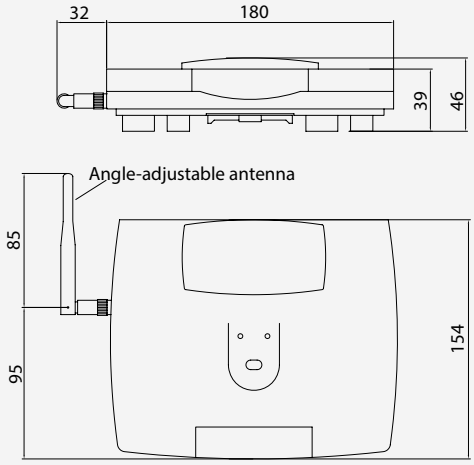
Overall dimensions

739



DN	L
15	110
20	130

646 - 656



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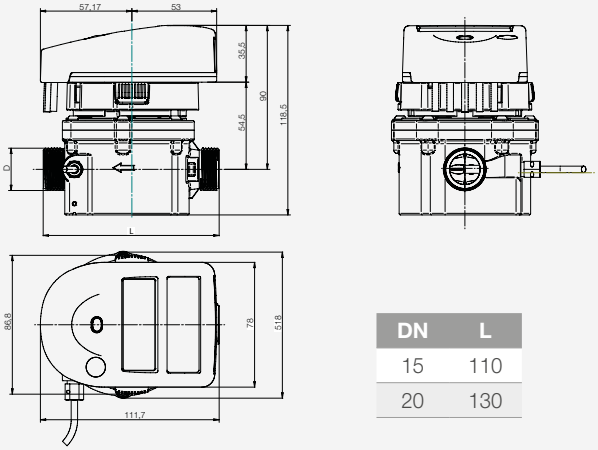
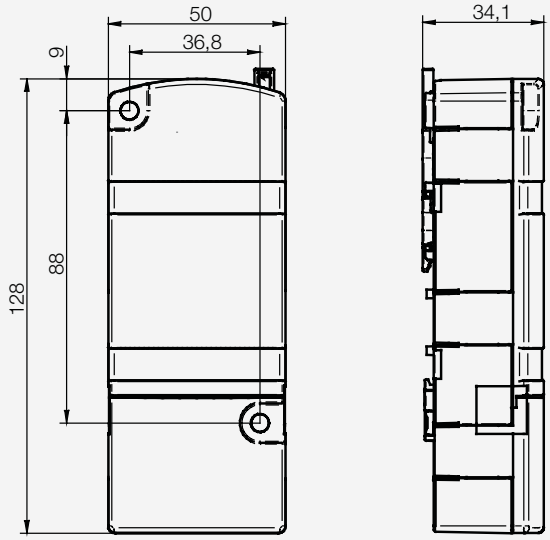


DN	L
15	110
20	130

541



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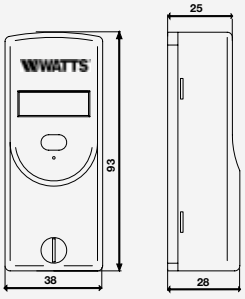
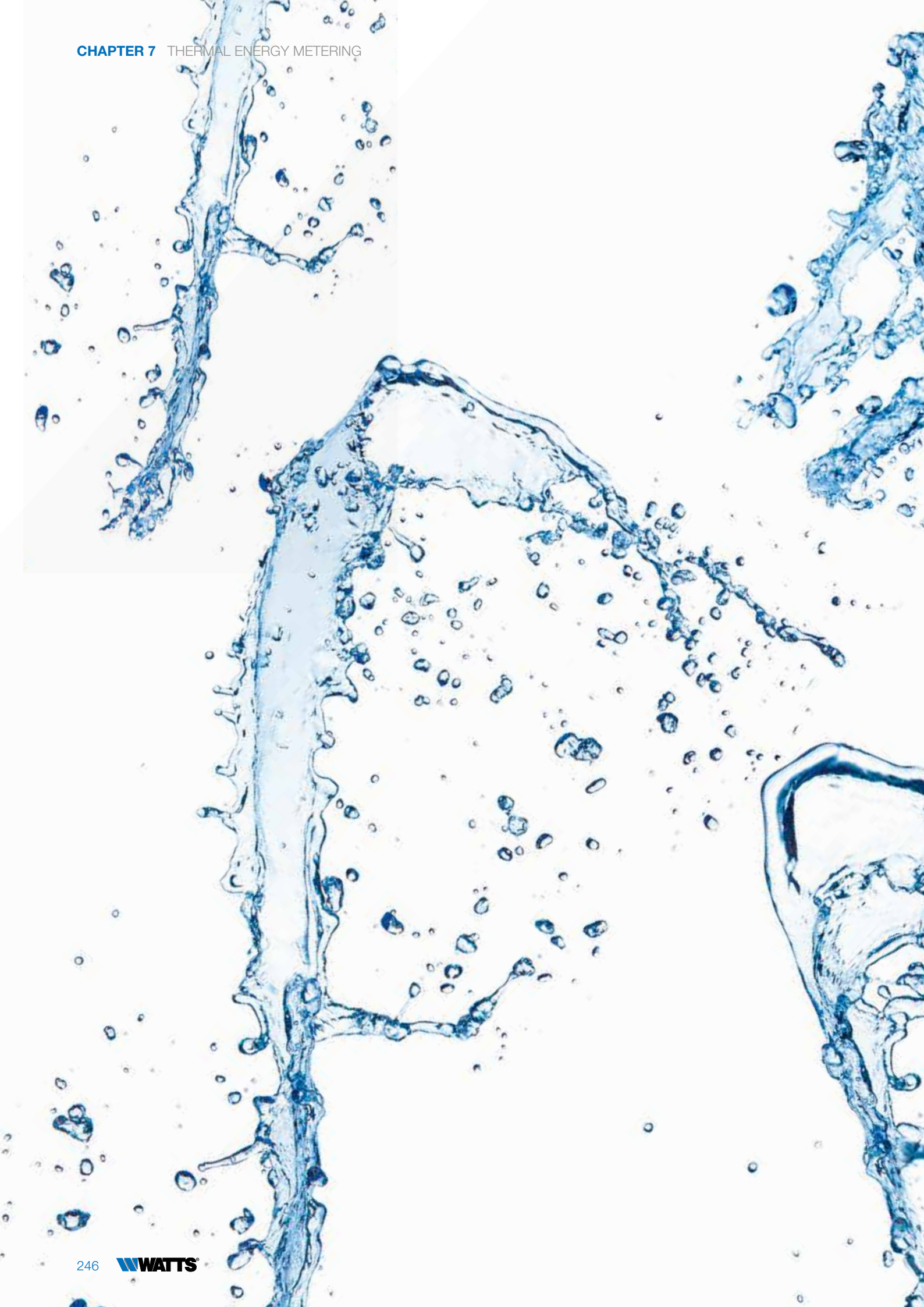




Chapter 8
Distribution systems

HKV - 2013A - VA
Ready-to-mount manifold

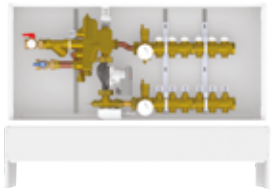
Micrometric control and flow meters
Stainless steel: corrosion-resistant
Easy to install

Chapter 8.1

RADIANT PANEL SYSTEMS

Control modules

DR96F - DOMORADIANT FIXED POINT 96%



Ready-to-mount module for fixed-point control, distribution and pumping of fluid for radiant panel systems.
The system supplies and controls individual circuits with low-temperature fluid and can be set with a range of 20 to 50°C.
The module consists of:
6-way multi-function valve equipped with:
- 3-way valve with bleeding from the primary circuit up to 96%;
- thermostatic actuator with remote sensor;
- built-in low-loss header system;
- balancing valve;
- flow meter (5-50 l/min);
- auxiliary connections (G1") for any additional radiators;
- primary circuit temperature display thermometer;
- shut-off/isolating valves;
- Y-strainer.

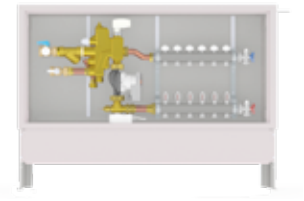
Pumping unit: consisting of a variable-speed electric pump in accordance with the Energy-related Products (ErP) Directive (2009/125/EC)
Distribution unit consisting of:
- DN 1" 1/4 F brass manifolds - 822MM Series (return) and FLMR Series (flow)
- EUROCONE DN 3/4"M side outlets
- fitting for manifolds complete with thermometer (0 to 80°C), automatic air vent and drain.

Integrated control system (optional and supplied separately) consisting of:
- 22C/22CX Series ON/OFF electrothermal actuators;
- 4/6-zone modular control boxes (WFHC Series), which can be connected with a weekly programming clock for 2 heating zones;
- electronic room thermostats (WFHT, BT, BT02 Series), also available in wireless version.

Metal housing and white-painted frame and door.
Optional by-pass kit for differential pressure control.

Part no.	Panel outlets	Pcs/pack	Package	€ each
DR96F-06	Qty. 6 - 3/4" EUROCONE	1	1	2.623,00
DR96F-07	Qty. 7 - 3/4" EUROCONE	1	1	2.670,00
DR96F-08	Qty. 8 - 3/4" EUROCONE	1	1	2.712,00
DR96F-09	Qty. 9 - 3/4" EUROCONE	1	1	2.778,00
DR96F-10	Qty. 10 - 3/4" EUROCONE	1	1	2.849,00
DR96F-11	Qty. 11 - 3/4" EUROCONE	1	1	2.932,00
DR96F-12	Qty. 12 - 3/4" EUROCONE	1	1	3.022,00

DR96M - MODULATING DOMORADIANT



Ready-to-mount module with modulating control and unit for distribution and pumping of hot fluid at low temperature or chilled fluid for radiant panel heating/cooling systems.
Complete with contact safety thermostat and thermal insulation.
230V 3-point actuator, stainless steel distribution manifolds, compatible with 22C, 22CX, and 26LC Series.
6-way multi-function valve with:
- 3-way valve with bleeding from the primary circuit up to 96%;
- electronic actuator (EMUJC-230) with supply voltage of 230V and 3-point control signal;
- built-in low-loss header;
- balancing valve;
- flow meter (5-50 l/min);
- auxiliary connections for additional and/or dehumidification terminal units, if applicable;
- primary circuit temperature control thermometer;
- shut-off valves;
- brass Y-strainer.

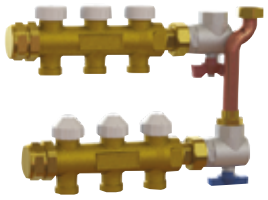
Pumping unit consisting of a variable-speed electric pump in accordance with the Energy-related Products (ErP) Directive (2009/125/EC)
Distribution unit consisting of:
- HKV2013 Series stainless steel DN 1" manifolds and Eurocone 3/4"M side outlets, complete with flow meters on the flow side and control valves on the return side;
- fitting for manifolds, complete with thermometer, float-type air vent valve and water drain.

Integrated control system (optional and supplied separately) with:
- ON/OFF electrothermal actuators (22C, 22CX, and 26LC Series);
- 4/6-zone modular control boxes (WFHC, BT02 Series), which can be connected with a weekly programming clock for 2 heating zones;
- electronic room thermostats (WFHT, BT, BT02 Series), also available in wireless version.

Metal housing and white-painted frame and door.
RCL-HC Series climatic control system (optional, supplied separately) for heating and cooling.

Part no.	Panel outlets	Pcs/pack	Package	€ each
DR96M-06	Qty. 6 - 3/4" EUROCONE	1	1	2.752,00
DR96M-07	Qty. 7 - 3/4" EUROCONE	1	1	2.800,00
DR96M-08	Qty. 8 - 3/4" EUROCONE	1	1	2.842,00
DR96M-09	Qty. 9 - 3/4" EUROCONE	1	1	2.907,00
DR96M-10	Qty. 10 - 3/4" EUROCONE	1	1	2.979,00
DR96M-11	Qty. 11 - 3/4" EUROCONE	1	1	3.063,00
DR96M-12	Qty. 12 - 3/4" EUROCONE	1	1	3.152,00

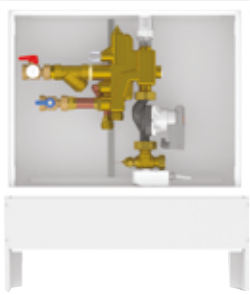
CAT96



Manifold unit for direct supply of additional and/or dehumidification terminal units with hot fluid at HIGH temperature or chilled fluid:
- 822MME Series DN 3/4" brass manifold (return) with 2 or 3 EUROCONE DN 3/4" side outlets;
- 822MRE Series DN 3/4" brass manifold (flow) with 2 or 3 EUROCONE DN 3/4" side outlets;
- shut-off valves;
- connection pipe.

Part no.	Direct outlets	Pcs/pack	Package	€ each
CAT96-2	Qty. 2 - 3/4" EUROCONE	1	1	287,00
CAT96-3	Qty. 3 - 3/4" EUROCONE	1	1	330,50

DR96F-D - DOMORADIANT FIXED-POINT DISTRIBUTION ONLY



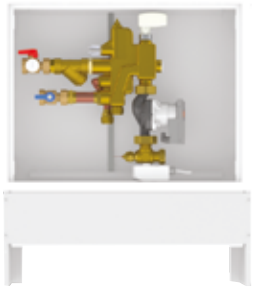
Ready-to-mount module with fixed control and unit for distribution and pumping of hot fluid at low temperature or chilled fluid for radiant panel heating systems.
Complete with contact safety thermostat and thermal insulation.
- thermostatic actuator with remote sensor;

6-way multi-function valve with:
- 3-way valve with bleeding from the primary circuit up to 96%;
- thermostatic actuator with remote sensor;
- built-in low-loss header;
- balancing valve;
- flow meter (5-50 l/min);
- auxiliary connections for additional and/or dehumidification terminal units, if applicable;
- primary circuit temperature control thermometer;
- shut-off valves;
- brass Y-strainer.

Pumping unit consisting of a variable-speed electric pump in accordance with the Energy-related Products (ErP) Directive (2009/125/EC)

Part no.	Description	Pcs/pack	Package	€ each
DR96F-D	Distribution module	1	1	2.450,00

DR96M-D - DOMORADIANT MODULATING DISTRIBUTION ONLY



Ready-to-mount module with modulating control and unit for distribution and pumping of hot fluid at low temperature or chilled fluid for radiant panel heating/cooling systems.
Complete with contact safety thermostat and thermal insulation.
230V 3-point actuator.
6-way multi-function valve with:
- 3-way valve with bleeding from the primary circuit up to 96%;
- electronic actuator (EMUJC-230) with supply voltage of 230V and 3-point control signal;
- built-in low-loss header;
- balancing valve;
- flow meter (5-50 l/min);
- auxiliary connections for additional and/or dehumidification terminal units, if applicable;
- primary circuit temperature control thermometer;
- shut-off valves;
- brass Y-strainer.

Pumping unit consisting of a variable-speed electric pump in accordance with the Energy-related Products (ErP) Directive (2009/125/EC)

Part no.	Description	Pcs/pack	Package	€ each
DR96M-D	Distribution module	1	1	2.536,00

FH-148SD

Thermostatic actuator with remote immersion probe for fixed-point control.
Adjustment 20–50°C. Setting: 20 to 50°C.

Part no.	Bulb	Pcs/pack	Package	€ each
FH-148SD	97 mm	1	1	70,50

ISOTHERM

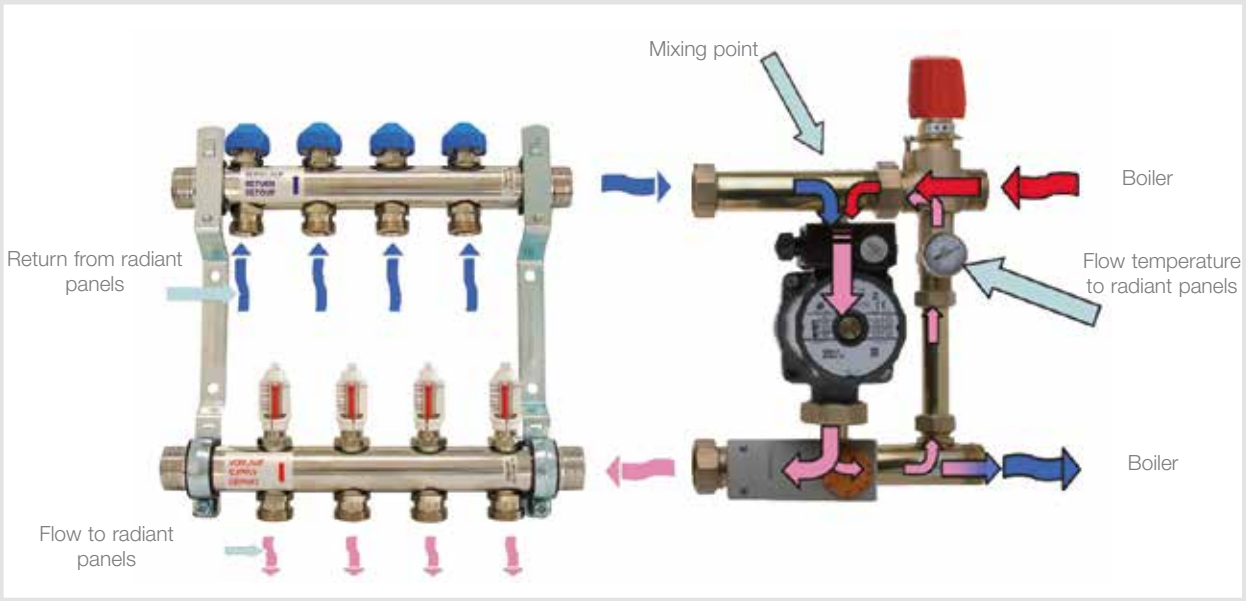
Mixing, pumping and fixed-point control unit for radiant panel systems. The unit is suitable for direct connection to HKV2013 Series ready-to-mount manifolds. The system can be supplied at boiler temperature (70–80°C) and have the outlets at controlled low temperature.
The unit consists of:
- 3-way thermostatic mixing valve with setting range of 30–50°C;
- Wilo PARA SCU/6 electric circulation pump;
- adjustable safety thermostat for pump cut-out;
- panel flow precision thermometer;
- suitable for max. power of approximately 15 kW.

Max. operating temperature: 90°C. Max. operating pressure: 6 bar.

Part no.	Max. operating temp.	Pcs/pack	Package	€ each
10084162	90°C	1	1	632,00

Dimensions on page 253

TECHNICAL NOTE - ISOTHERM DIAGRAM



ISOMIX-F

Compact, ready-to-mount control unit for flow temperature control in radiant panel heating systems with heating demand of up to 14 kW. Flow temperature setting range: 20–70 °C, with temperature limiting and locking function on the thermostatic head. Pre-wired circulation pump and temperature limiter. Can be installed on the right or left of the manifold. Suitable for all 1" M Watts manifolds for heating circuits. Nickel-plated fittings.

Part no.	Description	Pcs/pack	Package	€ each
10084161	With WILO Para SCU/6 circulation pump	1	1	471,00
10086195	With Calio SI/7 circulation pump	1	1	515,00
10082500	Without circulation pump	1	1	241,50

Dimensions on page 253

ISOMIX-HC

Compact, ready-to-mount control unit, with climate controller, for flow temperature control in radiant panel heating/cooling systems with thermal demand of up to 14 kW. Circulation pump (130 mm), mixing valve with 3-position actuator, temperature limiter, CC-HC digital climate controller and flow temperature and outdoor temperature sensors. The climate controller is pre-wired to the circulation pump, temperature limiter and actuator. Can be installed on the right or left of the manifold. Suitable for all 1" M Watts manifolds for heating circuits. Nickel-plated fittings.

Part no.	Description	Pcs/pack	Package	€ each
10084160	With WILO Para SCU/6 circulation pump	1	1	914,00

Dimensions on page 253

Mixing valve for radiant systems

63C - AQUAMIX

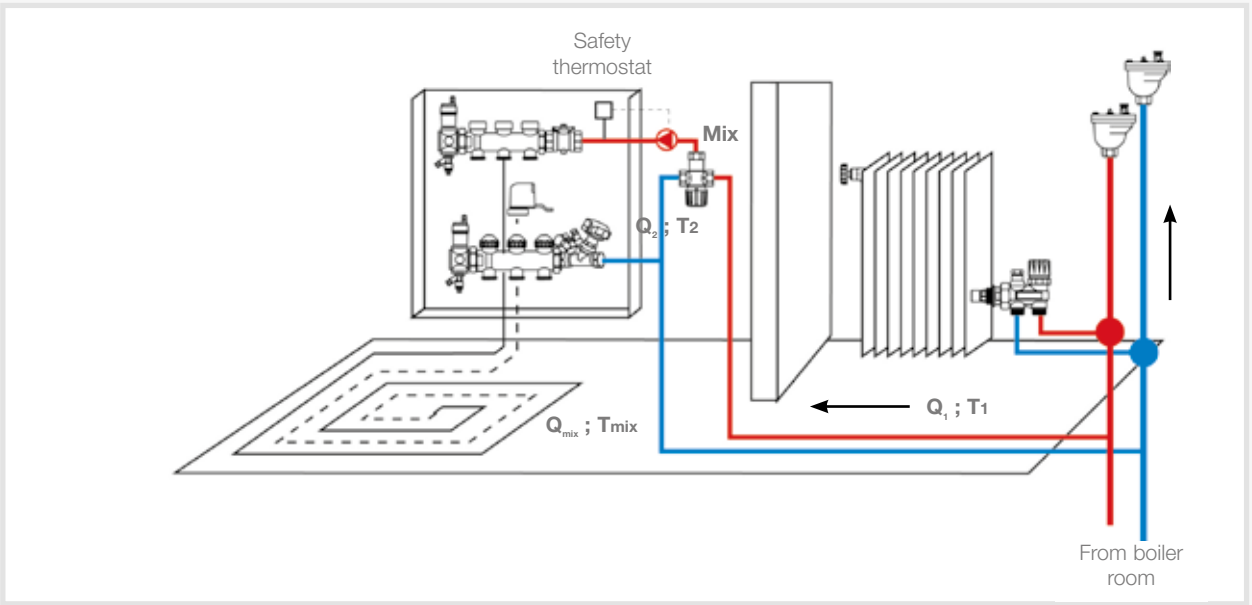
Thermostatic mixing valve for radiant panel systems with 10 setting positions and fixed bypass against overtemperature. Setting range: 25 to 50°C.
Max. differential pressure: 2 bar.

Part no.	DN	Pcs/pack	Package	€ each
6310C34	3/4" FF	1	36	63,70
6311C1	1" FF	1	36	68,20

Dimensions on page 253

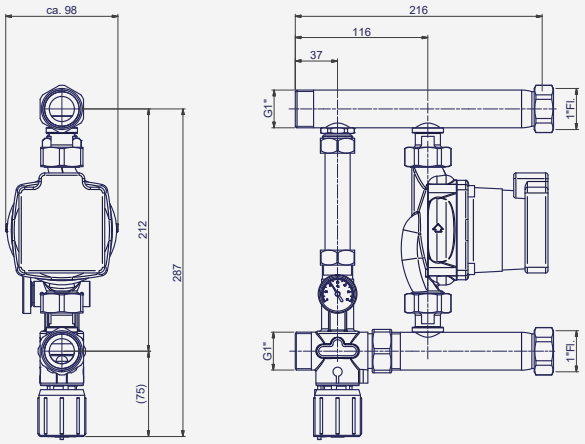
TECHNICAL NOTE - AQUAMIX DIAGRAM

Example configuration of AQUAMIX Series valve for radiant panel system with distribution manifold unit (822MM-822MR Series) complete with balancing valve (FO-BV Series) in housing.

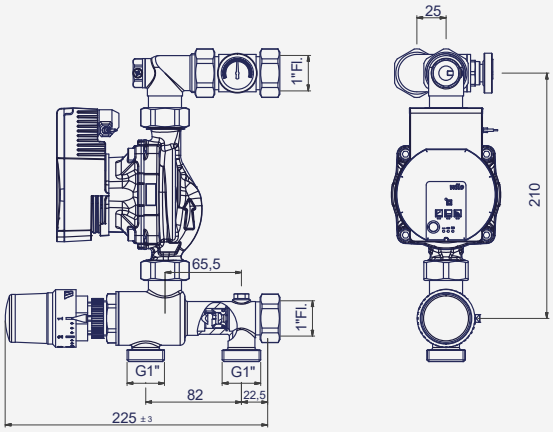


Overall dimensions

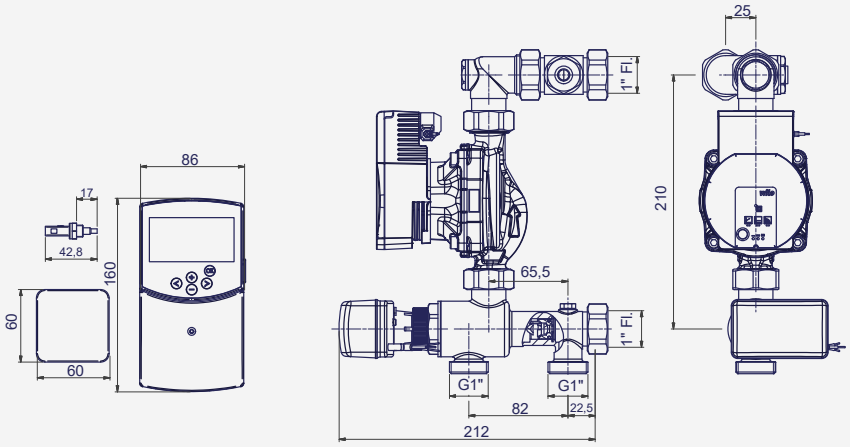
ISOTHERM



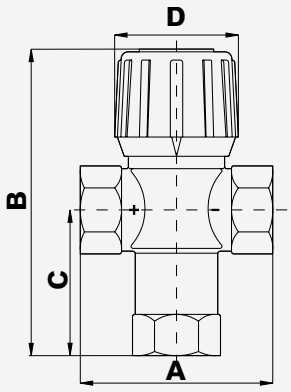
ISOMIX-F



ISOMIX-HC



63C



DN	A	B	C	D
3/4”	70	107	52	45
1”	80	110	55	45

Chapter 8.2

MODUL SYSTEMS

Zone valves

571T

Two-way bronze zone valve, normally closed (NC). ON/OFF operation with an electrothermal actuator (580T Series) with bayonet fitting for connection to body. PN 10.
Max. differential pressure (580T Series): 1.5 bar. Operating temperature: 4 to 100°C.
Disc stroke: 4 mm.

Part no.	DN	Kvs	Disc stroke	Pcs/pack	Package	€ each
571T34	3/4" FF	5,5	4mm	1	30	125,00
571T1	1" FF	6,8	4mm	1	30	125,00
571T114	1.1/4" FF	7,8	4mm	1	30	166,50

Dimensions on page 272

560T

Three-way bronze zone valve, normally closed (NC). ON/OFF operation with an electrothermal actuator (580T Series) with bayonet fitting for connection to body. PN 10. Max. differential pressure (580T Series): 1.5 bar. Operating temperature: 4 to 100°C. Disc stroke: 4 mm. Predisposed for fitting a 566T Series bypass setting valve.
To connect the zone valve and the setting valve to the Modul coplanar manifolds, use 565T Series eccentric unions.

Part no.	DN	Kvs	Kvs bypass	Pcs/pack	Package	€ each
560T34	3/4" FF	5,5	3,6	1	30	123,50
560T1	1" FF	6,8	3,6	1	30	136,00

Dimensions on page 272

561T

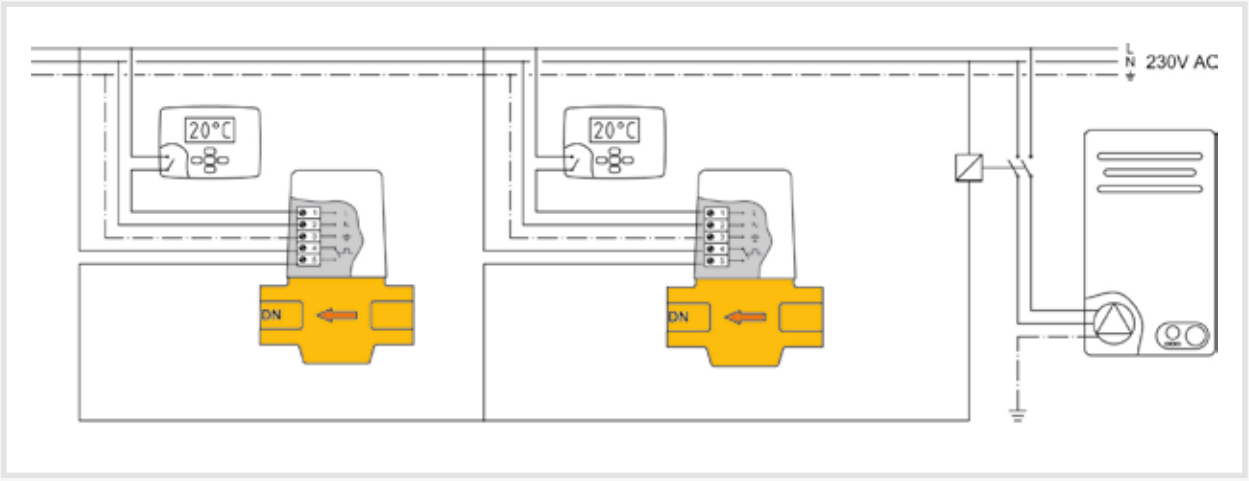
4-way normally closed (NC) zone valve with bronze connections and built-in bypass setting system. ON/OFF operation with an electrothermal actuator (580T Series) with bayonet fitting for connection to body. PN 10. Max. differential pressure (580T Series): 1.5 bar. Operating temperature: 4 to 100°C. Disc stroke: 4 mm. To connect the zone valve to the Modul coplanar manifolds, use 531C Series eccentric unions.

Part no.	DN	Kvs	Kvs bypass	Pcs/pack	Package	€ each
561T34	3/4" FF	5,5	3,6	1	16	160,50
561T1	1" FF	6,8	3,6	1	16	176,00

Dimensions on page 272

TECHNICAL NOTE - Electrical connections for 571T, 560T and 561T Series zone valves for multi-zone installation

When a heat generator supplies multiple heating zones, it is possible to use the auxiliary contacts of the 580T Series to reduce energy wastage caused by the unnecessary operation of pumps or generators. When the thermostats (and hence the heating zones) require heat, the zone valves open, and the auxiliary contacts close, thus switching the heat generator pump on. When heat is no longer required, the auxiliary contacts open and switch the pump off. The rating of the auxiliary contacts is limited, as shown in the diagram. You are advised to use an auxiliary relay to connect the pump.



580T

Two-position electrothermal actuator for 561T, 560T and 571T Series zone valves. Normally open (NO) auxiliary microswitch for supplementary controls (e.g. pump, metering). Anti-tamper device, can be lead-sealed.
Bayonet-fitting for connection to valve body. External manual opening control.
Positioning time: 4-5 min. Power consumption: 20W (230V), 18W (24V).
Compliant with Directives LVD 2014/30/EU and EMC 2014/35/EU.

Part no.	Power supply	Protection	Posit. time	Pcs/pack	Package	€ each
580T220VX	230V	IP20	4-5min	1	10	175,50
580T24VX	24V	IP20	4-5min	1	10	175,50

Dimensions on page 272

58T

Disc unit for zone valves: 571T, 560T and 561T Series.

Part no.	Description	Notes	Pcs/pack	Package	€ each
581TX	for valve 571T	-	1	50	26,75
582TX	for valves 560T, 561T	-	1	50	26,75

NB: For valves manufactured since 2000

566T

Bypass setting valve. Suitable for fitting on 560T Series zone valves.

Part no.	DN	Pcs/pack	Package	€ each
566T34X	3/4" FF	1	50	45,00
566T1X	1" FF	1	10	64,10

Dimensions on page 272

567T

Straight three-piece union for connection between zone valves and distribution manifolds.

Part no.	DN	Pcs/pack	Package	€ each
567T3434	3/4" x 3/4"	5	50	15,25
567T11	1" x 1"	1	100	25,90

Dimensions on page 272

565T

Three-piece eccentric union with centre distance of 16 mm for connecting 560T Series three-way zone valves to 566T Series bypass setting valves and Modul coplanar manifolds.

Part no.	DN	Pcs/pack	Package	€ each
565T3434	3/4" x 3/4"	2	40	16,85
565T134	1" x 3/4"	2	40	21,40
565T11	1" x 1"	2	30	25,90

531C

Three-piece eccentric union with centre distance of 6mm for connecting 561T Series 3-way 4-connection zone valves to Modul coplanar manifolds.

Part no.	DN	Pcs/pack	Package	€ each
5310C	3/4" x 3/4"	2	40	20,00
5311C	1" x 3/4"	2	40	21,40
5312C	1" x 1"	2	40	24,50

VU02

2-way brass zone valve, normally closed (NC). ON/OFF operation with ETE Series actuators.
PN 16. Max. differential pressure: 1,5 bar.
Operating temperature: 4 to 110°C. Disc stroke: 4 mm.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
VU0220	3/4" FF	4,0	1	40	71,70
VU0225	1" FF	6,5	1	36	89,90

Dimensions on page 272

VU3

3-way brass zone valve, normally closed (NC). ON/OFF operation with ETE Series actuators.
PN 16. Max. differential pressure: 1,5 bar.
Operating temperature: 4to110°C. Disc stroke: 4 mm.

Part no.	DN	Kvs	Kvs bypass	Pcs/pack	Package	€ each
VU320	3/4" FF	4,0	2,8	1	40	85,50
VU325	1" FF	6,5	3,3	1	36	103,00

Dimensions on page 272

VU4

T-fitting for creating a bypass in VU3 Series valves.

Part no.	DN	Pcs/pack	Package	€ each
VU400	3/4" FF	1	30	23,70
VU401	1" FF	1	10	32,50

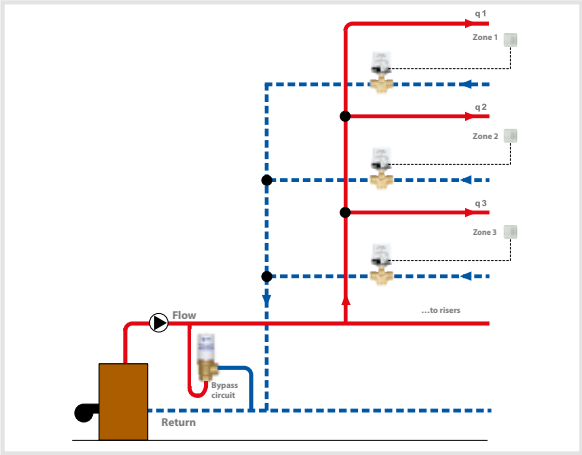
Dimensions on page 272

TECHNICAL NOTE - Brass zone valve for fan coils

The VU Series zone control valves are automatic (NC) devices generally used for controlling flows of hot and cold water to heating and/or air conditioning systems in response to an ON/OFF control (also predisposed for ETM modulating actuators).

The electric actuator of the ETE thermal expansion servo-control with automatic limit switch is totally silent and reliable; simple bayonet fitting for connection to the valve body. A special device allows direct manual operation of the VU Series valve.

Avoid installing the valve with the servo-motor facing down (infiltration, condensation).



Fan coil valves

KV4

2-way, 3-way and 3-way 4-connection brass valves for fan coils. 3/4" male flat sealing connections. ON/OFF operation with 22C, 22CX, 22CX5 and 26LC Series actuators.
Max. operating temperature: 110°C. Disc stroke 2,5mm.

Part no.	Description	Kvs	Kvs bypass	Pcs/pack	Package	€ each
213134P4	2-way	4	-	1	20	54,90
313134P4	3-way	4	1,7	1	20	56,70
41313440P4	3-way 4-port	4	1,7	1	20	71,70

Dimensions on pages 270-273

2131

2-way brass valve for fan coils. ON/OFF operation with 22C, 22CX, 22CX5 and 26LC Series actuators. Max. operating temperature. 110°C. Disc stroke: 2,5 mm.
PN 16. 840 Series fittings.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
213112	1/2" MM	1,7	1	30	42,80
213134	3/4" MM	2,8	1	30	47,30
21311	1" MM	4,5	1	20	54,90

Dimensions on page 273

3131

3-way brass valve for fan coils. ON/OFF operation with 22C, 22CX, 22CX5 and 26LC Series actuators. Max. operating temperature: 110°C. Disc stroke: 2,5 mm. Can be used both as a mixing valve and diverter valve. PN 16. The Kvs and Kvs bypass values apply to use of the valve as a diverter. 840 Series fittings.

Part no.	DN	Kvs	Kvs bypass	Pcs/pack	Package	€ each
313112	1/2" MM	1,7	1,3	1	30	47,30
313134	3/4" MM	2,8	1,8	1	30	50,25
31311	1" MM	4,5	3,1	1	20	56,70

Dimensions on page 273

VU

T-fitting for creating a bypass in 3131 Series valves (DN 1“).

Part no.	DN	Pcs/pack	Package	€ each
VU311	1” MM	1	10	28,15

4131

3-way 4-connection brass valve for fan coils. ON/OFF operation with 22C, 22CX, 22CX5 and 26LC Series actuators. Max. operating temperature: 110°C. Disc stroke: 2,5 mm. Can be used both as a mixing valve and diverter valve. PN 16.

Part no.	DN	Kvs	Kvs By-bass	Pcs/pack	Package	€ each
413112	1/2” MM	1,7	1,3	1	20	64,10
413134	3/4” MM	2,8	1,8	1	36	67,10

Dimensions on page 273

840

Soft-seal connection union with nut for 2131, 3131 and 4131 Series zone valves.

Part no.	DN	Pcs/pack	Package	€ each
8401212GAS	1/2” X 1/2"	1	1	7,35
8403434GAS	3/4” X 3/4"	1	1	10,35
84011GAS	1” X 1"	1	1	11,80

V2BMLN

Two-way globe control valve. Bronze body. Stainless steel stem.
Equal percentage flow characteristics. PN 16 threaded connections. Normally closed.
Suitable for water, temperature range 2–110°C.
Compatible with Series EMUK-24-500 and EMUK-230-500B servomotors with M30x1,5 threaded coupling.

Part no.	DN	Kvs	Pcs/pack	Package	€ each
V02BM15LN	1/2” F	4,5	1	1	165,00
V02BM20LN	3/4” F	6	1	1	178,00
V02BM25LN	1” F	9,6	1	1	191,00
V02BM32LN	1.14” F	12,4	1	1	217,50
V02BM40LN	1.1/2” F	16,8	1	1	375,00

Dimensions on page 274

V3BMLN

Three-way globe control valve. Bronze body. Stainless steel stem. Equal percentage flow characteristics. PN 16 threaded connections. Suitable for water, temperature range 2–110°C.
Compatible with Series EMUK-24-500 and EMUK-230-500B servomotors with M30x1,5 threaded coupling.

Part no.	DN	Kvs	Kvs bypass	Pcs/pack	Package	€ each
V3BM15LN	1/2” F	4,5	3,6	1	1	204,00
V3BM20LN	3/4” F	6	4,9	1	1	217,50
V3BM25LN	1” F	9,6	8,6	1	1	231,00
V3BM32LN	1.14” F	12,4	10,5	1	1	257,00
V3BM40LN	1.1/2” F	16,8	15,4	1	1	415,00

Dimensions on page 274

Actuators

148SD2

Thermostatic actuator with remote immersion probe for flow control based on the temperature of the radiant panels or tanks or water-air heat exchangers.

Part no.	Bulb thickness	Bulb	Setting	Pcs/pack	Package	€ each
148SD2050	12mm	97 mm	20-50°C	1	35	91,70
148SD2070	12mm	66 mm	20-70°C	1	100	91,70

Dimensions on page 273

148SD12

Sheath for 148SD2 Series actuator sensor. With O-ring.

Part no.	Connection	Pcs/pack	Package	€ each
148SD122050	1/2"M	1	100	13,40
148SD122070	1/2"M	1	100	13,40

22C

Compact electrothermal actuator with ON/OFF operation compatible with thermostat-adaptable radiator valves, valves for fan coils and manifolds. Self-extinguishing polymer cap. M30x1.5 nickel-plated threaded brass ring-nut. Normally closed (NC). Normally open (NO). Stroke: 3,5 mm.
Disc thrust: 100N (NC version) - 80N (NO version). Room temperature: 0to50°C. 4-wire version (NA4 – NC4) complete with auxiliary microswitch. Auxiliary contact rating: 700mA.
Cable length 1m.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU. TÜV approved.

With ø = 7,2mm cable

Part no.	Power supply	Protection*	Pcs/pack	Package	€ each
22C230NC2	230V	IP44	1	10	48,15
22C24NC2	24V	IP44	1	10	48,15
22C230NC4	230V	IP44	1	10	48,15
22C24NC4	24V	IP44	1	10	48,15
22C230NA2	230V	IP44	1	10	48,15
22C24NA2	24V	IP44	1	10	48,15
22C230NA4	230V	IP44	1	10	48,15
22C24NA4	24V	IP44	1	10	48,15

With ø = 5,5mm cable

Part no.	Power supply	Protection*	Pcs/pack	Package	€ each
22C230NC2-5	230V	IP44	1	10	48,15
22C24NC2-5	24V	IP44	1	10	48,15
22C230NA2-5	230V	IP44	1	10	48,15
22C24NA2-5	24V	IP44	1	10	48,15

Dimensions on page 273
(*) IP44 only if fitted in the prescribed vertical position

22CX

Compact electrothermal actuator with ON/OFF operation compatible with thermostat-adaptable radiator valves, valves for fan coils and manifolds. Self-extinguishing polymer cap. M30x1.5 nickel-plated threaded brass ring-nut. Normally closed (NC). Normally open (NO). Stroke: 3,5 mm.
Disc thrust: 100N (NC version) - 80N (NO version). Room temperature: 0 to 50°C. 4-wire version (NA4 – NC4) complete with auxiliary microswitch. Auxiliary contact rating: 700mA.
Cable length 1m.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU. TÜV approved.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
22CX230NC2	230V	IP54	1	50	49,35
22CX24NC2	24V	IP54	1	50	49,35
22CX230NC4	230V	IP54	1	50	49,35
22CX24NC4	24V	IP54	1	50	49,35
22CX230NA2	230V	IP54	1	50	49,35
22CX24NA2	24V	IP54	1	50	49,35
22CX230NA4	230V	IP54	1	50	49,35
22CX24NA4	24V	IP54	1	50	49,35

Dimensions on page 273

22CX5

Compact electrothermal actuator with ON/OFF operation compatible with thermostat-adaptable radiator valves, valves for fan coils and manifolds. Self-extinguishing polymer cap. M30x1.5 nickel-plated threaded brass ring-nut. Normally closed (NC). Stroke: 5 mm. Disc thrust: 110N (NC version). Room temperature: 0 to 50°C. 4-wire version (NC4) complete with auxiliary microswitch.
Auxiliary contact rating: 700mA inductive-3A resistive.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU. TÜV approved.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
22CX5230NC2	230V	IP54	1	50	50,25
22CX524NC2	24V	IP54	1	50	50,25
22CX5230NC4	230V	IP54	1	50	50,25
22CX524NC4	24V	IP54	1	50	50,25
22CX5230NC2-2	230V - cable 2m	IP54	1	50	50,25
22CX524NC2-2	24V - cable 2m	IP54	1	50	50,25
22CX5230NC4-2	230V - cable 2m	IP54	1	50	50,25
22CX524NC4-2	24V - cable 2m	IP54	1	50	50,25

Dimensions on page 273

26LC

Compact electrothermal actuator with ON/OFF operation compatible with thermostat-adaptable radiator valves, valves for fan coils and manifolds. Self-extinguishing plastic cap. M30x1.5 nickel-plated threaded brass ring-nut. Normally closed (NC) 24V AC and 230V AC low energy consumption. Stroke: 3,5 mm. Cable is easy to remove thanks to safety-latch connector. LED operating status indicator (ON/OFF). Version with 4-pole cable (NC4) complete with auxiliary microswitch (NO contact). Protection rating IP64.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU. TÜV approved.

Part no.	Power supply	Microswitch	Pcs/ pack	Package	€ each
26LC230NC2	230 VAC	no	1	50	51,80
26LC24NC2	24 VAC	no	1	50	51,80
26LC230NC4	230 VAC	yes	1	50	51,80
26LC24NC4	24 VAC	yes	1	50	51,80

Dimensions on page 273

EMUWE

Compact electronic actuator with modulating action compatible with thermostat-adaptable radiator valves, valves for fan coils and manifolds. Self-extinguishing polymer cap.
M30x1.5 nickel-plated threaded brass ring-nut. Stroke: **3.2 mm, 3.9 mm, 4.8 mm**.
Disc thrust: 100N. Room temperature: 0 to 50°C. Protection rating IP54.
Compliant with: LVD 2014/35/EU, EMC 2014/30/EU.

Part no.	Control signal	Power supply	Consum.	Pcs/ pack	Package	€ each
P07623	Proportional 0-10V (2-10V)	12VDC - 24VDC/AC	3W	1	1	132,50

Dimensions on page 273

EMUJC

Compact electronic actuator for terminal units. Three-point or proportional control signal.
Connection to 2131, 3131 and 4131 Series valves by means of M30x1.5 threaded brass ring-nut.
LED actuator operating status indicator: ON/OFF, travel limit reached, positioning in progress.
Power cable length: 2 m.
Nominal thrust: 120N. Protection rating IP43. Room temperature: 0 to 50°C.
Complies with LVD 2014/35/EU and EMC 2014/30/EU.

Part no.	Control signal	Power supply	Consum.	Pcs/pack	Package	€ each
EMUJC-230	three points	230V	6,5VA	1	1	182,50
EMUJC-24	three points	24V	2,5VA	1	1	185,50
EMUJC-010	Proportional 0-10V (2-10V)	24V	2,5VA	1	1	173,00

Dimensions on page 274

EMUK

Electronic servomotor with 2-point, 3-point or 0-10V proportional control signal. Connection to VBMLN Series valves by means of an M30x1,5 threaded brass ring-nut. Power cable length: 1,5 m. Nominal thrust: 500N. Degree of protection: IP54. Room temperature: 0 to 55°C
Complies with LVD 2014/35/EU and EMC 2014/30/EU.

Part no.	Control signal	Power supply	Consumption	Pcs/ pack	Package	€ each
EMUK-230-500B	two and three points	230V	5,3VA	1	1	197,50
EMUK-24-500	two and three points / 0-10V	24V	4,0VA	1	1	197,50

Dimensions on page 275

ETE

Electrothermal actuator with ON/OFF operation for VU zone valves. Normally open (NO) auxiliary microswitch for supplementary controls (e.g. pump, metering). Bayonet-fitting for connection to valve body. Manual control device. Consumption: 18W. Stroke: 4 mm. Disc thrust: 250N. Positioning time: 4min.
Compliant with EN60730-1:95, EN60730-2-8:95 as amended.
Compliant with EMC 2014/30/EU.

Part no.	Power supply	Protection	Pcs/pack	Package	€ each
ETE24BO	24V	IP20	1	30	90,20
ETE220BO	230V	IP20	1	30	90,20

Dimensions on page 274

Modul single manifolds

805M

Single modular CW617N brass manifold with pre-assembled gasket and locking nut.
Side outlets: 1/2"M-3/4"M. MF head connections: 3/4"-1"-1.1/4".

Part no.	DN	Outlets	Centre distance	Pcs/pack	Package	€ each
805M34TMN2	3/4" MF	2-1/2" M	35 mm	10	10	15,20
805M34TMN3	3/4" MF	3-1/2" M	35 mm	10	10	18,35
805M34TMN4	3/4" MF	4-1/2" M	35 mm	10	10	34,00
805M1TMN2X	1" MF	2-1/2" M	35 mm	10	10	21,45
805M1TMN3X	1" MF	3-1/2" M	35 mm	10	10	30,40
805M1TMN4X	1" MF	4-1/2" M	35 mm	10	10	37,90
805M54TMN3	1.1/4" MF	3-1/2" M	50 mm	10	10	54,95
805M54TMN4	1.1/4" MF	4-1/2" M	50 mm	10	10	59,35
805M1TN2X	1" MF	2-1/2" M	50 mm	10	10	30,40
805M1TN3X	1" MF	3-1/2" M	50 mm	10	10	36,70
805M1TN4X	1" MF	4-1/2" M	50 mm	10	10	41,05
805M1TM2X	1" MF	2-3/4" M	50 mm	10	10	28,95
805M1TM3X	1" MF	3-3/4" M	50 mm	10	10	41,05
805M1TM4X	1" MF	4-3/4" M	50 mm	10	10	41,05
805M54TM3	1.1/4" MF	3-3/4" M	50 mm	10	10	48,70
805M54TM4	1.1/4" MF	4-3/4" M	50 mm	8	8	53,05

Dimensions on page 274

807M

Single modular CW617N brass manifold.

Part no.	DN	Outlets	Centre distance	Pcs/pack	Package	€ each
807MT234	3/4" FF	2-1/2" M	35 mm	10	10	22,10
807MT334	3/4" FF	3-1/2" M	35 mm	10	10	30,50
807MT434	3/4" FF	4-1/2" M	35 mm	10	10	33,70

Dimensions on page 274

E807M

Single modular CW617N brass manifold.

Part no.	DN	Outlets	Centre distance	Pcs/pack	Package	€ each
E807M-MF-T2	3/4" MF	2-1/2" M	35 mm	10	10	18,15
E807M-MF-T3	3/4" MF	3-1/2" M	35 mm	10	10	22,40
E807M-MF-T4	3/4" MF	4-1/2" M	35 mm	10	10	31,05

Dimensions on page 274

822MM

Single modular brass return manifold with pre-assembled gasket and locking nut. Built-in thermostat-adaptable control valves with 22C, 22CX, 22CX5 and 26LC Series electrothermal actuators.
Side outlets: 1/2"M-3/4"M. MF head connections: 3/4"-1"-1.1/4".
Differential pressure: 1.5 bar. Kvs outlets: 2.28. Centre distance 50mm.

Part no.	DN	Outlets	Pcs/pack	Package	€ each
822MM1TMN2	1" MF	2-1/2" M	5	5	59,50
822MM1TMN3	1" MF	3-1/2" M	5	5	79,30
822MM1TMN4	1" MF	4-1/2" M	5	5	97,50
822MM1TM2	1" MF	2-3/4" M	5	5	76,00
822MM1TM3	1" MF	3-3/4" M	5	5	82,60
822MM1TM4	1" MF	4-3/4" M	5	5	86,00
822MM54TMN4	1.1/4" MF	4-1/2" M	5	5	114,50
822MM54TM3	1.1/4" MF	3-3/4" M	5	5	119,50
822MM54TM4	1.1/4" MF	4-3/4" M	5	5	149,00

Dimensions on page 274

822MR

Single modular brass flow manifold with pre-assembled gasket, locking nut and built-in shut-off lockshields. Side outlets: 1/2"M - 3/4"M. MF head connections: 3/4"-1"-1.1/4". Kvs outlets: 2,61. Centre distance 50mm.

Part no.	DN	Outlets	Pcs/pack	Package	€ each
822MR1TMN2	1" MF	2-1/2" M	5	5	59,50
822MR1TMN3	1" MF	3-1/2" M	5	5	79,30
822MR1TMN4	1" MF	4-1/2" M	5	5	97,50
822MR1TM2	1" MF	2-3/4" M	5	5	76,00
822MR1TM3	1" MF	3-3/4" M	5	5	72,60
822MR1TM4	1" MF	4-3/4" M	5	5	89,40
822MR54TMN3	1.1/4" MF	3-1/2" M	5	5	92,60
822MR54TMN4	1.1/4" MF	4-1/2" M	5	5	113,00
822MR54TM3	1.1/4" MF	3-3/4" M	5	5	89,40
822MR54TM4	1.1/4" MF	4-3/4" M	5	5	109,50

Dimensions on page 275

FLMR

Single modular brass flow manifold complete with FL flow meter for controlling and measuring the flow rate in the circuits, with pre-assembled gasket and locking nut. Side outlets: 3/4"M. MF head connections: 1"-1.1/4". Measuring range: 0-6 l/min. Differential pressure: 1,0 bar. Kvs outlets: 1,8. Centre distance 50mm.

Part no.	DN	Outlets	Pcs/pack	Package	€ each
FLMR1TM3	1" MF	3-3/4"	1	16	86,00
FLMR1TM4	1" MF	4-3/4"	1	12	134,50
FLMR54TM3	1.1/4" MF	3-3/4"	1	12	117,50
FLMR54TM4	1.1/4" MF	4-3/4"	1	9	147,00

Dimensions on page 275

FL

Device for controlling and measuring the flow rate in the individual circuits in FLMR manifolds. Measuring range: 0-6 l/min.

Part no.	Description	Pcs/pack	Package	€ each
FLMR	Flow meter	24	24	12,20
226	Control cap	1	50	1,20

Dimensions on page 275

210

Shut-off ball valve with three-piece union for manifold head connections.
Max. operating pressure: 25 bar up to 95°C; 16 bar up to 120°C.

Part no.	DN	Pcs/pack	Package	€ each
2101212	1/2" MF	5	5	21,05
2103434	3/4" MF	5	5	29,05
21011	1" MF	5	5	43,20
210114114	1.1/4" MF	5	5	57,50

Dimensions on page 275

Modul coplanar manifolds

825M

Coplanar CW617N brass manifold. Side outlets on both sides: 1/2"M.
FF head connections: 3/4"-1". Distance between centres of outlets: 35 mm.

Part no.	DN	Outlets	Pcs/pack	Package	€ each
825M34DD22	3/4" FF	2 + 2	1	20	53,40
825M34DD44	3/4" FF	4 + 4	1	15	68,20
825M34DD66	3/4" FF	6 + 6	1	10	103,00
825M34DD88	3/4" FF	8 + 8	1	8	132,00
825M1DD44	1" FF	4 + 4	1	10	99,10
825M1DD66	1" FF	6 + 6	1	6	136,50
825M1DD88	1" FF	8 + 8	1	6	175,00
825M1DD1010	1" FF	10 + 10	1	1	208,00

Dimensions on page 275

HKV 2013A-VA

Ready-to-mount stainless steel manifold unit:
- top return manifold with micrometric control and shut-off of the outlet;
- bottom flow manifold with flow meters (0-6 l/min) capable of controlling or shutting off the outlet;
- galvanised steel brackets complete with anti-vibration mountings.

1"M head connection, Eurocone 3/4" side outlets, centre distance 50mm.
Operating temperature: -10 to 80°C. PN 6. Available with insulation.
Compatible with 22C, 22CX, 22CX5 and 26LC Series electrothermal actuators.

Part no.	Outlets	Pcs/pack	Package	€ each
3816302	2	1	1	100,70
3816303	3	1	1	132,00
3816304	4	1	1	164,50
3816305	5	1	1	198,50
3816306	6	1	1	228,00
3816307	7	1	1	262,50
3816308	8	1	1	292,00
3816309	9	1	1	328,50
3816310	10	1	1	358,50
3816311	11	1	1	398,00
3816312	12	1	1	429,50

Dimensions on page 275

HKV 2013A-AFC

DYNAMIC SELF-BALANCING ready-to-mount stainless steel manifold unit:
- bottom return manifold with outlet control and shut-off valve; **adjustment range 30 to 300L/h**; M30x1,5 adapter;
- top flow manifold with low-pressure-drop flow meters and shut-off function;
- galvanised steel brackets complete with anti-vibration mountings.

1"M head connection, Eurocone 3/4" side outlets, centre distance 50mm.
KFE90 Series terminal filling and air vent valves (pre-installed).
Operating temperature: -5 to 70°C. PN 10. Available with insulation.
Compatible with 22C, 22CX, 22CX5 and 26LC Series electrothermal actuators.

Part no.	Outlets	Pcs/pack	Package	€ each
10081563	2	1	1	228,50
10081564	3	1	1	265,50
10081565	4	1	1	315,00
10081566	5	1	1	367,50
10081567	6	1	1	416,00
10081568	7	1	1	486,00
10081569	8	1	1	534,00
10081570	9	1	1	586,00
10081571	10	1	1	640,00
10081572	11	1	1	688,00
10081573	12	1	1	739,00

Dimensions on page 275

HKV ISO

Pair of insulators for HKV2013 Series manifolds, consisting of modular 6-position EPP shells.
Quantity necessary according to number of manifold outlets:
- 2 to 6 outlets: 1 pair of insulators
- 7 to 10 outlets: 2 pairs of insulators
- 11 to 12 outlets: 3 pairs of insulators

Part no.	Pcs/pack	Package	€ each
5251025	1	1	51,80

ACCESSORIES

KHT-1

Pair of shut-off ball valves with precision thermometer (scale 0–60°C) for HKV2013 Series manifolds.
1" Fx1" F connections, flat sealing nut.

Part no.	Description	Pcs/pack	Package	€ each
3114065	Brass	1	1	48,90
3114065N	Nickel-plated brass	1	1	48,90

ES-QS

Pair of terminal valves for HKV2013 Series manifolds with manual air vent device and 3/4" system fill/drain cock complete with safety plug.
1" F connection, flat sealing nut.

Part no.	Description	Pcs/pack	Package	€ each
3036115	Brass	1	1	28,15
3036120N	Nickel-plated brass	1	1	35,65

DFM38-A

Device for controlling and measuring the flow rate in the individual circuits in HKV2013 Series manifolds. Measuring range: 0-6 l/min. 3/8" connection.

Part no.	Description	Pcs/pack	Package	€ each
10010893	flow meter	1	24	13,20

823MP - Discontinued series, available while stocks last

Terminal fitting with pre-assembled gasket and locking nut.
Equipped with: 2 x 1/2" connections for fitting the immersion thermometer.

Part no.	DN	Outlets	Connections	Pcs/pack	Package	€ each
823MP13812	1"	1/2" and 3/8"	2+2	10	10	39,85

Dimensions on page 276

823MT - Discontinued series, available while stocks last

Terminal for brass manifolds. Connections for air vent valve and for 3/8"F drain cock.
Connection for additional outlet: 1/2"F.

Part no.	DN	Pcs/pack	Package	€ each
823MT1	1" M	10	10	22,20
823MT114	1.1/4" M	10	10	23,70

Dimensions on page 275

290

Drain cock for boilers with hose fitting, plug and chain.

Part no.	connection DN	plug DN	Pcs/pack	Package	€ each
29038	3/8"	1/2"	10	200	17,80
29012	1/2"	3/4"	10	150	20,85
29034	3/4"	1"	10	100	32,50

Dimensions on page 276

Inspection boxes

824CF

Plastic universal inspection box complete with base, frame with pre-cut openings, screw-on cover, removable protection for masonry work and accessories for mounting 3/4" and 1" single and coplanar manifolds.
Suitable for housing:
- 825 Series coplanar manifolds with 571T, 560T and 561T Series zone valves and accessories.
- 805M (3/4" and 1"), 807M, E807M and 822M (1") Series single brass manifolds and accessories.

Supplied in a compact package, quick to fit.

Part no.	w x h x d (mm)	Pcs/pack	Package	€ each
824CF2632	265 x 320 x 95	1	10	31,15
824CF2640	265 x 400 x 95	1	10	35,65
824CF2650	265 x 500 x 95	1	10	41,45
824CF3160	310 x 600 x 95	1	10	48,90

828M

Galvanised sheet steel inspection box complete with screw-on cover.
Suitable for housing distribution units consisting of 825M Series coplanar manifolds, either alone or assembled with 561T Series zone valves. Complete with screws and a bracket for mounting the manifold unit on a central rail.

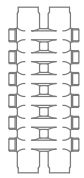
Part no.	w x h x d (mm)	Pcs/pack	Package	€ each
828M2933N	290 x 330 x 80	1	1	48,90
828M2950N	290 x 500 x 80	1	1	57,70
828M2965N	290 x 650 x 80	1	1	66,60

839M

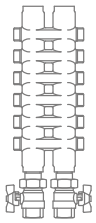
Galvanised sheet steel inspection box complete with lockable, white-painted, snap-on cover. Foot height can be adjusted in situ. Suitable for housing distribution units consisting of 822MM - 822MR - FLMR - 805M Series modular manifolds.
Complete with screws for fixing brackets (excluding 840MR Series) on universal rails.

Part no.	w x h x d (mm)	Pcs/pack	Package	€ each
839M4075NV	400 x 750 x 110/150	1	1	205,00
839M6075NV	600 x 750 x 110/150	1	1	243,00
839M8075NV	850 x 750 x 110/150	1	1	286,00
839M10075NV	1000 x 750 x 110/150	1	1	303,50

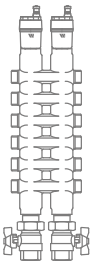
TECHNICAL NOTE - Choice of box by number of outlets



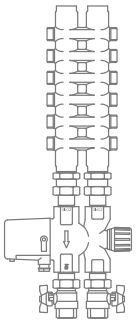
Type A
825M coplanar manifold only



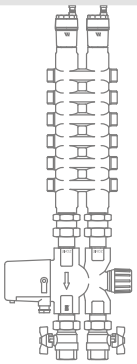
Type B
Coplanar manifold with shut-off valves and supply



Type C
Coplanar manifold with shut-off valves, bottom-entry supply and air vents in the manifold heads



Type D
Same as Type B but with a 561T, 560 T or 571T Series zone valve fitted



Type E
Same as Type C but with a 561T, 560T or 571T Series zone valve fitted

Model	Dimensions w x h x d (mm)	Max. capacity				
		Type A	Type B	Type C	Type D	Type E
824CF	26,5 x 32 x 9,5	6x6	2x2	-	-	-
	26,5 x 40 x 9,5	8x8	4x4	2x2	2x2	-
	26,5 x 50 x 9,5	10x10	8x8	6x6	4x4	2x2
	26,5 x 60 x 9,5	10x10	10x10	8x8	6x6	4x4
828M	29 x 33 x 8	6x6	2x2	-	-	-
	29 x 50 x 8	10x10	8x8	6x6	4x4	2x2
	29 x 65 x 8	10x10	10x10	8x8	8x8	6x6

TECHNICAL NOTE - Choice of box by number of outlets

Type A:
805M, 822MM, 822MR, FLMR Series modular manifold with pair of 210 Series ball valves and 823MT Series terminal pair.

Type B:
As per type A but with 1 ball valve and 1 balancing valve.

Model	No. of outlets	
	Type A	Type B
839M4075NV	3	-
839M6075NV	6	5
839M8075NV	10	9
839M10075NV	12	12

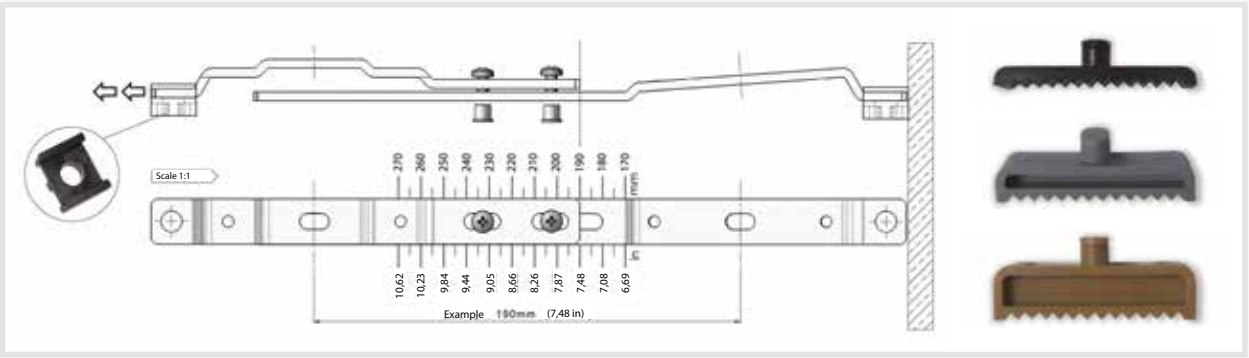
840MR

Universal telescopic brackets for assembling distribution units made up of 805M, 806M, 807M, E807M, 822MM, 822MR and FLMR Series modular manifolds with DN 3/4" to 1.1/4" and accessories. The brackets are equipped with plastic spacers in different sizes and colours for assembly to the U-mountings to adapt any type of manifold with height from min. 23 to max. 45.
The construction solution:
- makes it possible to have different centre distances between the flow and return manifolds according to system requirements: min. 170 - max. 270;
- makes the distribution unit quick and easy to install in the inspection box;
- facilitates the connection of copper, pex and multi-layer pipes to the side outlets, thanks to the inclination of the bottom bracket to be fixed to the inspection box;
- enables the distribution unit to be installed in the inspection box without rails, or to be wall-mounted, using 4 spacer feet at the ends of the brackets supplied.
  These spacer feet must not be used with inspection boxes with rails.

The package includes fixing screws:
- Qty. 4 M6x14
- Qty. 4 M6x164 M6x20

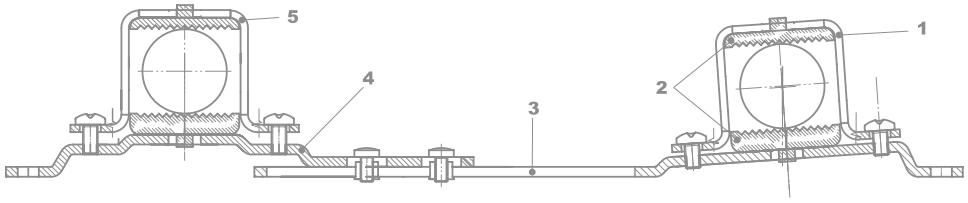
Part no.	Pcs/pack	Package	€ each
840MR80	1	10	51,70

Dimensions on page 276



Key:

1. U-mounting
2. Spacer plates
3. Bottom bracket
4. Top bracket
5. U-mounting



Use of spacer plates:
Black, Grey, Beige.

Spacer plate selection table with dimensions of Watts manifold

Model	DN	Centre distance	Dimensions	Plates
805M	3/4"	35	24	BEIGE/BEIGE
805M	1"	35	30	BEIGE/BEIGE
805M	1"	50	31	BLACK/BEIGE
805M	1.1/4"	50	41	BLACK/GREY
807M	3/4"	35	30	BEIGE/BEIGE
822MM	1"	50	39	BLACK/GREY
822MR	1"	50	39	BLACK/GREY
FLMR	1"	50	39	BLACK/GREY
822MM	1.1/4"	50	45	BLACK/GREY
822MR	1.1/4"	50	45	BLACK/GREY
FLMR	1.1/4"	50	45	BLACK/GREY

Float-type air vent valves

INT - NEW INTERVENT

Automatic air vent valve with unscrewable inspection cover. CW617N brass body and cover.
Corrosion-resistant polythene float switch. PN 12. Max. operating pressure: 12 bar.
Max. operating temperature: 115°C. Also suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
0248010	3/8"	1	60	12,55
0248010-K10	3/8"	10	60	11,40
0248015	1/2"	1	60	13,80
0248015-K10	1/2"	10	60	12,55
0248020	3/4"	1	60	15,05
0248020-K10	3/4"	10	60	13,70

Dimensions on page 276

DUO - DUOVENT

Automatic and manual air vent valve with unscrewable inspection cover. CW617N brass body and cover. Corrosion-resistant polythene float switch. PN12.
Max. operating pressure: 12 bar. Max. operating temperature:115°C.
Automatic venting capacity at 3 bar: 20 NL/min. Manual venting capacity at 3 bar: 100 NL/min.
Also suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
0248210	3/8"	1	60	13,80
0248210-K10	3/8"	10	60	12,55
0248215	1/2"	1	60	15,95
0248215-K10	1/2"	10	60	14,15
0248220	3/4"	1	60	17,35
0248220-K10	3/4"	10	60	15,70

Dimensions on page 276

INT/AV15 - NEW INTERVENT WITH SIDE CONNECTION

Automatic air vent valve with unscrewable inspection cover and side connection. Nickel-plated CW617N brass body and cover. Corrosion-resistant polythene float switch. PN12.
Max. operating pressure: 12 bar. Max. operating temperature: 115°C.
Also suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
0248016	1/2"	1	60	20,30
0248016-K10	1/2"	10	60	18,45

Dimensions on page 276

MKV - MICROVENT

Vertical automatic air vent valve. CW617N brass body and cover, with O-ring. PN12.
Max. operating pressure: 10 bar. Max. operating temperature: 110°C.
Also suitable for water with additive (glycol up to 50%).
Model 0251310 is complete with RIA Series automatic shut-off valve.

Part no.	DN	Pcs/pack	Package	€ each
0251210	3/8"	10	120	10,80

Dimensions on page 276

MHV - HYBRIVENT VERTICAL

Vertical automatic air vent valve. CW617N brass body. Composite cover, with O-ring. PN12.
Max. operating pressure: 10 bar. Max. operating temperature: 110°C.
Also suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
0246010	3/8”	1	1	7,95
0246010-K10	3/8”	10	1	7,05

Dimensions on page 276

MKL - MICROVENT

Lateral automatic air vent valve. CW617N brass body and cover. Pre-sealed with O-ring. PN12. Max. operating pressure: 10 bar. Max. temperature: 110°C. Also suitable for water with additive (glycol up to 50%).
Model 0252310 is complete with RIA automatic shut-off valve.

Part no.	DN	Pcs/pack	Package	€ each
0252210	3/8”	10	120	11,10

Dimensions on page 276

MHL - HYBRIVENT LATERAL

Lateral automatic air vent valve. CW617N brass body. Composite cover, with O-ring. PN12.
Max. operating pressure: 10 bar.
Max. operating temperature: 110°C. Also suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
0247010	3/8”	1	1	7,95
0247010-K10	3/8”	10	1	7,05

Dimensions on page 276

RIA

Automatic shut-off valve for MVD, MV, MKV, MKL, INT, DUO, MHV and MHL Series air vent valves. Complete with device for total, rapid drainage of water from the valve.

Part no.	DN	Pcs/pack	Package	€ each
0259010	3/8”x3/8"	10	400	2,70
0259015	1/2”x1/2"	10	400	3,60
0259016	3/8”x1/2"	10	400	3,90

Dimensions on page 277

2161C - FLOATVENT

Vertical automatic air vent valve, with O-ring. Suitable for installation on the head connections of coplanar manifolds. CW617N brass body. Maximum pressure: 10 bar.
Max. temperature: 110°C. Suitable for water with additive (glycol up to 50%).

Part no.	DN	Pcs/pack	Package	€ each
2161C38	3/8”	1	60	10,10
2161C12	1/2”	1	60	10,90
2161C34	3/4”	1	60	11,90
2161C1	1”	1	60	17,45

Dimensions on page 277

2311C - CHECKVENT

Pre-sealed check valve for 2161C38 vertical automatic air vent valve.

Part no.	DN	Pcs/pack	Package	€ each
2311C38	3/8”	50	300	2,70

MXV - MAXIVENT

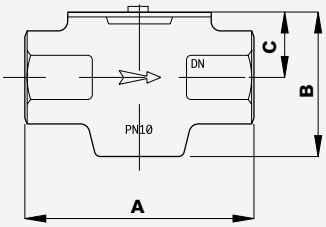
High-flow automatic air vent valve. Equipped with manual vent valve. Cast iron body and cover with epoxy paint finish. Max. operating pressure: 12 bar. Max. operating temperature: 100°C. 3/8”F air outlet connection.

Part no.	DN	Pcs/pack	Package	€ each
0253020	3/4”	1	1	259,50
0253025	1”	1	1	283,00
0253032	1.1/4”	1	1	314,00

Dimensions on page 277

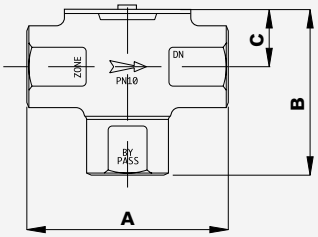
Overall dimensions

571T



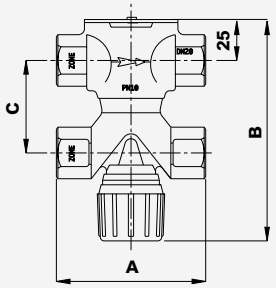
DN	A	B	C
3/4”	90	61	25
1”	100	61	25
1.1/4”	103	59	25

560T



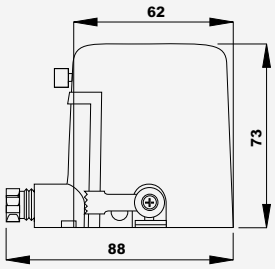
DN	A	B	C
3/4”	90	78	25
1”	100	78	25

561T

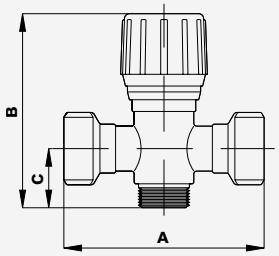


DN	A	B	C
3/4”	90	130	50
1”	100	140	60

580T

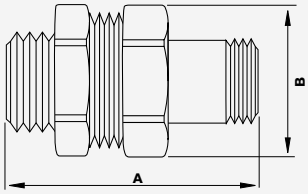


566T



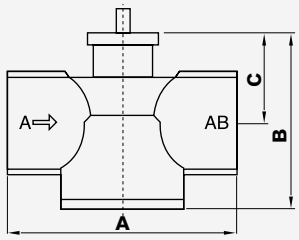
DN	A	B	C
3/4”	90	100	34
1”	100	104	34

567T



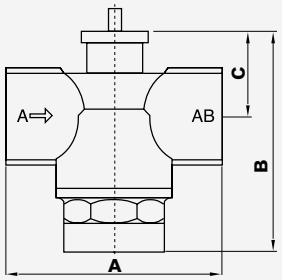
DN	A	B
3/4”	66	37
1”	77	46

VU02



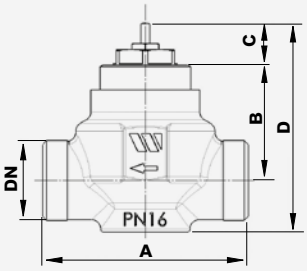
DN	A	B	C
3/4”	78	61	30
1”FF	83	61	30

VU3



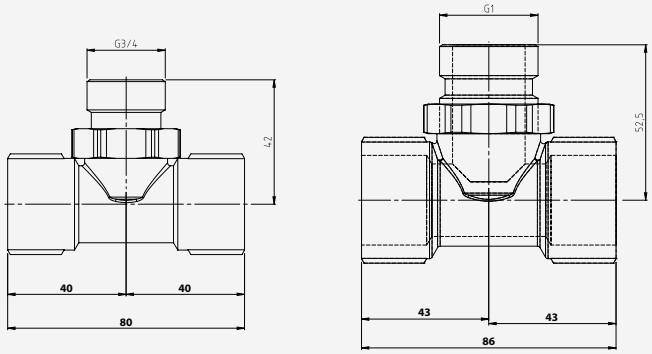
DN	A	B	C
3/4”FF	78	77	30
1”FF	83	77	30

KV4-2-WAY

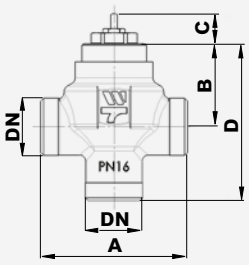


DN	A	B	C	D
3/4”	68	38	13.7	69

VU4



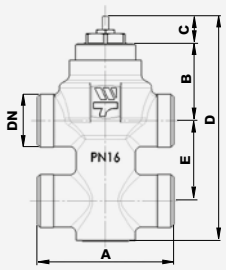
KV4-3-WAY



DN	A	B	C	D
3/4”	68	38	13.7	86

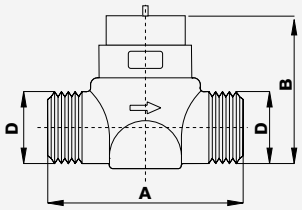
Overall dimensions

KV4-3-WAY



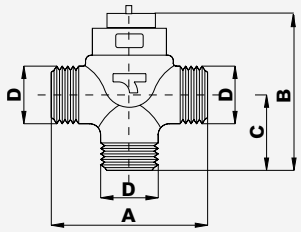
DN	A	B	C	D	E
3/4”	68	38	13.7	112	40

2131



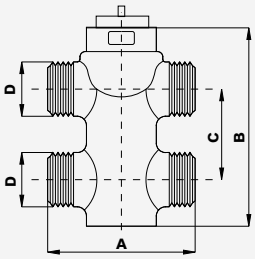
DN	A	B
1/2”	52	43
3/4”	56	43
1”	83	70

3131



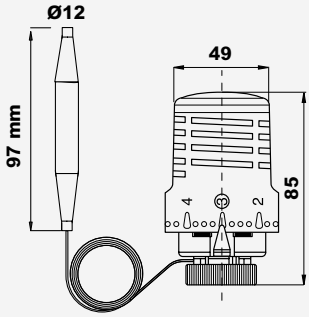
DN	A	B	C
1/2”	52	56	25
3/4”	56	58	34
1”	82	93	41

4131

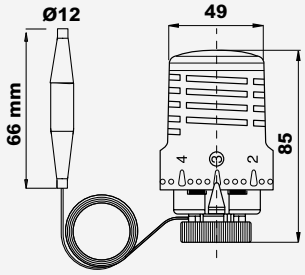


DN	A	B	C
1/2”	52	83	35
3/4”	56	96	50

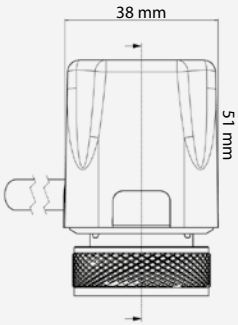
148SD2050

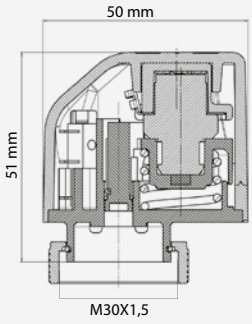


148SD2070

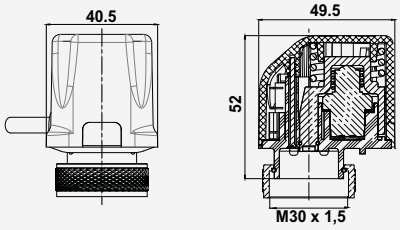


22C

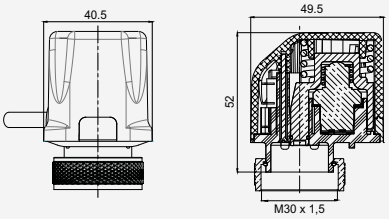




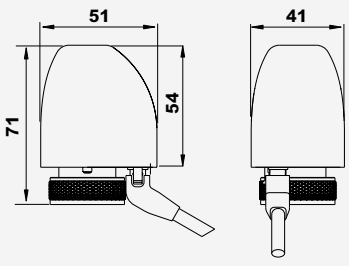
22CX



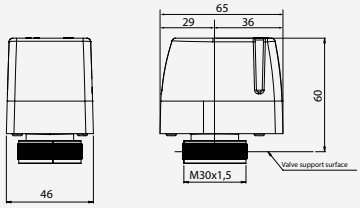
22CX5



26LC



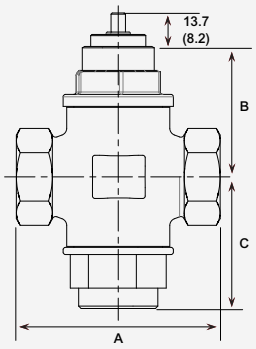
EMUWE



8

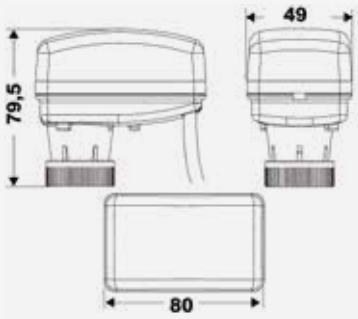
Overall dimensions

V3BMLN

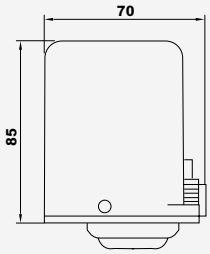


DN	A	B	C
15	85	54,5	55
20	85	54,5	55
25	105	56,5	55
32	120	59,5	63
40	145	68	78,5

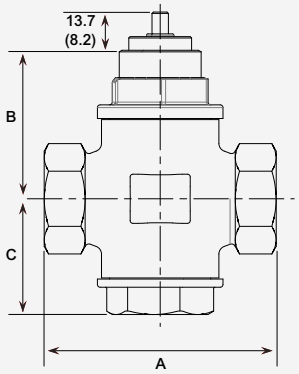
EMUJC



ETE

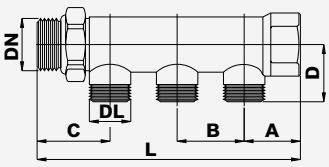


V2BMLN



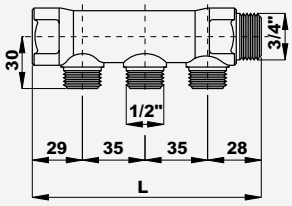
DN	A	B	C
15	85	54,5	42,5
20	85	54,5	42,5
25	105	56,5	49
32	120	59,5	52
40	145	68	63

805M



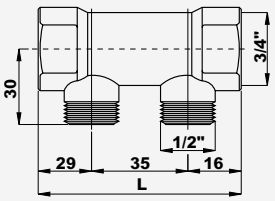
DN	DL	L	A	B	C	D
3/4”	2x1/2”	98	28.5	35	34.5	28
3/4”	3x1/2”	133	28.5	35	34.5	28
3/4”	4x1/2”	168	28.5	35	34.5	28
1”	2x1/2”	97	24	35	38	33
1”	3x1/2”	132	24	35	38	33
1”	4x1/2”	167	24	35	38	33
1”	2x1/2”	114.5	24.5	50	41	33
1”	3x1/2”	164.5	24.5	50	41	33
1”	4x1/2”	214.5	24.5	50	41	33
1”	2x3/4”	114.5	24.5	50	41	33
1”	3x3/4”	164.5	24.5	50	41	33
1”	4x3/4”	214.5	24.5	50	41	33
1.1/4”	3x1/2”	168.5	27.5	50	41	36
1.1/4”	4x1/2”	218.5	27.5	50	41	36
1.1/4”	3x3/4”	168.5	27.5	50	41	36
1.1/4”	4x3/4”	218.5	27.5	50	41	36

E807M



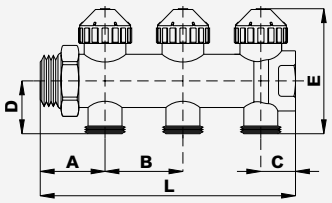
DN	Side outlets	L
3/4”	2	92
3/4”	3	127
3/4”	4	162

807M



DN	Side outlets	L
3/4”	2	80
3/4”	3	115
3/4”	4	150

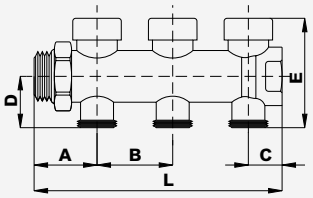
822MM



DN	L	L	L	A	B	C	D	E
	2 Outlets	3 Outlets	4 Outlets					
1”	115	169	215	40	50	24.5	33	80
1.1/4”	-	169	219	41	50	24.5	33	86

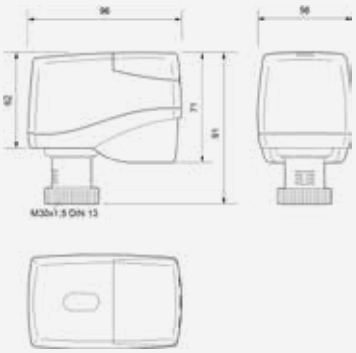
Overall dimensions

822MR

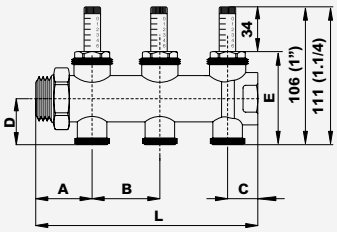


DN	L	L	L	A	B	C	D	E
	2 Outlets	3 Outlets	4 Outlets					
1”	115	169	215	40	50	24.5	33	72
1.1/4”	-	169	219	41	50	27.5	36	77

EMUK

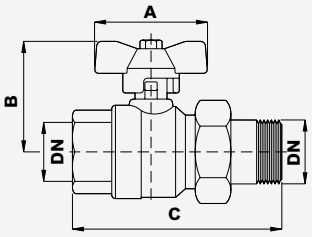


FLMR/FL



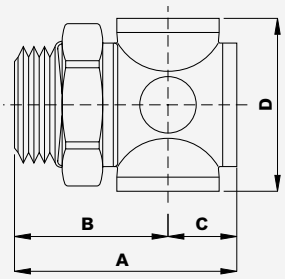
DN	L	L	A	B	C	D	E
	3 Outlets	4 Outlets					
1”	164	214	40	50	24.5	33	72
1.1/4”	168	218	41	50	27.5	36	77

210



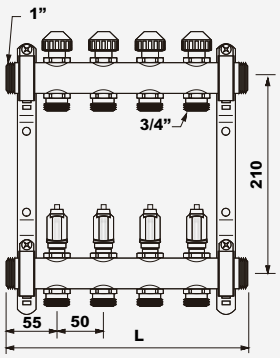
DN	A	B	C
1/2”	46	50	76
3/4”	46	53	94
1”	66	65	109
1.1/4”	66	70	128

823MT



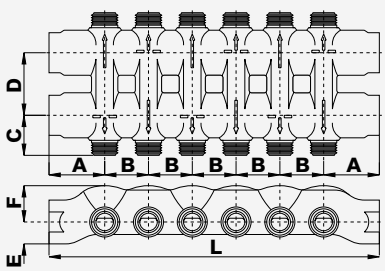
DN	A	B	C	D
1”	61.5	42	19.5	49

HKV 2013-VA/HKV2013A-AFC



No. of outlets	L
2	160
3	210
4	260
5	310
6	360
7	410
8	460
9	510
10	560
11	610
12	660

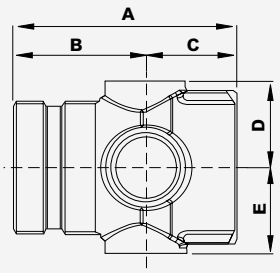
825M



DN	Side outlets	L	A	B	C	D	E	F
3/4”	2 x 2	125	45	35	31	50	18	28.5
3/4”	4 x 4	195	45	35	31	50	18	28.5
3/4”	6 x 6	265	45	35	31	50	18	28.5
3/4”	8 x 8	335	45	35	31	50	18	28.5
1”	4 x 4	215	55	35	34	60	21	35.5
1”	6 x 6	285	55	35	34	60	21	35.5
1”	8 x 8	355	55	35	34	60	21	35.5
1”	10 x 10	425	55	35	34	60	21	35.5

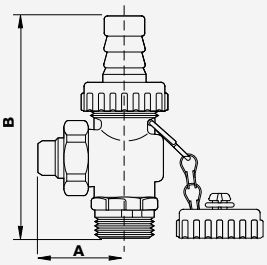
Overall dimensions

823MP



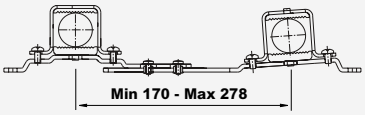
DN	A	B	C	D	E
1”G	69.5	40	25.5	27	27
1.1/4”G	69.5	41	28.5	27	27

290

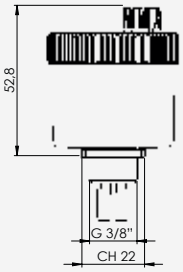


DN	A	B
1/8”	25	60
3/8”	30	75
1/2”	33	75

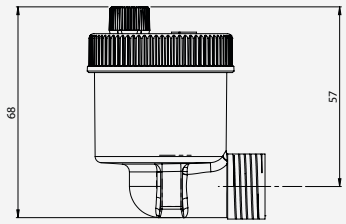
840MR



INT-INT/R DUO-DUO/R



INT/AV15



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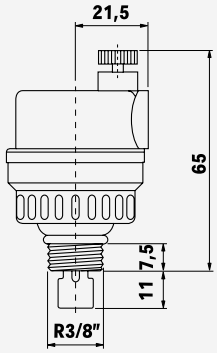
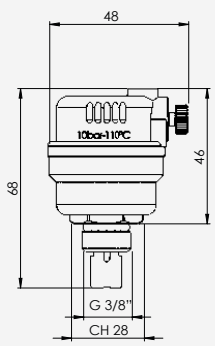


MHV-MHV/R



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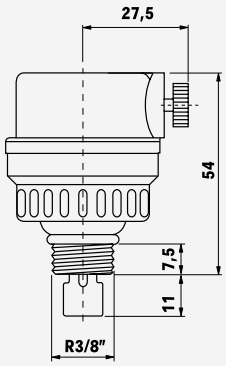

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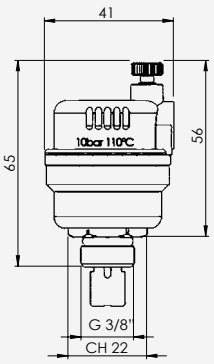
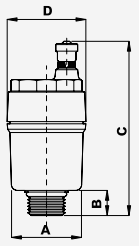
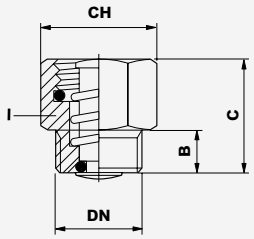


2161C



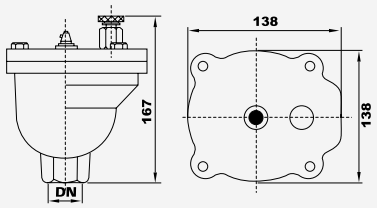
DN	A	B	C	D
3/8”	30	10	77	36
1/2”	30	10	77	36
3/4”	32	12	79	36
1”	37	12	79	36

RIA



DN	B	C	CH
3/8”	8	11	19
1/2”	8	11	24

MXV



8

Chapter 9

Valves and accessories for radiators

TRV - Thermostat-adaptable valve

Easy to pre-set
Quick to install
Suitable for reverse flow operation

Chapter 9

VALVES AND ACCESSORIES FOR RADIATORS

TRV Series right-angle thermostat-adaptable valves and lockshields with copper/plastic connection

1378TRV

Nickel-plated thermostat-adaptable valve. Right-angle body. 1/2”M connection for copper or plastic pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem.
Compatible with Series 148 and 148A thermostatic actuators, with electronic thermostatic actuator Series BT-TH02 or BT-SRT03 RF and electrothermal actuators Series 22C, 22CX, 22CX5 and 26LC.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1378TRV38	3/8"	1/2”	1,35	1	20	14,90
1378TRV38-12	3/8"	1/2”*	1,35	1	20	14,90
1378TRV38-24	3/8"	M24 X 1,5**	1,35	1	20	14,90
1378TRV12	1/2"	1/2"	1,42	1	20	16,70
1378TRV12-12	1/2"	1/2”*	1,42	1	20	16,70
1378TRV12-24	1/2"	M24 X 1,5**	1,42	1	20	16,70

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

1388TRV

Nickel-plated thermostat-adaptable valve with six-position pre-setting device. Right-angle body. 1/2”M connection for copper or plastic pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1388TRV38	3/8"	1/2”	1,25	1	20	19,15
1388TRV38-12	3/8"	1/2”*	1,25	1	20	19,15
1388TRV38-24	3/8"	M24 X 1,5**	1,25	1	20	19,15
1388TRV12	1/2"	1/2"	1,32	1	20	21,90
1388TRV12-12	1/2"	1/2”*	1,32	1	20	21,90
1388TRV12-24	1/2"	M24 X 1,5**	1,32	1	20	21,90

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

1395TRV

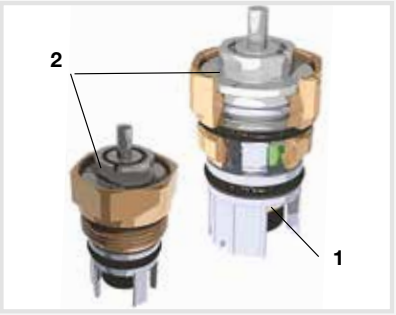
Nickel-plated micrometric lockshield. Right-angle body. 1/2”M connection for copper or plastic pipe. Straight tailpiece pre-sealed with O-ring. ABS cap.

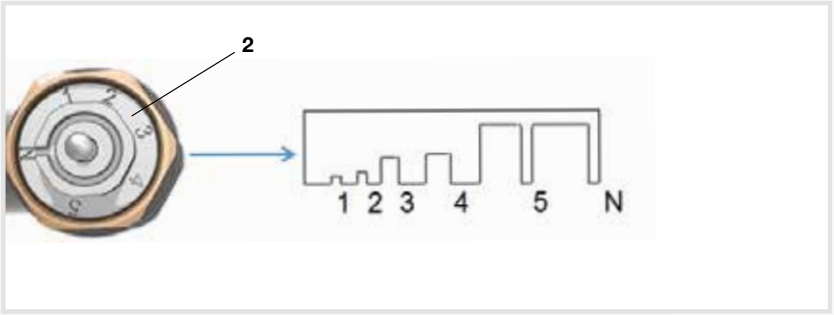
Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1395TRV38	3/8”	1/2”	1,50	1	100	11,60
1395TRV38-12	3/8”	1/2”*	1,50	1	30	11,60
1395TRV38-24	3/8”	M24 X 1,5**	1,50	1	30	11,60
1395TRV12	1/2”	1/2"	1,50	1	100	13,20
1395TRV12-12	1/2”	1/2”*	1,50	1	30	13,20
1395TRV12-24	1/2”	M24 X 1,5**	1,50	1	30	13,20

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

TECHNICAL NOTE - TRV valves

TRV Series thermostat-adaptable valves control possible imbalances in the circuits by setting a maximum flow rate.
The pre-setting device works by limiting the flow rate with calibrated orifices (1). Remove the manual handwheel to turn the numbered pre-setting ring-nut (2). Active-memory pre-setting permanently retains the set balance.





TRV Series straight thermostat-adaptable valves and lockshields with copper/plastic connection

1379TRV

Nickel-plated thermostat-adaptable valve. Straight body. 1/2"M connection for copper or plastic pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem.
Compatible with Series 148 and 148A thermostatic actuators, with electronic thermostatic actuator Series BT-TH02 or BT-SRT03 RF and electrothermal actuators Series 22C, 22CX, 22CX5 and 26LC.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1379TRV38	3/8"	1/2"	0,95	1	20	17,35
1379TRV38-12	3/8"	1/2"*	0,95	1	20	17,35
1379TRV38-24	3/8"	M24 X 1,5**	0,95	1	20	17,35
1379TRV12	1/2"	1/2"	1,08	1	20	20,00
1379TRV12-12	1/2"	1/2"*	1,08	1	20	20,00
1379TRV12-24	1/2"	M24 X 1,5**	1,08	1	20	20,00

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

1389TRV

Nickel-plated thermostat-adaptable valve with six-position pre-setting device. Straight body. 1/2"M connection for copper or plastic pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1389TRV38	3/8"	1/2"	0,90	1	100	24,45
1389TRV38-12	3/8"	1/2"*	0,90	1	100	24,45
1389TRV38-24	3/8"	M24 X 1,5**	0,90	1	20	24,45
1389TRV12	1/2"	1/2"	1,00	1	20	27,40
1389TRV12-12	1/2"	1/2"*	1,00	1	20	27,40
1389TRV12-24	1/2"	M24 X 1,5**	1,00	1	20	27,40

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

1396TRV

Nickel-plated micrometric lockshield. Straight body. 1/2"M connection for copper or plastic pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1396TRV38	3/8"	1/2"	1,00	1	30	12,70
1396TRV38-12	3/8"	1/2"*	1,00	1	30	12,70
1396TRV38-24	3/8"	M24 X 1,5**	1,00	1	100	12,70
1396TRV12	1/2"	1/2"	1,10	1	100	14,50
1396TRV12-12	1/2"	1/2"*	1,10	1	30	14,50
1396TRV12-24	1/2"	M24 X 1,5**	1,10	1	30	14,50

*Increased internal diameter. Compatible with 873M12..-12 and 817MSC12....-12 fittings.
** Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 301

TRV Series right-angle thermostat-adaptable valves and lockshields with iron connection - EN215

378TRV

Nickel-plated thermostat-adaptable valve. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
378TRV38	3/8”	3/8”	1,30	1	20	15,00
378TRV12	1/2”	1/2”	1,40	1	20	17,90
378TRV34	3/4"	3/4"	1,45	1	20	29,35

Dimensions on page 300

388TRV

Nickel-plated thermostat-adaptable valve with six-position pre-setting device. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
388TRV38	3/8”	3/8”	1,30	1	20	18,80
388TRV12	1/2”	1/2”	1,40	1	20	20,85
388TRV34	3/4"	3/4"	1,45	1	20	37,60

Dimensions on page 300

395TRV

Nickel-plated micrometric lockshield. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
395TRV38	3/8”	3/8”	1,35	1	100	11,60
395TRV12	1/2”	1/2”	1,45	1	100	13,10
395TRV34	3/4”	3/4”	1,55	1	100	24,45

Dimensions on page 300

TRV Series straight thermostat-adaptable valves and lockshields with iron connection - EN215

379TRV

Nickel-plated thermostat-adaptable valve. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
379TRV38	3/8”	3/8”	1,00	1	20	16,90
379TRV12	1/2”	1/2”	1,10	1	20	20,00
379TRV34	3/4”	3/4”	1,15	1	20	31,65

Dimensions on page 300

389TRV

Nickel-plated thermostat-adaptable valve with six-position pre-setting device. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
389TRV38	3/8”	3/8”	1,00	1	20	23,30
389TRV12	1/2”	1/2”	1,10	1	20	26,45
389TRV34	3/4”	3/4”	1,15	1	20	38,05

Dimensions on page 300

396TRV

Nickel-plated micrometric lockshield. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
396TRV38	3/8”	3/8”	1,05	1	100	13,70
396TRV12	1/2”	1/2”	1,15	1	100	16,20
396TRV34	3/4”	3/4”	1,25	1	100	25,40

Dimensions on page 300

Right-angle thermostat-adaptable valves and lockshields with copper/plastic connection

1178UM

Nickel-plated thermostat-adaptable valve. Right-angle body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1178UMSN38X	3/8”	1/2”	2,6	1	20	14,90
1178UMSN12	1/2”	1/2”	2,6	1	20	17,35

Dimensions on page 298

1188UM

Nickel-plated thermostat-adaptable valve with nine-position pre-setting device. Right-angle body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS handwheel with fixed stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1188UMSN38X	3/8”	1/2”	2,6	1	20	19,15
1188UMSN12	1/2”	1/2”	2,6	1	20	22,15

Dimensions on page 298

1195UM

Nickel-plated micrometric lockshield. Right-angle body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1195UMSN38X	3/8”	1/2”	2,1	1	30	11,70
1195UMSN12	1/2”	1/2”	2,1	1	30	13,25

Dimensions on page 298

Straight thermostat-adaptable valves and lockshields with copper/plastic connection

1179UM

Nickel-plated thermostat-adaptable valve. Straight body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1179UMSN38X	3/8”	1/2”	1,8	1	20	17,35
1179UMSN12	1/2”	1/2”	1,8	1	20	20,20

Dimensions on page 298

1189UM

Nickel-plated thermostat-adaptable valve with nine-position pre-setting device. Straight body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS handwheel with fixed stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1189UMSN38X	3/8”	1/2”	1,8	1	20	24,60
1189UMSN12	1/2”	1/2”	1,8	1	20	27,85

Dimensions on page 298

1196UM

Nickel-plated micrometric lockshield. Straight body. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. ABS cap.

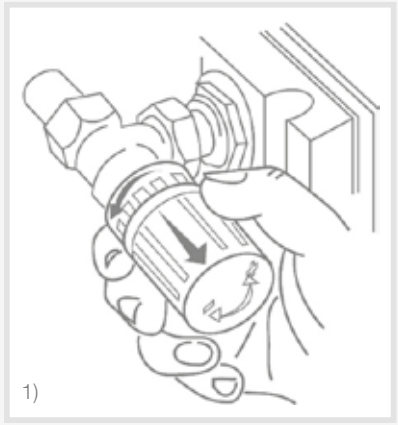
Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1196UMSN38X	3/8”	1/2”	1,7	1	30	12,80
1196UMSN12	1/2”	1/2”	1,7	1	30	14,90

Dimensions on page 298

TECHNICAL NOTE - **Valve setting instructions**

188UM-1188UM-189UM-1189UM-130UM-130SN-134UM-1134UM-1130UM-131UM-1131UM-120B-120M thermostat-adaptable valves enable you to set a clearly defined maximum flow rate, thus controlling possible imbalances in the circuits: the pre-setting device works by limiting the stroke of the disc and each setting position is obtained by turning the ring-nut under the handwheel. The fluid flow rate and pressure drop can be determined from the nomograms. In thermostatic mode, however, they assume the characteristics of the device in question.

1) Remove the manual handwheel
2) Fully close the pre-setting ring-nut
3) Re-open to the pre-setting position specified for the project or selected in the specific diagram, so that the number corresponds to the reference notch. Refit the handwheel.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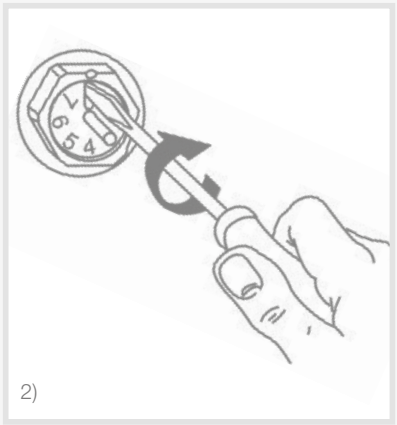
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Right-angle thermostat-adaptable valves and lockshields with iron connection - EN215

178UM

Nickel-plated thermostat-adaptable valve. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. **Keymark certified.**

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
178UMSN38	3/8”	3/8”	2,1	1	30	15,20
178UMSN12	1/2”	1/2”	2,6	1	20	17,90
178UMSN34	3/4”	3/4”	3,3	1	20	29,25

Dimensions on page 298

188UM

Nickel-plated thermostat-adaptable valve with nine-position pre-setting device. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. **Keymark certified.**

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
188UMSN38	3/8”	3/8”	2,1	1	20	18,70
188UMSN12	1/2”	1/2”	2,6	1	20	21,15
188UMSN34	3/4”	3/4”	3,3	1	20	38,10

Dimensions on page 298

130UM

Nickel-plated body. Right-angle thermostatic valve with easy-to-remove protection cap for installation with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. Connection for iron pipe. Straight tailpiece with O-ring. Nine-position pre-setting device.
Keymark certified.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
130UMSN38	3/8”	3/8”	2,1	1	30	20,20
130UMSN12	1/2”	1/2”	2,6	1	20	24,30
130UMSN34	3/4”	3/4”	3,3	1	20	32,95

Dimensions on page 298

130SN

Nickel-plated body. Right-angle thermostatic valve with easy-to-remove protection cap for installation with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. Nine-position pre-setting device. Connection for iron pipe. Knurled tapered tailpiece to facilitate sealing with hemp. Compatible with handwheel for RV178 Series thermostat-adaptable valves.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
130SN1	1”	1”	3,3	1	20	46,75

Dimensions on page 298

195UM

Nickel-plated micrometric lockshield. Right-angle body. Connection for iron pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
195UMSN38	3/8”	3/8”	1,9	1	30	11,70
195UMSN12	1/2”	1/2”	2,1	1	30	11,70
195UMSN34	3/4”	3/4”	5,0	1	20	24,60

Dimensions on page 298

195S

Nickel-plated micrometric lockshield. Right-angle body. Connection for iron pipe. Knurled tapered tailpiece to facilitate sealing with hemp. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
195SN1	1”	1”	8,9	1	5	46,30

Dimensions on page 298

Straight thermostat-adaptable valves and lockshields with iron connection - EN215

179UM

Nickel-plated thermostat-adaptable valve. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. ABS handwheel with moving stem. Compatible with Series 148 and 148A thermostatic actuators, with Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.
Keymark certified.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
179UMSN38	3/8”	3/8”	1,1	1	30	17,00
179UMSN12	1/2”	1/2”	1,8	1	20	20,70
179UMSN34	3/4”	3/4”	2,6	1	20	32,50

Dimensions on page 299

189UM

Nickel-plated thermostat-adaptable valve with nine-position pre-setting device. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. Compatible with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators.
Keymark certified.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
189UMSN38	3/8”	3/8”	1,1	1	20	23,45
189UMSN12	1/2”	1/2”	1,8	1	20	26,55
189UMSN34	3/4”	3/4”	2,6	1	20	38,05

Dimensions on page 299

131UM

Nickel-plated thermostatic valve with easy-to-remove protection cap for installation with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. Nine-position pre-setting device. **Keymark certified.**

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
131UMSN38	3/8”	3/8”	1,1	1	30	24,35
131UMSN12	1/2”	1/2”	1,8	1	20	27,05
131UMSN34	3/4”	3/4”	2,6	1	20	39,30

Dimensions on page 299

196UM

Nickel-plated micrometric lockshield. Straight body. Connection for iron pipe. Straight tailpiece with O-ring. ABS cap.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
196UMSN38	3/8”	3/8”	1,1	1	30	13,70
196UMSN12	1/2”	1/2”	1,7	1	30	16,75
196UMSN34	3/4”	3/4”	3,5	1	20	25,85

Dimensions on page 300

Thermostat-adaptable valves, reverse body

134M

Right-angle nickel-plated reverse body. Thermostatic valve with removable protection cap for installation with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. Connection for iron pipe. Straight tailpiece with O-ring. Nine-position pre-setting device.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
134M12	1/2”	1/2”	1,4	1	100	27,55

Dimensions on page 299

1134M

Right-angle nickel-plated reverse body. Thermostatic valve with removable protection cap for installation with Series 148 and 148A thermostatic actuators, Series BT-TH02 or BT-SRT03 RF electronic thermostatic actuators and Series 22C, 22CX, 22CX5 and 26LC electrothermal actuators. 1/2”M connection for copper or plastic/multi-layer pipe. Straight tailpiece with O-ring. Nine-position pre-setting device.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
1134M12	1/2”	1/2”	1,4	1	20	29,95

Dimensions on page 299

4-way thermostat-adaptable valves for single-pipe and two-pipe systems

120B

4-way nickel-plated thermostat-adaptable valve for two-pipe systems. Equipped with a nine-position pre-setting device. Built-in lockshield. Connection for copper or plastic pipe. O-ring-sealed straight tailpiece complete with flow separation probe. ABS handwheel. Differential pressure (148 and 148A Series): 1,5 bar. Kvn with 2K proportional band: DN 1/2" = 0.58; DN 3/4" = 0.62. Compatible with 148 and 148A Series thermostatic actuators, BT-TH02 RF Series electronic thermostatic actuators and 22C, 22CX, 22CX5 and 26LC Series electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
120B12AM12	1/2"	1/2"	0,82	1	50	52,40
120B12AM34	3/4"	1/2"	0,93	1	50	52,40

Dimensions on page 300

102M

4-way nickel-plated thermostat-adaptable valve for single-pipe systems with fixed bypass.
Equipped with a nine-position pre-setting device. Built-in lockshield. Connection for copper or plastic pipe. O-ring-sealed straight tailpiece complete with flow separation probe. ABS handwheel.
Differential pressure (148 and 148A Series): 1,5 bar.
Kvn with 2K proportional band:
- DN 1/2" = 1.76
- DN 3/4" = 1.84

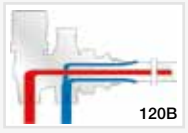
Flow rate to heat emitter: 50%
Compatible with 148 and 148A Series thermostatic actuators, BT-TH02 RF Series electronic thermostatic actuators and 22C, 22CX, 22CX5 and 26LC Series electrothermal actuators.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
102M12AM12	1/2"	1/2"	2,00	1	50	52,40
102M12AM34	3/4"	1/2"	2,15	1	50	52,40
102M24AM12	1/2"	1/2"S	2,00	1	50	52,40
102M24AM34	3/4"	1/2"S	2,15	1	50	52,40
102M24AM12-24	1/2"	M24 X 1,5*	2,00	1	50	52,40
102M24AM34-24	3/4"	M24 X 1,5*	2,15	1	50	52,40

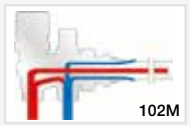
* Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 300

TECHNICAL NOTE - Single-connection valve selection guide
Single-connection valves incorporate the various functions of the valve and lockshield into a single piece.
In thermostatic mode, connect the flow pipe to the connection below the actuator.

For two-pipe systems
120B Series valves (without by-pass) make it possible to create two-pipe heating systems, where for aesthetic or installation reasons it is preferable to keep a single connection point to the radiator (at the bottom), thus reducing the amount of masonry work and installation time.



For single-pipe systems
102M Series valves make it possible to split the water flow calculated for the entire loop into one part for heat exchange and one part for the next radiator. This permanently open by-pass allows constant circulation of the heat carrier fluid even when the valve is closed.



Manual single-pipe valves

119SX

4-way nickel-plated valve for single-pipe systems. Connection for copper or plastic pipe.
Straight tailpiece complete with flow separation probe.
Flow rate to heat emitter: 100% ABS handwheel.

Part no.	DN Body	DN Pipe	Kvs	Pcs/pack	Package	€ each
119S1212X	1/2"	1/2"	1,6	1	50	39,95
119S3412X	3/4"	1/2"	2,00	1	50	39,95
119SS1212SX	1/2"	1/2"S	1,6	1	50	39,00
119SS3412SX	3/4"	1/2"S	2,00	1	50	39,00
119SS12M24X	1/2"	M24 X 1,5*	1,6	1	50	39,00
119SS34M24X	3/4"	M24 X 1,5*	2,00	1	50	39,00

* Compatible with 873M12S..-24 and 817MSC12S...-24 fittings.
Dimensions on page 299

Thermostatic actuators

148A

Thermostatic actuator for thermostat-adaptable valves with liquid-filled sensing element. Temperature limiting and locking device. ABS handwheel. Anti-freeze position: 8°C. Interchangeable with 148 Series actuator. Included in the TRV-G ring-nut package for TRV Series valves.
UNI EN 215 certified.

Part no.	Max. pressure	Graduated scale	Adjustment	Pcs/pack	Package	€ each
148A	1,5 bar	0-5	0-28°C	1	100	30,20

Dimensions on page 299

148

Thermostatic actuator for thermostat-adaptable valves with liquid-filled sensing element. Temperature limiting and locking device. ABS handwheel. Anti-freeze position: 8°C. Included in the TRV-G ring-nut package for TRV Series valves.
UNI EN 215 certified.

Part no.	Max. pressure	Graduated scale	Adjustment	Pcs/pack	Package	€ each
148	1,5 bar	0-5	0-28°C	1	100	31,85

Dimensions on page 299

147

Chrome-plated thermostatic actuator with oil-filled sensitive element. Temperature limiting and locking device. ABS handwheel. Anti-freeze position: 8°C.
Included in the TRV-G ring-nut package for TRV Series valves.

Part no.	Max. pressure	Graduated scale	Adjustment	Pcs/pack	Package	€ each
147CR	1,5 bar	0-5	0-28°C	1	100	36,35

Dimensions on page 299

148SD

Thermostatic actuator with remote sensor. Temperature limiting and locking device.
ABS handwheel. Capillary length 2 metres. Anti-freeze position: 8°C.
Included in the TRV-G ring-nut package for TRV Series valves.

Part no.	Max. pressure	Graduated scale	Adjustment	Pcs/pack	Package	€ each
148SD	1,5 bar	0-5	0-28°C	1	60	64,90

Dimensions on page 299

148CD

Thermostatic actuator with remote control. Temperature limiting and locking device. ABS handwheel.
Capillary length 2 metres. Anti-freeze position: 8°C.
Included in the TRV-G ring-nut package for TRV Series valves.

Part no.	Max. pressure	Graduated scale	Adjustment	Pcs/pack	Package	€ each
148CD	1,0 bar	0-5	0-28°C	1	60	121,50

Dimensions on page 299

148GA

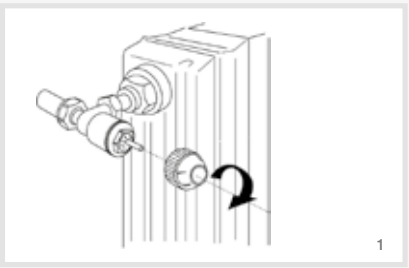
Tamper-proof cover for 148 and 148A Series thermostatic actuators.
Provision for limiting and locking temperature range on rivettable closing position.
Complete with standard fixing screws and break-stem rivets.

Part no.	Pcs/pack	Package	€ each
148GA	1	100	11,50

Dimensions on page 299

TECHNICAL NOTE - **Concise instructions on the use of thermostatic valves**

Thermostat-adaptable valves can be connected to thermostatic actuators (148 and 148A Series) in a single, simple step, and thus converted into thermostatic valves with the system still running.
1) Remove the manual handwheel (Fig. 1)
2) Turn the thermostatic actuator to the fully open position (position 5)
3) Approach the actuator to the valve body with the reference pointer clearly visible, then screw the nickel-plated ring-nut fully home (Fig. 2)
Avoid positioning the actuator vertically; use the two setting blocks and position them to coincide with the required min./max. values (Fig. 3).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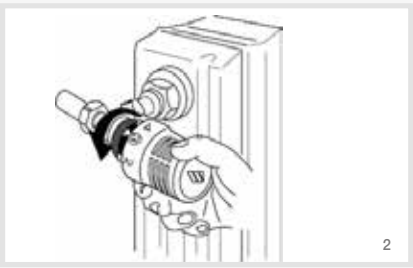
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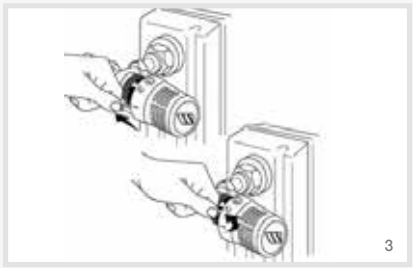

3

0	❄	1	2	3	4	5
Closed	8°C Anti-freeze	12°C	16°C	20°C	24°C	28°C

5 temperature levels
Quick and easy setting of the required temperature

Threaded ring-nut
Practical and quick in installation operations

Radial slots
high sensitivity in room temperature measurement

Adjusters
Provision for adjusting or locking the pre-set temperature range

To find out which Watts thermostat-adaptable valves are
UNI EN 215 approved and certified with 130, 178, 179 and 188 Series valves
go to www.watts.eu/it where you will find all the information you need.

EFFICIENCY AND ENERGY SAVING

Keymark certified thermostatic actuators remain certified only when used in conjunction with Keymark valves.
Otherwise their performance is not guaranteed.

Thermostat-adaptable valve kit

TWINKIT1178

Right-angle radiator valve kit, DN 3/8" and 1/2" for copper or plastic pipe connection.
Package contains:
- 1 x 1178UM Series nickel-plated thermostat-adaptable valve;
- 1 x 1195UM Series nickel-plated micrometric lockshield;
- 2 nickel-plated tailpieces with O-ring.

Part no.	DN Body	DN Pipe	Valve Kvs	Pcs/pack	Package	€ each
KIT1178+D38	3/8"	1/2"	2,6	1	20	26,15
KIT1178+D12	1/2"	1/2"	2,6	1	20	29,95

TWINKIT178

Right-angle radiator valve kit, DN 3/8" and 1/2" for iron pipe connection.
Package contains:
- 1 x 178UM Series nickel-plated thermostat-adaptable valve;
- 1 x 195UM Series nickel-plated micrometric lockshield;
- 2 nickel-plated tailpieces with O-ring.

Part no.	DN Body	DN Pipe	Valve Kvs	Pcs/ pack	Package	€ each
KIT178+D38	3/8"	1/2"	2,1	1	20	26,35
KIT178+D12	1/2"	1/2"	2,6	1	20	31,00

KR-SR-TRV

Kit of valves and thermostatic actuators for 10 radiators, consisting of:
- 10 nickel-plated thermostatic valves with right-angle body and connection for copper/plastic pipe 1378UM or 1388UM Series with pre-setting;
- 10 x 1395UM Series nickel-plated micrometric lockshields with right-angle body and connection for copper/plastic pipe;
- 10 x 148 Series thermostatic actuators.

Part no.	Valve type	Pre-setting	DN Body	DN Pipe	Pcs/pack	€ Kit
KR38VAD-SR-TRV	1378 Series	-	3/8"	1/2"	1	363,00
KR12VAD-SR-TRV	1378 Series	-	1/2"	1/2"	1	389,50
KR38PAD-SR-TRV	1388 Series	yes	3/8"	1/2"	1	402,00
KR12PAD-SR-TRV	1388 Series	yes	1/2"	1/2"	1	428,50

KR-DR-TRV

Kit of valves and thermostatic actuators for 10 radiators, consisting of:
- 10 nickel-plated thermostatic valves with straight body and connection for copper/plastic pipe 1379UM or 1389UM Series with pre-setting;
- 10 x 1396UM Series nickel-plated micrometric lockshields with straight body and connection for copper/plastic pipe;
- 10 x 148 Series thermostatic actuators.

Part no.	Valve type	Pre-setting	DN Body	DN Pipe	Pcs/pack	€ Kit
KR38VAD-DR-TRV	1379 Series	-	3/8"	1/2"	1	424,00
KR12VAD-DR-TRV	1379 Series	-	1/2"	1/2"	1	468,00
KR38PAD-DR-TRV	1389 Series	yes	3/8"	1/2"	1	466,50
KR12PAD-DR-TRV	1389 Series	yes	1/2"	1/2"	1	510,50

KR-SF-TRV

Kit of valves and thermostatic actuators for 10 radiators, consisting of:
- 10 x 378UM Series nickel-plated thermostatic valves with right-angle body and connection for iron pipe or 388UM Series with pre-setting;
- 10 x 395UM Series nickel-plated micrometric lockshields with right-angle body and connection for iron pipe;
- 10 x 148 Series thermostatic actuators.

Part no.	Valve type	Pre-setting	DN	Pcs/pack	Package	€ Kit
KR38VAD-SF-TRV	378 Series	-	3/8"	1	1	396,50
KR12VAD-SF-TRV	378 Series	-	1/2"	1	1	433,00
KR34VAD-SF-TRV	378 Series	-	3/4"	1	1	634,00
KR38PAD-SF-TRV	388 Series	yes	3/8"	1	1	438,50
KR12PAD-SF-TRV	388 Series	yes	1/2"	1	1	476,50
KR34PAD-SF-TRV	388 Series	yes	3/4"	1	1	678,00

KR-DF-TRV

Kit of valves and thermostatic actuators for 10 radiators, consisting of:
- 10 x 379UM Series nickel-plated thermostatic valves with straight body and connection for iron pipe or 389UM Series with pre-setting;
- 10 x 396UM Series nickel-plated micrometric lockshields with straight body and connection for iron pipe;
- 10 x 148 Series thermostatic actuators.

Part no.	Valve type	Pre-setting	DN	Pcs/pack	Package	€ Kit
KR38VAD-DF-TRV	379 Series	-	3/8"	1	1	426,50
KR12VAD-DF-TRV	379 Series	-	1/2"	1	1	480,50
KR34VAD-DF-TRV	379 Series	-	3/4"	1	1	651,00
KR38PAD-DF-TRV	389 Series	yes	3/8"	1	1	469,50
KR12PAD-DF-TRV	389 Series	yes	1/2"	1	1	524,00
KR34PAD-DF-TRV	389 Series	yes	3/4"	1	1	693,00

ACCESSORIES

225-RP130

Puller for replacing RP130, RP320 and RP330 Series discs on thermostat-adaptable valves (1178UM, 1179UM, 1180UM, 1181UM, 1188UM, 1189UM, 178UM, 180UM, 188UM, 130UM, 179UM, 181UM, 189UM, 131UM, 134M, 1134M, 120B, 102M and TRV Series) and carrying out cleaning.

Part no.	Description	Pcs/pack	Package	€ each
225-RP130	Extractor	1	1	734,00

224

Pre-setting wrench for thermostat-adaptable valves (1188UM, 1189UM, 188UM, 130UM, 189UM, 131UM, 134M, 1134M, 120B, 102M) and 822M Series manifolds.

Part no.		Pcs/pack	Package	€ each
224		1	50	1,91

808D

White plastic single-hole washer.

Part no.	Size	Pcs/pack	Package	€ each
808D10W	10 mm	25	2500	1,19
808D12W	12 mm	25	2500	1,19
808D14W	14 mm	25	2500	1,19
808D15W	15 mm	25	2500	1,19
808D16W	16 mm	25	2500	1,19
808D18W	18 mm	25	2500	1,19
808D22W	22 mm	25	2500	1,40
808D28W	28 mm	25	2500	0,76

128

White plastic two-hole openable washer.

Part no.	Size	Pcs/pack	Package	€ each
12812 W	12 mm	25	2500	0,96
12814 W	14 mm	25	2500	0,96
12816 W	16 mm	25	2500	0,96
12818 W	18 mm	25	2500	0,96

TRV-G

Ring-nut for TRV Series valves, suitable for 148, 148A, 147CR, 148SD, 148CD, 22C, 22CX, 22CX5 and 26LC Series actuators.

Part no.	Description	Pcs/pack	Package	€ each
TRV-G	-	10	2500	1,70

RV140

Flow separation probe for 119SX, 102M and 120B Series 4-way valves.
Material: ABS. L= 380 mm.

Part no.	DN	Pipe	Pcs/pack	Package	€ each
RV14010	1/2”	Ø10 thk. 1,2	10	10	2,90
RV14014	3/4”	Ø14 thk. 1,0	10	10	3,10

SPARE PARTS FOR VALVES

234

Straight tailpiece with nickel-plated nut for UM Series valves and lockshields with soft seal on radiator side and valve side.

Part no.	DN	Pcs/pack	Package	€ each
234USN38X	3/8" M x 1/2" F	10	200	7,90
234USN38	3/8" M x 5/8" F	10	200	7,05
234SN12	1/2" MF	10	150	8,75
234SN34	3/4" MF	10	100	13,85

235

Straight tailpiece with nickel-plated nut and probe mounting for 4-way single-pipe and two-pipe valves.

Part no.	DN	Pcs/pack	Package	€ each
235SN3412	1/2"	10	80	13,85
235SN3434	3/4"	10	60	13,85

RP-30

Disc unit with pre-setting device for Series UM thermostatic valves, thermostatic head-adaptable radiator valves and Series 822M manifolds (model RP130), and for Series TRV non pre-set valves (model RP320) and for Series TRV pre-set valves (RP330).

Part no.	DN	Pcs/pack	Package	€ each
RP130	M22 x 1,5	1	100	8,30
RP320	M18 x 1	1	100	8,30
RP330	M18 x 1	10	100	8,30

RP-340

Disc unit with presetting device for Series 120B and 102M thermostatic valves. Can also be used to solve noise problems caused by reverse flows for all Series UM valves.

Part no.	DN	Pcs/pack	Package	€ each
RP340	M22 x 1,5	1	30	8,30

RV119

Handwheel for 119SX Series single-pipe valves.

Part no.	DN	Pcs/pack	Package	€ each
RV119B	Single	1	100	0,86

RV178

White handwheel for 178UM-179UM-1178UM-1179UM, 120B, 102M Series thermostat-adaptable valves.

Part no.	DN	Pcs/pack	Package	€ each
RV178	Single	1	100	2,80

RV188

White handwheel for Series 188UM - 189UM - 1188UM - 1189UM thermostatic-adaptable radiator valves.

Part no.	DN	Pcs/pack	Package	€ each
RV188-189W	Single	1	50	3,90

RVTRV

White handwheel for Series TRV valves.

Part no.	DN	Pcs/pack	Package	€ each
RVTRV	Single	1	50	3,90

RV195

White cap for Series 195 - 196 - 1195 - 1196 lockshields.

Part no.	DN	Pcs/pack	Package	€ each
RV195B	3/8” - 1/2”	1	200	0,80
RV19534B	3/4”	1	100	1,00

RV395

White cap for Series TRV lockshields.

Part no.	DN	Pcs/pack	Package	€ each
RV395	3/8"-1/2"-3/4"	1	100	1,00

RV130-131

Airtight sealing cap for Series 130-131 thermostatic head-adaptable radiator valves and Series 2131-3131-4131 fan coil valves.

Part no.	DN	Pcs/pack	Package	€ each
RV130-131	Single	1	100	1,20

Air vents

228C - HYGROVENT

Automatic air vent valve with check device and discharge nozzle.
Chrome-plated CW614N brass body. PN 6.

Part no.	DN	Pcs/pack	Package	€ each
2280C18X	1/8”	25	500	4,40
2281C14X	1/4”	25	500	5,60
2282C38X	3/8”	25	500	6,30

Dimensions on page 300

238C

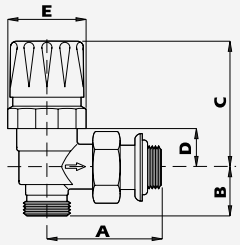
Manual air vent valve with discharge nozzle.
Chrome-plated CW614N brass body. PN 10.

Part no.	DN	Pcs/pack	Package	€ each
2381C18X	1/8”	25	500	3,00
2382C14X	1/4”	25	500	3,20
2383C38X	3/8”	25	500	3,90

Dimensions on page 300

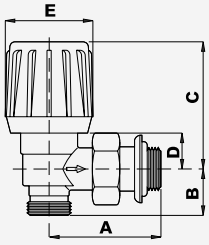
Overall dimensions

1178UM



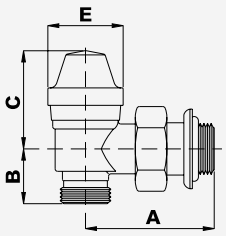
DN	A	B	C	D	E
1/2" x 3/8"	49	20,5	56	18	35
1/2" x 1/2"	53	20,5	56	18	35

1188UM



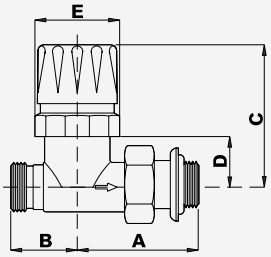
DN	A	B	C	D	E
1/2" x 3/8"	49	20,5	62	18	40
1/2" x 1/2"	53	20,5	62	18	40

1195UM



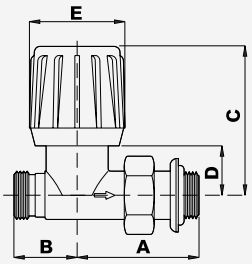
DN	A	B	C	E
1/2" x 3/8"	48	19	36	31
1/2" x 1/2"	52	19	40	31

1179UM



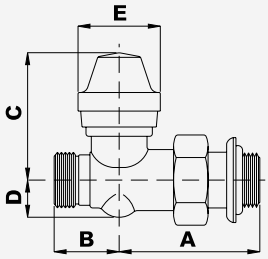
DN	A	B	C	D	E
1/2" x 3/8"	49	26	62	24.5	35
1/2" x 1/2"	53	26	62	24.5	35

1189UM



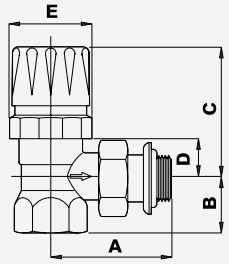
DN	A	B	C	D	E
1/2" x 3/8"	49	26	68	24.5	40
1/2" x 1/2"	53	26	68	24.5	40

1196UM



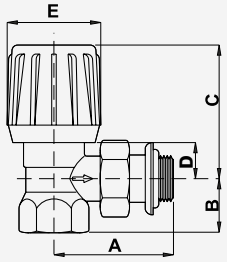
DN	A	B	C	D	E
1/2" x 3/8"	48	23	42	11	31
1/2" x 1/2"	52	23	45	11	31

178UM



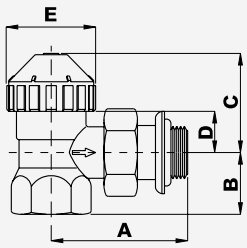
DN	A	B	C	D	E
3/8"	49	20	56	18	35
1/2"	53	23	56	18	35
3/4"	61	28	56	18	35

188UM



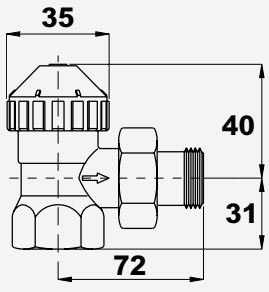
DN	A	B	C	D	E
3/8"	49	20	62	18	40
1/2"	53	23	62	18	40
3/4"	61	28	62	18	40

130UM

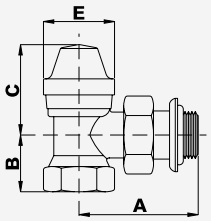


DN	A	B	C	D	E
3/8"	49	20	40	18	35
1/2"	53	23	40	18	35
3/4"	61	28	40	18	35

130SN

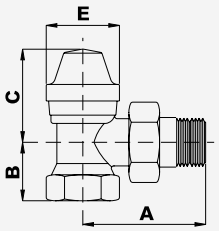


195UM



DN	A	B	C	E
3/8"	48	21	36	31
1/2"	52	25	40	31
3/4"	60	29	50	41

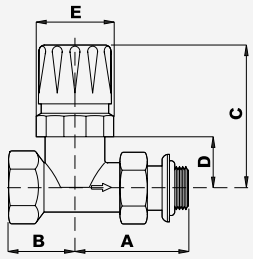
195S



DN	A	B	C	E
1"	70	29	57	46

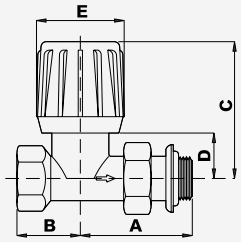
Overall dimensions

179UM



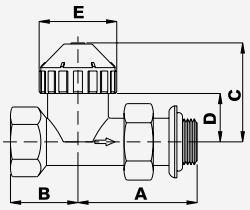
DN	A	B	C	D	E
3/8”	49	26	62	24.5	35
1/2”	53	29	62	24.5	35
3/4”	61	34	62	24.5	35

189UM



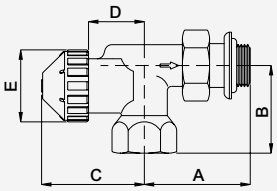
DN	A	B	C	D	E
3/8”	49	26	68	24.5	40
1/2”	53	29	68	24.5	40
3/4”	61	34	68	24.5	40

131UM



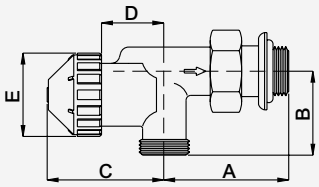
DN	A	B	C	D	E
3/8”	49	26	46.5	24.5	35
1/2”	53	29	46.5	24.5	35
3/4”	61	34	46.5	24.5	35

134 M



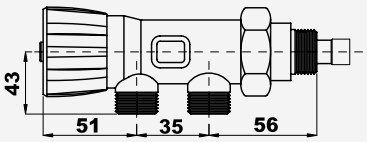
DN	A	B	C	D	E
1/2”	53	37	50	31	35

1134 M

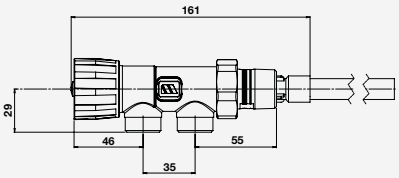


DN	A	B	C	D	E
1/2”	53	34	50	31	35

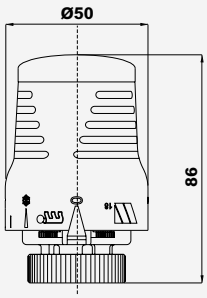
119SX



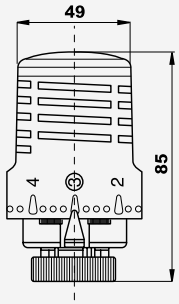
119SX with M24X1.5 CONNECTION



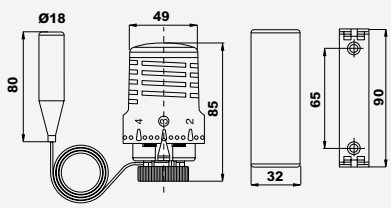
148A



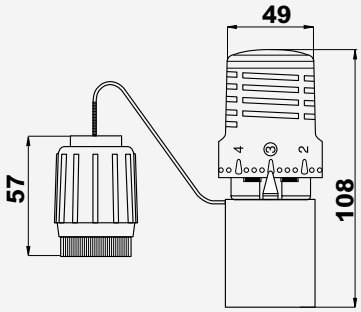
147/148



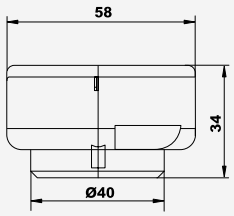
148SD



148CD

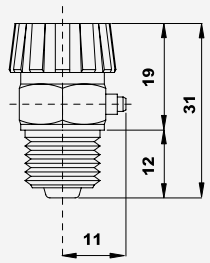


148GA

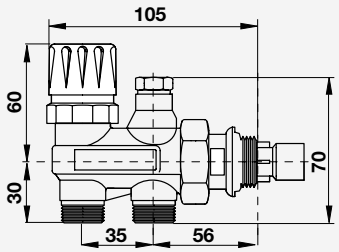


Overall dimensions

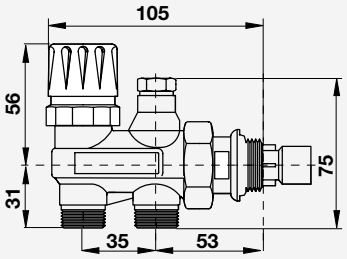
228C



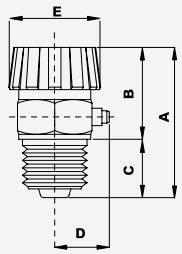
120B/102M



102M with M24X1,5 connection

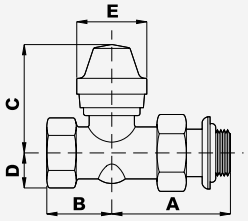


238C



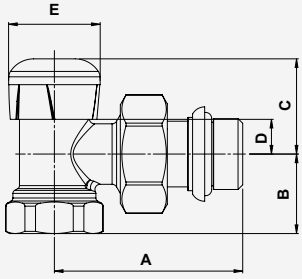
DN	A	B	C	D	E
1/8”	29	17	12	11	17
1/4”	29	17	12	11	17
3/8”	29	19	10	11	17

196UM



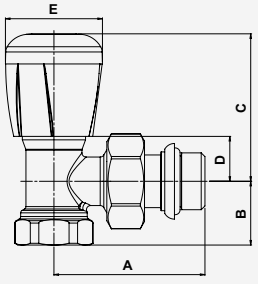
DN	A	B	C	D	E
3/8”	48	25	42	12	31
1/2”	52	28	45	14	31
3/4”	60	33	60	18	41

395TRV



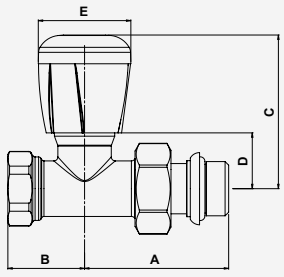
DN	A	B	C	D	E
3/8”	51	20	27	10	26.5
1/2”	55	23	27	10	26.5
3/4”	63	28	27	10	26.5

388-378TRV



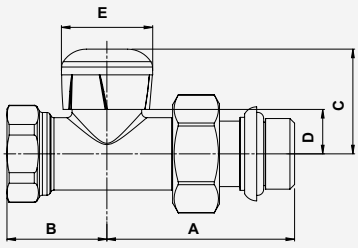
DN	A	B	C	D	E
3/8”	51	20	53	16	35
1/2”	55	23	53	16	35
3/4”	63	28	53	16	35

389-379TRV



DN	A	B	C	D	E
3/8”	51	26	57	20	35
1/2”	55	29	57	20	35
3/4”	63	34	57	20	35

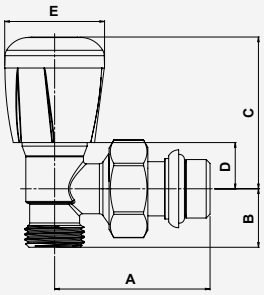
396TRV



DN	A	B	C	D	E
3/8”	51	20	30	13	26.5
1/2”	55	29	30	13	26.5
3/4”	63	34	30	13	26.5

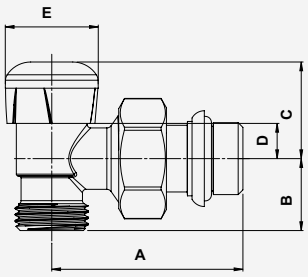
Overall dimensions

1388-1378TRV



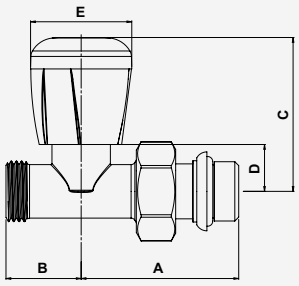
DN	A	B	C	D	E
1/2"x 3/8"	51	20.5	53	16	35
1/2"x 1/2"	55	20.5	53	16	35
M24(x1,5) x 3/8"	49	20,5	53	16	35
1/2"x 1/2"	55	20,5	53	16	35
1/2"x 1/2"	55	20,5	53	16	35
M24(x1,5) x 1/2"	55	20,5	53	16	35

1395TRV



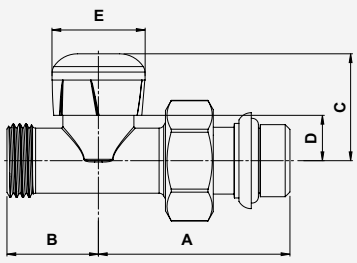
DN	A	B	C	D	E
1/2"x 3/8"	51	20,5	27	10	26,5
1/2"x 3/8"	51	20,5	27	10	26,5
M24(x1,5) x 3/8"	51	20,5	27	10	26,5
1/2"x 1/2"	55	20,5	27	10	26,5
1/2"x 1/2"	55	20,5	27	10	26,5
M24(x1,5) x 1/2"	55	20,5	27	10	26,5

1389-1379TRV

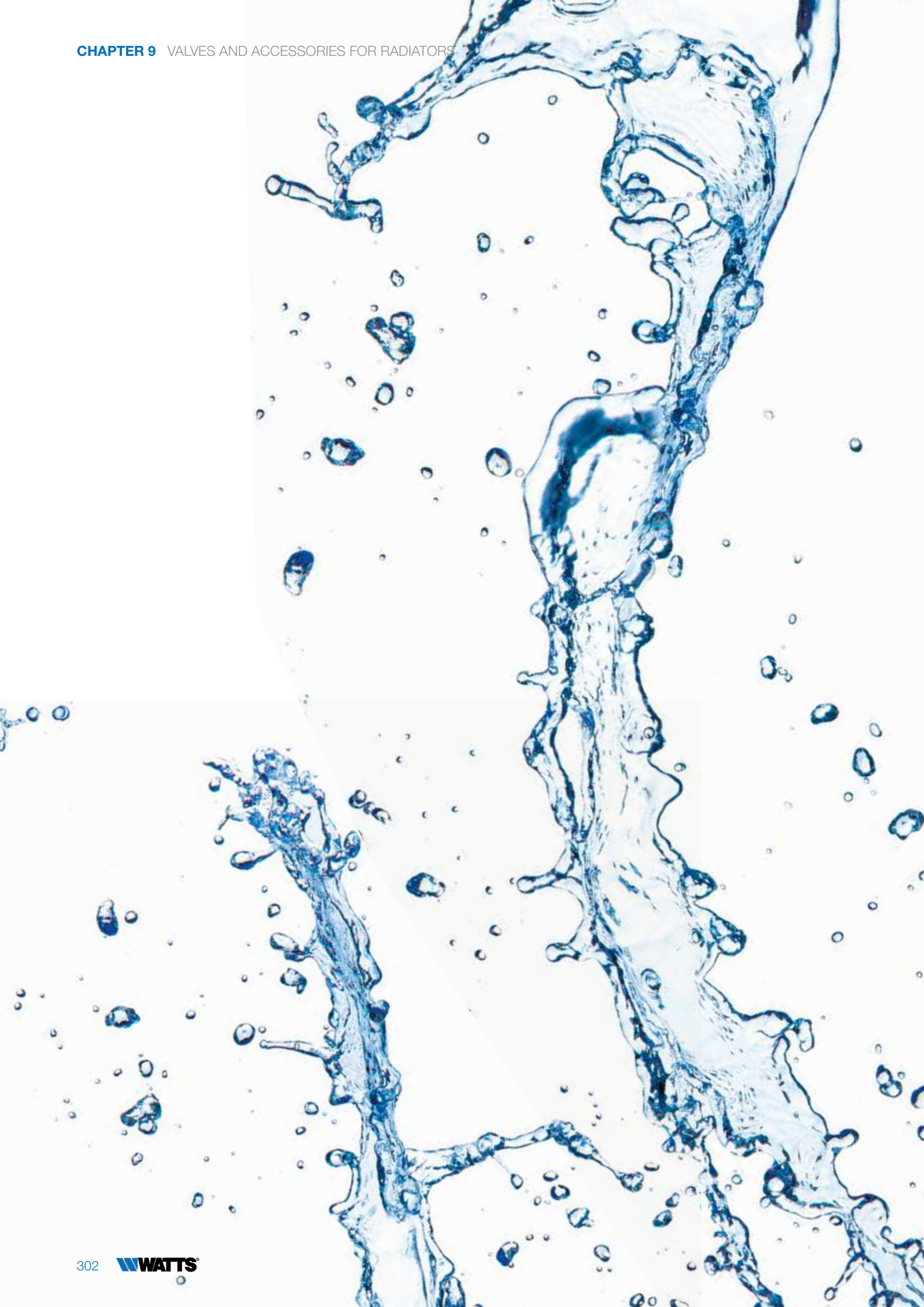


DN	A	B	C	D	E
1/2"x 3/8"	51	26	57	20	35
1/2"x 3/8"	49	26	58	21	35
M24(x1,5) x 3/8"	49	26	58	21	35
1/2"x 1/2"	55	26	57	20	35
1/2"x 1/2"	55	26	58	21	35
M24(x1,5) x 1/2"	55	26	58	21	35

1396TRV



DN	A	B	C	D	E
1/2"x 3/8"	51	20,5	30	13	26,5
1/2"x 3/8"	51	20,5	30	13	26,5
M24(x1,5) x 3/8"	51	20,5	30	13	26,5
1/2"x 1/2"	55	20,5	30	13	26,5
1/2"x 1/2"	55	20,5	30	13	26,5
M24(x1,5) x 1/2"	55	20,5	30	13	26,5



Chapter 10

Components for gas, diesel and fuel oil systems

WATTS®

EV - Solenoid valve with manual resetting

Explosion-proof version
Models with position indicator
Various supply voltages

giuliani anello

Chapter 10.1

FUEL SHUT-OFF DEVICES

Jerk handle on/off valves

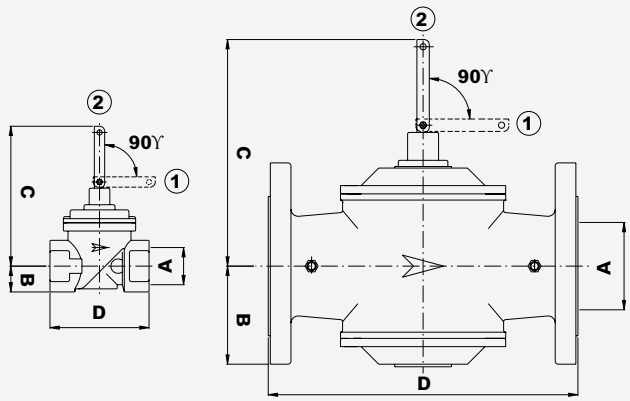
JH

Jerk-handle on/off valve remotely controlled by cable and LACPT Series fire-safety lever.
Aluminium body. Stainless steel operating lever. PN 6 bar.
Room temperature: -10 to 60°C. Maximum fuel temperature: 80°C.
Fuels: natural gas, town gas, LPG, diesel and fuel oil. ISO 7005/2 flanged connections.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
JH15	006.0170.000	1/2”	1	1	145,20
JH20	006.0171.000	3/4”	1	1	150,70
JH25	006.0172.000	1”	1	1	150,70
JH32	006.0173.000	1.1/4”	1	1	170,80
JH40	006.0174.000	1.1/2”	1	1	170,80
JH50	006.0175.000	2”	1	1	211,00
JH65	006.0176.100	DN 65	1	1	628,00
JH80	006.0177.100	DN 80	1	1	649,00
JH100	006.0178.000	DN 100	1	1	799,00
JH125	006.0179.000	DN 125	1	1	1.594,00
JH150	006.0180.000	DN 150	1	1	1.594,00

Overall dimensions

JH

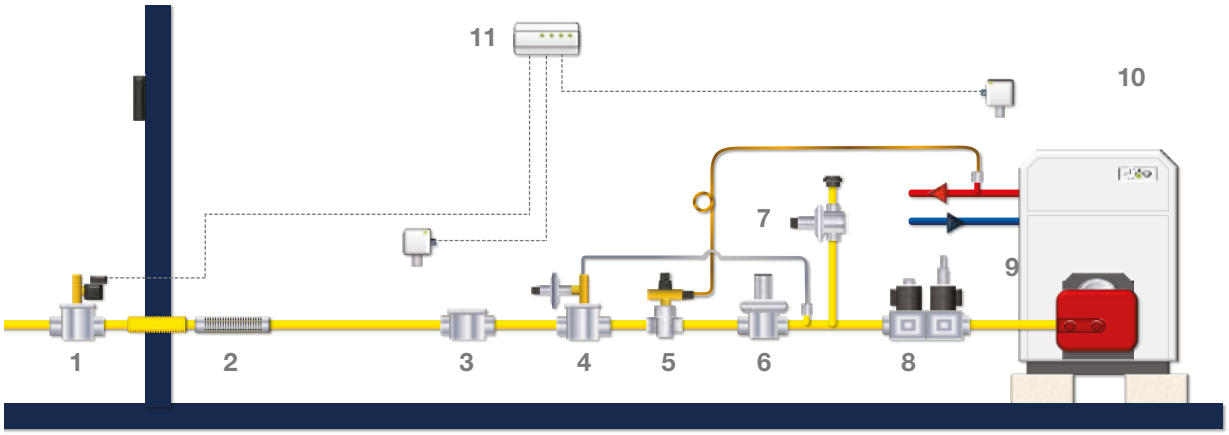


Mod. JH	15	20	25	32	40	50	65	80	100	125	150
A	1/2”	3/4”	1”	1”1/4	1”1/2	2”	65	80	100	125	150
B	15	25	25	31	31	40	100	100	115	170	170
C	157	172	172	220	220	223	290	290	297	412	412
D	76	96	96	154	154	173	300	300	360	480	480

Chapter 10.2

DEVICES FOR GAS

ACCESSORIES FOR GAS LINES



All information, data, photographs and products shown in this figure and/or diagram are for illustrative and promotional purposes only.
They provide no basis whatsoever for transaction or warranty purposes, and constitute neither an installation manual nor an execution scheme.

1. Solenoid valve with manual resetting.
2. Vibration-damping joint.
3. Strainer filter.
4. Slam shut-off and relief valve.
5. Fuel shut-off valve.
6. Pressure regulator.
7. Relief valve.
8. ON/OFF valve.
9. Burner.
10. Boiler.
11. Gas leak detector.

Air and gas filters

70600

Aluminium wall-mounting gas filter with galvanised steel cover; Viledon P15/500S filter element approved to DIN EN 779, synthetic filter cage; NBR cover O-ring. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Filtration rating 50 µm. PN 0,5. Operating temperature: -10 to 80°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
70609	007.0030.100	1/2"	36	36	13,00
70608	007.0031.100	3/4"	36	36	13,00

Dimensions on page 343

70600/1B

Aluminium gas filter; Viledon P15/500S filter element approved to DIN EN779, synthetic filter cage; NBR cover O-ring. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Filtration rating 50 µm.
PN 1. Operating temperature: -20 to 80°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
70611/1B	007.0040.100	1/2"	1	1	34,75
70612/1B	007.0041.100	3/4"	1	1	34,75
70602/1B	007.0042.100	1"	1	1	46,35
70604/1B	007.0043.100	1.1/4"	1	1	46,35
70603/1B	007.0044.100	1.1/2"	1	1	46,35
70631/1B	007.0045.100	2"	1	1	69,70

Dimensions on page 343

70600/6B

Aluminium gas filter; filter element composed of two Viledon P15/500S panels approved to DIN EN779; synthetic filter cage with penetration-resistant steel reinforcement; NBR cover O-ring.
With two tapping points. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. PN 6 with 2 tapping points. Filtration rating 50 µm.
Operating temperature: -20 to 80°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
70611/6B	007.0060.000	1/2"	1	1	40,85
70612/6B	007.0061.000	3/4"	1	1	40,85
70602/6B	007.0062.000	1"	1	1	52,30
70604/6B	007.0063.000	1.1/4"	1	1	52,30
70603/6B	007.0064.000	1.1/2"	1	1	52,30
70631/6B	007.0065.000	2"	1	1	86,40

Dimensions on page 343

70600F/6B

Aluminium gas filter; long-life filter element with high dust-absorption composed of two Viledon P15/500S panels approved to DIN EN779; synthetic filter cage with penetration-resistant steel reinforcement; NBR cover O-ring. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. PN 6 with 2 tapping points. Filtration rating: 50 µm.
Operating temperature: -20 to 80°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
70603F/6B	007.0050.100	DN 40	1	1	182,40
70631F/6B	007.0051.100	DN 50	1	1	226,00
70610F/6B	007.0052.200	DN 65	1	1	299,00
70620F/6B	007.0053.200	DN 80	1	1	361,00
70640F/6B	007.0054.100	DN 100	1	1	554,50
70650F/6B	007.0055.100	DN125	1	1	830,00
70660F/6B	007.0056.100	DN150	1	1	877,00

Dimensions on page 343

70680

High-efficiency aluminium gas filter; polyester felt filter element; aluminium mesh cage. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. PN 6. Filtration rating: 5 µm.
Operating temperature: -20 to 80°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
70684	007.0012.000	1”	1	1	234,50
70685	007.0013.000	1.1/4”	1	1	234,50
70686	007.0014.000	1.1/2”	1	1	234,50
70687	007.0015.000	2”	1	1	271,50

Dimensions on page 343

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/ pack	Package	€ each
70516	014.0053.000	Wall-mounting bracket	1	1	176,30
3215	014.0090.001	Kit comprising filter cartridge and cover O-ring for 70609 and 70608	1	1	3,05
3216	014.0091.001	Kit comprising filter cartridge and cover O-ring for 70611/1B and 70612/1B	1	1	12,15
3217	014.0092.001	Kit comprising filter cartridge and cover O-ring for 70602/1B, 70603/1B and 70604/1B	1	1	15,90
3218	014.0093.001	Kit comprising filter cartridge and cover O-ring for 70631/1B	1	1	19,55
3219	014.0094.001	Kit comprising filter cartridge and cover O-ring for 70603F/6B	1	1	19,55
3220	014.0095.001	Kit comprising filter cartridge and cover O-ring for 70631F/6B	1	1	20,80
3226	014.0104.000	Kit comprising filter cartridge and cover O-ring for 70610F/6B and 70620F/6B	1	1	29,25
3223	014.0098.001	Kit comprising filter cartridge and cover O-ring for 70640F/6B	1	1	55,20
3225	014.0099.001	Kit comprising filter cartridge and cover O-ring for 70650F/6B	1	1	85,70
3224	014.0100.001	Kit comprising filter cartridge and cover O-ring for 70660F/6B	1	1	85,70
3216/6B	014.0091.002	Kit comprising filter cartridge and cover O-ring for 70611/6B and 70612/6B	1	1	15,45
3217/6B	014.0092.002	Kit comprising filter cartridge and cover O-ring for 70602/6B, 70603/6B and 70604/6B	1	1	20,40
3218/6B	014.0093.002	Kit comprising filter cartridge and cover O-ring for 70631/6B	1	1	26,15
60680	014.0042.000	Kit comprising filter cartridge and cover O-ring for 70684, 70685 and 70686	1	1	71,40
60687	014.0043.000	Kit comprising filter cartridge and cover O-ring for 70687	1	1	71,40
1639	014.0006.001	1/8” test point (pack of 100 pcs.)	100	100	3,05
1640	014.0007.001	1/4” test point (pack of 100 pcs.)	100	100	5,05

Vibration-damping and dielectric joints

GA-GAF

Vibration-damping expansion joint for gas systems. Stainless steel body, carbon steel flanges. Threaded connections (DN 1/2"-2") and flanged connections (DN 65-100). PN 3.
Operating temperature: -20 to 60°C.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Pcs/pack	Package	€ each
GA1556	008.0070.000	1/2"	1	1	40,80
GA1544	008.0071.000	3/4"	1	1	50,10
GA1545	008.0072.000	1"	1	1	60,10
GA1546	008.0073.000	1.1/4"	1	1	66,30
GA1547	008.0074.000	1.1/2"	1	1	77,60
GA1548	008.0075.000	2"	1	1	92,90
GAF212	008.0080.000	DN 65	1	1	230,00
GAF300	008.0081.000	DN 80	1	1	306,00
GAF400	008.0082.000	DN 100	1	1	312,00
GAF500	008.0083.000	DN125	1	1	689,50
GAF600	008.0084.000	DN150	1	1	774,00

Dimensions on page 344

GDA

Vibration-damping expansion joint for gas systems. Stainless steel body, carbon steel flanges. Threaded connections (DN 1/2"-2") and flanged connections (DN 65-100). PN 0,5.
Operating temperature -20 to 250°C.

Type	Part no.	Connections	Pcs/pack	Package	€ each
GDA	0915015	1/2"	1	1	21,00
GDA	0915020	3/4"	1	1	25,00
GDA	0915025	1"	1	1	30,00
GDA	0915032	1.1/4"	1	1	42,00
GDA	0915040	1.1/2"	1	1	46,00
GDA	0915050	2"	1	1	59,00
GDA	0915065	DN 65	1	1	210,00
GDA	0915080	DN 80	1	1	245,00
GDA	0915100	DN 100	1	1	360,00

Dimensions on page 345

GDMF

Insulating dielectric joints for joining pipes of different metals, thus eliminating corrosion risks due to stray currents or electrolytic phenomena. For gas and water. Male-female connections. PN 10. Operating temperature: -15 to 70°C. Insulation voltage in air: 3 kV. Insulation resistance in air: 5 Mohm.
Complies with UNI 10284 (for gas transportation only up to 3") and UNI 7129.

Type	Part no.	Connections	Pcs/pack	Package	€ each
GDMF	GDMF015	1/2"	1	80	28,00
GDMF	GDMF020	3/4"	1	50	30,00
GDMF	GDMF025	1"	1	40	33,00
GDMF	GDMF032	1.1/4"	1	25	43,00
GDMF	GDMF040	1.1/2"	1	20	49,00
GDMF	GDMF050	2"	1	20	69,00
GDMF	GDMF065	2.1/2"	1	10	145,00
GDMF	GDMF080	3"	1	8	195,00
GDMF	GDMF100	4"	1	1	300,00

Dimensions on page 345

GDFF

Insulating dielectric joints for joining pipes of different metals, thus eliminating corrosion risks due to stray currents or electrolytic phenomena. For gas and water.
Female-female connections. PN 10. Operating temperature: -15 to 70°C.
Insulation voltage in air: 3 kV. Insulation resistance in air: 5 Mohm.
Complies with UNI 10284 (for gas transportation only up to 3") and UNI 7129.

Type	Part no.	Connections	Pcs/pack	Package	€ each
GDFF	GDFF020	3/4"	1	40	35,00
GDFF	GDFF025	1"	1	25	42,00
GDFF	GDFF032	1.1/4"	1	20	56,00
GDFF	GDFF040	1.1/2"	1	20	69,00
GDFF	GDFF050	2"	1	20	86,00

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Pressure regulators

RP1B

Aluminium pressure regulator with built-in filter, to EN 88-2. Max. operating pressure 1 bar, with max. outlet pressure shut-off valve. Max. outlet pressure 80 mbar. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -10 to 60°C.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/pack	Package	€ each
RP1B20	009.1251.001	3/4"	Green spring 10-30 mbar - Shut-off 30-80 mbar	1	1	250,00
RP1B20	009.1251.002	3/4"	Neutral spring 20-80 mbar - Shut-off 50-160 mbar	1	1	250,00
RP1B25	009.1252.001	1"	Green spring 10-30 mbar - Shut-off 30-80 mbar	1	1	250,00
RP1B25	009.1252.002	1"	Neutral spring 20-80 mbar - Shut-off 50-160 mbar	1	1	250,00

SPRINGS

Type	Part no.	Regulators	Setting and Colour	Pcs/pack	Package	€ each
504.0012.020	014.0260.001	RP1B20 - RP1B25	Green spring kit 10 - 30 mbar. Shut-off 30 - 80	1	1	20,50
504.0013.020	014.0261.001	RP1B20 - RP1B25	Neutral spring kit 20 - 80 mbar. Shut-off 50 - 160	1	1	21,35

FGD

Aluminium pressure regulator with built-in filter, to EN 88-1. **Max. inlet pressure 200 mbar.** Max. outlet pressure 160 mbar. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.

Type	Part no.	Connections	Description	Pcs/pack	Package	€ each
FGD15	009.0020.101	1/2"	With neutral spring 10 - 30 mbar	1	1	83,00
FGD15	009.0020.102	1/2"	With green spring 5 - 15 mbar	1	1	83,00
FGD15	009.0020.103	1/2"	With purple spring 25 - 80 mbar	1	1	83,00
FGD15	009.0020.104	1/2"	With brown spring 70 - 160 mbar	1	1	83,00
FGD20	009.0021.101	3/4"	With neutral spring 10 - 30 mbar	1	1	83,00
FGD20	009.0021.102	3/4"	With green spring 5 - 15 mbar	1	1	83,00
FGD20	009.0021.103	3/4"	With purple spring 25 - 80 mbar	1	1	83,00
FGD20	009.0021.104	3/4"	With brown spring 70 - 160 mbar	1	1	83,00
FGD25	009.0022.101	1"	With neutral spring 10 - 30 mbar	1	1	83,00
FGD25	009.0022.102	1"	With green spring 5 - 15 mbar	1	1	83,00
FGD25	009.0022.103	1"	With purple spring 25 - 80 mbar	1	1	83,00
FGD25	009.0022.104	1"	With brown spring 70 - 160 mbar	1	1	83,00
FGD32	009.0023.101	1.1/4"	With neutral spring 10 - 25 mbar	1	1	148,10
FGD32	009.0023.102	1.1/4"	With green spring 5 - 15 mbar	1	1	148,10
FGD32	009.0023.103	1.1/4"	With purple spring 20 - 70 mbar	1	1	148,10
FGD32	009.0023.104	1.1/4"	With brown spring 65 - 130 mbar	1	1	148,10
FGD32	009.0023.106	1.1/4"	With white spring 120 - 160 mbar	1	1	148,10
FGD40	009.0024.101	1.1/2"	With neutral spring 10 - 25 mbar	1	1	148,10
FGD40	009.0024.102	1.1/2"	With green spring 5 - 15 mbar	1	1	148,10
FGD40	009.0024.103	1.1/2"	With purple spring 20 - 70 mbar	1	1	148,10
FGD40	009.0024.104	1.1/2"	With brown spring 65 - 130 mbar	1	1	148,10
FGD40	009.0024.106	1.1/2"	With white spring 120 - 160 mbar	1	1	148,10
FGD50	009.0025.101	2"	With neutral spring 10 - 35 mbar	1	1	379,50
FGD50	009.0025.102	2"	With green spring 5 - 15 mbar	1	1	379,50
FGD50	009.0025.103	2"	With purple spring 30 - 80 mbar	1	1	379,50
FGD50	009.0025.104	2"	With brown spring 70 - 160 mbar	1	1	379,50

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FGDR/COM

Compact aluminium pressure regulator with built-in filter, to EN 88-1.
Maximum inlet pressure from 450 to 500 mbar. Max. outlet pressure 160 mbar.
Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
FGDR15/COM	009.0300.003	1/2"	With red spring 20 - 55 mbar	1	1	105,00
FGDR15/COM	009.0300.005	1/2"	With blue spring 50 - 200 mbar	1	1	105,00
FGDR20/COM	009.0301.003	3/4"	With red spring 20 - 55 mbar	1	1	105,00
FGDR20/COM	009.0301.005	3/4"	With blue spring 50 - 200 mbar	1	1	105,00

Dimensions on page 347

FGDR

Aluminium pressure regulator with built-in filter, to EN 88-1.
Max. inlet pressure 500 mbar. Max. outlet pressure 350 mbar.
Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
FGDR15	009.0220.101	1/2"	With neutral spring 10 - 30 mbar	1	1	90,00
FGDR15	009.0220.102	1/2"	With green spring 5 - 15 mbar	1	1	90,00
FGDR15	009.0220.103	1/2"	With purple spring 25 - 80 mbar	1	1	90,00
FGDR15	009.0220.104	1/2"	With brown spring 70 - 160 mbar	1	1	90,00
FGDR15	009.0220.105	1/2"	With blue spring 150 - 280 mbar	1	1	90,00
FGDR15	009.0220.106	1/2"	With white spring 270 - 350 mbar	1	1	90,00
FGDR20	009.0221.101	3/4"	With neutral spring 10 - 30 mbar	1	1	90,00
FGDR20	009.0221.102	3/4"	With green spring 5 - 15 mbar	1	1	90,00
FGDR20	009.0221.103	3/4"	With purple spring 25 - 80 mbar	1	1	90,00
FGDR20	009.0221.104	3/4"	With brown spring 70 - 160 mbar	1	1	90,00
FGDR20	009.0221.105	3/4"	With blue spring 150 - 280 mbar	1	1	90,00
FGDR20	009.0221.106	3/4"	With white spring 270 - 350 mbar	1	1	90,00
FGDR25	009.0222.101	1"	With neutral spring 10 - 30 mbar	1	1	90,00
FGDR25	009.0222.102	1"	With green spring 5 - 15 mbar	1	1	90,00
FGDR25	009.0222.103	1"	With purple spring 25 - 80 mbar	1	1	90,00
FGDR25	009.0222.104	1"	With brown spring 70 - 160 mbar	1	1	90,00
FGDR25	009.0222.105	1"	With blue spring 150 - 280 mbar	1	1	90,00
FGDR25	009.0222.106	1"	With white spring 270 - 350 mbar	1	1	90,00
FGDR32	009.0223.101	1.1/4"	With neutral spring 10 - 25 mbar	1	1	160,70
FGDR32	009.0223.102	1.1/4"	With green spring 5 - 15 mbar	1	1	160,70
FGDR32	009.0223.103	1.1/4"	With purple spring 20 - 70 mbar	1	1	160,70
FGDR32	009.0223.104	1.1/4"	With brown spring 65 - 130 mbar	1	1	160,70
FGDR32	009.0223.106	1.1/4"	With white spring 120 - 250 mbar	1	1	160,70
FGDR32	009.0223.107	1.1/4"	With black spring 240 - 350 mbar	1	1	160,70
FGDR40	009.0224.101	1.1/2"	With neutral spring 10 - 25 mbar	1	1	160,70
FGDR40	009.0224.102	1.1/2"	With green spring 5 - 15 mbar	1	1	160,70
FGDR40	009.0224.103	1.1/2"	With purple spring 20 - 70 mbar	1	1	160,70
FGDR40	009.0224.104	1.1/2"	With brown spring 65 - 130 mbar	1	1	160,70
FGDR40	009.0224.106	1.1/2"	With white spring 120 - 250 mbar	1	1	160,70
FGDR40	009.0224.107	1.1/2"	With black spring 240 - 350 mbar	1	1	160,70
FGDR50/40	009.0234.101	2"	With neutral spring 10 - 25 mbar	1	1	191,60
FGDR50/40	009.0234.102	2"	With green spring 5 - 15 mbar	1	1	191,60
FGDR50/40	009.0234.103	2"	With purple spring 20 - 70 mbar	1	1	191,60
FGDR50/40	009.0234.104	2"	With brown spring 65 - 130 mbar	1	1	191,60
FGDR50/40	009.0234.106	2"	With white spring 120 - 250 mbar	1	1	191,60
FGDR50/40	009.0234.107	2"	With black spring 240 - 350 mbar	1	1	191,60
FGDR50	009.0225.101	2"	With neutral spring 10 - 35 mbar	1	1	420,00
FGDR50	009.0225.102	2"	With green spring 5 - 15 mbar	1	1	420,00
FGDR50	009.0225.103	2"	With purple spring 30 - 80 mbar	1	1	420,00
FGDR50	009.0225.104	2"	With brown spring 70 - 220 mbar	1	1	420,00
FGDR50	009.0225.105	2"	With blue spring 210 - 350 mbar	1	1	420,00

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FG1B/FG2B

Aluminium pressure regulator with built-in filter, to EN 88-2.
Max. inlet pressure 1 bar, also 2 bar version up to 1". Max. outlet pressure 450 mbar.
Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
FG2B15	009.0250.201	1/2"	With neutral spring 10-30 mbar. Pmax 2 bar	1	1	98,00
FG2B15	009.0250.203	1/2"	With purple spring 25-80 mbar. Pmax 2 bar	1	1	98,00
FG2B15	009.0250.204	1/2"	With brown spring 70-160 mbar. Pmax 2 bar	1	1	98,00
FG2B15	009.0250.205	1/2"	With blue spring 150-280 mbar. Pmax 2 bar	1	1	98,00
FG2B20	009.0251.201	3/4"	With neutral spring 10-30 mbar. Pmax 2 bar	1	1	98,00
FG2B20	009.0251.203	3/4"	With purple spring 25-80 mbar. Pmax 2 bar	1	1	98,00
FG2B20	009.0251.204	3/4"	With brown spring 70-160 mbar. Pmax 2 bar	1	1	98,00
FG2B20	009.0251.205	3/4"	With blue spring 150-280 mbar. Pmax 2 bar	1	1	98,00
FG2B25	009.0252.201	1"	With neutral spring 10-30 mbar. Pmax 2 bar	1	1	98,00
FG2B25	009.0252.203	1"	With purple spring 25-80 mbar. Pmax 2 bar	1	1	98,00
FG2B25	009.0252.204	1"	With brown spring 70-160 mbar. Pmax 2 bar	1	1	98,00
FG2B25	009.0252.205	1"	With blue spring 150-280 mbar. Pmax 2 bar	1	1	98,00
FG1B15	009.0250.101	1/2"	With neutral spring 10-30 mbar. Pmax 1 bar	1	1	98,00
FG1B15	009.0250.103	1/2"	With purple spring 25-80 mbar. Pmax 1 bar	1	1	98,00
FG1B15	009.0250.104	1/2"	With brown spring 70-160 mbar. Pmax 1 bar	1	1	98,00
FG1B15	009.0250.105	1/2"	With blue spring 150-280 mbar. Pmax 1 bar	1	1	98,00
FG1B15	009.0250.106	1/2"	With white spring 270-450 mbar. Pmax 1 bar	1	1	98,00
FG1B20	009.0251.101	3/4"	With neutral spring 10-30 mbar. Pmax 1 bar	1	1	98,00
FG1B20	009.0251.103	3/4"	With purple spring 25-80 mbar. Pmax 1 bar	1	1	98,00
FG1B20	009.0251.104	3/4"	With brown spring 70-160 mbar. Pmax 1 bar	1	1	98,00
FG1B20	009.0251.105	3/4"	With blue spring 150-280 mbar. Pmax 1 bar	1	1	98,00
FG1B20	009.0251.106	3/4"	With white spring 270-450 mbar. Pmax 1 bar	1	1	98,00
FG1B25	009.0252.101	1"	With neutral spring 10-30 mbar. Pmax 1 bar	1	1	98,00
FG1B25	009.0252.103	1"	With purple spring 25-80 mbar. Pmax 1 bar	1	1	98,00
FG1B25	009.0252.104	1"	With brown spring 70-160 mbar. Pmax 1 bar	1	1	98,00
FG1B25	009.0252.105	1"	With blue spring 150-280 mbar. Pmax 1 bar	1	1	98,00
FG1B25	009.0252.106	1"	With white spring 270-450 mbar. Pmax 1 bar	1	1	98,00
FG1B32	009.0253.101	1.1/4"	With neutral spring 10-25 mbar. Pmax 1 bar	1	1	203,00
FG1B32	009.0253.103	1.1/4"	With purple spring 20-70 mbar. Pmax 1 bar	1	1	203,00
FG1B32	009.0253.104	1.1/4"	With brown spring 65-130 mbar. Pmax 1 bar	1	1	203,00
FG1B32	009.0253.106	1.1/4"	With white spring 120-250 mbar. Pmax 1 bar	1	1	203,00
FG1B32	009.0253.107	1.1/4"	With black spring 240-360 mbar. Pmax 1 bar	1	1	203,00
FG1B32	009.0253.108	1.1/4"	With orange spring 350-450 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.101	1.1/2"	With neutral spring 10-25 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.103	1.1/2"	With purple spring 20-70 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.104	1.1/2"	With brown spring 65-130 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.106	1.1/2"	With white spring 120-250 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.107	1.1/2"	With black spring 240-360 mbar. Pmax 1 bar	1	1	203,00
FG1B40	009.0254.108	1.1/2"	With orange spring 350-450 mbar. Pmax 1 bar	1	1	203,00
FG1B50/40	009.0264.101	2"	With neutral spring 10-25 mbar. Pmax 1 bar	1	1	244,00
FG1B50/40	009.0264.103	2"	With purple spring 20-70 mbar. Pmax 1 bar	1	1	244,00
FG1B50/40	009.0264.104	2"	With brown spring 65-130 mbar. Pmax 1 bar	1	1	244,00
FG1B50/40	009.0264.106	2"	With white spring 120-250 mbar. Pmax 1 bar	1	1	244,00
FG1B50/40	009.0264.107	2"	With black spring 240-360 mbar. Pmax 1 bar	1	1	244,00
FG1B50/40	009.0264.108	2"	With orange spring 350-450 mbar. Pmax 1 bar	1	1	244,00
FG1B50	009.0255.101	2"	With neutral spring 10-35 mbar. Pmax 1 bar	1	1	465,50
FG1B50	009.0255.103	2"	With purple spring 30-80 mbar. Pmax 1 bar	1	1	465,50
FG1B50	009.0255.104	2"	With brown spring 70-220 mbar. Pmax 1 bar	1	1	465,50
FG1B50	009.0255.105	2"	With blue spring 210-450 mbar. Pmax 1 bar	1	1	465,50

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FSDR

Flanged aluminium pressure regulator **with built-in filter** to EN 88-1. **Max. inlet pressure 500 mbar.** Max. outlet pressure 350 mbar. Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to +60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
FSDR65	009.0226.201	DN 65	With neutral spring 10-30 mbar	1	1	788,00
FSDR65	009.0226.203	DN 65	With red spring 25-80 mbar	1	1	788,00
FSDR65	009.0226.204	DN 65	With purple spring 60-120 mbar	1	1	788,00
FSDR65	009.0226.206	DN 65	With blue spring 100-220 mbar	1	1	788,00
FSDR65	009.0226.207	DN 65	With white spring 200-350 mbar	1	1	788,00
FSDR80	009.0227.201	DN 80	With neutral spring 10-30 mbar	1	1	862,00
FSDR80	009.0227.203	DN 80	With red spring 25-80 mbar	1	1	862,00
FSDR80	009.0227.204	DN 80	With purple spring 60-120 mbar	1	1	862,00
FSDR80	009.0227.206	DN 80	With blue spring 100-220 mbar	1	1	862,00
FSDR80	009.0227.207	DN 80	With white spring 200-350 mbar	1	1	862,00

Dimensions on page 347

FS1B

Flanged aluminium pressure regulator **with built-in filter** to EN 88-2. **Max. inlet pressure 1 bar.** Max. outlet pressure 450 mbar.
Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to +60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
FS1B65	009.0256.201	DN 65	With neutral spring 10-30 mbar	1	1	934,00
FS1B65	009.0256.203	DN 65	With red spring 25-80 mbar	1	1	934,00
FS1B65	009.0256.204	DN 65	With purple spring 60-120 mbar	1	1	934,00
FS1B65	009.0256.206	DN 65	With blue spring 100-220 mbar	1	1	934,00
FS1B65	009.0256.207	DN 65	With white spring 200-450 mbar	1	1	934,00
FS1B80	009.0257.201	DN 80	With neutral spring 10-30 mbar	1	1	1.004,00
FS1B80	009.0257.203	DN 80	With red spring 25-80 mbar	1	1	1.004,00
FS1B80	009.0257.204	DN 80	With purple spring 60-120 mbar	1	1	1.004,00
FS1B80	009.0257.206	DN 80	With blue spring 100-220 mbar	1	1	1.004,00
FS18B0	009.0257.207	DN 80	With white spring 200-450 mbar	1	1	1.004,00

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STR

Flanged aluminium pressure regulator to EN 88-1. **Max. inlet pressure 500 mbar.** Max. outlet pressure 350 mbar, 200 mbar for STR DN 125-150. Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
STR65	009.0240.201	DN 65	With neutral spring 10-30 mbar	1	1	776,00
STR65	009.0240.203	DN 65	With red spring 25-80 mbar	1	1	776,00
STR65	009.0240.204	DN 65	With purple spring 60-120 mbar	1	1	776,00
STR65	009.0240.206	DN 65	With blue spring 100-220 mbar	1	1	776,00
STR65	009.0240.207	DN 65	With white spring 200-350 mbar	1	1	776,00
STR80	009.0241.201	DN 80	With neutral spring 10-30 mbar	1	1	818,00
STR80	009.0241.203	DN 80	With red spring 25-80 mbar	1	1	818,00
STR80	009.0241.204	DN 80	With purple spring 60-120 mbar	1	1	818,00
STR80	009.0241.206	DN 80	With blue spring 100-220 mbar	1	1	818,00
STR80	009.0241.207	DN 80	With white spring 200-350 mbar	1	1	818,00
STR100	009.0242.201	DN 100	With neutral spring 10-40 mbar	1	1	1.474,00
STR100	009.0242.203	DN 100	With red spring 30-70 mbar	1	1	1.474,00
STR100	009.0242.204	DN 100	With purple spring 60-110 mbar	1	1	1.474,00
STR100	009.0242.205	DN 100	With brown spring 100-210 mbar	1	1	1.474,00
STR100	009.0242.207	DN 100	With white spring 200-350 mbar	1	1	1.474,00
STR125	009.0243.001	DN 125	With neutral spring 10-30 mbar	1	1	6.551,00
STR125	009.0243.003	DN 125	With red spring 25-75 mbar	1	1	6.551,00
STR125	009.0243.005	DN 125	With brown spring 70-120 mbar	1	1	6.551,00
STR125	009.0243.007	DN 125	With white spring 110-170 mbar	1	1	6.551,00
STR125	009.0243.006	DN 125	With black spring 140-200 mbar	1	1	6.551,00
STR150	009.0244.001	DN 150	With neutral spring 10-30 mbar	1	1	6.551,00
STR150	009.0244.003	DN 150	With red spring 25-75 mbar	1	1	6.551,00
STR150	009.0244.005	DN 150	With brown spring 70-120 mbar	1	1	6.551,00
STR150	009.0244.007	DN 150	With white spring 110-170 mbar	1	1	6.551,00
STR150	009.0244.006	DN 150	With black spring 140-200 mbar	1	1	6.551,00

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ST1B

Flanged aluminium pressure regulator to EN 88-2. **Max. inlet pressure 1 bar.** Max. outlet pressure 450 mbar, 200 mbar for STR DN 125-150. Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with ATEX Directive 2014/34/EU.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
ST1B65	009.0270.201	DN 65	With neutral spring 10-30 mbar	1	1	921,00
ST1B65	009.0270.203	DN 65	With red spring 25-80 mbar	1	1	921,00
ST1B65	009.0270.204	DN 65	With purple spring 60-120 mbar	1	1	921,00
ST1B65	009.0270.206	DN 65	With blue spring 100-220 mbar	1	1	921,00
ST1B65	009.0270.207	DN 65	With white spring 200-450 mbar	1	1	921,00
ST1B80	009.0271.201	DN 80	With neutral spring 10-30 mbar	1	1	973,00
ST1B80	009.0271.203	DN 80	With red spring 25-80 mbar	1	1	973,00
ST1B80	009.0271.204	DN 80	With purple spring 60-120 mbar	1	1	973,00
ST1B80	009.0271.206	DN 80	With blue spring 100-220 mbar	1	1	973,00
ST1B80	009.0271.207	DN 80	With white spring 200-450 mbar	1	1	973,00
ST1B100	009.0272.201	DN 100	With neutral spring 10-40 mbar	1	1	1.522,00
ST1B100	009.0272.203	DN 100	With red spring 30-70 mbar	1	1	1.522,00
ST1B100	009.0272.204	DN 100	With purple spring 60-110 mbar	1	1	1.522,00
ST1B100	009.0272.205	DN 100	With brown spring 100-210 mbar	1	1	1.522,00
ST1B100	009.0272.207	DN 100	With white spring 200-450 mbar	1	1	1.522,00
ST1B125	009.0273.001	DN 125	With neutral spring 10-30 mbar	1	1	7.636,00
ST1B125	009.0273.003	DN 125	With red spring 25-75 mbar	1	1	7.636,00
ST1B125	009.0273.005	DN 125	With brown spring 70-120 mbar	1	1	7.636,00
ST1B125	009.0273.007	DN 125	With white spring 110-170 mbar	1	1	7.636,00
ST1B125	009.0273.006	DN 125	With black spring 140-200 mbar	1	1	7.636,00
ST1B150	009.0274.001	DN 150	With neutral spring 10-30 mbar	1	1	7.636,00
ST1B150	009.0274.003	DN 150	With red spring 25-75 mbar	1	1	7.636,00
ST1B150	009.0274.005	DN 150	With brown spring 70-120 mbar	1	1	7.636,00
ST1B150	009.0274.007	DN 150	With white spring 110-170 mbar	1	1	7.636,00
ST1B150	009.0274.006	DN 150	With black spring 140-200 mbar	1	1	7.636,00

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SPARE PARTS KIT

Type	Part no.	Regulators	Description	Pcs/ pack	Package	€ each
3235	014.0500.001	FGD, FGDR, FG1B 15 - 20 - 25	Kit comprising filter cartridge and cover O-ring	1	1	5,15
3236	014.0501.001	FGD, FGDR, FG1B 32 - 40 - 50/40	Kit comprising filter cartridge and cover O-ring	1	1	12,15
3233	014.0153.001	FGD, FGDR, FG1B 50	Kit comprising filter cartridge and cover O-ring	1	1	24,60
3234/1	014.0155.001	FSDR, FS1B 65 - 80	Kit comprising filter cartridge and cover O-ring	1	1	28,20
3286	014.0502.001	FGD, FGDR, FG1B 15 - 20 - 25	Servicing components kit	1	1	43,75
3287	014.0503.001	FGD, FGDR, FG1B 32 - 40 - 50/40	Servicing components kit	1	1	71,40
3262	014.0190.002	FGD, FGDR, FG1B 50	Servicing components kit	1	1	171,70
3295	014.0295.000	FSDR, FS1B 65 - 80	Servicing components kit	1	1	272,50
3296	014.0296.000	STR, ST1B 65 - 80	Servicing components kit	1	1	243,50
3297	014.0297.000	STR, ST1B 100	Servicing components kit	1	1	414,50
3505	014.0572.000	STR, ST1B 125 - 150	Servicing components kit	1	1	1.569,00

SPRINGS

Type	Part no.	Regulators	Setting and Colour	Pcs/ pack	Package	€ each
E720	014.0202.001	FGDR/COM 15 - 20	20-55 mbar - Red	1	1	3,65
E737	014.0204.001	FGDR/COM 15 - 20	50-200 mbar - Blue	1	1	4,75
504.0037.020	014.0504.001	FGD, FGDR 15 - 20 - 25	5-15 mbar - Green	1	1	3,00
504.0031.020	014.0505.001	FGD, FGDR, FG1B, FG2B 15 - 20 - 25	10-30 mbar - Neutral	1	1	3,00
504.0032.020	014.0506.001	FGD, FGDR, FG1B, FG2B 15 - 20 - 25	25-80 mbar - Violet	1	1	3,65
504.0033.020	014.0507.001	FGD, FGDR, FG1B, FG2B 15 - 20 - 25	70-160 mbar - Brown	1	1	4,20
504.0034.020	014.0508.001	FGDR, FG1B, FG2B 15 - 20 - 25	150-280 mbar - Blue	1	1	10,00
504.0035.020	014.0509.001	FGDR 15 - 20 - 25	270-350 mbar - White	1	1	10,00
504.0035.020	014.0509.001	FG1B 15 - 20 - 25	270-450 mbar - White	1	1	10,00
E816D	014.0220.001	FGD, FGDR 32 - 40 - 50/40	5-15 mbar - Green	1	1	5,05
504.0016.020	014.0221.001	FGD, FGDR, FG1B 32 - 40 - 50/40	10-25 mbar - Neutral	1	1	5,05
504.0017.020	014.0222.001	FGD, FGDR, FG1B 32 - 40 - 50/40	20-70 mbar - Violet	1	1	5,50
E836D	014.0223.001	FGD, FGDR, FG1B 32 - 40 - 50/40	65-130 mbar - Brown	1	1	6,05
504.0018.020	014.0225.001	FGD 32 - 40	120-160 mbar - White	1	1	9,90
504.0018.020	014.0225.001	FGDR, FG1B 32 - 40 - 50/40	120-250 mbar - White	1	1	9,90
504.0036.020	014.0520.001	FGDR 32 - 40 - 50/40	240-350 mbar - Black	1	1	7,20
504.0036.020	014.0520.001	FG1B 32 - 40 - 50/40	240-360 mbar - Black	1	1	7,20
504.0041.020	014.0523.001	FG1B 32 - 40 - 50/40	350-450 mbar - Orange	1	1	7,20
504.0040.020	014.0230.001	FGD, FGDR 50	5-15 mbar - Green	1	1	13,30
E620	014.0231.001	FGD, FGDR, FG1B 50	10-35 mbar - Neutral	1	1	13,30
E619D	014.0232.001	FGD, FGDR, FG1B 50	30-80 mbar - Violet	1	1	13,30
E631D	014.0233.001	FGD50	70-160 mbar - Brown	1	1	15,65
E631D	014.0233.001	FGDR, FG1B 50	70-220 mbar - Brown	1	1	15,65
E630	014.0234.001	FGDR50	210-350 mbar - Blue	1	1	16,90
E630	014.0234.001	FG1B50	210-450 mbar - Blue	1	1	16,90
E405	014.0241.001	FSDR, FS1B, STR, ST1B 65 - 80	10-30 mbar - Neutral	1	1	19,05
E406	014.0242.001	FSDR, FS1B, STR, ST1B 65 - 80	25-80 mbar - Red	1	1	20,60
E417D	014.0243.001	FSDR, FS1B, STR, ST1B 65 - 80	60-120 mbar - Violet	1	1	24,10
E473	014.0245.001	FSDR, FS1B, STR, ST1B 65 - 80	100-220 mbar - Blue	1	1	24,10
504.0021.020	014.0247.001	FSDR, STR 65 - 80	200-350 mbar - White	1	1	33,90
504.0021.020	014.0247.001	FS1B, ST1B 65 - 80	200-450 mbar - White	1	1	33,90
E466D	014.0251.001	STR, ST1B 100	10-40 mbar - Neutral	1	1	24,10
E535	014.0252.001	STR, ST1B 100	30-70 mbar - Red	1	1	25,20
E468	014.0253.001	STR, ST1B 100	60-110 mbar - Violet	1	1	25,20
E475	014.0254.001	STR, ST1B 100	100-210 mbar - Brown	1	1	25,20
504.0065.000	014.0256.001	STR 100	200-350 mbar - White	1	1	76,90
504.0065.000	014.0256.001	ST1B 100	200-450 mbar - White	1	1	76,90
504.0050.000	014.0560.000	STR, ST1B 125/150	10-30 mbar - Neutral	1	1	170,00
504.0053.000	014.0561.000	STR, ST1B 125/150	25-75 mbar - Red	1	1	170,00
504.0051.000	014.0562.000	STR, ST1B 125/150	70-120 mbar - Brown	1	1	204,50
504.0062.000	014.0563.000	STR, ST1B 125/150	110-170 mbar - White	1	1	305,50
504.0064.000	014.0564.000	STR, ST1B 125/150	140-200 mbar - Black	1	1	305,50

SELECTION GUIDE: **SPRINGS**

Model/Colour	FGD 15 - 20 - 25	FGD 32 - 40	FGD 50
GREEN	5-15 mbar (014.0504.001)	5-15 mbar (014.0220.001)	5-15 mbar (014.0230.001)
NEUTRAL	10-30 mbar (014.0505.001)	10-25 mbar (014.0221.001)	10-35 mbar (014.0231.001)
PURPLE	25-80 mbar (014.0506.001)	20-70 mbar (014.0222.001)	30-80 mbar (014.0232.001)
BROWN	70-160 mbar (014.0507.001)	65-130 mbar (014.0223.001)	70-160 mbar (014.0233.001)
WHITE	/	120-160 mbar (014.0225.001)	/

Model/Colour	FGDR 15 - 20 - 25	FGDR 32 - 40 -50/40	FGDR 50
GREEN	5-15 mbar (014.0504.001)	5-15 mbar (014.0220.001)	5-15 mbar (014.0230.001)
NEUTRAL	10-30 mbar (014.0505.001)	10-25 mbar (014.0221.001)	10-35 mbar (014.0231.001)
PURPLE	25-80 mbar (014.0506.001)	20-70 mbar (014.0222.001)	30-80 mbar (014.0232.001)
BROWN	70-160 mbar (014.0507.001)	65-130 mbar (014.0223.001)	70-220 mbar (014.0233.001)
BLUE	150-280 mbar (014.0508.001)	/	210-350 mbar (014.0234.001)
WHITE	270-350 mbar (014.0509.001)	120-250 mbar (014.0225.001)	/
BLACK	/	240-350 mbar (014.0520.001)	/

Model/Colour	FGDR/COM 15-20
RED	20-55 mbar (014.0202.001)
BLUE	50-200 mbar (014.0204.001)

Model/Colour	FG1B 15 - 20 - 25	FG1B 32 - 40 -50/40	FG1B 50
NEUTRAL	10-30 mbar (014.0505.001)	10-25 mbar (014.0221.001)	10-35 mbar (014.0231.001)
PURPLE	25-80 mbar (014.0506.001)	20-70 mbar (014.0222.001)	30-80 mbar (014.0232.001)
BROWN	70-160 mbar (014.0507.001)	65-130 mbar (014.0223.001)	70-220 mbar (014.0233.001)
BLUE	150-280 mbar (014.0508.001)	/	210-450 mbar (014.0234.001)
WHITE	270-450 mbar (014.0509.001)	120-250 mbar (014.0225.001)	/
BLACK	/	240-360 mbar (014.0520.001)	/
ORANGE	/	350-450 mbar (014.0523.001)	/

Model/Colour	FSDR - STR 65 - 80	STR 100	FS1B - ST1B 65 - 80	ST1B 100
NEUTRAL	10-30 mbar (014.0241.001)	10-40 mbar (014.0251.001)	10-30 mbar (014.0241.001)	10-40 mbar (014.0251.001)
RED	25-80 mbar (014.0242.001)	30-70 mbar (014.0252.001)	25-80 mbar (014.0242.001)	30-70 mbar (014.0252.001)
PURPLE	60-120 mbar (014.0243.001)	60-110 mbar (014.0253.001)	60-120 mbar (014.0243.001)	60-110 mbar (014.0253.001)
BROWN	/	100-210 mbar (014.0254.001)	/	100-210 mbar (014.0254.001)
BLUE	100-220 mbar (014.0245.001)	/	100-220 mbar (014.0245.001)	/
WHITE	200-350 mbar (014.0247.001)	200-350 mbar (014.0256.001)	200-450 mbar (014.0247.001)	200-450 mbar (014.0256.001)

Model/Colour	STR 125 - 150	ST1B 125 -150
NEUTRAL	10-30 mbar (014.0560.000)	10-30 mbar (014.0560.000)
RED	25-75 mbar (014.0561.000)	25-75 mbar (014.0561.000)
BROWN	70-120 mbar (014.0562.000)	65-130 mbar (014.0562.000)
WHITE	110-170 mbar (014.0563.000)	110-170 mbar (014.0563.000)
BLACK	140-200 mbar (014.0564.000)	140-200 mbar (014.0564.000)

Pressure regulators, 4 bar

ST4B

Aluminium pressure regulator to EN 88-2. **Max. inlet pressure 4 bar.** Max. outlet pressure 450 mbar. Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
ST4B20	009.0351.001	3/4"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B20	009.0351.002	3/4"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B20	009.0351.003	3/4"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B20	009.0351.004	3/4"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B20	009.0351.005	3/4"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B20	009.0351.006	3/4"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.001	1"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.002	1"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.003	1"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.004	1"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.005	1"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B25	009.0352.006	1"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.001	1.1/4"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.002	1.1/4"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.003	1.1/4"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.004	1.1/4"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.005	1.1/4"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B32	009.0353.006	1.1/4"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.001	1.1/2"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.002	1.1/2"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.003	1.1/2"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.004	1.1/2"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.005	1.1/2"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B40	009.0354.006	1.1/2"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.001	2"	With neutral spring 10-30 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.002	2"	With purple spring 25-70 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.003	2"	With brown spring 65-150 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.004	2"	With white spring 140-270 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.005	2"	With black spring 260-380 mbar	1	1	AVAILABLE TO ORDER
ST4B50	009.0355.006	2"	With orange spring 370-450 mbar	1	1	AVAILABLE TO ORDER

Dimensions on page 348

ST4B..BM

Aluminium pressure regulator with maximum pressure shut-off valve, to EN 88-2.
Max. inlet pressure 4 bar. Max. outlet pressure 450 mbar.
Closure control. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
ST4B20BM	009.0361.001	3/4"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B20BM	009.0361.002	3/4"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B20BM	009.0361.003	3/4"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B20BM	009.0361.004	3/4"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B20BM	009.0361.005	3/4"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B20BM	009.0361.006	3/4"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.001	1"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.002	1"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.003	1"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.004	1"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.005	1"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B25BM	009.0362.006	1"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.001	1.1/4"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.002	1.1/4"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.003	1.1/4"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.004	1.1/4"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.005	1.1/4"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B32BM	009.0363.006	1.1/4"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.001	1.1/2"	With neutral spring 10-25 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.002	1.1/2"	With purple spring 20-70 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.003	1.1/2"	With brown spring 65-120 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.004	1.1/2"	With white spring 110-230 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.005	1.1/2"	With black spring 220-340 mbar	1	1	AVAILABLE TO ORDER
ST4B40BM	009.0364.006	1.1/2"	With orange spring 330-450 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.001	2"	With neutral spring 10-30 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.002	2"	With purple spring 25-70 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.003	2"	With brown spring 65-150 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.004	2"	With white spring 140-270 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.005	2"	With black spring 260-380 mbar	1	1	AVAILABLE TO ORDER
ST4B50BM	009.0365.006	2"	With orange spring 370-450 mbar	1	1	AVAILABLE TO ORDER

Dimensions on page 348

BM

Aluminium maximum pressure shut-off valve to EN 88-2. **Max. inlet pressure 4 bar.** Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
BM20	019.0041.001	3/4"	With neutral spring 50-200 mbar	1	1	280,00
BM25	019.0042.001	1"	With neutral spring 50-200 mbar	1	1	280,00
BM32	019.0043.001	1.1/4"	With neutral spring 50-200 mbar	1	1	350,00
BM40	019.0044.001	1.1/2"	With neutral spring 50-200 mbar	1	1	350,00
BM50	019.0045.001	2"	With neutral spring 50-200 mbar	1	1	450,00

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SPRINGS

Type	Part no.	Regulators	Setting and Colour	Pcs/ pack	Package	€ each
504.0016.020	014.0221.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	10-25 mbar - Neutral	1	1	5,05
504.0017.020	014.0222.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	20-70 mbar - Violet	1	1	5,50
E836D	014.0223.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	65-120 mbar - Brown	1	1	6,05
504.0018.020	014.0225.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	110-230 mbar - White	1	1	9,90
504.0036.020	014.0520.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	220-340 mbar - Black	1	1	7,20
504.0041.020	014.0523.001	ST4B, ST4B..BM 20 - 25 - 32 - 40	330-450 mbar - Orange	1	1	7,20
E620	014.0231.001	ST4B, ST4B..BM 50	10-30 mbar - Neutral	1	1	13,30
E619d	014.0232.001	ST4B, ST4B..BM 50	25-70 mbar - Violet	1	1	13,30
E631d	014.0233.001	ST4B, ST4B..BM 50	65-150 mbar - Brown	1	1	15,65
504.0038.020	014.0521.001	ST4B, ST4B..BM 50	140-270 mbar - White	1	1	16,90
504.0039.020	014.0522.001	ST4B, ST4B..BM 50	260-380 mbar - Black	1	1	16,90
504.0043.020	014.0524.001	ST4B, ST4B..BM 50	370-450 mbar - Orange	1	1	22,25
504.0015.020	014.0267.000	BM 20 - 25 - 32 - 40 - 50	50-200 mbar - Neutral	1	1	4,75
504.0059.000	014.0265.000	BM 20 - 25 - 32 - 40 - 50	190-400 mbar - Red	1	1	9,90
504.0060.000	014.0266.000	BM 20 - 25 - 32 - 40 - 50	390-700 mbar - Blue	1	1	9,90

Type	Part no.	Regulators	Description	Pcs/pack	Package	€ each
3500	014.0515.001	ST4B, ST4B..BM 20 - 25	Servicing components kit	1	1	139,90
3501	014.0516.001	ST4B, ST4B..BM 32 - 40	Servicing components kit	1	1	139,90
3502	014.0517.001	ST4B, ST4B..BM 50	Servicing components kit	1	1	180,20
-	014.0545.000	ST4B..BM 20	Conversion kit	1	1	29,05
-	014.0546.000	ST4B..BM 25	Conversion kit	1	1	29,05
-	014.0547.000	ST4B..BM 32	Conversion kit	1	1	32,30
-	014.0548.000	ST4B..BM 40	Conversion kit	1	1	32,30
-	014.0549.000	ST4B..BM 50	Conversion kit	1	1	62,00

SELECTION GUIDE: **SPRINGS**

Model/Colour	ST4B 15 - 20 - 25	ST4B 32 - 40	ST4B 50
NEUTRAL	10-25 mbar (014.0221.001)	10-25 mbar (014.0221.001)	10-30 mbar (014.0231.001)
PURPLE	20-70 mbar (014.0222.001)	20-70 mbar (014.0222.001)	25-70 mbar (014.0232.001)
BROWN	65-120 mbar (014.0223.001)	65-120 mbar (014.0223.001)	65-150 mbar (014.0233.001)
WHITE	110-230 mbar (014.0225.001)	110-230 mbar (014.0225.001)	140-270 mbar (014.0521.001)
BLACK	220-340 mbar (014.0520.001)	220-340 mbar (014.0520.001)	260-380 mbar (014.0522.001)
ORANGE	330-450 mbar (014.0523.001)	330-450 mbar (014.0523.001)	370-450 mbar (014.0524.001)

Slam shut-off and relief valves

MB

Aluminium maximum pressure shut-off valve to EN 88-2.
Max. inlet pressure 1 bar. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -10 to 60°C.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MB20	019.0002.001	3/4"	With neutral spring 80-550 mbar	1	1	145,00
MB20	019.0002.002	3/4"	With blue spring 30-120 mbar	1	1	145,00
MB25	019.0003.001	1"	With neutral spring 80-550 mbar	1	1	145,00
MB25	019.0003.002	1"	With blue spring 30-120 mbar	1	1	147,80
MB32	019.0004.001	1.1/4"	With neutral spring 80-550 mbar	1	1	162,00
MB32	019.0004.002	1.1/4"	With blue spring 30-120 mbar	1	1	162,00
MB40	019.0005.001	1.1/2"	With neutral spring 80-550 mbar	1	1	162,00
MB40	019.0005.002	1.1/2"	With blue spring 30-120 mbar	1	1	162,00
MB50	019.0006.001	2"	With neutral spring 80-550 mbar	1	1	233,00
MB50	019.0006.002	2"	With blue spring 30-120 mbar	1	1	233,00
MB65	019.0007.101	DN65	With neutral spring 80-550 mbar	1	1	672,50
MB65	019.0007.102	DN65	With blue spring 30-120 mbar	1	1	672,50
MB80	019.0008.101	DN80	With neutral spring 80-550 mbar	1	1	688,00
MB80	019.0008.102	DN80	With blue spring 30-120 mbar	1	1	688,00
MB100	019.0009.001	DN100	With neutral spring 80-550 mbar	1	1	885,00
MB100	019.0009.002	DN100	With blue spring 30-120 mbar	1	1	885,00
MB125	019.0010.001	DN125	With neutral spring 80-550 mbar	1	1	2.001,00
MB125	019.0010.002	DN125	With blue spring 30-120 mbar	1	1	2.001,00
MB150	019.0011.001	DN150	With neutral spring 80-550 mbar	1	1	2.001,00
MB150	019.0011.002	DN150	With blue spring 30-120 mbar	1	1	2.001,00

Dimensions on page 349

MB/6B

Aluminium maximum pressure shut-off valve to EN 88-2. Max. inlet pressure 6 bar. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -10 to 60°C.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MB15/6B	019.0021.001	1/2"	With neutral spring 80-550 mbar	1	1	177,40
MB15/6B	019.0021.002	1/2"	With blue spring 30-120 mbar	1	1	177,40
MB20/6B	019.0022.001	3/4"	With neutral spring 80-550 mbar	1	1	188,70
MB20/6B	019.0022.002	3/4"	With blue spring 30-120 mbar	1	1	188,70
MB25/6B	019.0023.001	1"	With neutral spring 80-550 mbar	1	1	188,70
MB25/6B	019.0023.002	1"	With blue spring 30-120 mbar	1	1	188,70
MB32/6B	019.0024.001	1.1/4"	With neutral spring 80-550 mbar	1	1	230,00
MB32/6B	019.0024.002	1.1/4"	With blue spring 30-120 mbar	1	1	230,00
MB40/6B	019.0025.001	1.1/2"	With neutral spring 80-550 mbar	1	1	230,00
MB40/6B	019.0025.002	1.1/2"	With blue spring 30-120 mbar	1	1	230,00
MB50/6B	019.0026.001	2"	With neutral spring 80-550 mbar	1	1	303,00
MB50/6B	019.0026.002	2"	With blue spring 30-120 mbar	1	1	303,00
MB65/6B	019.0027.101	DN65	With neutral spring 80-550 mbar	1	1	874,00
MB65/6B	019.0027.102	DN65	With blue spring 30-120 mbar	1	1	874,00
MB80/6B	019.0028.101	DN80	With neutral spring 80-550 mbar	1	1	894,00
MB80/6B	019.0028.102	DN80	With blue spring 30-120 mbar	1	1	894,00
MB100/6B	019.0029.001	DN100	With neutral spring 80-550 mbar	1	1	1.150,00
MB100/6B	019.0029.002	DN100	With blue spring 30-120 mbar	1	1	1.150,00
MB125/6B	019.0030.001	DN125	With neutral spring 80-550 mbar	1	1	2.466,00
MB125/6B	019.0030.002	DN125	With blue spring 30-120 mbar	1	1	2.466,00
MB150/6B	019.0031.001	DN150	With neutral spring 80-550 mbar	1	1	2.466,00
MB150/6B	019.0031.002	DN150	With blue spring 30-120 mbar	1	1	2.466,00

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SPRINGS

Type	Part no.	Shut-off valve	Setting and Colour	Pcs/ pack	Package	€ each
E737	014.0204.001	MB, MB/6B	30-120 mbar - Blue	1	1	4,75
504.0001.000	014.0262.001	MB, MB/6B	80-550 mbar - Neutral	1	1	10,30

MS

Aluminium relief valve. Max. inlet pressure 2 bar. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -10 to 60°C.
Compliant with PED Directive 2014/68/EU.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MS20	002.0004.001	3/4"	With blue spring 80-600 mbar	1	1	95,90
MS20	002.0004.002	3/4"	With red spring 30-120 mbar	1	1	95,90
MS25	002.0005.001	1"	With blue spring 80-600 mbar	1	1	95,90
MS25	002.0005.002	1"	With red spring 30-120 mbar	1	1	95,90

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SPRINGS

Type	Part no.	Relief valve	Setting and Colour	Pcs/ pack	Package	€ each
E1211D	014.0212.001	MS	30-130 mbar - Red	1	1	4,20
504.0003.000	014.0216.001	MS	80-600 mbar - Blue	1	1	5,05

Air/gas ratio control valves

GAVR

Air/gas ratio control valve with max. inlet pressure of 200mbar. Max. air inlet pressure 120 mbar. Ratio 1:1. Adjustable minimum flow rate. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -10 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
GAVR15	020.0001.101	1/2"	Outlet pressure 2-120 mbar	1	1	112,80
GAVR20	020.0002.101	3/4"	Outlet pressure 2-120 mbar	1	1	112,80
GAVR25	020.0003.101	1"	Outlet pressure 2-120 mbar	1	1	112,80
GAVR32	020.0004.101	1.1/4"	Outlet pressure 2-120 mbar	1	1	201,50
GAVR40	020.0005.101	1.1/2"	Outlet pressure 2-120 mbar	1	1	201,50
GAVR50/40	020.0016.101	2"	Outlet pressure 2-120 mbar	1	1	243,00
GAVR50	020.0006.101	2"	Outlet pressure 2-120 mbar	1	1	485,50

Dimensions on page 350

VRGA

Air/gas ratio control valve with max. inlet pressure of 200mbar. Max. air inlet pressure 120 mbar. Ratio 1:1. Adjustable minimum flow rate. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -10 to 60°C.
Compliant with Regulation (EU) 2016/426 (GAR).

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
VRGA65	020.0007.101	DN65	Outlet pressure 2-120 mbar	1	1	914,00
VRGA80	020.0008.101	DN80	Outlet pressure 2-120 mbar	1	1	999,00
VRGA100	020.0009.001	DN100	Outlet pressure 2-120 mbar	1	1	1.650,00

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SPARE PARTS KIT

Type	Part no.	Regulators	Description	Pcs/ pack	Package	€ each
3306	014.0148.000	GAVR 15 - 20 - 25	Servicing components kit	1	1	36,65
3307	014.0149.000	GAVR 32 - 40 - 50/40	Servicing components kit	1	1	71,40
3303	014.0145.000	GAVR 50	Servicing components kit	1	1	171,70
3304	014.0146.000	VRGA 65 - 80	Servicing components kit	1	1	302,00
3305	014.0147.000	VRGA 100	Servicing components kit	1	1	472,00

Automatic ON-OFF solenoid valves

GSAVO - Discontinued series, available while stocks last

Automatic ON-OFF normally closed class A gas solenoid valve with threaded connections. Quick opening and closing. Brass body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
GSAVO15	021.0030.001	1/2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	62,00
GASVO15/08B	021.0031.001	1/2"	Power supply 230 VAC. Max. pressure 0,8 bar	1	1	69,80

Dimensions on page 350

GSAV

Automatic ON-OFF normally closed class A gas solenoid valve with threaded connections. Quick opening and closing. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
GSAV15/02B	021.0020.001	1/2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	79,60
GSAV20/02B	021.0021.001	3/4"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	126,80
GSAV25/02B	021.0022.001	1"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	126,80

Dimensions on page 350

GSAV-R

Automatic ON-OFF normally closed class A gas solenoid valve with threaded connections. Quick opening and closing with adjustable flow rate. Aluminium body. Coil with IP65 connector (1/2"-3/4"-1"). Coil with IP54 electrical enclosure (1 1/4"-1 1/2"-2"). Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
GSAV15R	021.0010.001	1/2"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	129,70
GSAV20R	021.0011.001	3/4"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	167,50
GSAV25R	021.0012.001	1"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	167,80
GSAV32R	021.0013.101	1.1/4"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	354,00
GSAV40R	021.0014.101	1.1/2"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	354,00
GSAV50R	021.0015.101	2"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	477,50

Dimensions on page 350

GSAV-2R

Automatic ON-OFF normally closed class A gas solenoid valve. Quick opening and closing with adjustable flow rate. Aluminium body. Coil with IP54 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/pack	Package	€ each
GSAV202R	021.0121.001	3/4"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	230,00
GSAV252R	021.0122.001	1"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	230,00
GSAV322R	021.0123.001	1.1/4"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	310,00
GSAV402R	021.0124.001	1.1/2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	310,00
GSAV502R	021.0125.001	2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	380,00
GSAV652R	021.0126.001	DN65	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	1.100,00
GSAV802R	021.0127.001	DN80	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	1.150,00
GSAV1002R	021.0128.001	DN100	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	1.800,00

Dimensions on page 351

AMSV-R

Automatic ON-OFF normally closed class A gas solenoid valve with threaded connections. Quick opening and closing with adjustable flow rate. Aluminium body. Coil with IP65 connector (1/2"-3/4"-1"). Coil with IP54 electrical enclosure (1.1/4"-1.1/2"-2"). Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
AMSV205R	021.0139.001	3/4"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	204,50
AMSV255R	021.0140.001	1"	Power supply 230 VAC. Max. pressure 0,5 bar	1	1	204,50

Dimensions on page 351

AMSV-2R

Automatic ON-OFF normally closed class A gas solenoid valve. Quick opening and closing with adjustable flow rate. Aluminium body. Coil with IP54 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air.
Operating temperature: -20 to 60°C.

Type	Part no.	Connections	Description	Pcs/pack	Package	€ each
AMSV202R	021.0041.001	3/4"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	238,50
AMSV252R	021.0042.001	1"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	238,50
AMSV322R	021.0043.001	1.1/4"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	346,00
AMSV402R	021.0044.001	1.1/2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	346,00
AMSV502R	021.0045.001	2"	Power supply 230 VAC. Max. pressure 0,2 bar	1	1	415,50

Dimensions on page 351

GHAV

Automatic ON-OFF normally closed class A gas solenoid valve. Actuated by IP56 electro-hydraulic actuator. Aluminium body. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -15 to 60°C.

Type	Part no.	Connections	Description	Pcs/pack	Package	€ each
GHAV65N	021.0100.101	DN65	Power supply 230 VAC. Max. pressure 1 bar	1	1	2.300,00
GHAV80N	021.0101.101	DN80	Power supply 230 VAC. Max. pressure 1 bar	1	1	2.350,00
GHAV100N	021.0102.101	DN100	Power supply 230 VAC. Max. pressure 1 bar	1	1	2.649,00
GHAV125N	021.0103.101	DN125	Power supply 230 VAC. Max. pressure 1 bar	1	1	4.244,00
GHAV150N	021.0104.101	DN150	Power supply 230 VAC. Max. pressure 1 bar	1	1	4.303,00

Dimensions on page 351

SPARE PARTS KIT

Type	Part no.	Valve	Description	Pcs/pack	Package	€ each
511.2102.001	014.0307.001	GSAVO15	RAC coil 230 VAC	1	1	55,50
511.0041.100	014.0305.001	GSAVO15/08B - GSAV15/02B	RAC coil 230 VAC	1	1	31,10
511.0219.100	014.0306.001	GSAV20/02B - GSAV25/02B	RAC coil 230 VAC	1	1	75,50
2104	014.0277.001	GSAVO - GSAV15-20-25/02B	Connector 230 VAC	1	1	24,90
821.0030.002	014.0471.001	AMSV, GSAV 202 - 252 R-L	RAC coil 230 VAC	1	1	136,10
821.0031.002	014.0472.001	AMSV, GSAV 322 - 402 R-L	RAC coil 230 VAC	1	1	207,50
821.0032.002	014.0473.001	AMSV, GSAV 502 R-L	RAC coil 230 VAC	1	1	259,00
821.0032.002	014.0473.001	AMSV325-405-505R, GSAV32-40-50R	RAC coil 230 VAC	1	1	259,00
821.0121.002	014.0487.001	GSAV 652 - 802 R	RAC coil 230 VAC	1	1	670,00
821.0122.002	014.0488.001	GSAV1002 R	RAC coil 230 VAC	1	1	1.231,00
511.0042.992	014.0474.001	AMSV, GSAV 202 - 252 R-L	Rectifier 230 VAC	1	1	34,40
511.0043.992	014.0475.001	AMSV, GSAV 322 - 402 - 502 R-L	Rectifier 230 VAC	1	1	34,40
511.0043.992	014.0475.001	AMSV325-405-505R, GSAV32-40-50R	Rectifier 230 VAC	1	1	34,40
511.0057.992	014.0489.990	GSAV 652 - 802 R	Rectifier 230 VAC	1	1	45,55
511.0058.992	014.0490.990	GSAV1002 R	Rectifier 230 VAC	1	1	55,30
511.2102.001	014.0303.001	GSAV15R	RAC coil 230 VAC	1	1	55,50
511.0020.001	014.0049.001	GSAV 20 - 25 R, AMSV 205 - 255 R	RAC coil 230 VAC	1	1	76,30
511.0020.001	014.0046.001	GSAV 20 - 25 R	RAC coil 230 VAC + core + spring	1	1	91,70
511.0023.990	014.0280.001	GSAV15-20-25R, AMSV205-255R	RAC connector kit 230 VAC + LED	1	1	24,90
511.0220.001	014.0060.101	GHAVN 65 - 80	Actuator 230 VAC	1	1	2.150,00
511.0221.001	014.0061.101	GHAVN 100	Actuator 230 VAC	1	1	2.373,00
511.0222.001	014.0062.101	GHAVN 125 - 150	Actuator 230 VAC	1	1	3.713,00

SELECTION GUIDE: **COILS AND CONNECTORS**

Series	Connections	Coils	Connectors	Rectifier
GSAVO15	1/2”	014.0307.001	014.0277.001	-
GSAVO15/08B	1/2”	014.0305.001	014.0277.001	-
GSAV15/02B	1/2”	014.0305.001	014.0277.001	-
GSAV20/02B	3/4 “	014.0306.001	014.0277.001	-
GSAV25/02B	1”	014.0306.001	014.0277.001	-
GSAV-R	1/2” *	014.0303.001	014.0280.001	-
	3/4” - 1” *	014.0049.001	014.0280.001	-
	1.1/4” - 1.1/2” *	014.0473.001	-	014.0475.001
	2” *	014.0473.001	-	014.0475.001
GSAV-2R	3/4” - 1”	014.0471.001	-	014.0474.001
	1.1/4” - 1.1/2”	014.0472.001	-	014.0475.001
	2”	014.0473.001	-	014.0475.001
	DN65-DN80	014.0487.001	-	014.0489.990
	DN100	014.0488.001	-	014.0490.990
AMSV-2R	3/4” - 1”	014.0471.001	-	014.0474.001
	1.1/4” - 1.1/2”	014.0472.001	-	014.0475.001
	2”	014.0473.001	-	014.0475.001
GHAV	DN65 - DN 80	014.0060.101	-	-
	DN100	014.0061.101	-	-
	DN125 - DN150	014.0062.101	-	-

* For products purchased from 01/01/2017

Solenoid valves with manual resetting

MSVO

Normally open gas solenoid valve with manual resetting and threaded connections. Brass body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60°C.
Max. operating pressure: 0,5 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSVO12	010.0020.001	1/2"	Power supply 230 VAC.	1	1	63,80
MSVO12	010.0020.002	1/2"	Power supply 24 VAC.	1	1	63,80
MSVO12	010.0020.003	1/2"	Power supply 12 VDC.	1	1	63,80
MSVO34	010.0021.001	3/4"	Power supply 230 VAC.	1	1	66,10
MSVO34	010.0021.002	3/4"	Power supply 24 VAC.	1	1	66,10
MSVO34	010.0021.003	3/4"	Power supply 12 VDC.	1	1	66,10
MSVO100	010.0022.001	1"	Power supply 230 VAC.	1	1	84,70
MSVO100	010.0022.002	1"	Power supply 24 VAC.	1	1	84,70
MSVO100	010.0022.003	1"	Power supply 12 VDC.	1	1	84,70

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MSVO/6B

Normally open gas solenoid valve with manual resetting and threaded connections. Brass body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60°C.
Max. operating pressure: 6 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSVO12/6B	010.0030.001	1/2"	Power supply 230 VAC.	1	1	69,70
MSVO12/6B	010.0030.002	1/2"	Power supply 24 VAC.	1	1	69,70
MSVO12/6B	010.0030.003	1/2"	Power supply 12 VDC.	1	1	69,70
MSVO34/6B	010.0031.001	3/4"	Power supply 230 VAC.	1	1	75,50
MSVO34/6B	010.0031.002	3/4"	Power supply 24 VAC.	1	1	75,50
MSVO34/6B	010.0031.003	3/4"	Power supply 12 VDC.	1	1	75,50
MSVO100/6B	010.0032.001	1"	Power supply 230 VAC.	1	1	100,60
MSVO100/6B	010.0032.002	1"	Power supply 24 VAC.	1	1	100,60
MSVO100/6B	010.0032.003	1"	Power supply 12 VDC.	1	1	100,60

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EVO

Normally closed gas solenoid valve with manual resetting and threaded connections. Brass body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60°C.
Max. operating pressure: 0,5 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EVO15	010.0040.001	1/2"	Power supply 230 VAC.	1	1	74,60
EVO15	010.0040.002	1/2"	Power supply 24 VAC.	1	1	74,60
EVO15	010.0040.003	1/2"	Power supply 12 VDC.	1	1	74,60
EVO20	010.0041.001	3/4"	Power supply 230 VAC.	1	1	77,60
EVO20	010.0041.002	3/4"	Power supply 24 VAC.	1	1	77,60
EVO20	010.0041.003	3/4"	Power supply 12 VDC.	1	1	77,60
EVO25	010.0042.001	1"	Power supply 230 VAC.	1	1	93,50
EVO25	010.0042.002	1"	Power supply 24 VAC.	1	1	93,50
EVO25	010.0042.003	1"	Power supply 12 VDC.	1	1	93,50

Dimensions on page 353

EVO/6B

Normally closed gas solenoid valve with manual resetting and threaded connections. Brass body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C.
Maximum operating pressure: 6 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EVO15/6B	010.0050.001	1/2"	Power supply 230 VAC.	1	1	79,60
EVO15/6B	010.0050.002	1/2"	Power supply 24 VAC.	1	1	79,60
EVO15/6B	010.0050.003	1/2"	Power supply 12 VDC.	1	1	79,60
EVO20/6B	010.0051.001	3/4"	Power supply 230 VAC.	1	1	82,30
EVO20/6B	010.0051.002	3/4"	Power supply 24 VAC.	1	1	82,30
EVO20/6B	010.0051.003	3/4"	Power supply 12 VDC.	1	1	82,30
EVO25/6B	010.0052.001	1"	Power supply 230 VAC.	1	1	101,50
EVO25/6B	010.0052.002	1"	Power supply 24 VAC.	1	1	101,50
EVO25/6B	010.0052.003	1"	Power supply 12 VDC.	1	1	101,50

Dimensions on page 353

MSV

Normally open gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 0,5 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSV12	010.0080.001	1/2"	Power supply 230 VAC.	1	1	81,10
MSV12	010.0080.002	1/2"	Power supply 24 VAC.	1	1	81,10
MSV12	010.0080.003	1/2"	Power supply 12 VDC.	1	1	81,10
MSV34	010.0081.001	3/4"	Power supply 230 VAC.	1	1	90,30
MSV34	010.0081.002	3/4"	Power supply 24 VAC.	1	1	90,30
MSV34	010.0081.003	3/4"	Power supply 12 VDC.	1	1	90,30
MSV100	010.0082.001	1"	Power supply 230 VAC.	1	1	90,30
MSV100	010.0082.002	1"	Power supply 24 VAC.	1	1	90,30
MSV100	010.0082.003	1"	Power supply 12 VDC.	1	1	90,30
MSV114	010.0083.001	1.1/4"	Power supply 230 VAC.	1	1	111,40
MSV114	010.0083.002	1.1/4"	Power supply 24 VAC.	1	1	111,40
MSV114	010.0083.003	1.1/4"	Power supply 12 VDC.	1	1	111,40
MSV112	010.0084.001	1.1/2"	Power supply 230 VAC.	1	1	111,40
MSV112	010.0084.002	1.1/2"	Power supply 24 VAC.	1	1	111,40
MSV112	010.0084.003	1.1/2"	Power supply 12 VDC.	1	1	111,40
MSV112F	010.0084.011	DN40	Power supply 230 VAC.	1	1	260,50
MSV112F	010.0084.012	DN40	Power supply 24 VAC.	1	1	260,50
MSV112F	010.0084.013	DN40	Power supply 12 VDC.	1	1	260,50
MSV200	010.0085.001	2"	Power supply 230 VAC.	1	1	170,50
MSV200	010.0085.002	2"	Power supply 24 VAC.	1	1	170,50
MSV200	010.0085.003	2"	Power supply 12 VDC.	1	1	170,50
MSV200F	010.0085.011	DN50	Power supply 230 VAC.	1	1	342,00
MSV200F	010.0085.012	DN50	Power supply 24 VAC.	1	1	342,00
MSV200F	010.0085.013	DN50	Power supply 12 VDC.	1	1	342,00
MSV212	010.0086.101	DN65	Power supply 230 VAC.	1	1	589,50
MSV212	010.0086.102	DN65	Power supply 24 VAC.	1	1	589,50
MSV212	010.0086.103	DN65	Power supply 24 VDC.	1	1	589,50
MSV212	010.0086.104	DN65	Power supply 12 VDC.	1	1	589,50
MSV300	010.0087.101	DN80	Power supply 230 VAC.	1	1	607,50
MSV300	010.0087.102	DN80	Power supply 24 VAC.	1	1	607,50
MSV300	010.0087.103	DN80	Power supply 24 VDC.	1	1	607,50
MSV300	010.0087.104	DN80	Power supply 12 VDC.	1	1	607,50
MSV400	010.0088.001	DN100	Power supply 230 VAC.	1	1	796,00
MSV400	010.0088.002	DN100	Power supply 24 VAC.	1	1	796,00
MSV400	010.0088.003	DN100	Power supply 24 VDC.	1	1	796,00
MSV400	010.0088.004	DN100	Power supply 12 VDC.	1	1	796,00
MSV500	010.0089.001	DN125	Power supply 230 VAC.	1	1	1.832,00
MSV500	010.0089.002	DN125	Power supply 24 VAC/VDC	1	1	1.832,00
MSV500	010.0089.003	DN125	Power supply 12 VDC.	1	1	1.832,00
MSV600	010.0090.001	DN150	Power supply 230 VAC.	1	1	1.832,00
MSV600	010.0090.002	DN150	Power supply 24 VAC/VDC	1	1	1.832,00
MSV600	010.0090.003	DN150	Power supply 12 VDC.	1	1	1.832,00
MSV800	010.0091.001	DN200	Power supply 230 VAC.	1	1	4.678,00
MSV800	010.0091.002	DN200	Power supply 24 VAC/VDC	1	1	4.678,00
MSV800	010.0091.003	DN200	Power supply 12 VDC.	1	1	4.678,00
MSV1200	010.0092.001	DN300	Power supply 230 VAC.	1	1	10.396,00
MSV1200	010.0092.002	DN300	Power supply 24 VAC/VDC	1	1	10.396,00
MSV1200	010.0092.003	DN300	Power supply 12 VDC.	1	1	10.396,00

Dimensions on page 352

MSV/6B

Normally open gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSV12/6B	010.0120.001	1/2"	Power supply 230 VAC.	1	1	117,70
MSV12/6B	010.0120.002	1/2"	Power supply 24 VAC.	1	1	117,70
MSV12/6B	010.0120.003	1/2"	Power supply 12 VDC.	1	1	117,70
MSV34/6B	010.0121.001	3/4"	Power supply 230 VAC.	1	1	128,90
MSV34/6B	010.0121.002	3/4"	Power supply 24 VAC.	1	1	128,90
MSV34/6B	010.0121.003	3/4"	Power supply 12 VDC.	1	1	128,90
MSV100/6B	010.0122.001	1"	Power supply 230 VAC.	1	1	128,90
MSV100/6B	010.0122.002	1"	Power supply 24 VAC.	1	1	128,90
MSV100/6B	010.0122.003	1"	Power supply 12 VDC.	1	1	128,90
MSV114/6B	010.0123.001	1.1/4"	Power supply 230 VAC.	1	1	150,70
MSV114/6B	010.0123.002	1.1/4"	Power supply 24 VAC.	1	1	150,70
MSV114/6B	010.0123.003	1.1/4"	Power supply 12 VDC.	1	1	150,70
MSV112/6B	010.0124.001	1.1/2"	Power supply 230 VAC.	1	1	150,70
MSV112/6B	010.0124.002	1.1/2"	Power supply 24 VAC.	1	1	150,70
MSV112/6B	010.0124.003	1.1/2"	Power supply 12 VDC.	1	1	150,70
MSV112/6BF	010.0124.011	DN40	Power supply 230 VAC.	1	1	274,00
MSV112/6BF	010.0124.012	DN40	Power supply 24 VAC.	1	1	274,00
MSV112/6BF	010.0124.013	DN40	Power supply 12 VDC.	1	1	274,00
MSV200/6B	010.0125.001	2"	Power supply 230 VAC.	1	1	210,50
MSV200/6B	010.0125.002	2"	Power supply 24 VAC.	1	1	210,50
MSV200/6B	010.0125.003	2"	Power supply 12 VDC.	1	1	210,50
MSV200/6BF	010.0125.011	DN50	Power supply 230 VAC.	1	1	410,50
MSV200/6BF	010.0125.012	DN50	Power supply 24 VAC.	1	1	410,50
MSV200/6BF	010.0125.013	DN50	Power supply 12 VDC.	1	1	410,50
MSV212/6B	010.0126.101	DN65	Power supply 230 VAC.	1	1	711,00
MSV212/6B	010.0126.102	DN65	Power supply 24 VAC.	1	1	711,00
MSV212/6B	010.0126.103	DN65	Power supply 24 VDC.	1	1	711,00
MSV212/6B	010.0126.104	DN65	Power supply 12 VDC.	1	1	711,00
MSV300/6B	010.0127.101	DN80	Power supply 230 VAC.	1	1	716,00
MSV300/6B	010.0127.102	DN80	Power supply 24 VAC.	1	1	716,00
MSV300/6B	010.0127.103	DN80	Power supply 24 VDC.	1	1	716,00
MSV300/6B	010.0127.104	DN80	Power supply 12 VDC.	1	1	716,00
MSV400/6B	010.0128.001	DN100	Power supply 230 VAC.	1	1	946,00
MSV400/6B	010.0128.002	DN100	Power supply 24 VAC.	1	1	946,00
MSV400/6B	010.0128.003	DN100	Power supply 24 VDC.	1	1	946,00
MSV400/6B	010.0128.004	DN100	Power supply 12 VDC.	1	1	946,00
MSV500/6B	010.0129.001	DN125	Power supply 230 VAC.	1	1	2.255,00
MSV500/6B	010.0129.002	DN125	Power supply 24 VAC/VDC	1	1	2.255,00
MSV500/6B	010.0129.003	DN125	Power supply 12 VDC.	1	1	2.255,00
MSV600/6B	010.0130.001	DN150	Power supply 230 VAC.	1	1	2.255,00
MSV600/6B	010.0130.002	DN150	Power supply 24 VAC/VDC	1	1	2.255,00
MSV600/6B	010.0130.003	DN150	Power supply 12 VDC.	1	1	2.255,00
MSV800/6B	010.0131.001	DN200	Power supply 230 VAC.	1	1	5.762,00
MSV800/6B	010.0131.002	DN200	Power supply 24 VAC/VDC	1	1	5.762,00
MSV800/6B	010.0131.003	DN200	Power supply 12 VDC.	1	1	5.762,00
MSV1200/6B	010.0132.001	DN300	Power supply 230 VAC.	1	1	12.974,00
MSV1200/6B	010.0132.002	DN300	Power supply 24 VAC/VDC	1	1	12.974,00
MSV1200/6B	010.0132.003	DN300	Power supply 12 VDC.	1	1	12.974,00

Dimensions on page 352

EV

Normally closed gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 0,5 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EV15	010.0180.001	1/2"	Power supply 230 VAC.	1	1	84,70
EV15	010.0180.002	1/2"	Power supply 24 VAC.	1	1	84,70
EV15	010.0180.003	1/2"	Power supply 12 VDC.	1	1	84,70
EV20	010.0181.001	3/4"	Power supply 230 VAC.	1	1	95,20
EV20	010.0181.002	3/4"	Power supply 24 VAC.	1	1	95,20
EV20	010.0181.003	3/4"	Power supply 12 VDC.	1	1	95,20
EV25	010.0182.001	1"	Power supply 230 VAC.	1	1	95,20
EV25	010.0182.002	1"	Power supply 24 VAC.	1	1	95,20
EV25	010.0182.003	1"	Power supply 12 VDC.	1	1	95,20
EV32	010.0183.001	1.1/4"	Power supply 230 VAC.	1	1	135,30
EV32	010.0183.002	1.1/4"	Power supply 24 VAC.	1	1	135,30
EV32	010.0183.003	1.1/4"	Power supply 12 VDC.	1	1	135,30
EV40	010.0184.001	1.1/2"	Power supply 230 VAC.	1	1	135,30
EV40	010.0184.002	1.1/2"	Power supply 24 VAC.	1	1	135,30
EV40	010.0184.003	1.1/2"	Power supply 12 VDC.	1	1	135,30
EV40F	010.0184.011	DN40	Power supply 230 VAC.	1	1	274,00
EV40F	010.0184.012	DN40	Power supply 24 VAC.	1	1	274,00
EV40F	010.0184.013	DN40	Power supply 12 VDC.	1	1	274,00
EV50	010.0185.001	2"	Power supply 230 VAC.	1	1	190,20
EV50	010.0185.002	2"	Power supply 24 VAC.	1	1	190,20
EV50	010.0185.003	2"	Power supply 12 VDC.	1	1	190,20
EV50F	010.0185.011	DN50	Power supply 230 VAC.	1	1	410,50
EV50F	010.0185.012	DN50	Power supply 24 VAC.	1	1	410,50
EV50F	010.0185.013	DN50	Power supply 12 VDC.	1	1	410,50
EV65	010.0186.101	DN65	Power supply 230 VAC.	1	1	596,00
EV65	010.0186.102	DN65	Power supply 24 VAC.	1	1	596,00
EV65	010.0186.103	DN65	Power supply 24 VDC.	1	1	596,00
EV65	010.0186.104	DN65	Power supply 12 VDC.	1	1	596,00
EV80	010.0187.101	DN80	Power supply 230 VAC.	1	1	616,00
EV80	010.0187.102	DN80	Power supply 24 VAC.	1	1	616,00
EV80	010.0187.103	DN80	Power supply 24 VDC.	1	1	616,00
EV80	010.0187.104	DN80	Power supply 12 VDC.	1	1	616,00
EV100	010.0188.001	DN100	Power supply 230 VAC.	1	1	804,00
EV100	010.0188.002	DN100	Power supply 24 VAC.	1	1	804,00
EV100	010.0188.003	DN100	Power supply 24 VDC.	1	1	804,00
EV100	010.0188.004	DN100	Power supply 12 VDC.	1	1	804,00
EV125	010.0189.001	DN125	Power supply 230 VAC.	1	1	1.846,00
EV125	010.0189.002	DN125	Power supply 24 VAC/VDC	1	1	1.846,00
EV125	010.0189.003	DN125	Power supply 12 VDC.	1	1	1.846,00
EV150	010.0190.001	DN150	Power supply 230 VAC.	1	1	1.846,00
EV150	010.0190.002	DN150	Power supply 24 VAC/VDC	1	1	1.846,00
EV150	010.0190.003	DN150	Power supply 12 VDC.	1	1	1.846,00
EV200	010.0191.001	DN200	Power supply 230 VAC.	1	1	5.353,00
EV200	010.0191.002	DN200	Power supply 24 VAC/VDC	1	1	5.353,00
EV200	010.0191.003	DN200	Power supply 12 VDC.	1	1	5.353,00
EV300	010.0192.001	DN300	Power supply 230 VAC.	1	1	11.960,00
EV300	010.0192.002	DN300	Power supply 24 VAC/VDC	1	1	11.960,00
EV300	010.0192.003	DN300	Power supply 12 VDC.	1	1	11.960,00

Dimensions on page 352

EV/6B

Normally closed gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EV15/6B	010.0220.001	1/2"	Power supply 230 VAC.	1	1	124,00
EV15/6B	010.0220.002	1/2"	Power supply 24 VAC.	1	1	124,00
EV15/6B	010.0220.003	1/2"	Power supply 12 VDC.	1	1	124,00
EV20/6B	010.0221.001	3/4"	Power supply 230 VAC.	1	1	133,20
EV20/6B	010.0221.002	3/4"	Power supply 24 VAC.	1	1	133,20
EV20/6B	010.0221.003	3/4"	Power supply 12 VDC.	1	1	133,20
EV25/6B	010.0222.001	1"	Power supply 230 VAC.	1	1	133,20
EV25/6B	010.0222.002	1"	Power supply 24 VAC.	1	1	133,20
EV25/6B	010.0222.003	1"	Power supply 12 VDC.	1	1	133,20
EV32/6B	010.0223.001	1.1/4"	Power supply 230 VAC.	1	1	187,40
EV32/6B	010.0223.002	1.1/4"	Power supply 24 VAC.	1	1	187,40
EV32/6B	010.0223.003	1.1/4"	Power supply 12 VDC.	1	1	187,40
EV40/6B	010.0224.001	1.1/2"	Power supply 230 VAC.	1	1	187,40
EV40/6B	010.0224.002	1.1/2"	Power supply 24 VAC.	1	1	187,40
EV40/6B	010.0224.003	1.1/2"	Power supply 12 VDC.	1	1	187,40
EV40/6BF	010.0224.011	DN40	Power supply 230 VAC.	1	1	287,50
EV40/6BF	010.0224.012	DN40	Power supply 24 VAC.	1	1	287,50
EV40/6BF	010.0224.013	DN40	Power supply 12 VDC.	1	1	287,50
EV50/6B	010.0225.001	2"	Power supply 230 VAC.	1	1	234,00
EV50/6B	010.0225.002	2"	Power supply 24 VAC.	1	1	234,00
EV50/6B	010.0225.003	2"	Power supply 12 VDC.	1	1	234,00
EV50/6BF	010.0225.011	DN50	Power supply 230 VAC.	1	1	410,50
EV50/6BF	010.0225.012	DN50	Power supply 24 VAC.	1	1	410,50
EV50/6BF	010.0225.013	DN50	Power supply 12 VDC.	1	1	410,50
EV65/6B	010.0226.101	DN65	Power supply 230 VAC.	1	1	718,00
EV65/6B	010.0226.102	DN65	Power supply 24 VAC.	1	1	718,00
EV65/6B	010.0226.103	DN65	Power supply 24 VDC.	1	1	718,00
EV65/6B	010.0226.104	DN65	Power supply 12 VDC.	1	1	718,00
EV80/6B	010.0227.101	DN80	Power supply 230 VAC.	1	1	727,00
EV80/6B	010.0227.102	DN80	Power supply 24 VAC.	1	1	727,00
EV80/6B	010.0227.103	DN80	Power supply 24 VDC.	1	1	727,00
EV80/6B	010.0227.104	DN80	Power supply 12 VDC.	1	1	727,00
EV100/6B	010.0228.001	DN100	Power supply 230 VAC.	1	1	956,00
EV100/6B	010.0228.002	DN100	Power supply 24 VAC.	1	1	956,00
EV100/6B	010.0228.003	DN100	Power supply 24 VDC.	1	1	956,00
EV100/6B	010.0228.004	DN100	Power supply 12 VDC.	1	1	956,00
EV125/6B	010.0229.001	DN125	Power supply 230 VAC.	1	1	2.269,00
EV125/6B	010.0229.002	DN125	Power supply 24 VAC/VDC	1	1	2.269,00
EV125/6B	010.0229.003	DN125	Power supply 12 VDC.	1	1	2.269,00
EV150/6B	010.0230.001	DN150	Power supply 230 VAC.	1	1	2.269,00
EV150/6B	010.0230.002	DN150	Power supply 24 VAC/VDC	1	1	2.269,00
EV150/6B	010.0230.003	DN150	Power supply 12 VDC.	1	1	2.269,00
EV200/6B	010.0231.001	DN200	Power supply 230 VAC.	1	1	6.706,00
EV200/6B	010.0231.002	DN200	Power supply 24 VAC/VDC	1	1	6.706,00
EV200/6B	010.0231.003	DN200	Power supply 12 VDC.	1	1	6.706,00
EV300/6B	010.0232.001	DN300	Power supply 230 VAC.	1	1	14.946,00
EV300/6B	010.0232.002	DN300	Power supply 24 VAC/VDC	1	1	14.946,00
EV300/6B	010.0232.003	DN300	Power supply 12 VDC.	1	1	14.946,00

Dimensions on page 352

MSVM/6B

Normally open gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar. Version with limit micro-switch for checking open/closed status.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSVM34/6B	010.0136.001	3/4"	Power supply 230 VAC.	1	1	408,50
MSVM100/6B	010.0137.001	1"	Power supply 230 VAC.	1	1	408,50
MSVM114/6B	010.0138.001	1.1/4"	Power supply 230 VAC.	1	1	428,50
MSVM112/6B	010.0139.001	1.1/2"	Power supply 230 VAC.	1	1	428,50
MSVM200/6B	010.0140.001	2"	Power supply 230 VAC.	1	1	489,50
MSVM212/6B	010.0141.101	DN65	Power supply 230 VAC.	1	1	1.027,00
MSVM300/6B	010.0142.101	DN80	Power supply 230 VAC.	1	1	1.038,00
MSVM400/6B	010.0143.001	DN100	Power supply 230 VAC.	1	1	1.283,00
MSVM500/6B	010.0144.001	DN125	Power supply 230 VAC.	1	1	2.621,00
MSVM600/6B	010.0145.001	DN150	Power supply 230 VAC.	1	1	2.621,00

Dimensions on page 353

EVM/6B

Normally closed gas solenoid valve with manual resetting. Aluminium body. Coil with IP65 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar. Version with limit micro-switch for checking open/closed status.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EVM20/6B	010.0236.001	3/4"	Power supply 230 VAC.	1	1	413,50
EVM25/6B	010.0237.001	1"	Power supply 230 VAC.	1	1	413,50
EVM32/6B	010.0238.001	1.1/4"	Power supply 230 VAC.	1	1	442,50
EVM40/6B	010.0239.001	1.1/2"	Power supply 230 VAC.	1	1	442,50
EVM50/6B	010.0240.001	2"	Power supply 230 VAC.	1	1	511,50
EVM65/6B	010.0241.101	DN65	Power supply 230 VAC.	1	1	1.039,00
EVM80/6B	010.0242.101	DN80	Power supply 230 VAC.	1	1	1.048,00
EVM100/6B	010.0243.001	DN100	Power supply 230 VAC.	1	1	1.297,00
EVM125/6B	010.0244.001	DN125	Power supply 230 VAC.	1	1	2.635,00
EVM150/6B	010.0245.001	DN150	Power supply 230 VAC.	1	1	2.635,00

Dimensions on page 353

MSV/6BEEXD

Normally open gas solenoid valve with manual resetting. Aluminium body. Coil with IP67 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar.
Explosion-proof version with EExd coil.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
MSV12/6BEEXD	010.0320.001	1/2"	Power supply 230 VAC.	1	1	897,00
MSV12/6BEEXD	010.0320.002	1/2"	Power supply 24 VAC.	1	1	897,00
MSV12/6BEEXD	010.0320.003	1/2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV12/6BEEXD	010.0320.004	1/2"	Power supply 12 VDC.	1	1	897,00
MSV34/6BEEXD	010.0321.001	3/4"	Power supply 230 VAC.	1	1	907,00
MSV34/6BEEXD	010.0321.002	3/4"	Power supply 24 VAC.	1	1	907,00
MSV34/6BEEXD	010.0321.003	3/4"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV34/6BEEXD	010.0321.004	3/4"	Power supply 12 VDC.	1	1	907,00
MSV100/6BEEXD	010.0322.001	1"	Power supply 230 VAC.	1	1	907,00
MSV100/6BEEXD	010.0322.002	1"	Power supply 24 VAC.	1	1	907,00
MSV100/6BEEXD	010.0322.003	1"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV100/6BEEXD	010.0322.004	1"	Power supply 12 VDC.	1	1	907,00
MSV114/6BEEXD	010.0323.001	1.1/4"	Power supply 230 VAC.	1	1	930,00
MSV114/6BEEXD	010.0323.002	1.1/4"	Power supply 24 VAC.	1	1	930,00
MSV114/6BEEXD	010.0323.003	1.1/4"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV114/6BEEXD	010.0323.004	1.1/4"	Power supply 12 VDC.	1	1	930,00
MSV112/6BEEXD	010.0324.001	1.1/2"	Power supply 230 VAC.	1	1	930,00
MSV112/6BEEXD	010.0324.002	1.1/2"	Power supply 24 VAC.	1	1	930,00
MSV112/6BEEXD	010.0324.003	1.1/2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV112/6BEEXD	010.0324.004	1.1/2"	Power supply 12 VDC.	1	1	930,00
MSV200/6BEEXD	010.0325.001	2"	Power supply 230 VAC.	1	1	1.039,00
MSV200/6BEEXD	010.0325.002	2"	Power supply 24 VAC.	1	1	1.039,00
MSV200/6BEEXD	010.0325.003	2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV200/6BEEXD	010.0325.004	2"	Power supply 12 VDC.	1	1	1.039,00
MSV212/6BEEXD	010.0326.101	DN65	Power supply 230 VAC.	1	1	1.508,00
MSV212/6BEEXD	010.0326.102	DN65	Power supply 24 VAC.	1	1	1.508,00
MSV212/6BEEXD	010.0326.103	DN65	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV212/6BEEXD	010.0326.104	DN65	Power supply 12 VDC.	1	1	1.508,00
MSV300/6BEEXD	010.0327.101	DN80	Power supply 230 VAC.	1	1	1.508,00
MSV300/6BEEXD	010.0327.102	DN80	Power supply 24 VAC.	1	1	1.508,00
MSV300/6BEEXD	010.0327.103	DN80	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV300/6BEEXD	010.0327.104	DN80	Power supply 12 VDC.	1	1	1.508,00
MSV400/6BEEXD	010.0328.001	DN100	Power supply 230 VAC.	1	1	1.747,00
MSV400/6BEEXD	010.0328.002	DN100	Power supply 24 VAC.	1	1	1.747,00
MSV400/6BEEXD	010.0328.003	DN100	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
MSV400/6BEEXD	010.0328.004	DN100	Power supply 12 VDC.	1	1	1.747,00
MSV500/6BEEXD	010.0329.001	DN125	Power supply 230 VAC.	1	1	3.043,00
MSV500/6BEEXD	010.0329.002	DN125	Power supply 24 VAC.	1	1	3.043,00
MSV500/6BEEXD	010.0329.003	DN125	Power supply 24 VDC	1	1	AVAILABLE TO ORDER
MSV500/6BEEXD	010.0329.004	DN125	Power supply 12 VDC.	1	1	3.043,00
MSV600/6BEEXD	010.0330.001	DN150	Power supply 230 VAC.	1	1	3.043,00
MSV600/6BEEXD	010.0330.002	DN150	Power supply 24 VAC.	1	1	3.043,00
MSV600/6BEEXD	010.0330.003	DN150	Power supply 24 VDC	1	1	AVAILABLE TO ORDER
MSV600/6BEEXD	010.0330.004	DN150	Power supply 12 VDC.	1	1	3.043,00

Dimensions on page 353

EV/6BEEXD

Normally closed gas solenoid valve with manual resetting. Aluminium body. Coil with IP67 connector. Suitable for manufactured gas, natural gas, liquefied petroleum gas (LPG), non-aggressive gas and air. Operating temperature: -20 to 60 °C. Maximum operating pressure: 6 bar. Explosion-proof version with EExd coil.

Type	Part no.	Connections	Description	Pcs/ pack	Package	€ each
EV15/6BEEXD	010.0420.001	1/2"	Power supply 230 VAC.	1	1	759,00
EV15/6BEEXD	010.0420.002	1/2"	Power supply 24 VAC.	1	1	759,00
EV15/6BEEXD	010.0420.003	1/2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV15/6BEEXD	010.0420.004	1/2"	Power supply 12 VDC.	1	1	759,00
EV20/6BEEXD	010.0421.001	3/4"	Power supply 230 VAC.	1	1	767,00
EV20/6BEEXD	010.0421.002	3/4"	Power supply 24 VAC.	1	1	767,00
EV20/6BEEXD	010.0421.003	3/4"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV20/6BEEXD	010.0421.004	3/4"	Power supply 12 VDC.	1	1	767,00
EV25/6BEEXD	010.0422.001	1"	Power supply 230 VAC.	1	1	767,00
EV25/6BEEXD	010.0422.002	1"	Power supply 24 VAC.	1	1	767,00
EV25/6BEEXD	010.0422.003	1"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV25/6BEEXD	010.0422.004	1"	Power supply 12 VDC.	1	1	767,00
EV32/6BEEXD	010.0423.001	1.1/4"	Power supply 230 VAC.	1	1	797,00
EV32/6BEEXD	010.0423.002	1.1/4"	Power supply 24 VAC.	1	1	797,00
EV32/6BEEXD	010.0423.003	1.1/4"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV32/6BEEXD	010.0423.004	1.1/4"	Power supply 12 VDC.	1	1	797,00
EV40/6BEEXD	010.0424.001	1.1/2"	Power supply 230 VAC.	1	1	797,00
EV40/6BEEXD	010.0424.002	1.1/2"	Power supply 24 VAC.	1	1	797,00
EV40/6BEEXD	010.0424.003	1.1/2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV40/6BEEXD	010.0424.004	1.1/2"	Power supply 12 VDC.	1	1	797,00
EV50/6BEEXD	010.0425.001	2"	Power supply 230 VAC.	1	1	874,00
EV50/6BEEXD	010.0425.002	2"	Power supply 24 VAC.	1	1	874,00
EV50/6BEEXD	010.0425.003	2"	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV50/6BEEXD	010.0425.004	2"	Power supply 12 VDC.	1	1	874,00
EV65/6BEEXD	010.0426.101	DN65	Power supply 230 VAC.	1	1	1.325,00
EV65/6BEEXD	010.0426.102	DN65	Power supply 24 VAC.	1	1	1.325,00
EV65/6BEEXD	010.0426.103	DN65	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV65/6BEEXD	010.0426.104	DN65	Power supply 12 VDC.	1	1	1.325,00
EV80/6BEEXD	010.0427.101	DN80	Power supply 230 VAC.	1	1	1.325,00
EV80/6BEEXD	010.0427.102	DN80	Power supply 24 VAC.	1	1	1.325,00
EV80/6BEEXD	010.0427.103	DN80	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV80/6BEEXD	010.0427.104	DN80	Power supply 12 VDC.	1	1	1.325,00
EV100/6BEEXD	010.0428.001	DN100	Power supply 230 VAC.	1	1	1.564,00
EV100/6BEEXD	010.0428.002	DN100	Power supply 24 VAC.	1	1	1.564,00
EV100/6BEEXD	010.0428.003	DN100	Power supply 24 VDC.	1	1	AVAILABLE TO ORDER
EV100/6BEEXD	010.0428.004	DN100	Power supply 12 VDC.	1	1	1.564,00
EV125/6BEEXD	010.0429.001	DN125	Power supply 230 VAC.	1	1	2.861,00
EV125/6BEEXD	010.0429.002	DN125	Power supply 24 VAC.	1	1	2.861,00
EV125/6BEEXD	010.0429.003	DN125	Power supply 24 VDC	1	1	AVAILABLE TO ORDER
EV125/6BEEXD	010.0429.004	DN125	Power supply 12 VDC.	1	1	2.861,00
EV150/6BEEXD	010.0430.001	DN150	Power supply 230 VAC.	1	1	2.861,00
EV150/6BEEXD	010.0430.002	DN150	Power supply 24 VAC.	1	1	2.861,00
EV150/6BEEXD	010.0430.003	DN150	Power supply 24 VDC	1	1	AVAILABLE TO ORDER
EV150/6BEEXD	010.0430.004	DN150	Power supply 12 VDC.	1	1	2.861,00

Dimensions on page 353

SPARE PARTS KIT

Type	Part no.	Valve	Description	Pcs/ pack	Package	€ each
511.2041.001	014.0300.001	EVO, EV 1/2" to 2"	RAC coil 230 VAC	1	1	21,00
511.2103.001	014.0301.001	MSV 1/2" to 2"	Coil 230 VAC	1	1	19,95
511.3426.001	014.0302.001	MSVO 1/2" to 1"	Coil 230 VAC	1	1	21,00
511.2102.001	014.0303.001	MSV, EV 65 - 80 - 100	RAC coil 230 VAC	1	1	55,50
511.0219.001	014.0306.001	MSV 125 - 150	RAC coil 230 VAC	1	1	75,50
511.0216.001	014.0304.001	EV 125 - 150 - 200	RAC coil 230 VAC	1	1	75,50
511.0216.001	014.0304.001	EV 300	RAC coil 230 VAC	1	1	75,50
511.0216.001	014.0304.001	MSV 200 - 300	RAC coil 230 VAC	1	1	75,50
511.2042.001	014.0310.001	MSVO, EVO, EV 1/2" to 2"	RAC coil 24 VAC	1	1	21,00
511.2109.001	014.0311.001	MSV, EV 65 - 80 - 100	Coil 24 VAC - VDC	1	1	55,50
1729	014.0312.001	MSV 1/2" to 2"	Coil 24 VAC	1	1	19,95
511.0218.001	014.0313.001	MSV, EV 125 - 150 - 200 - 300	Coil 24 VAC - VDC	1	1	79,80
511.2116.001	014.0320.001	MSVO, EVO, MSV, EV 1/2" to 2"	Coil 12 VDC	1	1	19,95
511.2177.001	014.0321.001	MSV - EV 65 - 80 -100	Coil 12 VDC	1	1	55,50
511.0217.001	014.0322.001	MSV - EV 125 - 150 - 200 - 300	Coil 12 VDC	1	1	79,80
2105	014.0275.001	MSVO, MSV 1/2" to 2	Connector 230 VAC	1	1	4,00
2105	014.0275.001	MSVO, MSV 1/2" to 2"	Connector 24 VAC	1	1	4,00
2105	014.0275.001	MSVO, EVO, MSV, EV 1/2" to DN300	Connector 12 VDC	1	1	4,00
2105	014.0275.001	MSV, EV 65 - 80 - 100	Connector 24 VDC	1	1	4,00
2104	014.0277.001	DN65 to DN300 MSV	Connector 230 VAC RAC	1	1	24,90
2104	014.0277.001	EVO, EV 1/2" to 2" and DN125 to DN300	Connector 230 VAC RAC	1	1	24,90
2045	014.0278.001	EV 65 - 80 - 100	Connector 230 VAC RAC	1	1	24,90
2108	014.0276.001	EVO, EV 1/2" to 2"	Connector 24 VAC RAC	1	1	24,90
2108	014.0276.001	EV, MSV 65 - 80 - 100	Connector 24 VAC RAC	1	1	24,90
511.0070.000	014.0279.001	MSV, EV 125 - 150 - 200 - 300	Connector 24 VAC - VDC	1	1	31,40
	available to order	MSV - EV 1/2" to DN150	Coil 230 VAC EEXD	1	1	Available to order
	available to order	MSV - EV 1/2" to DN150	Coil 24 VAC EEXD	1	1	Available to order
	available to order	MSV - EV 1/2" to DN150	Coil 24 VDC EEXD	1	1	Available to order
	available to order	MSV - EV 1/2" to DN150	Coil 12 VDC EEXD	1	1	Available to order
6218	014.0034.000	MSVM - EVM 3/4" - DN150	Microswitch	1	1	88,90

SELECTION GUIDE: **COILS AND CONNECTORS**

Type	Connections	Coils 230V AC	Coils 24V AC	Coils 24V DC	Coils 12V DC
MSVO - MSVO/6B	1/2" - 1"	014.0302.001	014.0310.001	-	014.0320.001
EVO - EVO/6B	1/2" - 1"	014.0300.001	014.0310.001	-	014.0320.001
MSV MSV/6B MSVM/6B	1/2" - 2"	014.0301.001	014.0312.001	-	014.0320.001
	DN65 - DN100	014.0303.001	014.0311.001	014.0311.001	014.0321.001
	DN125 - DN150	014.0306.001	014.0313.001	014.0313.001	014.0322.001
	DN200 - DN300	014.0304.001	014.0313.001	014.0313.001	014.0322.001
EV EV/6B EVM/6B	1/2" - 2"	014.0300.001	014.0310.001	-	014.0320.001
	DN65 - DN100	014.0303.001	014.0311.001	014.0311.001	014.0321.001
	DN125 - DN150	014.0304.001	014.0313.001	014.0313.001	014.0322.001
	DN200 - DN300	014.0304.001	014.0313.001	014.0313.001	014.0322.001
MSV/6BEEXD	1/2" - DN150	Available to order	Available to order	Available to order	Available to order
EV/6BEEXD	1/2" - DN150	Available to order	Available to order	Available to order	Available to order

Type	Connections	Connectors 230V AC	Connectors 24V AC	Connectors 24V DC	Connectors 12V DC
MSVO	1/2" - 1"	014.0275.001	014.0275.001	-	014.0275.001
MSVO/6B	1/2" - 1"	014.0275.001	014.0275.001	-	014.0275.001
EVO	1/2" - 1"	014.0277.001	014.0276.001	-	014.0275.001
EVO/6B	1/2" - 1"	014.0277.001	014.0276.001	-	014.0275.001
MSV MSV/6B MSVM/6B	1/2" - 2"	014.0275.001	014.0275.001	-	014.0275.001
	DN65- DN100	014.0277.001	014.0276.001	014.0275.001	014.0275.001
	DN125 - DN150	014.0277.001	014.0279.001	014.0279.001	014.0275.001
	DN200 - DN300	014.0277.001	014.0279.001	014.0279.001	014.0275.001
EV EV/6B EVM/6B	1/2" - 2"	014.0277.001	014.0276.001	-	014.0275.001
	DN65 - DN100	014.0278.001	014.0276.001	014.0275.001	014.0275.001
	DN125 - DN150	014.0277.001	014.0279.001	014.0279.001	014.0275.001
	DN200 - DN300	014.0277.001	014.0279.001	014.0279.001	014.0275.001
MSV/6BEEXD	1/2" - DN150	Included with the coil			
EV/6BEEXD	1/2" - DN150	Included with the coil			

Gas leak detectors

GSX - GAS SENTINEL

NEW

Surface wall-mounting microprocessor-controlled electronic domestic gas leak detector with acoustic and illuminating alarm, for connection to one or more normally closed solenoid valves (EV, EVO Series) or normally open solenoid valves (MSV, MSVO Series).
White, wall-mounting version.

Type	Part no.	Description	Pcs/pack	Package	€ each
GSX	0941030	For detecting methane and natural gas.	1	1	118,50
GSX	0941530	For detecting LPG, propane, butane.	1	1	118,50
GSX	0941070	For detecting CO	1	1	220,00

Dimensions on page 354

GSW - GAS SENTINEL

Characteristics as per GSX but for flush wall-mounting. Compatible with the most common DIN plates and electrical enclosures on the market. Overall dimensions 115x66x62mm.
White, wall-mounting version.

Type	Part no.	Description	Pcs/pack	Package	€ each
GSW	0941040	For detecting methane and natural gas.	1	1	131,00
GSW	0941540	For detecting LPG, propane, butane.	1	1	131,00

Dimensions on page 354

CIVIC 1

Gas detector central unit for the connection of 1 UR13 or UR21S probe; with LED-based optical interface (power ON, fault, gas alarm) and internal buzzer-based acoustic interface.
Control output for gas alarm and OC output for fault indication.
In self-extinguishing plastic housing for DIN-rail mounting.

Type	Part no.	Description	Pcs/pack	Package	€ each
CIVIC1	0940501	Power supply 12 VAC	1	1	272,50

Dimensions on page 354

CIVIC 4

Gas detector central unit for the connection of 4 UR13 or UR21S probes; with LED-based optical interface (power ON, fault, gas alarm) and internal buzzer-based acoustic interface.
Control output for gas alarm and OC output for fault indication.
In self-extinguishing plastic housing for DIN-rail mounting.

Type	Part no.	Description	Pcs/pack	Package	€ each
CIVIC4	0940504	Power supply 12 VAC	1	1	441,00

Dimensions on page 354

UR13

Gas detector sensor for CIVIC1 and CIVIC4 central units available in three versions for detecting natural gas, LPG and carbon monoxide (CO).
Protection rating IP44.

Type	Part no.	Description	Pcs/pack	Package	€ each
UR13	0940561	For detecting natural gas	1	1	208,00
UR13	0940562	For detecting GPL	1	1	208,00
UR13	0940563	For detecting CO	1	1	208,00

Dimensions on page 354

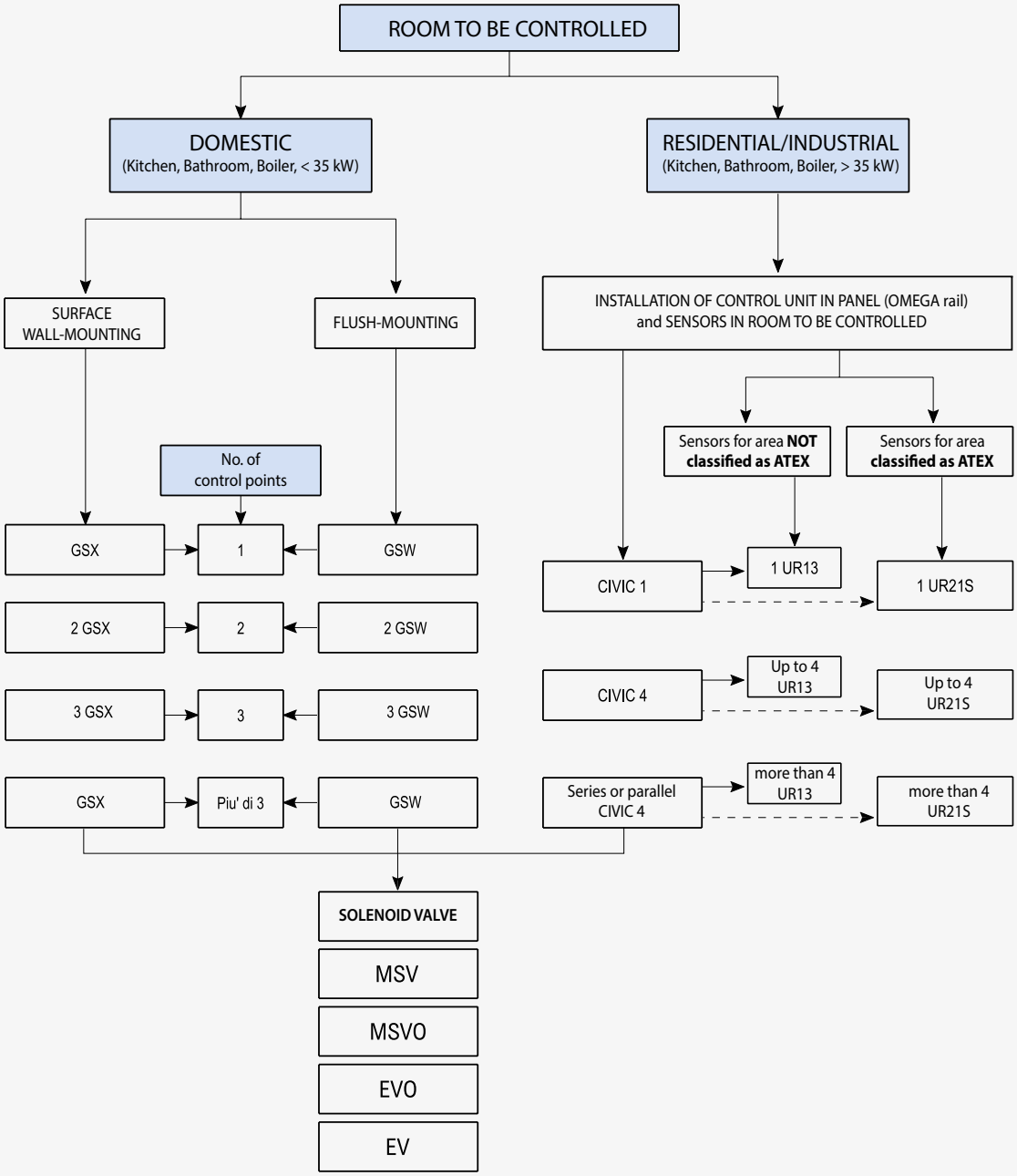
UR21S

Gas detector in metal housing (Group II protection mode, category 3G, Ex nA IIC T6) with operating status indicator light, for indicating gas alarms by means of a 4–20 mA analogue output or a trip threshold (pre-alarm, level 1 and 2 alarm, fault) that can be freely set with DIP-switches.
Protection rating IP55.

Type	Part no.	Description	Pcs/pack	Package	€ each
UR21S	0940571N	For detecting natural gas	1	1	703,00
UR21S	0940572N	For detecting GPL	1	1	703,00
UR21S	0940573N	For detecting CO	1	1	731,00

Dimensions on page 354

EXPLANATORY BLOCK DIAGRAM



	GSX	GSW	CIVIC 1	CIVIC 4	UR13	UR21S
Protection rating	IP42	IP42	IP20	IP20	IP44	IP55, Atex
Installation	Wall mount	Flush mount	On 35mm omega rail	On 35mm omega rail	Wall mount	Wall mount

Protection device

GUA

Yellow, spiral-reinforced, self-extinguishing flexible sheath with smooth internal surface for protecting gas pipes, as laid down in UNI-CIG 7129-08 and UNI-CIG 7131. PVC sheath. Crush-resistance: To 320 N. Temperature-resistance: -10 to 70°C. Self-extinguishing to UL 94 class VO. Minimum bend radius less than 3 times the diameter (empty sheath). Absolute electrical insulation against stray currents. Absorbs the thermal expansion of gas supply pipes thereby preventing the formation of cracks in walls and floors.

Type	Part no.	External diameter	Internal diameter	Pcs/ pack	Package	€ each
GUA	0917020	24,7 mm	20 mm	25	1	1,20
GUA	0917022	27 mm	22 mm	25	1	1,20
GUA	0917025	30,3 mm	25 mm	25	1	1,50
GUA	0917028	33,3 mm	28 mm	25	1	1,60
GUA	0917030	35,5 mm	30 mm	25	1	2,30
GUA	0917032	37,8 mm	32 mm	25	1	2,30
GUA	0917035	40,7 mm	35 mm	25	1	2,50
GUA	0917040	46,2 mm	40 mm	25	1	3,10
GUA	0917050	57 mm	50 mm	25	1	5,30
GUA	0917060	68 mm	60 mm	25	1	6,30

TECHNICAL NOTE - Protection of gas supply pipes

Cavity feed-through.
Hollow brick, concrete, and prefabricated panel feed-through.
Floor and ceiling slabs.
Crossover or parallel runs of water supply pipes.
Wherever it is necessary to insulate metal pipes against stray currents.

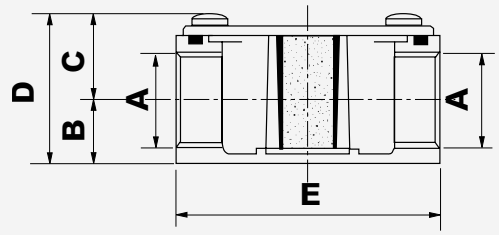
Italian standards UNI 7129 and UNI 7131 governing domestic gas supply systems supplied by the distribution network (UNI 7129) or with LPG (UNI 7131) require gas supply pipes to be inserted in a protective sheath. UNI 7129, 3.3.1.4.... omissis .... The internal diameter of the aforementioned sheaths must be at least 10 mm larger than the external diameter of the pipe.

SELF-EXTINGUISHING SHEATH WITH SPIRAL-REINFORCED EXTERNAL SURFACE AND SMOOTH INTERNAL SURFACE FOR PROTECTING GAS SUPPLY PIPES

Sheath	Diameter of sheath	Nominal diameter of iron supply pipes	Weight
Part no.	**mm**	**mm**	**g/m**
0917020	20	10	100
0917022	22	12	107
0917025	25	15	114
0917028	28	18	140
0917030	30	20	177
0917032	32	22	220
0917035	35	25	274
0917040	40	30	350
0917050	50	40	420
0917060	60	50	517

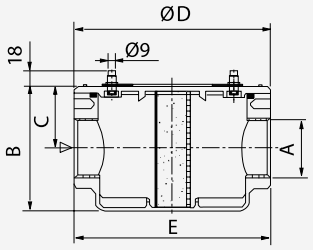
Overall dimensions

70600



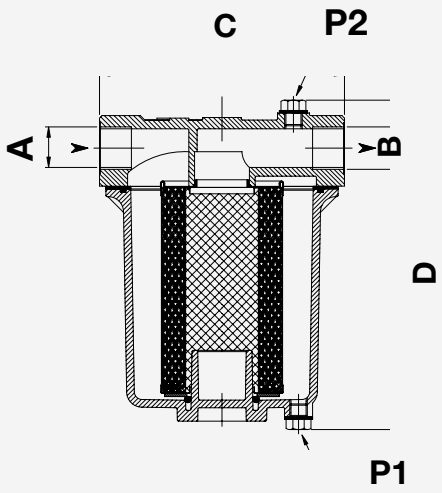
Type	A	B	C	D	E
70609	Rp 1/2”	17	23	40	70
70608	Rp 3/4”	17	23	40	70

70600/6B



Type	A	B	C	D	E
70611/6B	Rp 1/2”	93	38	120	120
70612/6B	Rp 3/4”	93	38	120	120
70602/6B	Rp 1”	104	53	160	160
70604/6B	Rp 1. 1/4”	104	53	160	160
70603/6B	Rp 1. 1/2”	104	53	160	160
70631/6B	Rp 2”	140	74	186	186

70680



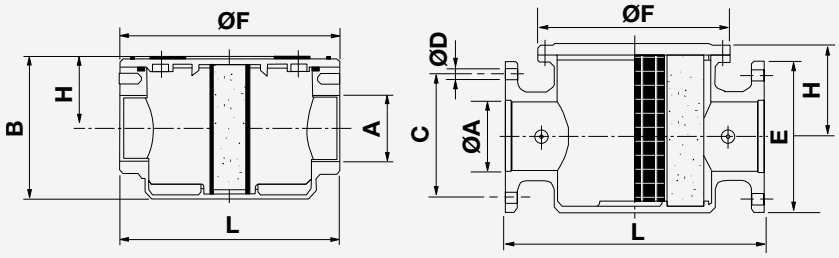
TECHNICAL NOTE

P1: inlet tapping point
P2: outlet tapping point

A pressure gauge or differential pressure switch can be connected between P1 and P2 (Rp 1/2”) to control the pressure drop in the cartridge.

Type	A	B	C	D
70684	Rp 1”	Rp 1”	192	245
70685	Rp 1. 1/4”	Rp 1. 1/4”	192	250
70686	Rp 1. 1/2”	Rp 1. 1/2”	192	250
70687	Rp 2”	Rp 2”	182	265

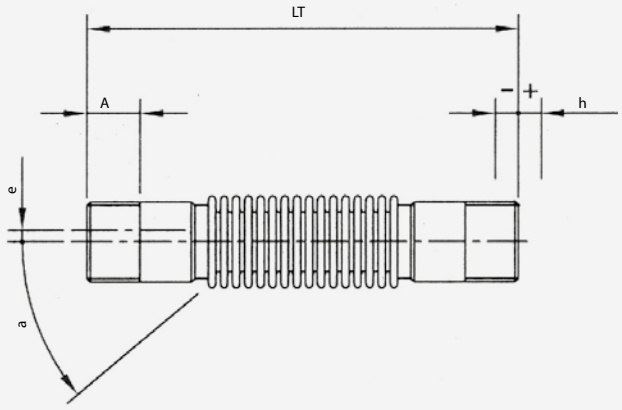
70600/1B - 70600F/6B



Type	A	B	C	D	E	F	H	L
70611/1B	Rp 1/2”	93	-	-	-	120	38	120
70612/1B	Rp 3/4”	93	-	-	-	120	38	120
70602/1B	Rp 1”	104	-	-	-	160	53	160
70604/1B	Rp 1. 1/4”	104	-	-	-	160	53	160
70603/1B	Rp 1. 1/2”	104	-	-	-	160	53	160
70631/1B	Rp 2”	140	-	-	-	186	74	186
70603F/6B	DN 40	-	110	18	150	130	67	200
70631F/6B	DN 50	-	125	18	165	148	78	230
70610F/6B	DN 65	-	145	18	185	230	104	320
70620F/6B	DN 80	-	160	18	200	230	104	320
70640F/6B	DN 100	-	180	18	220	280	130	380
70650F/6B	DN125	-	210	18	250	280	148	380
70660F/6B	DN150	-	240	22	285	310	160	450

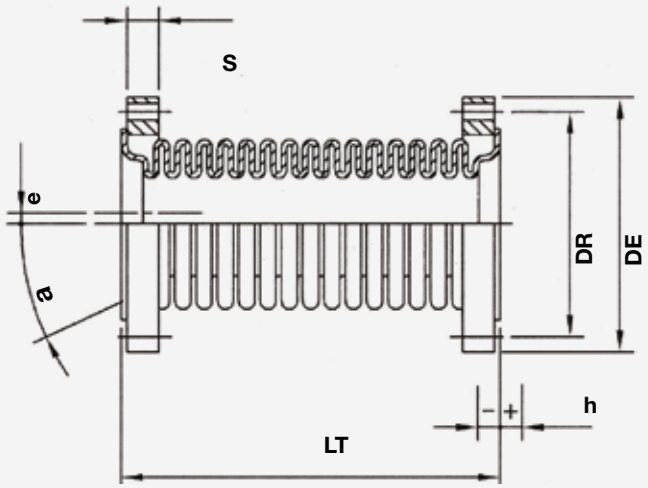
Overall dimensions

GA



Type	Connections	Max P.	Temp.	Axial compensation				Angular	Lateral	Dimensions
GA	UNI ISO 7-1	bar	°C	h+	h-	h tot.	a ±	e ±	A	LT ±5
GA1556	R. 1/2"	3	-20 +60	10	10	20	35	5	18	170
GA1544	R. 3/4"	3	-20 +60	10	10	20	30	5	18	180
GA1545	R. 1"	3	-20 +60	10	10	20	25	6	22	200
GA1546	R. 1"1/4	3	-20 +60	12	12	24	35	10	24	220
GA1547	R. 1"1/2	3	-20 +60	15	15	30	35	10	24	240
GA1548	R. 2"	3	-20 +60	15	15	30	30	10	28	240

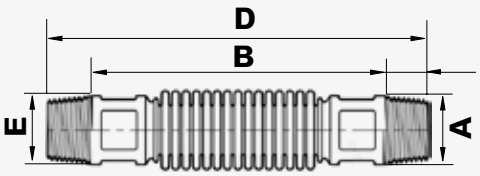
GAF



Type	Connections	Max P.	Temp.	Axial compensation			Angular	Lateral	Dimensions			
GA	ISO 7005-2	bar	°C	h+	h-	h tot.	a ±	e ±	DE	DR	LT±5	S
GAF212	DN 65 PN16	3	-20 +60	20	20	40	20	10	185	145	150	18
GAF300	DN 80 PN16	3	-20 +60	20	20	40	20	10	200	160	160	20
GAF400	DN 100 PN16	3	-20 +60	20	20	40	20	10	220	180	170	23
GAF500	DN 125 PN16	3	-20 +60	25	25	50	4	6	250	210	240	24
GAF600	DN 150 PN16	3	-20 +60	25	25	50	4	6	285	240	240	24

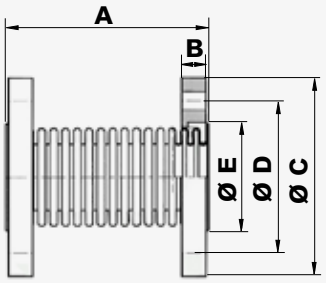
Overall dimensions

GDA THREADED



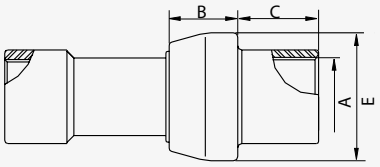
DN	A	B	C	D	E	Z*
16	1/2”	140	15	170	23	12
20	3/4”	145	17	180	27	16
25	1”	150	20	190	34	16
32	1.1/4”	155	22	200	43	20
40	1.1/2”	165	22	210	52	30
50	2”	190	25	240	64	30

GDA FLANGED



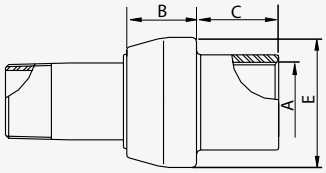
DN	A	B	C	D	E	F	No. of holes	Z*
65	155	20	185	145	92	18	4	40
80	165	20	200	160	113	18	8	45
100	175	22	220	180	135	18	8	55

GDFF



DN	A	E	C	B
3/4”	26,7	53	27	30
1”	33,4	60	29	32
1.1/4”	42,2	71	32	35
1.1/2”	48,3	77	32	37
2”	60,3	90	36	38

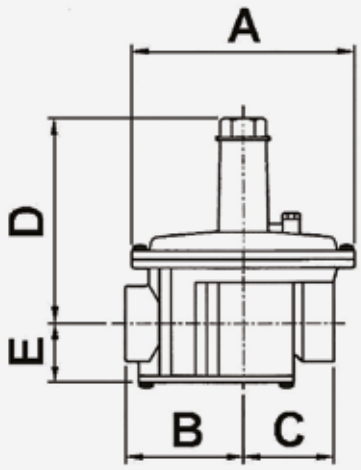
GDMF



DN	A	E	C	B
1/2”	21,3	46	25	28
3/4”	26,7	53	27	30
1”	33,4	60	29	32
1.1/4”	42,2	71	32	35
1.1/2”	48,3	77	32	37
2”	60,3	90	36	38
2.1/2”	76,1	113	40	53
3”	88,9	127	44	53
4”	114,3	156	55	65

Overall dimensions

FGD - FGDR - FG1B/FG2B



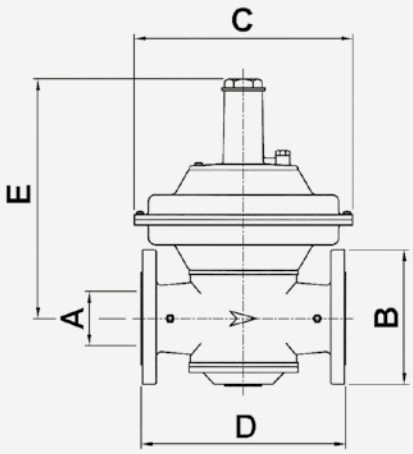
TECHNICAL NOTE

N.B. Measurement E must be increased by approximately 400 mm to facilitate filter cleaning and inspection.

FG.50/40: model with 2” threaded connections but with the overall dimensions of the 1 1/2" model (FG. 40).

Model	Connections	A	B	C	D	E
FG..15	Rp 1/2” UNI EN 10226-1					
FG..20	Rp 3/4” UNI EN 10226- 1	148	73	58	139,5	42
FG..25	Rp 1” UNI EN 10226-1					
FG..32	Rp 1 1/4" UNI EN 10226-1					
FG..40	Rp 1 1/2" UNI EN 10226-1	194	98	80	178	52
FG..50/40	Rp 2” UNI EN 10226-1					
FG..50	Rp 2” UNI EN 10226-1	260	135	90	265	62

FS1B - ST1B

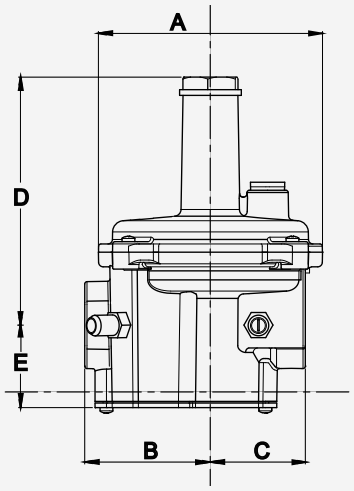


TECHNICAL NOTE

N.B. For the FS1B Series (with built-in filter unit) the measurement “E” must be increased by approximately 400 mm to facilitate cleaning and inspection of the filter.

Overall dimensions

FGDR/COM

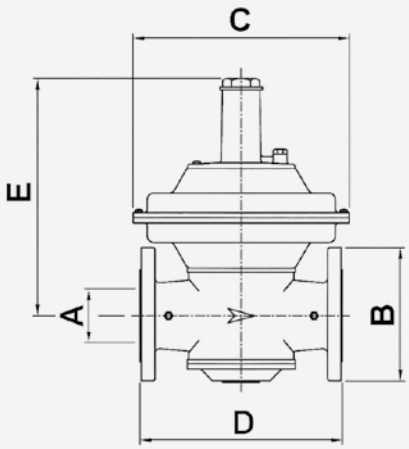


Model	Connections	A	B	C	D	E
FGDR/COM15	Rp 1/2" UNI EN 10226- 1	98	55	41,5	108,5	35,5
FGDR/COM20	Rp 3/4" UNI EN 10226- 1	98	55	41,5	108,5	35,5

STR - ST1B

Model	Connections	A	B	C	D	E
ST1B125-STR125	DN 125 PN16 EN 1092-4	125	250	505	480	565
ST1B150-STR150	DN 150 PN16 EN 1092-4	150	288	505	480	565

FSDR - STR



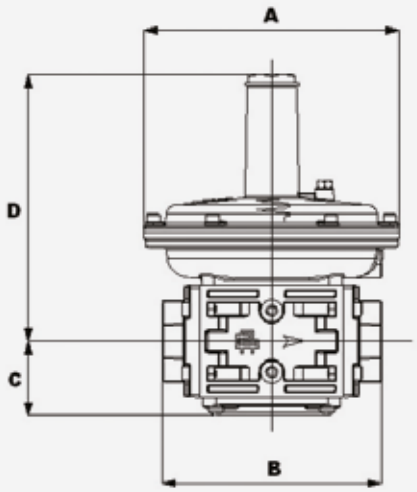
TECHNICAL NOTE

N.B. For the FSDR Series (with built-in filter unit) measurement "E" must be increased by approximately 400 mm to facilitate filter cleaning and inspection.

Model	Connections	A	B	C	D	E
FSDR65	DN 65 Pn16 EN 1092-4	85	180	320	300	332
FSDR80	DN 80 Pn16 EN 1092-4	85	195	320	300	332
STR65	DN 65 Pn16 EN 1092-4	85	180	320	300	332
STR80	DN 80 Pn16 EN 1092-4	85	195	320	300	332
STR100	DN100 PN16 EN 1092-4	100	215	378	360	418

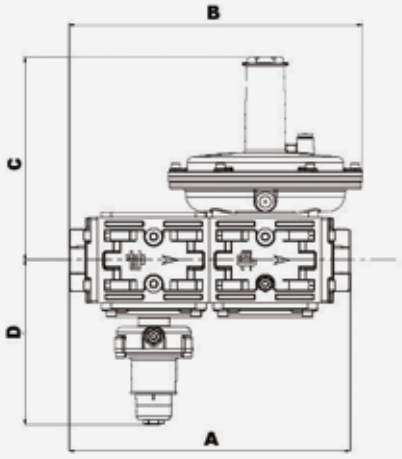
Overall dimensions

ST4B



Model	Connections	A	B	C	D
ST4B20	Rp 3/4" UNI EN 10226- 1	195	126	38	190
ST4B25	Rp 1" UNI EN 10226-1				
ST4B32	Rp 1.1/4" UNI EN 10226- 1	195	167	57	205
ST4B40	Rp 1.1/2" UNI EN 10226- 1				
ST4B50	Rp 2" UNI EN 10226-1	260	195	62	262

ST4B...BM

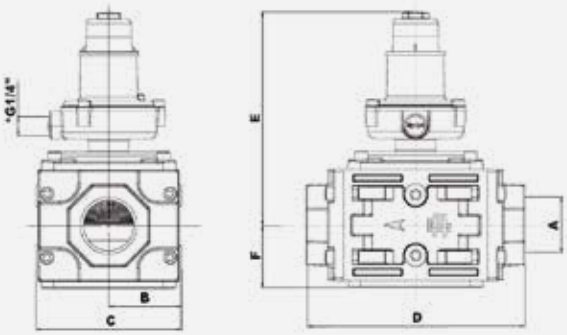


Model	Connections	A	B	C	D
ST4B20BM	Rp 3/4" UNI EN 10226- 1	200	234	190	123
ST4B25BM	Rp 1" UNI EN 10226-1				
ST4B32BM	Rp 1.1/4" UNI EN 10226- 1	282	294	204	146
ST4B40BM	Rp 1.1/2" UNI EN 10226- 1				
ST4B50BM	Rp 2" UNI EN 10226-1	326	360	262	150

TECHNICAL NOTE

N.B. (*) G1/4" connection to be connected downstream of the regulator.

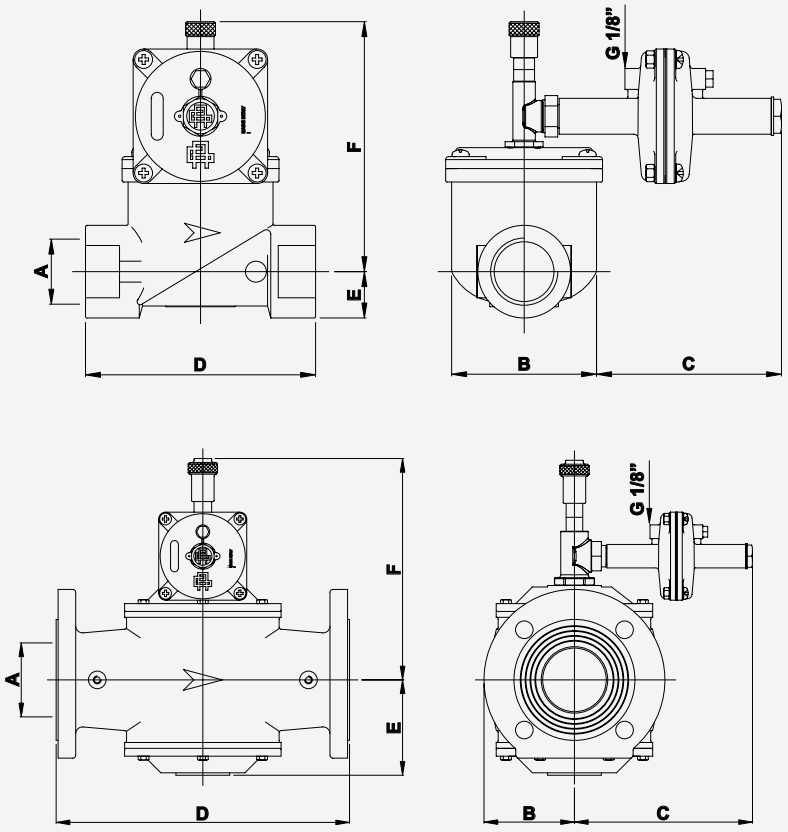
BM



Model	BM20	BM25	BM32	BM40	BM50
A	Rp 3/4"	Rp 1"	Rp 1.1/4"	Rp 1.1/2"	Rp 2"
B	37	37	57	57	68
C	74	74	114	114	136
D	126	126	170	170	195
E	142	142	165	165	169
F	12	12	49	49	58

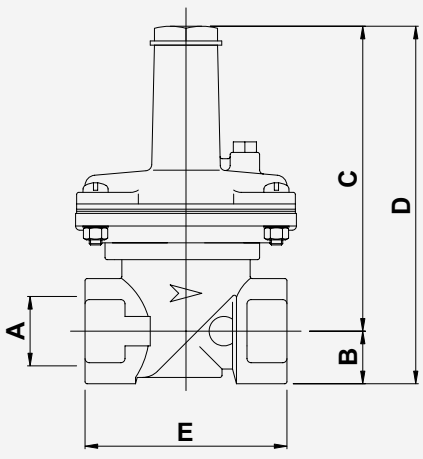
Overall dimensions

MB



Mod.	MB15 MB15/6B	MB20 MB20/6B	MB25 MB25/6B	MB32 MB32/6B	MB40 MB40/6B	MB50 MB50/6B	MB65 MB65/6B	MB80 MB80/6B	MB100 MB100/6B	MB125 MB125/6B	MB150 MB150/6B
A	Rp 1/2"	Rp 3/4"	Rp 1"	Rp 1"1/4	Rp 1"1/2	Rp 2"	DN 65	DN 80	DN 100	DN 125	DN 150
B	25	35	35	52	52	64	93	100	110	125	142
C	175	175	175	175	175	175	197	197	197	180	180
D	76	96	96	154	154	173	300	300	360	480	480
E	15	25	25	31	31	39	100	100	105	170	170
F	120	140	140	170	170	170	230	230	230	370	370

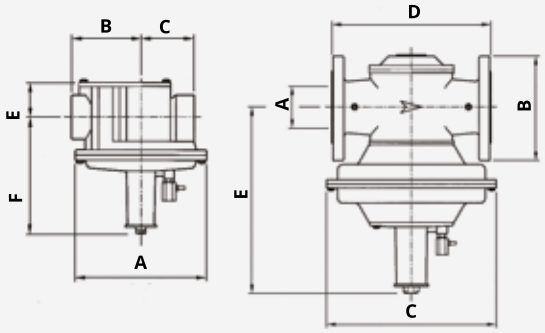
MS



Type	A	B	C	D	E
MS20	Rp 3/4"	25	145	170	96
MS25	Rp 1"	25	145	170	96

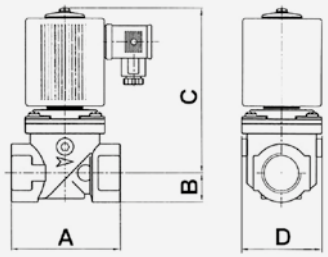
Overall dimensions

VRGA-GAVR



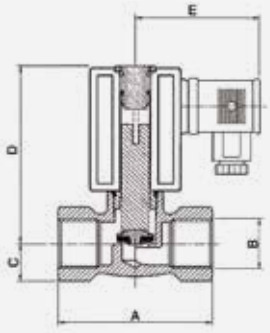
Type	Connections	A	B	C	D	E	F
GAVR 15	Rp 1/2" UNI EN 10226- 1	146	73	58	-	38	140
GAVR 20	Rp 3/4" UNI EN 10226- 1						
GAVR 25	Rp 1" UNI EN 10226-1						
GAVR 32	Rp 1" 1/4 EN 10226-1	194	98	80	-	52	180
GAVR 40	Rp 1" 1/2 EN 10226-1						
GAVR 50/40	Rp 2" UNI EN 10226-1	260	135	85	-	65	264
GAVR 50	Rp 2" UNI EN 10226-1						
VRGA 65	DN 65 PN 16	DN65	185	320	300	333	-
VRGA 80	DN 80 PN 16	DN80	200	320	300	333	-
VRGA 100	DN 100 PN 16	DN100	220	370	360	416	-

GSAV-R



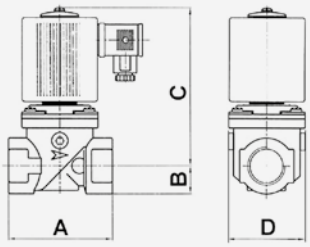
Model Connections	GSAV15R Rp 1/2"	GSAV20R Rp 3/4"	GSAV25R Rp 1"	GSAV32R Rp 1.1/4"	GSAV40R Rp 1.1/2"	GSAV50R Rp 2"
A	76	96	96	154	154	173
B	15	25	25	31	31	39
C	104	140	140	193	193	194
D	57	74	74	105	105	127

GSAVO



Model	A	B	C	D	E
GSAVO15 GSAVO15/08B	64	Rp 1/2"	15	90	60

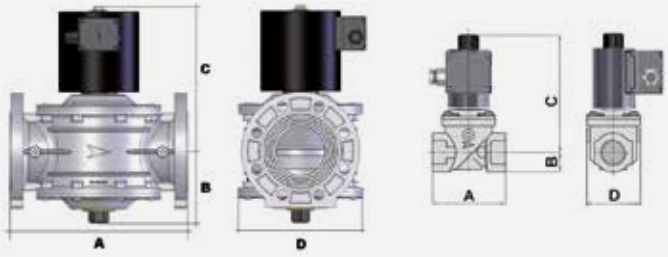
GSAV



Model	Connections	A	B	C	D
GSAV15/02B	Rp 1/2"	76	15	107	52
GSAV20/02B	Rp 3/4"	96	25	137	70
GSAV25/02B	Rp 1"	96	25	137	70

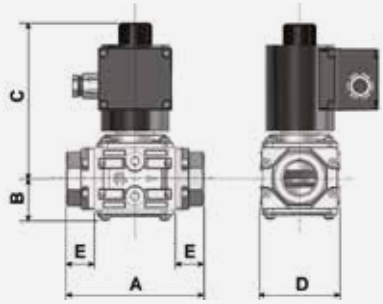
Overall dimensions

GSAV-2R



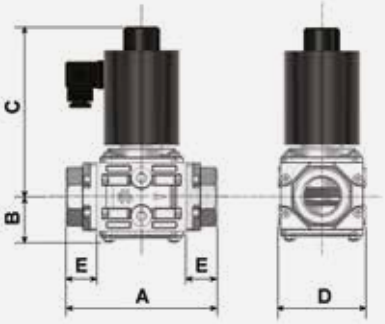
Model	Connections	A	B	C	D
GSAV202R	Rp 3/4”	96	25	155	70
GSAV252R	Rp 1”	96	25	155	70
GSAV322R	Rp 1”1/4	154	31	193	105
GSAV402R	Rp 1”1/2	154	31	193	105
GSAV502R	Rp 2”	173	39	194	127
GSAV652R	DN65 - PN16	300	120	245	210
GSAV802R	DN80 - PN16	300	120	245	210
GSAV1002R	DN100 - PN16	360	135	280	220

AMSV-2R



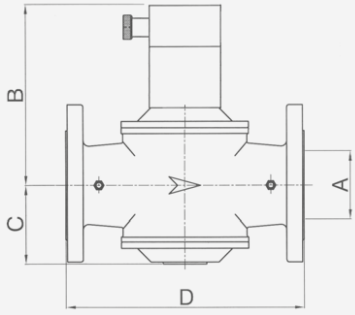
Model	Connections	A	B	C	D	E
AMSV20..R	Rp 3/4”	126	38	142	74	26
AMSV25..R	Rp 1”	126	38	142	74	26
AMSV32..R	Rp 1”1/4	167	57	167	113	29
AMSV40..R	Rp 1”1/2	167	57	167	113	29
AMSV50..R	Rp 2”	195	62	171	135	32

AMSV-R



Model	Connections	A	B	C	D	E
AMSV205R	Rp 3/4”	126	38	142	74	26
AMSV255R	Rp 1”	126	38	142	74	26

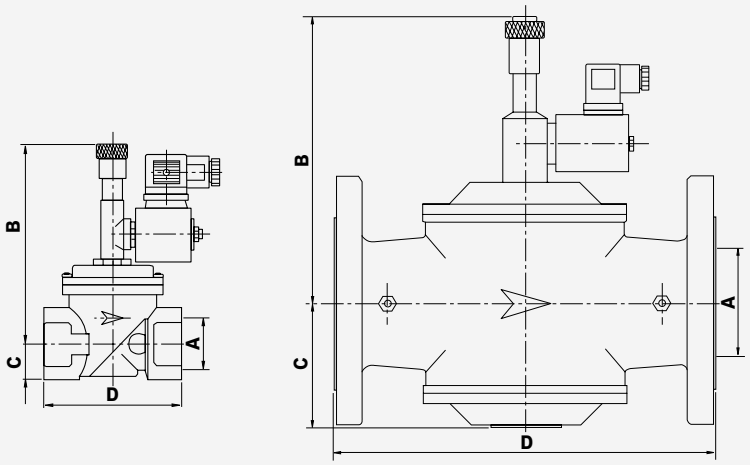
GHAV



Mod.	GHAV65	GHAV80	GHAV100	GHAV125	GHAV150
A	DN 65	DN 80	DN 100	DN 125	DN 150
B	266	266	332,5	391	391
C	97	97	105	167	167
D	300	300	360	480	480

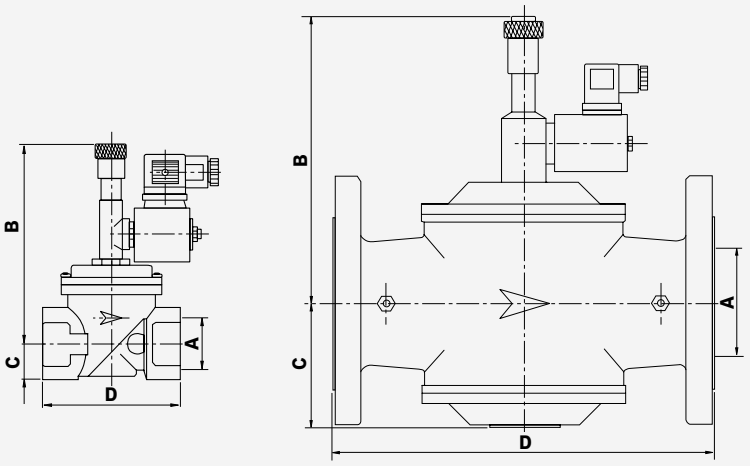
Overall dimensions

MSV - MSV/6B



Mod.	MSV12 MSV12/6B	MSV34 MSV100 MSV34/6B MSV100/6B	MSV114 MSV112 MSV114/6B MSV112/6B	MSV200 MSV200/6B	MSV212 MSV300 MSV212/6B MSV300/6B	MSV400 MSV400/6B	MSV500 MSV600 MSV500/6B MSV600/6B	MSV800 MSV800/6B	MSV1200 MSV1200/6B
A	Rp 1/2”	Rp 3/4”-1”	Rp 1.1/4”-Rp 1.1/2”	Rp 2”	DN 65-80	DN 100	DN 125-150	DN 200	DN 300
B	120	140	170	170	230	230	390	445	585
C	15	25	31	39	100	115	170	230	320
D	76	96	154	173	300	360	480	600	720

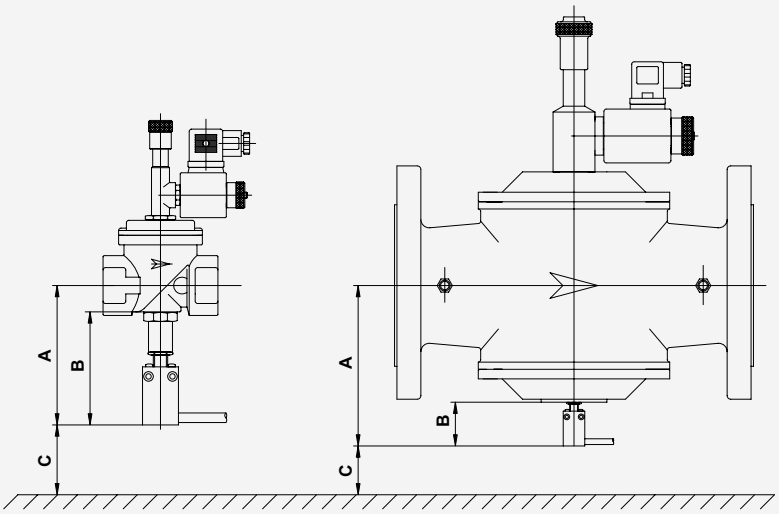
EV - EV/6B



Mod.	EV15 EV15/6B	EV20 - EV25 EV20/6B EV25/6B	EV32 - EV40 EV32/6B EV40/6B	EV50 EV50/6B	EV65 - EV80 EV65/6B EV80/6B	EV100 EV100/6B	EV125 - EV150 EV125/6B EV150/6B	EV200 EV200/6B	EV300 EV300/6B
A	Rp 1/2”	Rp 3/4”-1”	Rp 1.1/4”-Rp 1.1/2”	Rp 2”	DN 65-80	DN 100	DN 125-150	DN 200	DN 300
B	120	140	170	170	230	230	390	445	585
C	15	25	31	39	100	115	170	230	320
D	76	96	154	173	300	360	480	600	720

Overall dimensions

MSVM/6B - EVM/6B

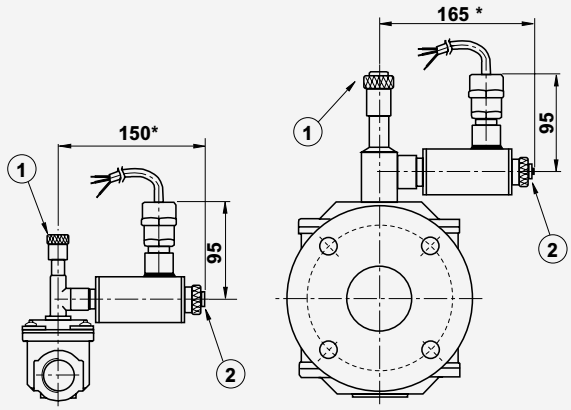


Mod.	3/4"	1"	1"1/4	1"1/2	2"	DN65	DN80	DN100	DN125	DN150
A	116	116	118	118	126,5	176,5	176,5	171	225	225
B	95	95	95	95	95	79	79	66	59	59
C	150	150	150	150	150	150	150	150	150	150

TECHNICAL NOTE

B: measurement to adhere to for correct adjustment of the position micro-switch.
C: minimum recommended distance from ground for maintenance operations.

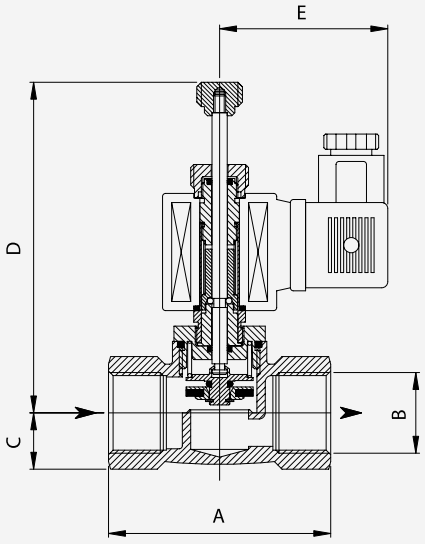
MSV/6BEEXD - EV/6BBEXD



TECHNICAL NOTE

Reset pushbutton (2) on MSV models only.
* Allow at least twice as much in the event of coil replacement.

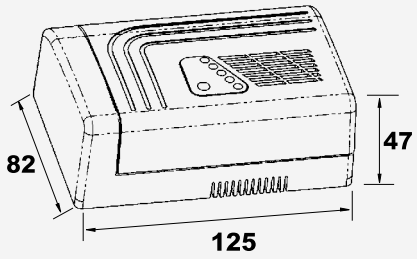
MSVO - EVO



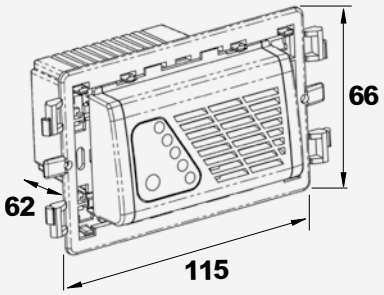
Type	A	B	C	D	E
12	64	Rp 1/2"	15	110	55
34	73	Rp 3/4"	18	110	55
100	86	Rp 1"	22	110	55

Overall dimensions

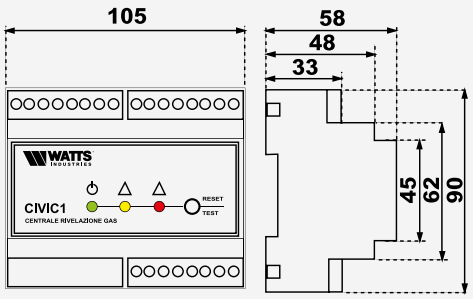
GSX



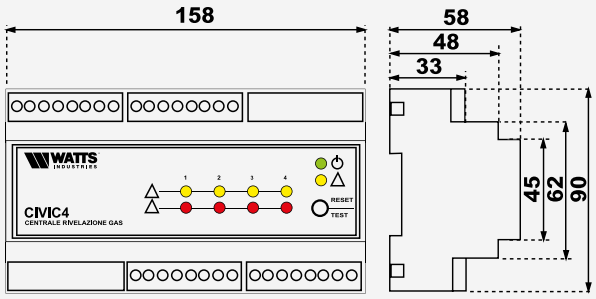
GSW



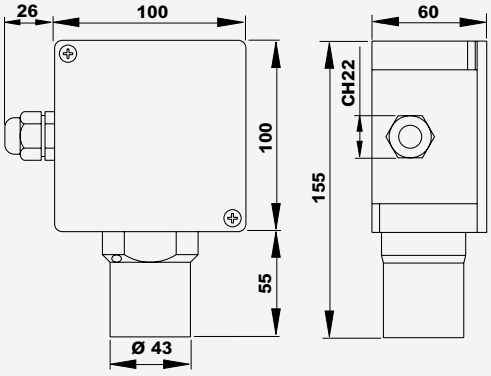
CIVIC1



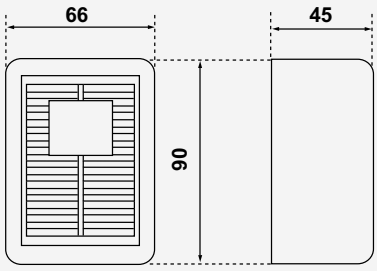
CIVIC4



UR21S



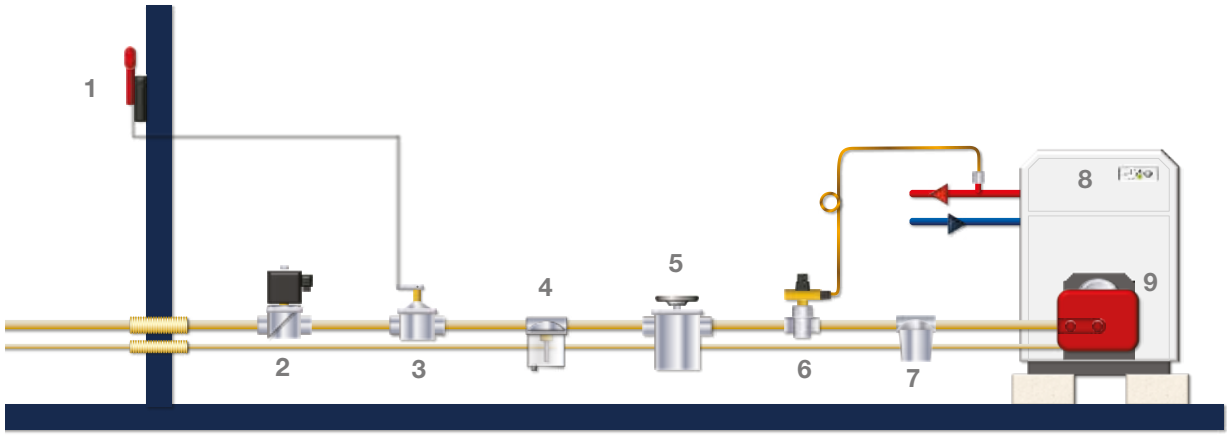
UR13



Chapter 10.3

DEVICES FOR DIESEL AND FUEL OIL

ACCESSORIES FOR A LIQUID FUEL LINE



All information, data, photographs and products shown in this figure and/or diagram are for illustrative and promotional purposes only.
They provide no basis whatsoever for transaction or warranty purposes, and constitute neither an installation manual nor an execution scheme.

1. Jerk-handle on/off valve lever.
2. Shut-off solenoid valve.
3. Jerk handle on/off valve.
4. Water separator filter.
5. Self-cleaning filter.
6. Fuel shut-off valve.
7. Strainer filter.
8. Boiler.
9. Burner.

Strainer filters
70450 SERIES

70452A/70451A

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Cartridge type	Pcs/pack	Package	€ each
70452/0015AP	001.0030.001	1/4"	Paper filter 15 µ	1	50	15,00
70452/006AG*	001.0030.003	1/4"	Stainless steel pleated cartridge 60 µ	1	50	15,85
70452/006AL*	001.0030.004	1/4"	Stainless steel cylindrical cartridge 60 µ	1	50	14,50
70452/01AG	001.0030.005	1/4"	Stainless steel pleated cartridge 100 µ	1	50	14,15
70452/01AL	001.0030.006	1/4"	Stainless steel cylindrical cartridge 100 µ	1	50	13,00
70451/0015AP	001.0032.001	3/8"	Paper filter 15 µ	1	50	15,00
70451/006AG	001.0032.003	3/8"	Stainless steel pleated cartridge 60 µ	1	50	15,85
70451/006AL*	001.0032.004	3/8"	Stainless steel cylindrical cartridge 60 µ	1	50	14,50
70451/01AG	001.0032.005	3/8"	Stainless steel pleated cartridge 100 µ	1	50	14,15
70451/01AL	001.0032.006	3/8"	Stainless steel cylindrical cartridge 100 µ	1	50	13,00

Other packs available to order - Dimensions on page 390 * DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70452P/70451P

Strainer filter for diesel, fuel oil and air with aluminium cover and transparent plastic bowl.
Max. temperature: 50°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Filtration	Pcs/pack	Package	€ each
70452/0015PP	001.0031.001	1/4"	Paper filter 15 µ	1	50	13,00
70452/006PG	001.0031.003	1/4"	Stainless steel pleated cartridge 60 µ	1	50	13,95
70452/006PL*	001.0031.004	1/4"	Stainless steel cylindrical cartridge 60 µ	1	50	12,15
70452/01PG	001.0031.005	1/4"	Stainless steel pleated cartridge 100 µ	1	50	11,90
70452/01PL	001.0031.006	1/4"	Stainless steel cylindrical cartridge 100 µ	1	50	10,65
70451/0015PP	001.0033.001	3/8"	Paper filter 15 µ	1	50	13,00
70451/006PG	001.0033.003	3/8"	Stainless steel pleated cartridge 60 µ	1	50	13,95
70451/006PL*	001.0033.004	3/8"	Stainless steel cylindrical cartridge 60 µ	1	50	12,15
70451/01PG	001.0033.005	3/8"	Stainless steel pleated cartridge 100 µ	1	50	11,90
70451/01PL	001.0033.006	3/8"	Stainless steel cylindrical cartridge 100 µ	1	50	10,65

Other packs available to order - Dimensions on page 390 * DISCONTINUED, AVAILABLE WHILE STOCKS LAST

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70410	014.0050.000	Fixing bracket and screw	filter Mod. 70450	1	1	4,80

70300 SERIES

70303A/70302A/70301A - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Filtration	Pcs/pack	Package	€ each
70303/0015AP	001.0050.001	1/4"	Paper filter 15 µ	1	20	29,55
70303/006A	001.0050.003	1/4"	Stainless steel pleated cartridge 60 µ	1	20	31,45
70303/01A	001.0050.004	1/4"	Stainless steel pleated cartridge 100 µ	1	20	29,75
70301/0015AP	001.0052.001	3/8"	Paper filter 15 µ	1	20	29,55
70301/006A	001.0052.003	3/8"	Stainless steel pleated cartridge 60 µ	1	20	31,45
70301/01A	001.0052.004	3/8"	Stainless steel pleated cartridge 100 µ	1	20	29,75
70302/0015AP	001.0054.001	1/2"	Paper filter 15 µ	1	20	29,55
70302/006A	001.0054.003	1/2"	Stainless steel pleated cartridge 60 µ	1	20	31,45
70302/01A	001.0054.004	1/2"	Stainless steel pleated cartridge 100 µ	1	20	29,75

Other packs available to order - Dimensions on page 390

70303P/70302P/70301P - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and transparent plastic bowl.
Max. temperature: 50°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Filtration	Pcs/pack	Package	€ each
70303/0015PP	001.0051.001	1/4"	Paper filter 15 µ	1	20	24,45
70303/006P	001.0051.003	1/4"	Stainless steel pleated cartridge 60 µ	1	20	27,00
70303/01P	001.0051.004	1/4"	Stainless steel pleated cartridge 100 µ	1	20	25,10
70301/0015PP	001.0053.001	3/8"	Paper filter 15 µ	1	20	24,45
70301/006P	001.0053.003	3/8"	Stainless steel pleated cartridge 60 µ	1	20	27,00
70301/01P	001.0053.004	3/8"	Stainless steel pleated cartridge 100 µ	1	20	25,10
70302/0015PP	001.0055.001	1/2"	Paper filter 15 µ	1	20	24,45
70302/006P	001.0055.003	1/2"	Stainless steel pleated cartridge 60 µ	1	20	27,00
70302/01P	001.0055.004	1/2"	Stainless steel pleated cartridge 100 µ	1	20	25,10

Other packs available to order - Dimensions on page 390

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70370/RE	1	1	4,80

70310 SERIES

70313A/70312A/70311A

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Filtration	Pcs/pack	Package	€ each
70313/0015AP	001.0070.001	1/4"	Paper filter 15 µ	10	10	42,35
70313/006A	001.0070.003	1/4"	Stainless steel pleated cartridge 60 µ	10	10	47,35
70313/01A	001.0070.004	1/4"	Stainless steel pleated cartridge 100 µ	10	10	41,45
70313/03A	001.0070.005	1/4"	Galvanized steel cartridge 300 µ	10	10	40,90
70311/0015AP	001.0072.001	3/8"	Paper filter 15 µ	10	10	42,35
70311/006A	001.0072.003	3/8"	Stainless steel pleated cartridge 60 µ	10	10	47,35
70311/01A	001.0072.004	3/8"	Stainless steel pleated cartridge 100 µ	10	10	41,45
70311/03A	001.0072.005	3/8"	Galvanized steel cartridge 300 µ	10	10	40,90
70312/0015AP	001.0074.001	1/2"	Paper filter 15 µ	10	10	42,35
70312/006A	001.0074.003	1/2"	Stainless steel pleated cartridge 60 µ	10	10	47,35
70312/01A	001.0074.004	1/2"	Stainless steel pleated cartridge 100 µ	10	10	41,45
70312/03A	001.0074.005	1/2"	Galvanized steel cartridge 300 µ	10	10	40,90

Dimensions on page 391

70313P/70312P/70311P

Strainer filter for diesel, fuel oil and air with aluminium cover and transparent plastic bowl.
Max. temperature: 50°C. PN 2. NBR gaskets.

Type	Part no.	Connections	Filtration	Pcs/pack	Package	€ each
70313/0015PP	001.0071.001	1/4"	Paper filter 15 µ	10	10	39,10
70313/006P	001.0071.003	1/4"	Stainless steel pleated cartridge 60 µ	10	10	44,05
70313/01P	001.0071.004	1/4"	Stainless steel pleated cartridge 100 µ	10	10	38,45
70313/03P	001.0071.005	1/4"	Galvanized steel cartridge 300 µ	10	10	37,70
70311/0015PP	001.0073.001	3/8"	Paper filter 15 µ	10	10	39,10
70311/006P	001.0073.003	3/8"	Stainless steel pleated cartridge 60 µ	10	10	44,05
70311/01P	001.0073.004	3/8"	Stainless steel pleated cartridge 100 µ	10	10	38,45
70311/03P	001.0073.005	3/8"	Galvanized steel cartridge 300 µ	10	10	37,70
70312/0015PP	001.0075.001	1/2"	Paper filter 15 µ	10	10	39,10
70312/006P	001.0075.003	1/2"	Stainless steel pleated cartridge 60 µ	10	10	44,05
70312/01P	001.0075.004	1/2"	Stainless steel pleated cartridge 100 µ	10	10	38,45
70312/03P	001.0075.005	1/2"	Galvanized steel cartridge 300 µ	10	10	37,70

Dimensions on page 391

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70300	1	1	4,80

70100 SERIES

70107

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1/2" threaded connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70107/006*	001.0110.002	Stainless steel pleated cartridge	60 µ	6	6	68,90
70107/01	001.0110.003	Stainless steel pleated cartridge	100 µ	6	6	60,40
70107/03*	001.0110.004	Galvanized steel cartridge	300 µ	6	6	57,50

Dimensions on page 391

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70104

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **3/4" threaded connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70104/006*	001.0112.002	Stainless steel pleated cartridge	60 µ	6	6	68,90
70104/01	001.0112.003	Stainless steel pleated cartridge	100 µ	6	6	60,40
70104/03*	001.0112.004	Galvanized steel cartridge	300 µ	6	6	57,50

Dimensions on page 391

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70101

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1" threaded connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70101/006*	001.0111.002	Stainless steel pleated cartridge	60 µ	6	6	68,90
70101/01	001.0111.003	Stainless steel pleated cartridge	100 µ	6	6	60,40
70101/03*	001.0111.004	Galvanized steel cartridge	300 µ	6	6	57,50

Dimensions on page 391

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70500 SERIES

70501 - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1" threaded connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70501/006	001.0140.002	Stainless steel pleated cartridge	60 µ	1	1	249,00
70501/01	001.0140.003	Stainless steel pleated cartridge	100 µ	1	1	246,00
70501/03	001.0140.004	Galvanized steel cartridge	300 µ	1	1	236,00

Dimensions on page 392

70502

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/4" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70502/006*	001.0141.002	Stainless steel pleated cartridge	60 µ	1	1	249,00
70502/01	001.0141.003	Stainless steel pleated cartridge	100 µ	1	1	246,00
70502/03	001.0141.004	Galvanized steel cartridge	300 µ	1	1	236,00

Dimensions on page 392

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70503

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/2" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70503/006*	001.0142.002	Stainless steel pleated cartridge	60 µ	1	1	249,00
70503/01	001.0142.003	Stainless steel pleated cartridge	100 µ	1	1	246,00
70503/03	001.0142.004	Galvanized steel cartridge	300 µ	1	1	236,00

Dimensions on page 392

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70504 - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C.
PN 4. NBR gaskets. **2" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70504/006	001.0143.002	Stainless steel pleated cartridge	60 µ	1	1	349,00
70504/01	001.0143.003	Stainless steel pleated cartridge	100 µ	1	1	346,00
70504/03	001.0143.004	Galvanized steel cartridge	300 µ	1	1	334,50

Dimensions on page 392

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70516	014.0053.000	Wall-mounting bracket	filter Mod. 70500	1	1	176,30
1543	014.0052.000	Fixing bracket and screws	filter Mod. 70100	1	1	16,60

70700 SERIES

70700 - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **2" threaded connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70700/006	001.0160.002	Stainless steel pleated cartridge	60 µ	1	1	1.011,00
70700/01	001.0160.003	Stainless steel pleated cartridge	100 µ	1	1	1.011,00
70700/03	001.0160.004	Galvanized steel cartridge	300 µ	1	1	983,00

Dimensions on page 392

70700F - Discontinued series, available while stocks last

Strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **DN50" flanged connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70700/006F	001.0161.002	Stainless steel pleated cartridge	60 µ	1	1	1.100,00
70700/01F	001.0161.003	Stainless steel pleated cartridge	100 µ	1	1	1.100,00
70700/03F	001.0161.004	Galvanized steel cartridge	300 µ	1	1	1.069,00

Dimensions on page 392

ACCESSORIES - Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
1809	014.0017.000	Magnetic insert	-	1	1	136,40
1604	014.0025.000	300 W resistor (NL type), setting 70°C	-	1	1	293,50
1603	014.0024.000	300 W resistor (GL type), setting 35°C	-	1	1	293,50
586	014.0054.000	Wall-mounting bracket	filter Mod. 70700	1	1	192,40

Magnetic filters

70157M - Discontinued series, available while stocks last

Magnetic strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1/2" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70157/006M	001.0200.001	Stainless steel pleated cartridge	60 µ	1	1	149,30
70157/01M	001.0200.002	Stainless steel pleated cartridge	100 µ	1	1	141,30
70157/03M	001.0200.003	Galvanized steel cartridge	300 µ	1	1	138,70

Dimensions on page 391

70151M - Discontinued series, available while stocks last

Magnetic strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 2. NBR gaskets. **1" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70151/006M	001.0201.001	Stainless steel pleated cartridge	60 µ	1	1	149,30
70151/01M	001.0201.002	Stainless steel pleated cartridge	100 µ	1	1	141,30

Dimensions on page 391

ACCESSORIES - Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
1543	014.0052.000	Fixing bracket and screws	filter Mod. 70100	1	1	16,60

70501M - Discontinued series, available while stocks last

Magnetic strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 4. NBR gaskets. **1" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70501/006M	001.0210.001	Stainless steel pleated cartridge	60 µ	1	1	316,50
70501/01M	001.0210.002	Stainless steel pleated cartridge	100 µ	1	1	313,50
70501/03M	001.0210.003	Galvanized steel cartridge	300 µ	1	1	302,00

Dimensions on page 392

70502M - Discontinued series, available while stocks last

Magnetic strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/4" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70502/006M	001.0211.001	Stainless steel pleated cartridge	60 µ	1	1	316,50
70502/01M	001.0211.002	Stainless steel pleated cartridge	100 µ	1	1	313,50
70502/03M	001.0211.003	Galvanized steel cartridge	300 µ	1	1	302,00

Dimensions on page 392

70503M - Discontinued series, available while stocks last

Magnetic strainer filter for diesel, fuel oil and air with aluminium cover and bowl.
Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/2" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70503/006M	001.0212.001	Stainless steel pleated cartridge	60 µ	1	1	316,50
70503/01M	001.0212.002	Stainless steel pleated cartridge	100 µ	1	1	313,50
70503/03M	001.0212.003	Galvanized steel cartridge	300 µ	1	1	302,00

Dimensions on page 392

ACCESSORIES - Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70516	014.0053.000	Wall-mounting bracket	filter Mod. 70500	1	1	176,30

Filters with electronic heater

70371RE

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **3/8" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70371/01RE	001.0170.001	100 W electronic resistor	100 µ	5	5	156,50

Dimensions on page 392

70372RE

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1/2" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70372/01RE	001.0171.001	100 W electronic resistor	100 µ	5	5	156,50

Dimensions on page 392

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70370/RE	1	1	4,80

70157GL/NL - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1/2" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70157/006GL	001.0180.001	Electronic resistor, setting 35°C	60 µ	1	1	377,50
70157/006NL	001.0180.002	Electronic resistor, setting 70°C	60 µ	1	1	377,50
70157/01GL	001.0180.003	Electronic resistor, setting 35°C	100 µ	1	1	369,50
70157/01NL	001.0180.004	Electronic resistor, setting 70°C	100 µ	1	1	369,50
70157/03GL	001.0180.005	Electronic resistor, setting 35°C	300 µ	1	1	368,50
70157/03NL	001.0180.006	Electronic resistor, setting 70°C	300 µ	1	1	368,50

Dimensions on page 391

70151GL/NL - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. NBR gaskets. **1" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70151/006GL	001.0181.001	Electronic resistor, setting 35°C	60 µ	1	1	377,50
70151/006NL	001.0181.002	Electronic resistor, setting 70°C	60 µ	1	1	377,50
70151/01GL	001.0181.003	Electronic resistor, setting 35°C	100 µ	1	1	369,50
70151/01NL	001.0181.004	Electronic resistor, setting 70°C	100 µ	1	1	369,50
70151/03GL	001.0181.005	Electronic resistor, setting 35°C	300 µ	1	1	368,50
70151/03NL	001.0181.006	Electronic resistor, setting 70°C	300 µ	1	1	368,50

Dimensions on page 391

ACCESSORIES AND SPARE PARTS Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
1543	014.0052.000	Fixing bracket	filter Mod. 70150	1	1	16,60
511.0029.000	014.0026.000	15W electronic resistor, average power	-	1	1	112,00
1603	014.0024.000	300W GL resistor, setting 35°C IP65	-	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	-	1	1	293,50

70501GL/NL - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70501/006GL	001.0190.001	Electronic resistor, setting 35°C	60 µ	1	1	528,00
70501/006NL	001.0190.002	Electronic resistor, setting 70°C	60 µ	1	1	528,00
70501/01GL	001.0190.003	Electronic resistor, setting 35°C	100 µ	1	1	526,00
70501/01NL	001.0190.004	Electronic resistor, setting 70°C	100 µ	1	1	526,00
70501/03GL	001.0190.005	Electronic resistor, setting 35°C	300 µ	1	1	514,50
70501/03NL	001.0190.006	Electronic resistor, setting 70°C	300 µ	1	1	514,50

Dimensions on page 392

70502GL/NL - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/4" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70502/006GL	001.0191.001	Electronic resistor, setting 35°C	60 µ	1	1	528,00
70502/006NL	001.0191.002	Electronic resistor, setting 70°C	60 µ	1	1	528,00
70502/01GL	001.0191.003	Electronic resistor, setting 35°C	100 µ	1	1	526,00
70502/01NL	001.0191.004	Electronic resistor, setting 70°C	100 µ	1	1	526,00
70502/03GL	001.0191.005	Electronic resistor, setting 35°C	300 µ	1	1	514,50
70502/03NL	001.0191.006	Electronic resistor, setting 70°C	300 µ	1	1	514,50

Dimensions on page 392

70503GL/NL - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/2" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70503/006GL	001.0192.001	Electronic resistor, setting 35°C	60 µ	1	1	528,00
70503/006NL	001.0192.002	Electronic resistor, setting 70°C	60 µ	1	1	528,00
70503/01GL	001.0192.003	Electronic resistor, setting 35°C	100 µ	1	1	526,00
70503/01NL	001.0192.004	Electronic resistor, setting 70°C	100 µ	1	1	526,00
70503/03GL	001.0192.005	Electronic resistor, setting 35°C	300 µ	1	1	514,50
70503/03NL	001.0192.006	Electronic resistor, setting 70°C	300 µ	1	1	514,50

Dimensions on page 392

ACCESSORIES AND SPARE PARTS - Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70516	014.0053.000	Wall-mounting bracket for 70500	filter Mod. 70500	1	1	176,30
1603	014.0024.000	300W GL resistor, setting 35°C IP65	-	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	-	1	1	293,50

Magnetic filters with electronic heater

70501GLM/NLM - Discontinued series, available while stocks last

Magnetic strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70501/006GLM	001.0220.001	Electronic resistor, setting 35°C	60 µ	1	1	573,00
70501/006NLM	001.0220.002	Electronic resistor, setting 70°C	60 µ	1	1	573,00
70501/01GLM	001.0220.003	Electronic resistor, setting 35°C	100 µ	1	1	570,00
70501/01NLM	001.0220.004	Electronic resistor, setting 70°C	100 µ	1	1	570,00
70501/03GLM	001.0220.005	Electronic resistor, setting 35°C	300 µ	1	1	558,50
70501/03NLM	001.0220.006	Electronic resistor, setting 70°C	300 µ	1	1	558,50

Dimensions on page 392

70502GLM/NLM - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/4" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70502/006GLM	001.0221.001	Electronic resistor, setting 35°C	60 µ	1	1	573,00
70502/006NLM	001.0221.002	Electronic resistor, setting 70°C	60 µ	1	1	573,00
70502/01GLM	001.0221.003	Electronic resistor, setting 35°C	100 µ	1	1	570,00
70502/01NLM	001.0221.004	Electronic resistor, setting 70°C	100 µ	1	1	570,00
70502/03GLM	001.0221.005	Electronic resistor, setting 35°C	300 µ	1	1	558,50
70502/03NLM	001.0221.006	Electronic resistor, setting 70°C	300 µ	1	1	558,50

Dimensions on page 392

70503GLM/NLM - Discontinued series, available while stocks last

Strainer filter with electronic heater for diesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 4. NBR gaskets. **1.1/2" connections.**

Type	Part no.	Resistor	Filtration	Pcs/ pack	Package	€ each
70503/006GLM	001.0222.001	Electronic resistor, setting 35°C	60 µ	1	1	573,00
70503/006NLM	001.0222.002	Electronic resistor, setting 70°C	60 µ	1	1	573,00
70503/01GLM	001.0222.003	Electronic resistor, setting 35°C	100 µ	1	1	570,00
70503/01NLM	001.0222.004	Electronic resistor, setting 70°C	100 µ	1	1	570,00
70503/03GLM	001.0222.005	Electronic resistor, setting 35°C	300 µ	1	1	558,50
70503/03NLM	001.0222.006	Electronic resistor, setting 70°C	300 µ	1	1	558,50

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ACCESSORIES AND SPARE PARTS - Discontinued series, available while stocks last

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70516	014.0053.000	Wall-mounting bracket for 70500	filter Mod. 70500	1	1	176,30
1603	014.0024.000	300W GL resistor, setting 35°C IP65	-	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	-	1	1	293,50

Special filters

70370

Water separator filter for diesel, fuel oil and air with aluminium cover and transparent bowl. Max. temperature: 50°C. PN 2. NBR gaskets. **3/8" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70370/006	001.0080.002	Stainless steel cartridge	60 µ	10	10	36,15
70370/01	001.0080.003	Stainless steel cartridge	100 µ	10	10	34,45

Dimensions on page 392

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70370	1	1	4,80

70351A

Two-way strainer filter for diesel, fuel oil and air with aluminium cover and bowl. Screw valve on suction and check valve on return. Max. temperature: 50°C. PN 2. NBR gaskets. **3/8" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70351/0015AP	001.0060.001	Paper filter	15 µ	10	10	46,45
70351/006A*	001.0060.003	Stainless steel pleated cartridge	60 µ	10	10	48,95
70351/01A	001.0060.004	Stainless steel pleated cartridge	100 µ	10	10	46,65

Dimensions on page 393

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

70351P

Two-way strainer filter for diesel, fuel oil and air with aluminium cover and transparent bowl. Screw valve on suction and check valve on return.
Max. temperature: 50°C. PN 2. NBR gaskets. **3/8" connections.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
70351/0015PP	001.0061.001	Paper filter	15 µ	10	10	44,05
70351/006P*	001.0061.003	Stainless steel pleated cartridge	60 µ	10	10	44,05
70351/01P	001.0061.004	Stainless steel pleated cartridge	100 µ	10	10	42,35

Dimensions on page 393

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

RG2

Two-way strainer filter for diesel, with large filtration area, bowl fastened with ring-nut. Screw valve on suction and check valve on return, complete with fixing bracket. CW617N brass body and ring-nut. Transparent plastic bowl. **3/8" F connections** with bushes for Ø 6x8, 8x10 and 10x12 mm pipes.

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
RG2	0130100	-	260 µ	1	32	77,50

Dimensions on page 393

RV2

Two-way strainer filter for diesel with screw valve on suction and check valve on return, complete with fixing bracket. CW617N brass body and ring-nut. Transparent plastic bowl. **3/8" F connections** with bushes for Ø 6x8, 8x10 and 10x12 mm pipes.

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
RV2	0133100	-	200 µ	1	50	61,00

Dimensions on page 393

RV1

One-way strainer filter for diesel, with screw valve and fixing bracket. CW617N brass body. Transparent plastic bowl. **3/8" F connections**, with bushes for Ø 6x8, 8x10 and 10x12 mm pipes. Filtration rating 200 micron.

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
RV1	0135100	-	200 µ	1	50	43,45

Dimensions on page 393

V1

One-way strainer filter for diesel, like RV1 but without shut-off valve. **3/8" F connections**

Type	Part no.	Cartridge type	Filtration	Pcs/pack	Package	€ each
V1	0138100	-	200 µ	1	50	43,45

Dimensions on page 393

RZ

Recirculation filter for diesel that makes it possible to eliminate the return pipe to the tank, with screw valve on suction and by-pass valve on return. Complete with fixing bracket. CW617N brass body. Transparent plastic bowl. **2x3/8" F burner side connections** with bushes for Ø 4x6, 6x8, 8x10 and 10x12 mm pipes. **Tank side 3/8" F connection.**

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
RZ	0137100	-	200 µ	1	40	88,80

Dimensions on page 393

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70370	1	1	4,80

TC3 110A

Multi-function diesel degassing filter complete with fixing bracket, for eliminating air from the circuit. Equipped with filter, pressure gauge on outlet to burner and shut-off valve for device maintenance. Connection for diesel return from the burner with bypass for use as a daily supply tank.
Pump connection, 3/8" male thread and tank connection 3/8" female thread.
Maximum nozzle capacity 110 L/h. Maximum de-aeration capacity 110 L/h.
Maximum operating temperature 60°C. Maximum/minimum pressure: +0,5/-0,6 bar.

Type	Part no.	Cartridge type	Filtration	Pcs/ pack	Package	€ each
TC3 110A	520131TE	-	75 µ	1	1	195,00

Dimensions on page 393

70450

Special strainer filter for biodiesel, petrodiesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. **Viton gaskets**. Filtration 100 microns.

Type	Part no.	Cartridge type	Connections	Pcs/ pack	Package	€ each
70452/01AGE	001.0030.007	Stainless steel pleated cartridge. Viton seals	1/4"	10	10	26,45
70451/01AGE	001.0032.007	Stainless steel pleated cartridge. Viton seals	3/8"	10	10	26,45

Dimensions on page 390

70310

Special strainer filter for biodiesel, petrodiesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. **Viton gaskets**. Filtration 100 microns.

Type	Part no.	Cartridge type	Connections	Pcs/ pack	Package	€ each
70311/01AE	001.0072.006	Stainless steel pleated cartridge. Viton seals	3/8"	10	10	70,30
70312/01AE	001.0074.006	Stainless steel pleated cartridge. Viton seals	1/2"	10	10	70,30

Dimensions on page 391

70100

Special strainer filter for biodiesel, petrodiesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. **Viton gaskets**. Filtration 100 microns.

Type	Part no.	Cartridge type	Connections	Pcs/ pack	Package	€ each
70107/01E	001.0110.005	Stainless steel pleated cartridge. Viton seals	1/2"	6	6	94,50
70104/01E	001.0112.005	Stainless steel pleated cartridge. Viton seals	3/4"	6	6	94,50
70101/01E	001.0111.005	Stainless steel pleated cartridge. Viton seals	1"	6	6	94,50

Dimensions on page 391

70500

Special strainer filter for biodiesel, petrodiesel, fuel oil and air with aluminium cover and bowl. Max. temperature: 90°C. PN 2. **Viton gaskets.** Filtration 100 microns.

Type	Part no.	Cartridge type	Connections	Pcs/ pack	Package	€ each
70501/01E	001.0140.005	Stainless steel pleated cartridge. Viton seals	1"	1	1	334,50
70502/01E	001.0141.005	Stainless steel pleated cartridge. Viton seals	1.1/4"	1	1	334,50
70503/01E	001.0142.005	Stainless steel pleated cartridge. Viton seals	1.1/2"	1	1	334,50

Dimensions on page 392

ACCESSORIES

Type	Part no.	Description	Notes	Pcs/ pack	Package	€ each
70410	014.0050.000	Fixing bracket and screws	filter Mod. 70450	1	1	4,80
70358	014.0051.000	Fixing bracket and screws	filter Mod. 70310	1	1	4,80
1543	014.0052.000	Fixing bracket and screws	filter Mod. 70100	1	1	16,60

SPARE PARTS FOR STRAINER FILTERS

60450

Pleated cartridges for filters 70451 - 70452 - AL, AG, PL, PG, AGE, AP, PP.
Pleated cartridge only for filter 70370.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60450/0015P	014.0390.000	Paper filter	15 µ	1	1	6,65
60450/006G	014.4031.002	Stainless steel pleated cartridge	60 µ	1	1	7,50
60450/006L*	014.4032.001	Stainless steel cylindrical cartridge	60 µ	1	1	5,10
60450/01G	014.4031.003	Stainless steel pleated cartridge	100 µ	1	1	5,45
60450/01L	014.4032.002	Stainless steel cylindrical cartridge	100 µ	1	1	3,60

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

60300

Pleated cartridges for filters 70301- 70302- 70303- 70351- A, AP, P, PP. For filters 70371RE and 70372RE.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60300/0015P	014.4050.001	Paper filter	15 µ	1	1	9,00
60300/006	014.4051.002	Stainless steel pleated cartridge	60 µ	1	1	13,45
60300/01	014.4051.003	Stainless steel pleated cartridge	100 µ	1	1	11,50
60300/01RE	014.4051.004	Stainless steel pleated cartridge for Mod. 70370/RE	100 µ	1	1	11,50

60200

Pleated cartridges for filters 70311 - 70312- 70313- 70207- A, AP, P, PP.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60200/0015P	014.4070.001	Paper filter	15 µ	1	1	12,35
60200/006	014.4071.002	Stainless steel pleated cartridge	60 µ	1	1	19,95
60200/01	014.4071.003	Stainless steel pleated cartridge	100 µ	1	1	14,80
60200/03	014.4071.004	Galvanized steel cartridge	300 µ	1	1	12,75

60100

Pleated cartridges for filters 70101 - 70104 - 70107.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60100/006*	014.4110.002	Stainless steel pleated cartridge	60 µ	1	1	31,10
60100/01	014.4110.003	Stainless steel pleated cartridge	100 µ	1	1	22,45
60100/03*	014.4110.004	Galvanized steel cartridge	300 µ	1	1	19,30

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

60150

Pleated cartridges for filters 70151 - 70157 - GL, NL, M.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60150/006*	014.4180.002	Stainless steel pleated cartridge	60 µ	1	1	31,10
60150/01*	014.4180.003	Stainless steel pleated cartridge	100 µ	1	1	22,45
60150/03	014.4180.004	Galvanized steel cartridge	300 µ	1	1	19,30

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

60500

Pleated cartridges for filters 70501 - 70502 - 70503 - GL, NL, M, GLM, NLM.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60500/006	014.4140.002	Stainless steel pleated cartridge	60 µ	1	1	75,20
60500/01	014.4140.003	Stainless steel pleated cartridge	100 µ	1	1	72,60
60500/03	014.4140.004	Galvanized steel cartridge	300 µ	1	1	60,50

60504 - Discontinued series, available while stocks last

Pleated cartridges for filters 70504.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60504/006	014.4141.002	Stainless steel pleated cartridge	60 µ	1	1	75,20
60504/01	014.4141.003	Stainless steel pleated cartridge	100 µ	1	1	72,60
60504/03	014.4141.004	Galvanized steel cartridge	300 µ	1	1	60,50

60700 - Discontinued series, available while stocks last

Pleated cartridges for filters 70700.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
60700/006	014.4160.002	Stainless steel pleated cartridge	60 µ	1	1	126,40
60700/01	014.4160.003	Stainless steel pleated cartridge	100 µ	1	1	115,20
60700/03	014.4160.005	Galvanized steel cartridge	300 µ	1	1	82,50

SS

Replacement cartridge for filters RG2, RV2-RV1-RZ-V1, TC3 110A.

Type	Part no.	Description	Filtration	Pcs/ pack	Package	€ each
SS	0199010	Replacement cylindrical cartridge for RG2 filter	260 µ	1	10	5,45
SS	0199016	Replacement cylindrical cartridge for RV2-RV1-RZ-V1 filter	200 µ	1	10	4,05
SS	43001	Replacement cylindrical cartridge for TC3110A filter	75 µ	1	1	6,65

GASKET KIT

Type	Part no.	Filter Model	Cartridge type	Pcs/ pack	Package	€ each
3198	014.0065.002	70450	Cylindrical and Paper. NBR seals	1	1	2,40
3198V	014.0065.005	70450	Cylindrical. VITON seals	1	1	7,90
3199	014.0065.003	70450	Pleated. NBR seals	1	1	2,85
3204	014.0066.001	70300	Pleated Paper. NBR seals	1	1	4,70
3204V	014.0066.002	70300	Pleated. VITON seals	1	1	27,55
3203	014.0067.001	70310	Pleated Paper. NBR seals	1	1	5,45
3202	014.0068.001	70351	Pleated Paper. NBR seals	1	1	4,70
3207	014.0070.001	70100	Pleated. NBR seals	1	1	7,15
3207V	014.0070.002	70100	Pleated. VITON seals	1	1	28,95
3206	014.0071.001	70150	Pleated. NBR seals	1	1	14,00
3201	014.0072.001	70370	Pleated. NBR seals	1	1	3,60
3200	014.0073.001	70370/RE	Pleated. NBR seals	1	1	6,00
3197	014.0074.001	70500	Pleated. NBR seals	1	1	13,00
3197V	014.0074.002	70500	Pleated. VITON seals	1	1	62,00
3196	014.0075.001	70700	Pleated. NBR seals	1	1	35,60
3196V	014.0075.002	70700	Pleated. VITON seals	1	1	89,00
OR	0199013	RG2	Cylindrical. NBR seals	10	10	1,20
OR	0199022	RV2-RV1-RZ-V1	Cylindrical. NBR seals	10	10	0,65

COVER KIT

Type	Part no.	Filter Model	Notes	Pcs/pack	Package	€ each
506.0184.000	014.0350.000	70451	-	1	1	7,80
506.0186.000	014.0351.000	70452	-	1	1	7,80
C70301	014.0352.000	70301 - 70311	-	1	1	12,95
C70302	014.0353.000	70302 - 70312	-	1	1	12,95
C70303	014.0354.000	70303 - 70313	-	1	1	12,95
C70351	014.0355.000	70351	-	1	1	18,85
C70370	014.0356.000	70370	-	1	1	12,95
C70107	014.0358.000	70107	-	1	1	20,70
C70104	014.0364.000	70104	-	1	1	20,70
C70101	014.0359.000	70101	-	1	1	20,70
C70501	014.0360.000	70501	-	1	1	99,20
C70502	014.0361.000	70502	-	1	1	99,20
C70503	014.0362.000	70503	-	1	1	99,20
C70512	014.0363.000	70504	-	1	1	219,00

BOWL KIT

Type	Part no.	Filter Model	Notes	Pcs/pack	Package	€ each
B70450P	014.0400.000	70450P	-	1	1	4,05
B70450A	014.0405.000	70450A	-	1	1	6,95
B70300P	014.0401.000	70300P - 70350P	-	1	1	8,05
B70300A	014.0406.000	70300A - 70350A	-	1	1	10,85
B70310P	014.0402.000	70310P - 70370	-	1	1	15,30
B70310A	014.0407.000	70310A	-	1	1	21,45
B70150	014.0403.000	70150	-	1	1	25,40
B70100	014.0409.000	70100	-	1	1	22,95
B70500	014.0410.000	70500	-	1	1	138,90
B70500T	014.0404.000	70500T/M/GL/NL	-	1	1	173,00
TK	0199012	RG2	-	1	10	5,75
TK	0199017	RV2-RV1-RZ-V1	-	1	10	7,60

Self-cleaning filters

21003

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1”x1”x1/2” threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
21003/01	003.0040.001	100 µ	1	1	193,50
21003/03	003.0040.002	300 µ	1	1	185,70
21003/06	003.0040.003	600 µ	1	1	193,50

Dimensions on page 394

21005

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 4. **1/2”x1/2” threaded connections**.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
21005/01	003.0042.001	100 µ	1	1	193,50
21005/03	003.0042.002	300 µ	1	1	185,70
21005/06	003.0042.003	600 µ	1	1	193,50

Dimensions on page 394

21008

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 4. **1”x1” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
21008/01	003.0043.001	100 µ	1	1	193,50
21008/03	003.0043.002	300 µ	1	1	185,70
21008/06	003.0043.003	600 µ	1	1	193,50

Dimensions on page 394

31003

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1”x1”x1/2” threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
31003/01	003.0050.001	100 µ	1	1	329,50
31003/03	003.0050.002	300 µ	1	1	320,00
31003/06	003.0050.003	600 µ	1	1	329,50

Dimensions on page 394

31008

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 4. **1”x1” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
31008/01	003.0051.001	100 µ	1	1	329,50
31008/03	003.0051.002	300 µ	1	1	320,00
31008/06	003.0051.003	600 µ	1	1	329,50

Dimensions on page 394

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1328	015.0040.001	230V 50-60 Hz motor for Mod. 21000 - 31000	1	1	415,50
1328/L	015.0040.002	Motor + torque limiter for Mod. 21000 - 31000	1	1	532,00
511.0029.000	014.0026.000	15W electronic resistor, average power	1	1	112,00
3240	014.0130.001	Shaft seal kit for Mod. 11012, 21000, 31000, 41000	1	1	30,20
1494	014.0030.000	Electric motor for Mod. 1328, 1328L, 1329, 1329L	1	1	281,50
1339	014.0128.000	Torque limiter for Mod. 1328, 1328L, 1329, 1329L	1	1	280,00
1345	014.0031.000	Motor support for torque limiter for Mod. 1328L and 1329L	1	1	20,40

41000

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1.1/2"x1.1/2" threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
41000/01	003.0060.001	100 µ	1	1	1.227,00
41000/03	003.0060.002	300 µ	1	1	1.205,00
41000/06	003.0060.003	600 µ	1	1	1.227,00

Dimensions on page 394

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1809	014.0017.000	Magnetic insert	1	1	136,40
1603	014.0024.000	300W GL resistor, setting 35°C IP65	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	1	1	293,50
1329	015.0050.001	230V 50-60 Hz motor for Mod. 41000	1	1	1.300,00
1329/L	015.0050.002	Motor + torque limiter for Mod. 41000	1	1	1.980,00

51000

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
2"x2" threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
51000/025	003.0070.001	250 µ	1	1	1.488,00
51000/05	003.0070.002	500 µ	1	1	1.390,00
51000/075	003.0070.003	750 µ	1	1	1.390,00

Dimensions on page 394

51000F

Self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
DN50 flanged connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
51000/025F	003.0071.001	250 µ	1	1	1.559,00
51000/05F	003.0071.002	500 µ	1	1	1.459,00
51000/075F	003.0071.003	750 µ	1	1	1.459,00

Dimensions on page 394

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1670	014.0018.000	Magnetic insert	1	1	148,20
1603	014.0024.000	300W GL resistor, setting 35°C IP65	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	1	1	293,50
1324	015.0060.001	230V 50-60 Hz single-phase motor for Mod. 51000	1	1	1.459,00
1325	015.0060.002	230/380V 50-60 Hz three-phase motor for Mod. 51000	1	1	1.459,00
586	014.0054.000	Wall-mounting bracket	1	1	192,40
3240	014.0130.001	Shaft seal kit for Mod. 21000, 31000, 41000	1	1	30,20
1494	014.0030.000	Electric motor for Mod. 1328, 1328L, 1329, 1329L	1	1	281,50
1339	014.0128.000	Torque limiter for Mod. 1328, 1328L, 1329, 1329L	1	1	280,00
1345	014.0031.000	Motor support for torque limiter for Mod. 1328L and 1329L	1	1	20,40

High-pressure self-cleaning filters

45000

High-pressure self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 15. **1.1/2”x1.1/2” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
45000/01	003.0090.001	100 µ	1	1	1.840,00
45000/03	003.0090.002	300 µ	1	1	1.572,00
45000/06	003.0090.003	600 µ	1	1	1.572,00

Dimensions on page 395

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
3370	015.0080.001	230V 50-60 Hz single-phase motor for Mod. 45000	1	1	1.459,00
3371	015.0080.002	230/380V 50-60 Hz three-phase motor for Mod. 45000	1	1	1.459,00
F3361	014.0005.000	Counter-flange kit for Mod. 45000	1	1	119,50

21005FE

High-pressure self-cleaning filter for diesel and fuel oil with galvanised steel cover and bowl.
PN 30. **1/2”x1/2” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
2100501FE	003.0045.101	100 µ	1	1	584,50
2100503FE	003.0045.102	300 µ	1	1	578,00
2100506FE	003.0045.103	600 µ	1	1	584,50

Dimensions on page 395

21008FE

High-pressure self-cleaning filter for diesel and fuel oil with galvanised steel cover and bowl.
PN 30. **1”x1” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
2100801FE	003.0047.001	100 µ	1	1	584,50
2100803FE	003.0047.002	300 µ	1	1	578,00
2100806FE	003.0047.003	600 µ	1	1	584,50

Dimensions on page 395

31008FE

High-pressure self-cleaning filter for diesel and fuel oil with galvanised steel cover and bowl.
PN 30. **1”x1” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
3100801FE	003.0052.101	100 µ	1	1	919,00
3100803FE	003.0052.102	300 µ	1	1	884,00
3100806FE	003.0052.103	600 µ	1	1	919,00

Dimensions on page 395

Heated self-cleaning filters

21005/RE

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 4. **1/2”x 1/2” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
21005/01RE	003.0042.004	100 µ	1	1	299,00
21005/03RE	003.0042.005	300 µ	1	1	292,50
21005/06RE	003.0042.006	600 µ	1	1	299,00

Dimensions on page 395

31003/RE

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1”x1”x 1/2” threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
31003/01RE	003.0050.004	100 µ	1	1	358,50
31003/03RE	003.0050.005	300 µ	1	1	349,00
31003/06RE	003.0050.006	600 µ	1	1	358,50

Dimensions on page 394

31008/RE

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1”x1” threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
31008/01RE	003.0051.004	100 µ	1	1	358,50
31008/03RE	003.0051.005	300 µ	1	1	349,00
31008/06RE	003.0051.006	600 µ	1	1	358,50

Dimensions on page 395

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1328	015.0040.001	230 V 50-60 Hz motor for Mod. 21000 - 31000	1	1	415,50
1328/L	015.0040.002	Motor + torque limiter for Mod. 21000 - 31000	1	1	532,00

41000NL

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
1.1/2”x1.1/2” threaded connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
41000/01NL	003.0060.015	100 µ	1	1	1.453,00
41000/03NL	003.0060.008	300 µ	1	1	1.422,00
41000/06NL	003.0060.016	600 µ	1	1	1.453,00

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SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1809	014.0017.000	Magnetic insert	1	1	136,40
1603	014.0024.000	300W GL resistor, setting 35°C IP65	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	1	1	293,50
1329	015.0050.001	230V 50-60 Hz motor for Mod. 41000	1	1	1.300,00
1329/L	015.0050.002	Motor + torque limiter for Mod. 41000	1	1	1.980,00
3240	014.0130.001	Shaft seal kit for Mod. 21000, 31000, 41000	1	1	30,20
1494	014.0030.000	Electric motor for Mod.1328, 1328L, 1329, 1329L	1	1	281,50
1339	014.0128.000	Torque limiter for Mod. 1328, 1328L, 1329, 1329L	1	1	280,00
1345	014.0031.000	Motor support for torque limiter for Mod. 1328L and 1329L	1	1	20,40

51000NL

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl.
PN 4. **2”x2” threaded connections.**

Type	Part no.	Filtration	Pcs/pack	Package	€ each
51000/025NL	003.0070.022	250 µ	1	1	1.715,00
51000/05NL	003.0070.023	500 µ	1	1	1.607,00
51000/075NL	003.0070.024	750 µ	1	1	1.607,00

Dimensions on page 394

51000FNL

Heated self-cleaning filter for diesel and fuel oil with aluminium cover and bowl. PN 4.
DN50 flanged connections.

Type	Part no.	Filtration	Pcs/pack	Package	€ each
51000/025FNL	003.0071.027	250 µ	1	1	1.793,00
51000/05FNL	003.0071.028	500 µ	1	1	1.685,00
51000/075FNL	003.0071.029	750 µ	1	1	1.685,00

Dimensions on page 394

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1670	014.0018.000	Magnetic insert	1	1	148,20
1603	014.0024.000	300W GL resistor, setting 35°C IP65	1	1	293,50
1604	014.0025.000	300W NL resistor, setting 70°C IP65	1	1	293,50
1324	015.0060.001	230V 50-60 Hz single-phase motor for Mod. 51000	1	1	1.459,00
1325	015.0060.002	230/380V 50-60 Hz three-phase motor for Mod. 51000	1	1	1.459,00
586	014.0054.000	Wall-mounting bracket	1	1	192,40

Waste oil filter

FOEX

Filter for waste oil, comprising magnetic strainer filter with rating of 300 microns and heated self-cleaning filter with rating of 100 microns. PN 4.

Type	Part no.	Description	Pcs/pack	Package	€ each
FOEX25	003.0080.001	70501/03M + 31008/01RE 1" connections	1	1	702,00
FOEX40	003.0081.001	70503/03M + 41000/01NL 1.1/2" connections	1	1	1.870,00
FOEX50F*	003.0083.001	70700/03FM + 51000/0 25NL DN50 connections	1	1	3.121,00

Dimensions on page 395

* DISCONTINUED, AVAILABLE WHILE STOCKS LAST

SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
1328	015.0040.001	230V 50-60 Hz motor for Mod. 31000	1	1	415,50
1328/L	015.0040.002	230V 50-60 Hz motor + torque limiter for Mod. 31000	1	1	532,00
1329	015.0050.001	230V 50-60 Hz single-phase motor for Mod. 41000	1	1	1.300,00
1329/L	015.0050.002	Motor + torque limiter for Mod. 41000	1	1	1.980,00
1324	015.0060.001	230V 50-60 Hz single-phase motor for Mod. 51000	1	1	1.459,00
1325	015.0060.002	230/380V 50-60 Hz three-phase motor Mod. 51000	1	1	1.459,00

SPARE PARTS FOR SELF-CLEANING FILTERS

U11012

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U11012/01	004.0030.001	11012 / 21005RE - 100µ	1	1	145,60
U11012/03	004.0030.002	11012 / 21005RE - 300µ	1	1	140,50
U11012/06	004.0030.003	11012 / 21005RE - 600µ	1	1	145,60

U21002

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U21002/01	004.0041.001	21005 - 100 µ	1	1	161,60
U21002/03	004.0041.002	21005 - 300 µ	1	1	154,90
U21002/06	004.0041.003	21005 - 600 µ	1	1	161,60

U21008

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U21008/01	004.0040.001	21003/21008/31003RE/31008RE - 100 µ	1	1	161,60
U21008/03	004.0040.002	21003/21008/31003RE/31008RE - 300 µ	1	1	154,90
U21008/06	004.0040.003	21003/21008/31003RE/31008RE - 600 µ	1	1	161,60

U31000

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U31000/01	004.0050.001	31003 / 31008 - 100 µ	1	1	283,00
U31000/03	004.0050.002	31003 / 31008 - 300 µ	1	1	273,00
U31000/06	004.0050.003	31003 / 31008 - 600 µ	1	1	283,00

U41000

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U41000/01	004.0060.001	41000/41000RB/41000NL - 100 µ	1	1	738,00
U41000/03	004.0060.002	41000/41000RB/41000NL - 300 µ	1	1	716,00
U41000/06	004.0060.003	41000/41000RB/41000NL - 600 µ	1	1	738,00

U45000

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U45000/01	004.0080.001	45000 - 100 µ	1	1	1.241,00
U45000/03	004.0080.002	45000 - 300 µ	1	1	997,00
U45000/06	004.0080.003	45000 - 600 µ	1	1	997,00

U51000

Part for self-cleaning filter, comprising cover and filter element.

Type	Part no.	Type - Filtration	Pcs/pack	Package	€ each
U51000/025	004.0070.001	51000/51000RB/51000NL/51000F/ 51000FRB/51000FNL - 250 µ	1	1	961,00
U51000/05	004.0070.002	51000/51000RB/51000NL/51000F/ 51000FRB/51000FNL - 500 µ	1	1	858,00
U51000/75	004.0070.003	51000/51000RB/51000NL/51000F/ 51000FRB/51000FNL - 750 µ	1	1	858,00

GASKET KIT

Type	Part no.	Type - Material	Pcs/pack	Package	€ each
21018	014.0001.000	11012/21000/31000 - CENTELLEN	1	1	3,15
OR231	014.0002.001	41000 - NBR	1	1	10,30
OR8775	014.0076.000	51000 - NBR	1	1	10,85
OR4350V	014.0004.000	45000 - VITON	1	1	10,65

System components

GS1FF - Discontinued series, available while stocks last

Normally closed (NC) automatic solenoid valve for automatic diesel shut-off in burner fuel lines. For diesel and fuel oil applications with threaded filters. Quick opening and closing. Brass body.

Type	Part no.	Connections - Power supply	Pcs/pack	Package	€ each
GS1FF	005.0070.001	1/8" - Power supply 230 VAC	1	1	35,90

M10M15

Normally closed (NC) solenoid valve for automatic diesel shut-off in burner fuel lines. For diesel and fuel oil applications with threaded filters. Brass body. IP rating: IP65.
Ambient temperature: -5 to 60°C. PN 4.

Type	Part no.	Connections - Power supply	Pcs/pack	Package	€ each
M10M15	0150210	3/8" - Power supply 230 VAC	1	25	105,00
M10M15	0150215	1/2" - Power supply 230 VAC	1	25	105,00

Dimensions on page 396

SVG

Normally closed automatic solenoid valve for diesel and fuel oil with threaded connections.
Quick opening and closing. Aluminium body. Protection rating IP65.
Room temperature: -10 to 60°C. PN.8.

Type	Part no.	Connections - Power supply	Pcs/pack	Package	€ each
SV20	005.0140.001	3/4" - Power supply 230 VAC	1	1	465,00
SV20	005.0140.002	3/4" - Power supply 24 VAC/VDC	1	1	465,00
SV20	005.0140.003	3/4" - Power supply 12 VDC	1	1	465,00
SV25	005.0141.001	1" - Power supply 230 VAC	1	1	465,00
SV25	005.0141.002	1" - Power supply 24 VAC/VDC	1	1	465,00
SV25	005.0141.003	1" - Power supply 12 VDC	1	1	465,00
SV32	005.0142.001	1.1/4" - Power supply 230 VAC	1	1	497,00
SV32	005.0142.002	1.1/4" - Power supply 24 VAC/VDC	1	1	497,00
SV32	005.0142.003	1.1/4" - Power supply 12 VDC	1	1	497,00
SV40	005.0143.001	1.1/2" - Power supply 230 VAC	1	1	497,00
SV40	005.0143.002	1.1/2" - Power supply 24 VAC/VDC	1	1	497,00
SV40	005.0143.003	1.1/2" - Power supply 12 VDC	1	1	497,00
SV50	005.0144.001	2" - Power supply 230 VAC	1	1	573,00
SV50	005.0144.002	2" - Power supply 24 VAC/VDC	1	1	573,00
SV50	005.0144.003	2" - Power supply 12 VDC	1	1	573,00

Dimensions on page 396

PRO/PROH

Pressure regulator for diesel and oil. Brass body. Max. temperature: 250°C.

Type	Part no.	Connections - Adjustment - Flow rate	Pcs/pack	Package	€ each
PRO10	505.0260.990	3/8" - Adjustment 1-5 bar. Flow rate 600 l/h	1	1	491,00
PRO20	505.0261.990	3/4" - Adjustment 1-5 bar. Flow rate 2.000 l/h	1	1	545,50
PRO25	505.0262.990	1" - Adjustment 1-5 bar. Flow rate 6.000 l/h	1	1	700,00
PRO32	505.0263.990	1.1/4" - Adjustment 1-5 bar. Flow rate 10.000 l/h	1	1	871,00
PROH10	505.0264.990	3/8" - Adjustment 5-25 bar. Flow rate 1.000 l/h	1	1	931,00
PROH20	505.0265.990	3/4" - Adjustment 5-25 bar. Flow rate 2.500 l/h	1	1	1.011,00

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SPARE PARTS FOR DIESEL SOLENOID VALVES
SPARE PARTS AND ACCESSORIES

Type	Part no.	Description	Pcs/pack	Package	€ each
922	014.0325.001	230V 50-60Hz coil for Mod. GS1FF	1	1	19,40
511.0216.990	014.0304.001	230V 50-60Hz coil for Mod. SV	1	1	75,50
511.0218.990	014.0313.001	24V AC/DC coil for Mod. SV	1	1	79,80
511.0217.990	014.0322.001	12VDC coil for Mod. SV	1	1	79,80
2104	014.0277.001	230V RAC connector for Mod. SV	1	1	24,90
226	014.0279.001	24V AC/DC RAC connector for Mod. SV	1	1	31,40
2105	014.0275.001	12VDC RAC connector for Mod. SV	1	1	4,00

Level indicators, probes and accessories

TLM - TELEVAR

Universal remote pneumatic level indicator. For tanks of any shape and height between 900 and 3000 mm (item 103) and between 3000 and 5000 mm (item 105). Standard dial in percentage volume for cylindrical tanks. Tank connection suitable for pipe with external diameter of 6mm.
Case with 3 external mounting slots.

Type	Part no.	Description	Pcs/pack	Package	€ each
TLM	0101103	Max tank height 3m	1	10	120,00
TLM	0101105	Tank height 3 to 5m	1	10	132,30

Dimensions on page 397

PE50

Polythene hose for connecting TELEVAR remote indicator to G20 Series diesel probe. Hose Ø 4x6 mm. Roll length: 50 metres.

Type	Part no.	Description	Pcs/pack	Package	€ each
PE50	0105150	50m roll	1	1	34,00

G20

Diesel probe. Fitted on tank for connection to TELEVAR remote indicator. 1" metal fitting with connection for 6 mm hose (external Ø). Perbunan pick-up tube with bottom spacer.

Type	Part no.	Connections - Length	Pcs/pack	Package	€ each
G20	0104120	1" - 220cm	1	10	31,10
G20	0104130	1" - 320cm	1	5	32,05
G20	0104150	1" - 520cm	1	5	48,05

MECAV

Universal mechanical level indicator with vertical reading, complete with seal for tight tank connection. Set by means of external screw. High-impact plastic case and cover. Measuring range: 0 to 2000 mm.

Type	Part no.	Connections	Pcs/pack	Package	€ each
MECAV	0103100	1.1/2"	1	20	30,50

Dimensions on page 397

MECAH

Universal mechanical level indicator with horizontal reading, complete with seal for tight tank connection. Set by means of external screw. High-impact plastic case and cover.
Measuring range: 0 to 2000 mm.

Type	Part no.	Connections	Pcs/pack	Package	€ each
MECAH	0103200	1.1/2"	1	20	34,20

Dimensions on page 397

RDA

Double angle fitting for tanks, complete with kit of fittings for connection to Ø 6x8, 8x10 and 10x12 mm pipes. CW617N brass body. 1"M tank connection. 3/8"F suction and return connection.

Type	Part no.	Connections	Pcs/pack	Package	€ each
RDA	0120120	1" M x 3/8" F	1	20	31,85

VRU

Check valve for diesel lines, complete with kit of fittings for connection to Ø 6x8, 8x10 and 10x12 mm pipes. CW617N brass body. Pressure drop at 50 l/h: 11 mbar. Pressure drop at 100 l/h: 18 mbar.

Type	Part no.	Connections	Pcs/pack	Package	€ each
VRU	0120140	3/8" F	1	50	27,00

VFU

Foot valve for diesel tanks, complete with kit of fittings for connection to Ø 6x8, 8x10 and 10x12 mm pipes. CW617N brass body. Plastic bottom spacer.

Type	Part no.	Connections	Pcs/pack	Package	€ each
VFU	0120160	3/8" F	1	50	26,70

Pick-up assemblies

MB - MULTIBLOC

Multi-function pick-up unit with counterweight for connection between fuel tank and burner. Combines 5 functions: burner suction and return, check valve, quick shut-off lever and connection for TELEVAR remote level indicator, complete with kit of fittings. CW617N brass body. Perbunan pick-up pipes. 1"M tank connection. 3/8"F suction and return connections.
TELEVAR indicator, Ø 4x6 mm pipe.

Type	Part no.	Connections - Length	Pcs/pack	Package	€ each
MB	0108100	1" M x 3/8" F - 220cm	1	25	70,30
MB	0108500	1" M x 3/8" F - 320cm	1	10	76,50

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MKF200

Multi-function pick-up unit, as per MB but with overlapping 3/8"M connections and metal bushes for Ø 8x10 mm pipe. The body is fitted with an additional 3/8"M connection for suction from a second bank-mounted tank. The return pipe from the burner is routed all the way to the bottom of the tank.

Type	Part no.	Connections - Length	Pcs/pack	Package	€ each
MKF200	0115110	1" - 200 cm	1	10	105,40

Dimensions on page 397

TECAL

PVC-clad aluminium pipe. Mainly for use as a connection line between the fuel tank (diesel) and burner. The cladding serves to protect the pipe against chemicals and humidity from the outdoor environment. Leak tested at 30 bar (before cladding with PVC). PVC cladding (0,75 mm thick).

Type	Part no.	Connections - Length	Pcs/pack	Package	€ each
TECAL	0701210	internal Ø 8 - external Ø 10 - 50m roll	50 m		6,75
TECAL	0701212	internal Ø 10 - external Ø 12 - 50m roll	50 m		8,35

Fittings

DM

Straight male connector, double taper. Complete with cap and double taper teflon ferrule. CW614N brass body and cap. Maximum pressure: 10 bar. Max. temperature: 110°C.

Type	Part no.	Connections	Pcs/pack	Package	€ each
DM	0702210	3/8" x 10	10	10	4,15
DM	0702212	3/8" x 12	10	10	3,90
DM	0702310	1/2" x 10	10	10	4,70
DM	0702312	1/2" x 12	10	10	4,50

DI

Straight bulkhead fitting, double taper-double taper. Complete with 2 caps and 2 teflon ferrules. Specifications as per DM Series fitting.

Type	Part no.	Connections	Pcs/pack	Package	€ each
DI	0703010	10 x 10	10	10	6,10
DI	0703012	12 x 12	10	10	5,20

DF

Straight female connector, double taper. Complete with cap and teflon ferrule. Specifications as per DM Series fitting.

Type	Part no.	Connections	Pcs/pack	Package	€ each
DF	0704210	3/8" x 10	10	10	4,45
DF	0704212	3/8" x 12	10	10	4,35
DF	0704310	1/2" x 10	10	10	5,10
DF	0704312	1/2" x 12	10	10	4,70

Diesel safety

SIC10 - SICUREX - Discontinued series, available while stocks last

Diaphragm valve for automatic diesel shut-off in burner fuel lines. Replaces solenoid valve M10 M15. Die-cast aluminium body. 3/8" F connections and bushes for Ø 6x8, 8x10 and 10x12mm mm pipes. Opening negative pressure: 50 mbar.

Type	Part no.	Connections	Pcs/pack	Package	€ each
SIC10	0150110	3/8"	1	20	77,50

Dimensions on page 397

SW90N

Load limiting valve for diesel tanks. Die-cast aluminium body. Oil-resistant plastic float switch. 2"M bottom connection and 2"F top connection.

Type	Part no.	Connections	Pcs/pack	Package	€ each
SW90N	0152150	2" MF	1	1	164,60

LACPT

Fire-safety lever for cable-operation of Multibloc and RIS shut-off valves. Complete with transparent protective cover. Base plate and red lever made of special plastic. Complete with 10m of PVC-clad flexible steel cable, 3 intermediate slots and 3 cable clamps for connection of ends. The lever must be located outside the boiler room.

Type	Part no.	Pcs/pack	Package	€ each
LACPT	0153130	1	1	41,05

Dimensions on page 397

RIS

Diesel shut-off valve with pull-out lever remotely controlled by LACPT Series cable and fire-safety lever, complete with kit of fittings for Ø 6x8, 8x10 and 10x12mm pipes. CW brass body.

Type	Part no.	Connections	Pcs/pack	Package	€ each
RIS	0120100	3/8" F	1	1	29,70

Dimensions on page 397

CL50

PVC-clad, flexible, steel-braid cable for operating shut-off devices by means of a fire-safety lever. Sold in 50m rolls with 10 cable clamps.

Type	Part no.	Description	Pcs/pack	Package	€ each
CL50	0154050	cable Ø 1,87mm	1 (50 metres)		33,25

TCS

Tank filler cap with slots for padlock and chain. Tropicalised zamak body and cover. 2" F connection to tank. 2.1/2" M connection for filler pipe.

Type	Part no.	Connections	Pcs/pack	Package	€ each
TCS	0155100	2" F x 2.1/2" M	1	90	21,00

CTS

Cap for tank vent pipe, without thread, with fixed spacers for adaptation to press-fit pipes, with fastening screws. High-impact plastic body, metal mesh.

Type	Part no.	Connections	Pcs/pack	Package	€ each
CTS	0160125	1" - 1.1/4"	10	10	9,45
CTS	0160140	1.1/2" - 2"	10	10	13,45

Leak detector systems

LAG14 ER

Leak detector system for double-skin tanks designed for flammable liquid storage, consisting of electronic control unit with visual (LED) and acoustic alarm indicator and additional output contact, anti-static tank for leak detector fluid that can be installed in hazard zones and intrinsic safety probe. Power supply 230 V, 50 Hz.
Maximum probe connection distance 50m with shielded cable. Suitable for in-ground tanks with a capacity of up to approximately 60.000 litres and for above-ground tanks with a capacity of up to approximately 20.000 litres.
To fit the detector system, use the complete set of LAGMS Series accessories.
Compliant with Directives LVD 2014/35/EU - EMC 2014/30/EU - ATEX 2014/34/EU. ATEX classification: G EEx ia IIC / EEx ia IIB.

Type	Part no.	Description	Pcs/pack	Package	€ each
LAG 14 ER	0190150	Complete control unit	1	1	623,00
BA14	0191006	Additional tank	1	1	260,00

Dimensions on page 397

LAGMS

Complete set of accessories for fitting the LAG 14 ER Series leak detector system on double-skin tanks, consisting of threaded nipple (1") for connection to tank, complete with EPDM pipe, fittings for connection with the leak detector fluid tank, threaded nipple (1") with test and bleed valve.

Type	Part no.	Connections	Pcs/pack	Package	€ each
LAGMS	0196150	-	1	1	195,90

TECHNICAL NOTE - Leak detector operation

The LAG 14 ER Series leak detector monitors the intermediate chamber (control chamber) of the tank, filled with detector fluid, and detects any leakage onto the inner or outer skin. The device consists of an indicator device (electronic control unit) capable of triggering a visual and acoustic alarm, and an indicator fluid tank with transducer (probe) connected to the tank's control chamber by a pipe.
Must be used exclusively with the same type of fluid as stored in the control chamber of the main tank. The fluid must be BAM-certified.

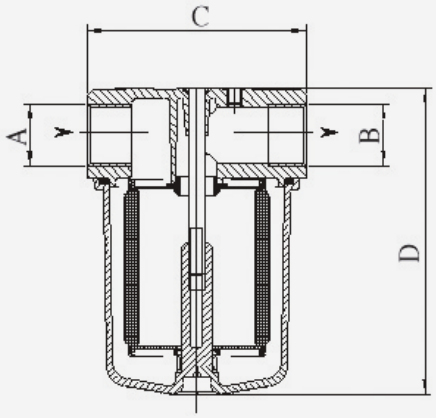
Examples of suitable BAM certified fluids:

Glyco Shell 1	(Deutsche Shell AG - Hamburg - D)
Antifrogen N	(Hoechst AG - Gendorf - D)
Glymin NF	(BASF Ludwigshafen - D)
Ilexan	(Hüls AG - Marl - D)

and other equivalent fluids with minimum electrical conductivity of 0.05 µS/cm.

Overall dimensions

70450 - 70450A - 70450P

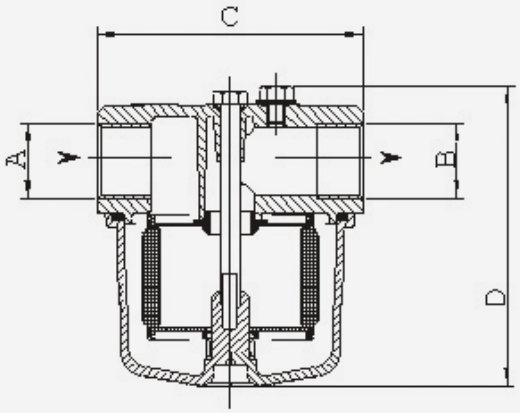


Note:
measurement “D” in the table is divided for versions with aluminium bowl (Al.) and versions with transparent bowl (Pl.).

Item	Dimensions A - B: UNI-ISO 7/1 threads C - D - E: dimensions in mm						Filtration rating	Filtration area cm²		
	A	B	C	D Al.	D Pl.	E	Microns **	P	G	L
70451 *	Rp 3/8”	Rp 3/8”	64	76,5	76,5	-	15 *** 60 - 100	190	50	28
70452 *	Rp 1/4”	Rp 1/4”	64	76,5	76,5	-				

* These models are available with transparent bowl
** Standard filtration rating (other ratings available to order)
P - ***: paper filter
G: pleated steel cartridge
L: smooth steel cartridge

70300A - 70300P



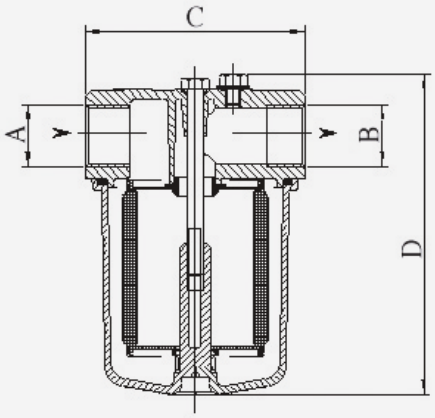
Note:
measurement “D” in the table is divided for versions with aluminium bowl (Al.) and versions with transparent bowl (Pl.).

Item	Dimensions A - B: UNI-ISO 7/1 threads C - D - E: dimensions in mm						Filtration rating	Filtration area cm²		
	A	B	C	D Al.	D Pl.	E	Microns **	P	G	L
70301 *	Rp 3/8”	Rp 3/8”	80	86,5	90	-	15 *** 60 - 100	360	85	-
70302 *	Rp 1/2”	Rp 1/2”	80	86,5	90	-				
70303 *	Rp 1/4”	Rp 1/4”	80	86,5	90	-				

* These models are available with transparent bowl
** Standard filtration rating (other ratings available to order)
P - ***: paper filter
G: pleated steel cartridge

Overall dimensions

70310- 70310A- - 70310P

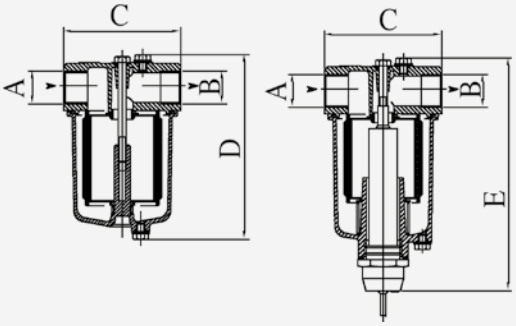


Note:
measurement “D” in the table is divided for versions with aluminium bowl (Al.) and versions with transparent bowl (Pl.).

Item	Dimensions A - B: UNI-ISO 7/1 threads C - D - E: dimensions in mm						Filtration rating	Filtration area cm²		
	A	B	C	D Al.	D Pl.	E	Microns **	P	G	L
70311 *	Rp 3/8”	Rp 3/8”	81	117	140	-	15 *** 60 - 100 - 300	750	185	-
70312 *	Rp 1/2”	Rp 1/2”	81	117	140	-				
70313 *	Rp 1/4”	Rp 1/4”	81	117	140	-				

* These models are available with transparent bowl
** Standard filtration rating (other ratings available to order)
P - ***: paper filter
G: pleated steel cartridge

70100 - 70150

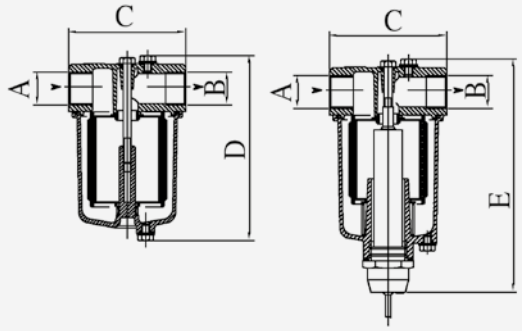


Item	Dimensions A - B: UNI-ISO 7/1 threads C - D - E: dimensions in mm						Filtration rating	Filtration area cm²		
	A	B	C	D Al.	D Pl.	E	Microns **	P	G	L
70101	Rp 1”	Rp 1”	120	175	N/A	-	60 100 - 300	-	330	-
70104	Rp 3/4”	Rp 3/4”	120	175	N/A	-				
70107	Rp 1/2”	Rp 1/2”	120	175	N/A	-				
70151 NL/GL	Rp 1”	Rp 1”	120	-	N/A	235				
70154 NL/GL	Rp 3/4”	Rp 3/4”	120	-	N/A	235				
70157 NL/GL	Rp 1/2”	Rp 1/2”	120	-	N/A	235				
70151 M	Rp 1”	Rp 1”	120	-	N/A	205				
70154 M	Rp 3/4”	Rp 3/4”	120	-	N/A	205				
70157 M	Rp 1/2”	Rp 1/2”	120	-	N/A	205				

** Standard filtration rating (other ratings available to order)
P - ***: paper filter
G: pleated steel cartridge

Overall dimensions

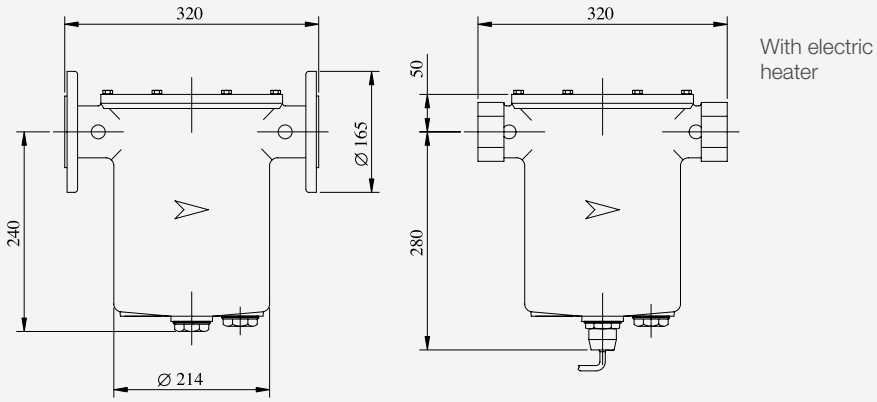
70500



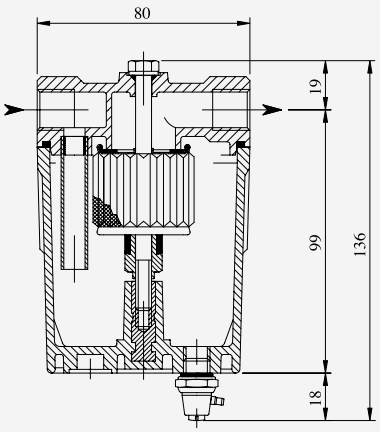
Item	Dimensions A - B: UNI-ISO 7/1 threads C - D - E: dimensions in mm						Filtration rating	Filtration area cm²		
	A	B	C	D Al.	D Pl.	E	Microns **	P	G	L
70501	Rp 1”	Rp 1”	190	255	N/A	-	60 100 - 300	-	820	-
70502	Rp 1.1/4”	Rp 1.1/4”	190	255	N/A	-				
70503	Rp 1.1/2”	Rp 1.1/2”	190	255	N/A	-				
70504	Rp 2”	Rp 2”	182	275	N/A	-				
70501 NL/GL/M/NLM/GLM	Rp 1”	Rp 1”	190	-	N/A	300				
70502 NL/GL/M/NLM/GLM	Rp 1.1/4”	Rp 1.1/4”	190	-	N/A	300				
70503 NL/GL/M/NLM/GLM	Rp 1.1/2”	Rp 1.1/2”	190	-	N/A	300				
70504 NL/GL/M/NLM/GLM	Rp 2”	Rp 2”	182	-	N/A	220				

** Standard filtration rating (other ratings available to order).
G: pleated steel cartridge.

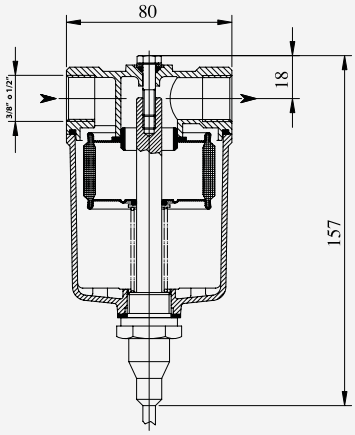
70700 - 70700F



70370

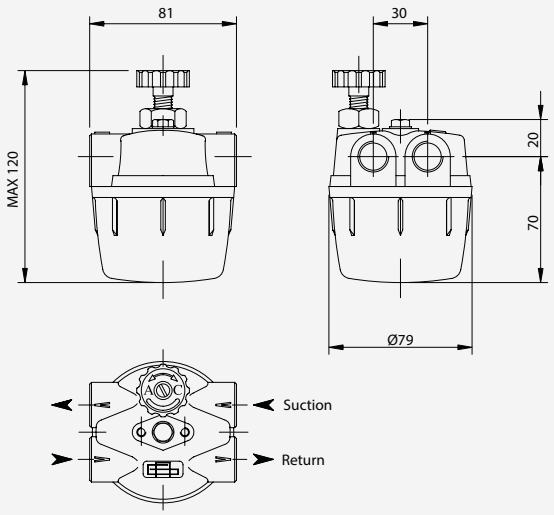


70371RE - 70372RE

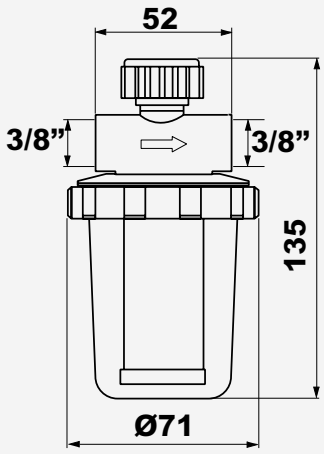


Overall dimensions

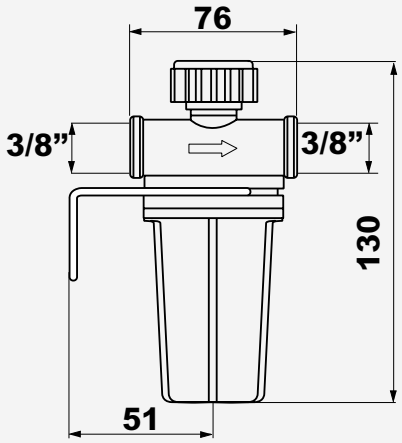
70350 - 70351A - 70351P



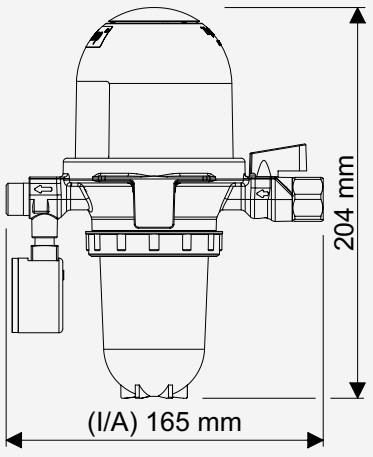
RG2



RV2/RV1/RZ/V1

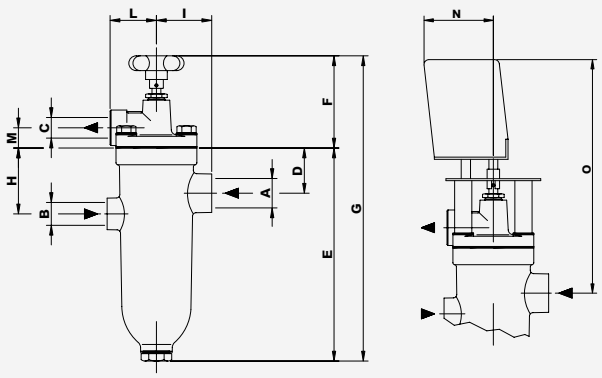


TC3 110A



Overall dimensions

21000 - 31000

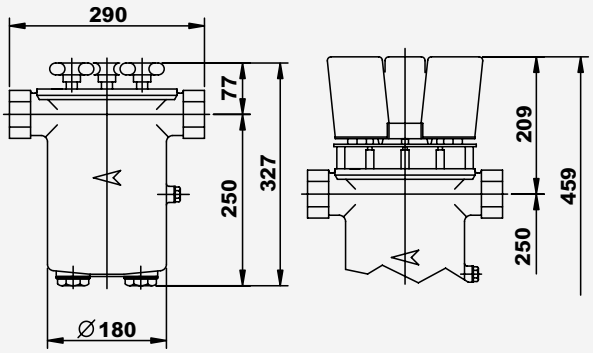


CONNECTIONS
A - inlet
B - return
C - outlet

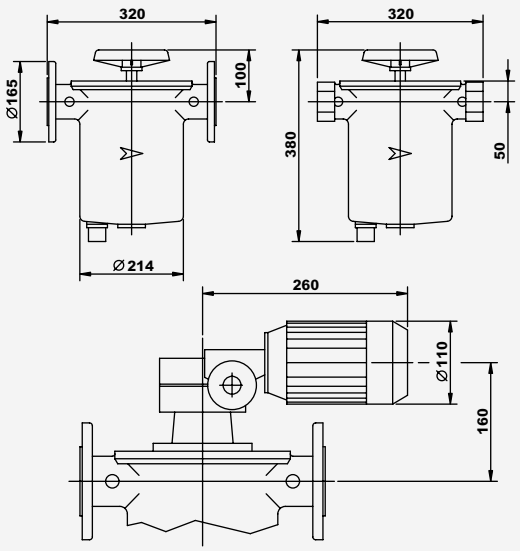
With electric motor.

Type	A	B	C	D	E	F	G	H	I	L	M	N	O
21003	Rp 1”	Rp 1/2”	Rp 1”										
21005	Rp 1/2”	-	Rp 1/2”	28	185	92	277	46	55	60	24	85	255
21008	Rp 1”	-	Rp 1”										
31003	Rp 1”	Rp 1/2”	Rp 1”	28	273	92	365	46	55	60	24	85	255
31008	Rp 1”	-	Rp 1”										

41000 - 41000NL

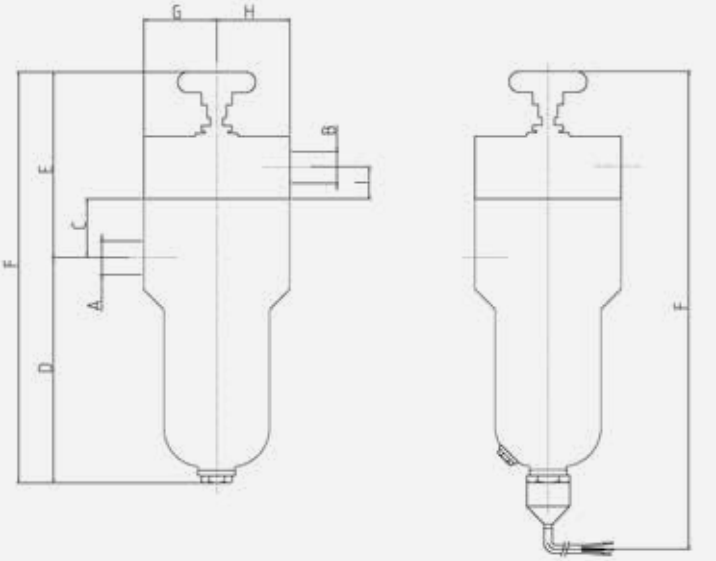


51000 - 51000NL - 51000FNL



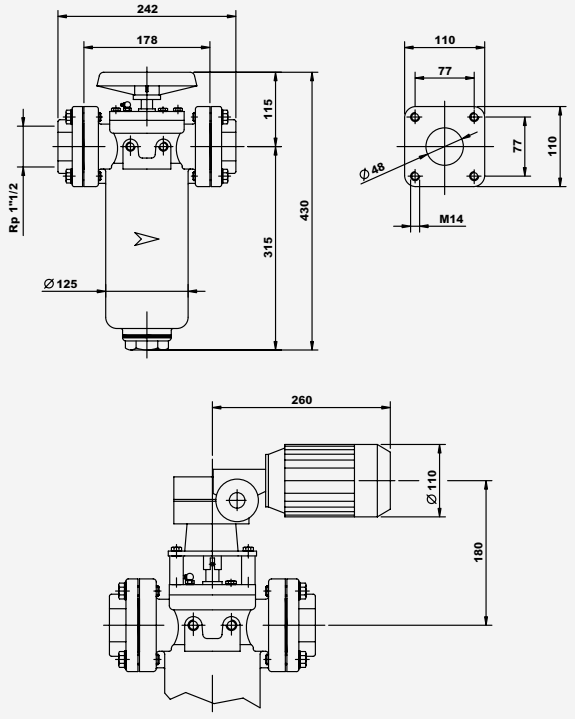
Overall dimensions

21000FE - 31000FE

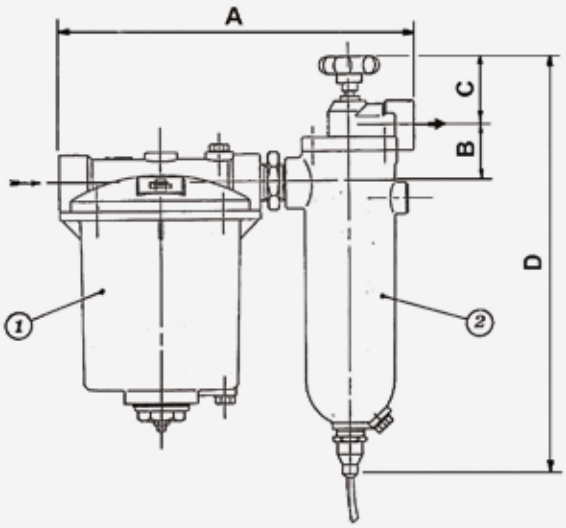


Type	A	B	C	D	E	F	G	H	I
21005FE	Rp 1/2”	Rp 1/2”	35	164	124	288	53	53	17
21008FE	Rp 1”	Rp 1”	42	157	131	288	53	53	17
31008FE	Rp 1”	Rp 1”	42	241	131	372	53	53	23
21005FERE	Rp 1/2”	Rp 1/2”	35	266	87	353	53	53	17
21008FERE	Rp 1”	Rp 1”	35	266	87	353	53	53	17
31008FERE	Rp 1”	Rp 1”	42	350	92	441	53	53	23

45000



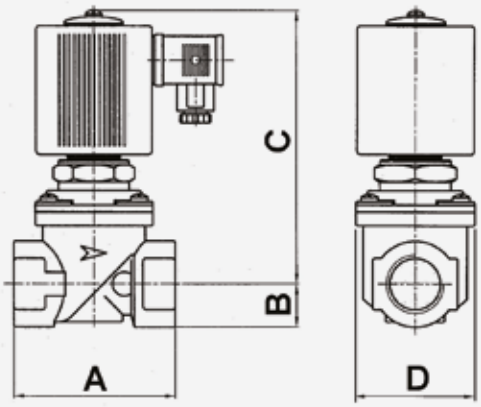
FOEX



Type	A	B	C	D
FOEX25	340	52	68	395
FOEX40	506	-	-	353
FOEX50F	642	-	-	378

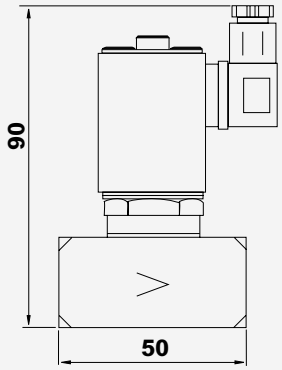
Overall dimensions

SVG

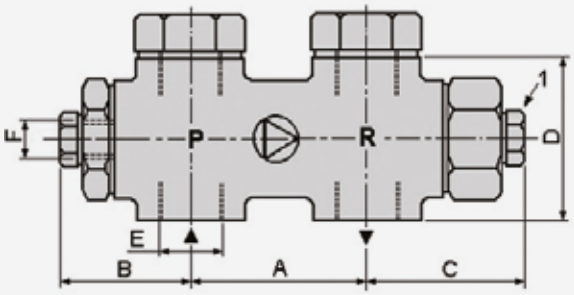


Type	Rp 3/4”	Rp 1”	Rp 1.1/4”	Rp 1.1/2”	Rp 2”
Mod.	SV20	SV25	SV32	SV40	SV50
A	96	96	154	154	173
B	25	25	31	31	39
C	160	160	188	188	191
D	70	70	105	105	127

M10M15

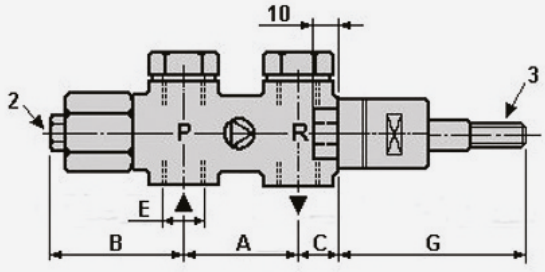


PRO - PROH



F: pressure gauge connection

Mod. PRO
To adjust the pressure, turn the screw under cap 1. Turn clockwise to increase the pressure and anticlockwise to reduce it.

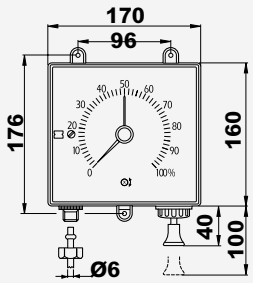


Mod. PROH
To adjust the minimum, turn the screw under cap 2. Modulation: stroke 8 - 9 mm (3).

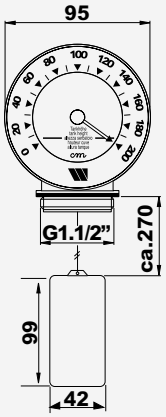
Type	Max. capacity	A	B	C	D	E	F	G
PRO10	600	55	46	55	52	G 3/8”	G 1/4”	-
PRO20	2000	63	50	60	73	G 3/4”	G 1/4”	-
PRO25	6000	80	48	58	86	G 1”	G 1/4”	-
PRO32	10000	80	48	58	86	G 1 1/4”	G 1/4”	-
PROH10	1000	55	71	16	52	G 3/8”	-	85
PROH20	2500	69	74	43	73	G 3/4”	-	85

Overall dimensions

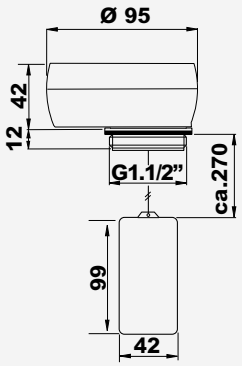
TLM



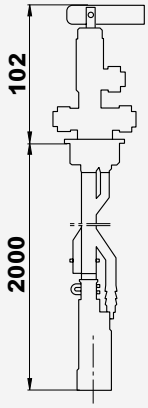
MECAV



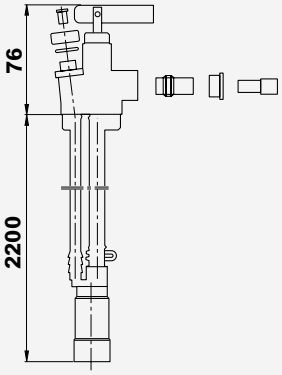
MECAH



MKF200



MB



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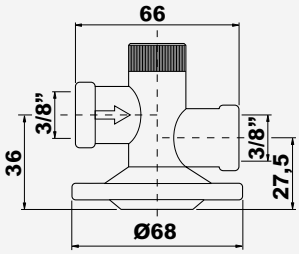

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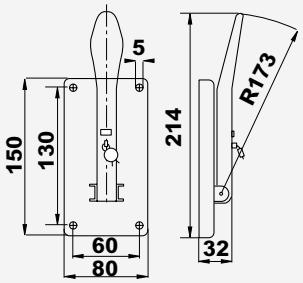

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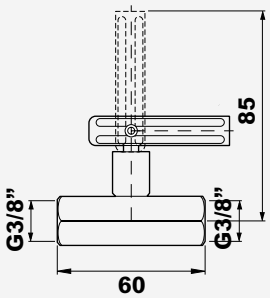

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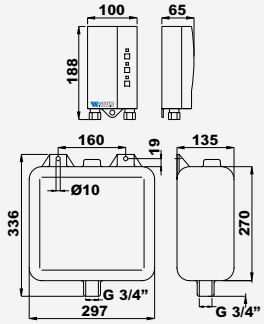
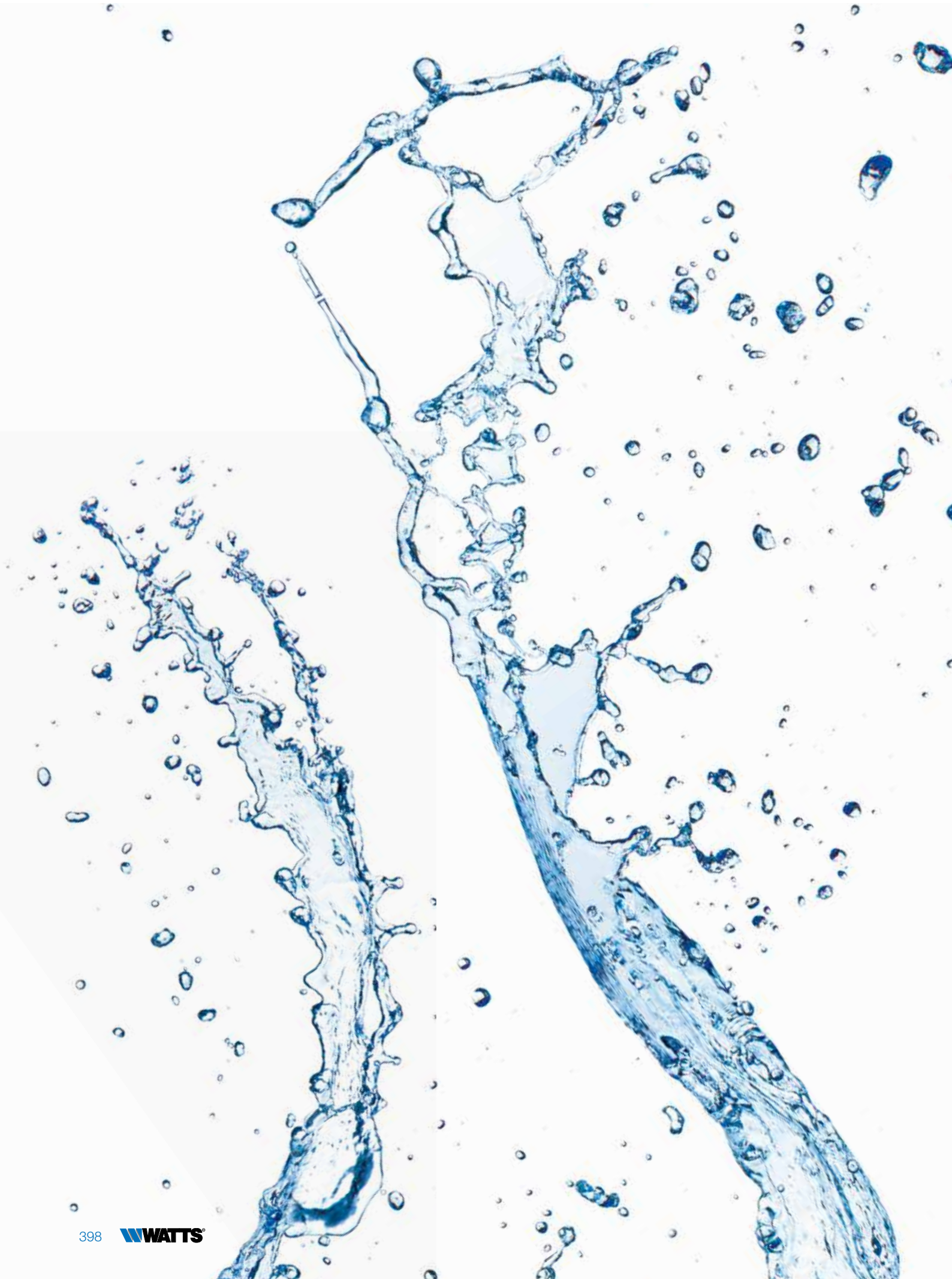




Chapter 11

Anti-scale system, control and protection of water distribution systems

ONEFLOW®
Anti-scale system

An effective and sustainable system for preventing the build-up of limescale

Chapter 11.1

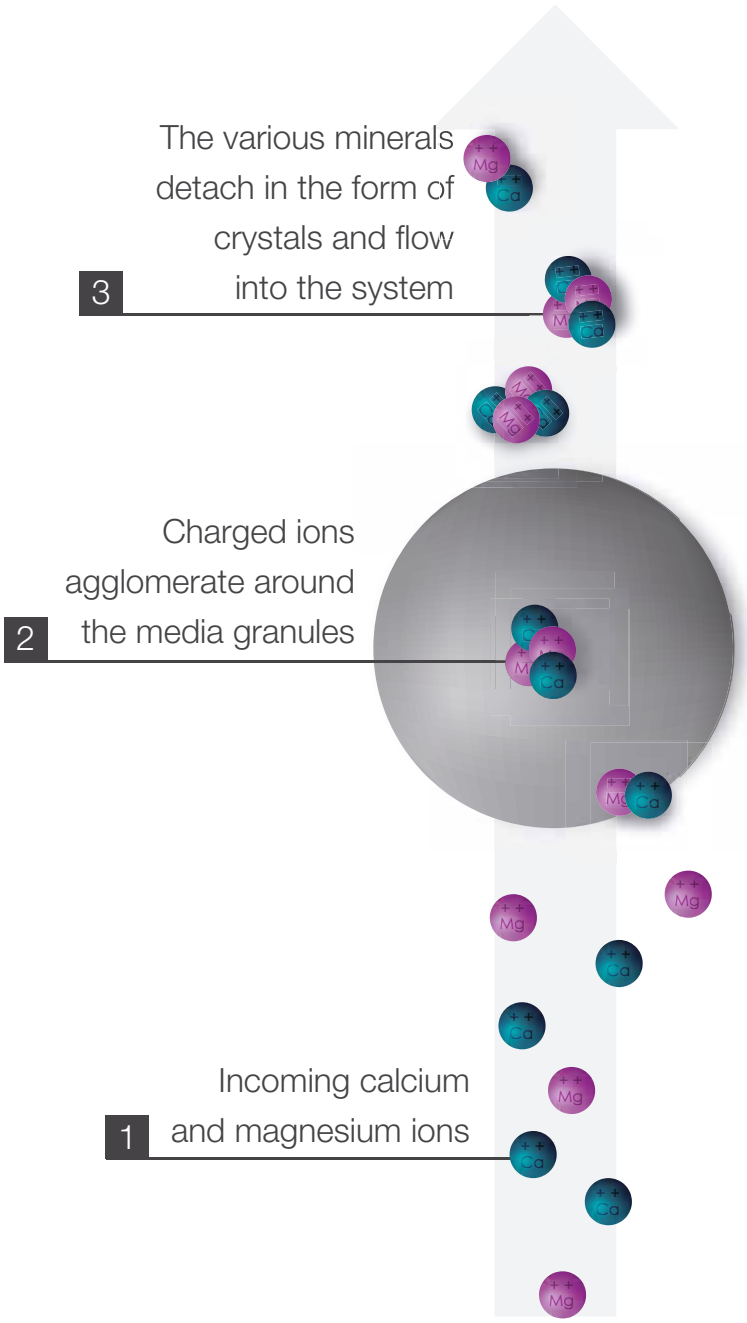
ANTI-SCALE SYSTEM

ONEFLOW®

OneFlow® is the Watts environmentally friendly anti-scale system.

It works on the basis of innovative technology and contains plastic micro-spheres that attract the calcium and magnesium found in hard water and turn them into microscopic crystals. These inert crystals then flow away in the water instead of sticking to surfaces. This prevents the build-up of limescale in pipes, heating elements, taps, etc.

By using this technology, OneFlow® preserves the properties of the water, thus avoiding the need to add salts or chemicals.



THE BENEFITS OF ONEFLOW®

No salts or chemical additives needed
No substances are added to the water.

No electricity needed
OneFlow® works independently. No power sockets needed.

No waste water generated
Unlike conventional water softeners, it does not require backwashing, so avoids needless water consumption.

Innovative, environmentally-friendly technology
Avoids water wastage and requires neither electricity nor the addition of salts.

Compact and easy to install
OneFlow® is a compact device that can be wall-mounted or floor-mounted, depending on model.

Safe for pipes and electrical appliances
OneFlow® is an effective system for the long-term removal of limescale from pipes and electrical appliances.

Low maintenance
No maintenance contract. The cartridge or granules need to be changed every one/three years, depending on model.

Saves energy
Minimal water consumption and a reduction in limescale translate into higher efficiency for all electrical appliances that use water.

Preserves water quality
The water retains all its essential minerals, such as calcium and magnesium.

ONEFLOW® MODELS

To help you select the right model, there is a dedicated calculation tool on our website- https://www.watts.eu/it/technical-support/online-tools

For further information, visit the product-specific website: **watts-oneflow.com**

ONEFLOW® OFGE-MINI

NEW

OneFlow® Ge-Mini anti-scale system with two cartridges included. Optimises efficiency of all heating components, preventing the build up of lime scale deposits on the interior surfaces of plumbing systems. **Maximum flow rate 23 l/min**; maximum pressure 6 bar; maximum temperature 38°C. 3/4"M fittings.

Part no.	Description	Pcs/pack	Package	€ each
OFGE-MINI	OneFlow® anti-scale system (including 2 cartridges) 3/4" - 266X150X420mm	1	1	980,00
CART/OFGE-MINI	no. 1 OneFlow® anti-scale cartridge for model OFGE-MINI (service life 2 years)	1	1	295,00

Dimensions on page 405

ONEFLOW® OFTWH-R

OneFlow® OFTWH-R anti-scale system with cartridge included. Optimises the efficiency of water heating devices and the components of downstream plumbing systems, by preventing the formation of deposits on the internal surfaces of pipes. **Max. flow rate: 23 L/min**; maximum pressure: 6,2 bar; maximum temperature: 38°C; minimum temperature: 5°C. Connections: 3/4".

Part no.	Description	Pcs/pack	Package	€ each
SS0002188EU	OneFlow® anti-scale system (including cartridge) 3/4" - 190x190x630mm	1	1	587,00
SS0002189EU	OneFlow® anti-scale cartridge for model OFTW-R (service life 2 years)	1	1	273,00

Dimensions on page 406

ONEFLOW® OFTWH

OneFlow® OFTWH anti-scale system with cartridge included. Optimises the efficiency of water heating devices and the components of downstream plumbing systems, by preventing the formation of deposits on the internal surfaces of pipes. **Max. flow rate: 38 L/min**; maximum pressure: 6,2 bar; maximum temperature: 38°C; minimum temperature: 5°C. Connections: 3/4".

Part no.	Description	Pcs/pack	Package	€ each
SS0002182EU	OneFlow® anti-scale system (including cartridge) 3/4" - 190x190x630mm	1	1	781,00
SS0002183EU	OneFlow® anti-scale cartridge for OFTW model (service life 2 years)	1	1	409,00

Dimensions on page 406

ONEFLOW® CONNECTION KIT

The connection kit for the 23 and 38 L/min models includes 2 x 100 cm hoses, 2 shut-off valves with non-return system, 4 EPDM seals, 2 x 3/4" nipples, 2 x 90° 3/4" MM brass fittings, 2 x 3/4" - 15 mm compression fittings and 2 x 3/4" - 22 mm compression fittings.

Part no.	Description	Pcs/pack	Package	€ each
S0002134	OneFlow® 3/4" connection kit	1	1	205,00

OneFlow® **SPARE PARTS**
Wrench for opening OneFlow® for OFTWH-R - OFTWH models.

Part no.	Description	Pcs/pack	Package	€ each
S00021-K06	Wrench for opening OneFlow® for OFTWH-R - OFTWH models	1	1	14,20
S00021-K04	Replacement O-rings kit (blue) for models OFTWH-R - OFTWH	1	1	89,90
A0002156EU	OneFlow® anti-scale granules for model OF948-16-C (service life 3 years)	1	1	718,00
A0002157EU	OneFlow® anti-scale granules for model OF1054-20-D (service life 3 years)	1	1	992,00

ONEFLOW™+ OFPSYS

OneFlow™+ OFPSYS anti-scale system with cartridges included and **activated carbon filter.** As well as preventing the build-up of limescale, it keeps the water free from unpleasant tastes and odours. Optimises the efficiency of water heating devices and the components of downstream plumbing systems, by preventing the formation of deposits on the internal surfaces of pipes. **Max. flow rate: 38 L/min;** maximum pressure: 6,2 bar; maximum temperature: 38°C; minimum temperature: 5°C. Connections: 1".

Part no.	Description	Pcs/pack	Package	€ each
7100638	OneFlow™+ anti-scale system (including cartridge) 1" - 210x290x480 mm	1	1	1.217,00
7100640	OneFlow™+ anti-scale cartridge (service life 3 years)	1	1	512,00
7100639	OneFlow™+ activated carbon element (service life 1 year)	1	1	202,00
7100641	OneFlow™+ anti-scale cartridge + activated carbon element assembly	1	1	685,00

Dimensions on page 406

WHOF1 - SELF-CLEANING FILTER

Self-cleaning filter for water with backwashing system for the effective removal of sediment. Suitable for all OneFlow®models *.
Backwashing is activated manually by opening the drain valve.
Transparent PET container. Reinforced polypropylene head.
90 micron stainless steel mesh filter included.
Drain funnel with backflow prevention system.
Max. operating temperature: 45°C (113° F)
Min. operating temperature: 4°C (39,2° F)
Max. operating pressure: 8 bar (116 psi)
Accessories included: wall bracket with screws and wrench.
* 1" F/F head connection Included in the package of adapters for ¾" and 1 ¼" connections.

Part no.	Description	Pcs/pack	Package	€ each
WHOF1	Self-cleaning filter for OneFlow - 390x120x107 mm	1	1	137,40

Dimensions on page 407

ONEFLOW® KIT + SELF-CLEANING FILTER

Kit comprising OneFlow® system + WHOF1 self-cleaning filter

Part no.	Description	Pcs/pack	Package	€ each
KIT. WHOF1+OF23	OneFlow OFTWH-R anti-scale system kit (23 L/min) + WHOF1 self-cleaning filter	1	1	703,00
KIT. WHOF1+OF38	OneFlow OFTWH anti-scale system kit (38 L/min)+ WHOF1 self-cleaning filter	1	1	897,00
KIT. WHOF1+OF38+	OneFlow+ OFPSYS anti-scale system kit (38 L/min with activated carbon element)+ WHOF1 self-cleaning filter	1	1	1.038,00

WHOF2 – TWO-STAGE FILTER

WHOF2 two-stage filter.
The first stage consists of a pre-filtration cartridge with 50 micron stainless steel mesh. The second stage consists of a polypropylene filtration cartridge with filtration rating of up to 5 microns.
Backwashing is activated manually by opening the drain valve.
Transparent PET container. Reinforced polypropylene head (melt blown).
Drain funnel with backflow prevention system.
Max. operating temperature: 45°C (113°F).
Min. operating temperature: 4°C (39,2° F).
Max. operating pressure: 8 bar (116 psi).
Accessories included: wall bracket with screws and wrench.
1" F/F head connection. Pack includes adapters for 3/4" and 1 1/ 4" connections.
The filter can be fitted upstream of OneFlow® models for residential use (OFTWH - OFTWH-R - OFPSYS).
The polypropylene cartridge (melt blown) should be replaced every 3/6 months.

Part no.	Description	Pcs/pack	Package	€ each
WHOF2	Two-stage self-cleaning filter - 390X232X107 mm	1	1	203,00
MBCPP10SX5U-3	Melt-blown cartridge	3	1	44,80

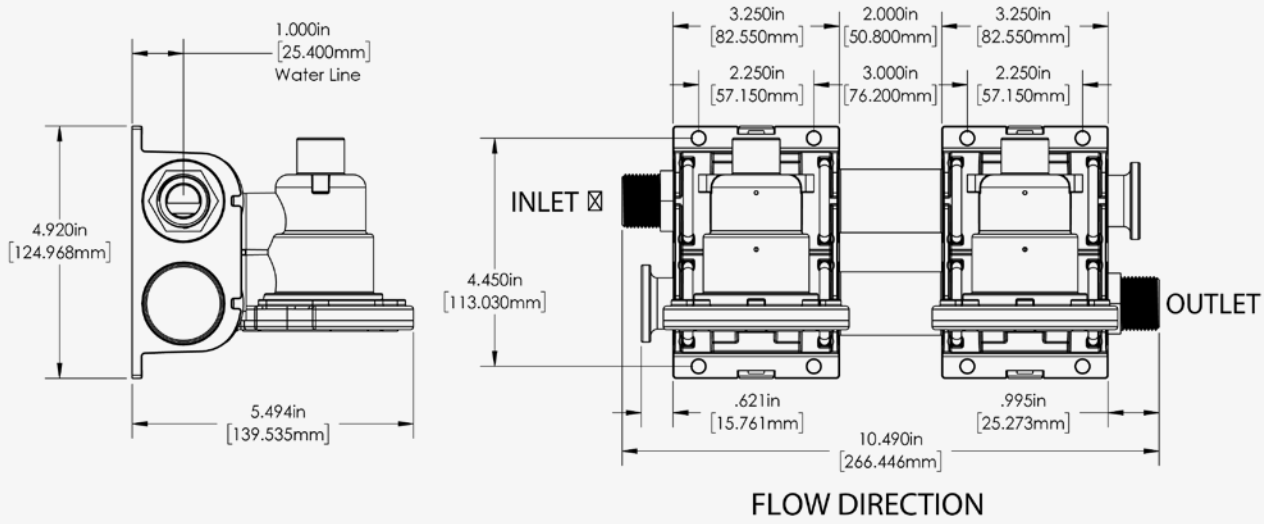
Dimensions on page 407

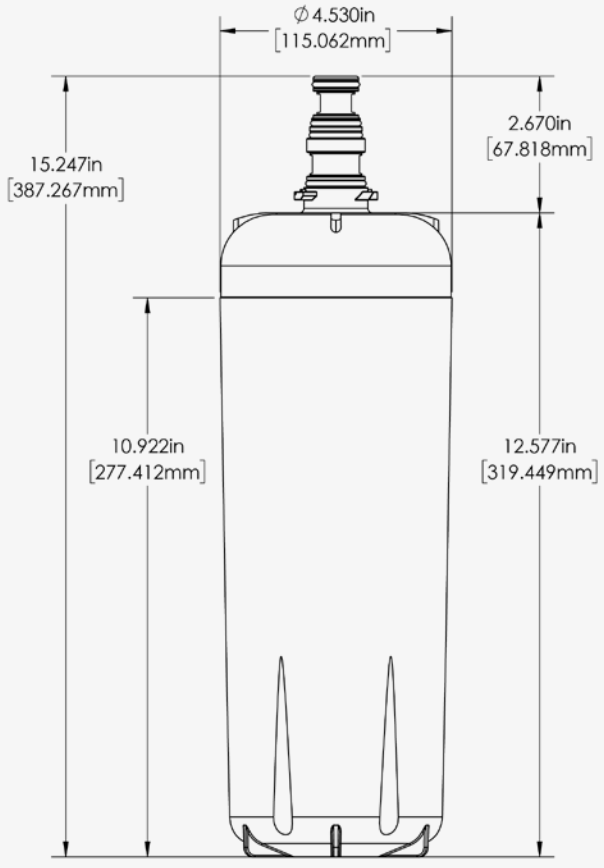
SPARE PARTS WHOF 1-2

Part no.	Description	Pcs/pack	Package	€ each
GUARWHOF	KIT with 2 Gaskets + Lubricant	1	1	17,20

Overall dimensions

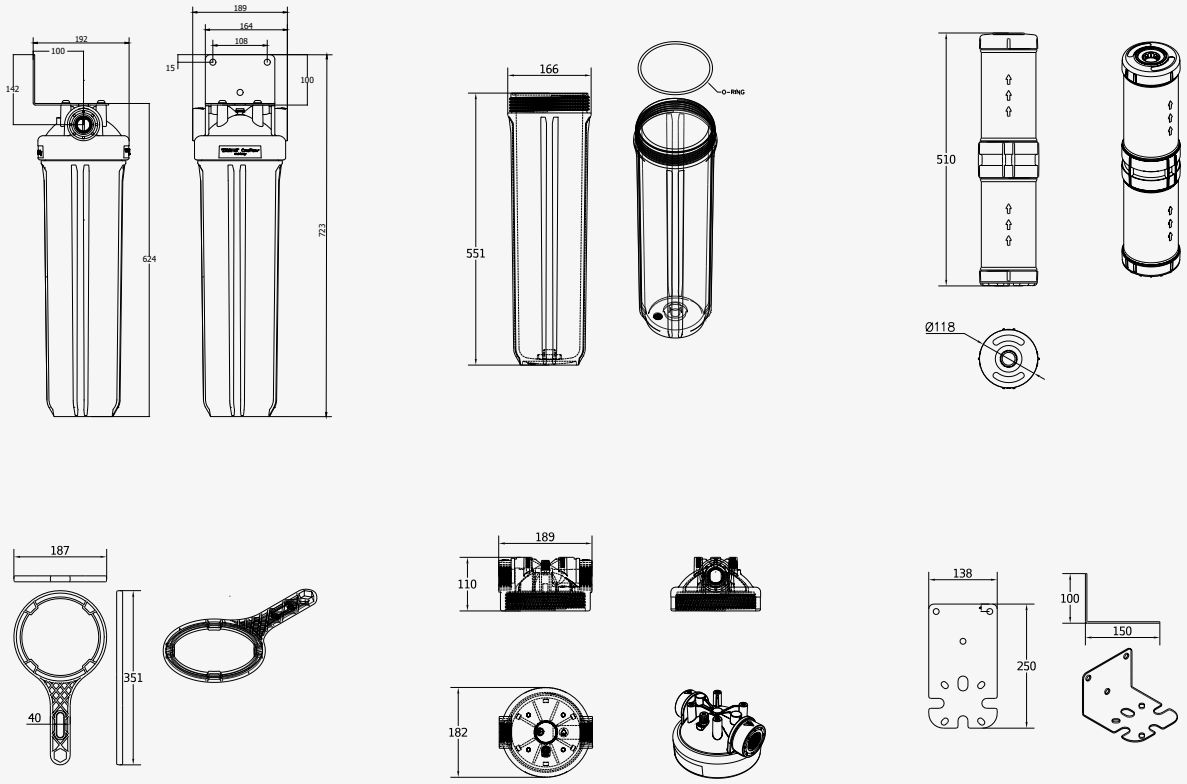
ONEFLOW® SERIES OFGE-MINI



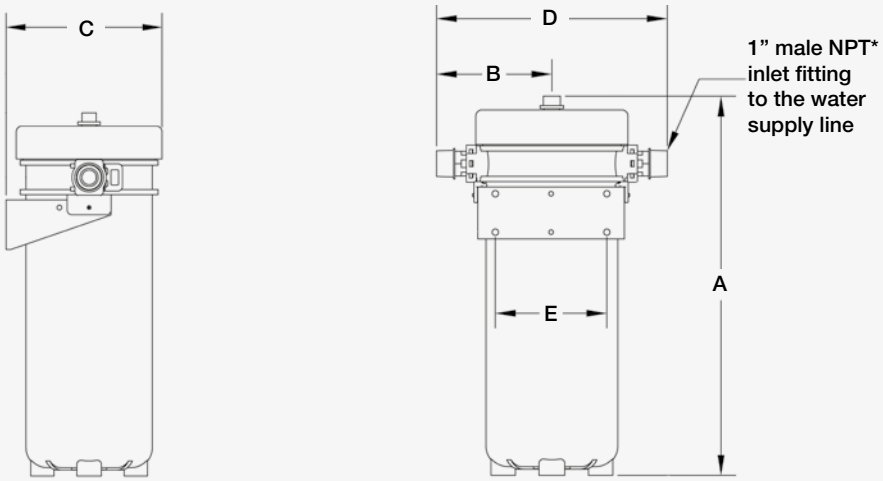


Overall dimensions

ONEFLOW® OFTWH-R / OFTWH SERIES



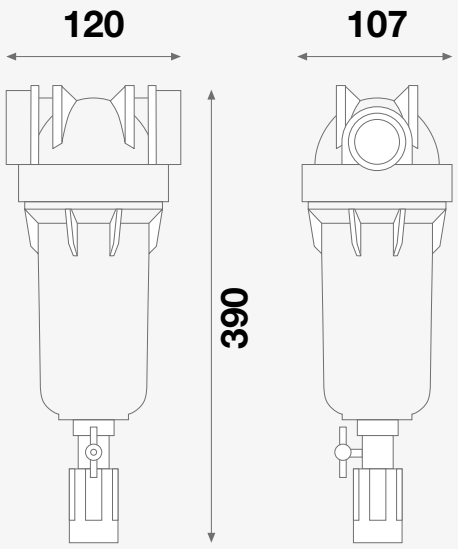
ONEFLOW™+ OFPSYS SERIES



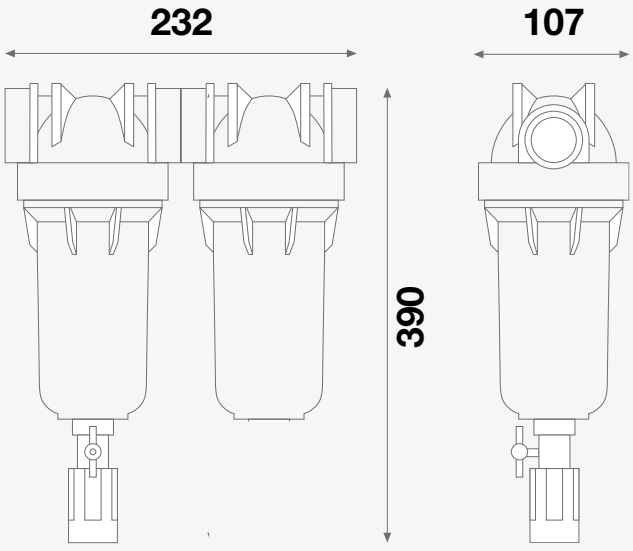
	A	B	C	D	E
mm	476	144	205	289	140

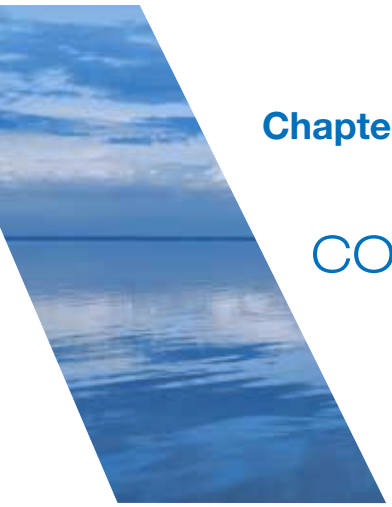
Overall dimensions

WHOF1 - SELF-CLEANING FILTER



WHOF2 - TWO-STAGE FILTER





Chapter 11.2

CONTROL DEVICES

APPLICATION	MODEL	MAX PRESSURE (BAR)	Setting range (in bar)	Max. temperature	PHOTO	DN	Main specifications
Protection of boilers and hot water storage tanks	DRV/E	25	1.5 to 6	30°C		1/2"- 3/4"	- Compact - Test point for pressure gauge connection
Residential / Domestic	DRV DRVM*	25	1.5 to 6	30°C		1/2"- 2"	- made entirely of brass - stainless steel filter -* complete with pressure gauge
	DRVN DRVMN*	25	1.5 to 6	30°C		1/2"- 2"	- Set-point pressure indicator - stainless steel filter -* complete with pressure gauge
	Desbordes 7 BIS	16	1 to 5,5	80°C		1/2"- 2"	- Compact
	Desbordes 11/11BIS/11DO	25	1 to 5,5	80°C		1/2"- 2"	- Low maintenance - Can be fitted in any position
Systems for collective premises	REDUBLOC	15	1.5 to 4	70°C		3/4"	- Compact - 3 functions in 1
	Desbordes 11/11BIS/11DO	25	1 to 5,5	80°C		1/2"- 2"	- Low maintenance - Can be fitted in any position
	Desbordes 10BIS	25	1 to 6	80°C		3/8"- 4"	- Low maintenance - wide range
	Desbordes 10TER	16	1 to 6	80°C		DN 32-100	- Low maintenance - flanged version
	DRVD	16 25 40	1.5 to 6 2 to 8 4 to 12	40°C		DN 50-200	- Epoxy coating - various setting ranges
	PR500	25	1.4 to 12	70°C		DN50-200	- Stainless steel pilot - Downstream pressure stabiliser
Industrial	DRV DRVM*	25	1.5 to 6	30°C		1/2"- 2"	- made entirely of brass - stainless steel filter -* complete with pressure gauge
	DRVN DRVMN*	25	1.5 to 6	30°C		1/2"- 2"	- Set-point pressure indicator - stainless steel filter -* complete with pressure gauge
	Desbordes 11/11BIS/11DO	25	1 to 5,5	80°C		1/2"- 2"	- Low maintenance - Can be fitted in any position
	Desbordes 10BIS	25	1 to 6	80°C		3/8"- 4"	- Low maintenance - wide range
	DRVD	16 25 40	1.5 to 6 2 to 8 4 to 12	40°C		DN 50-200	- Epoxy coating - Various setting ranges
	PR500	25	1.4 to 12	70°C		DN50-200	Stainless steel pilot - Downstream pressure stabiliser

Pressure reducing valves with compensated seat

The mains water pressure may be too high or non-continuous (e.g., between day and night). Watts has a wide range of pressure regulators and pressure reducing valves designed to provide a stable inlet pressure suited to the use of the equipment, so as to keep it in good long-term working order and save more water.

DRV/E

Compact diaphragm pressure reducing valve with compensated seat. CW602N brass body and reinforced plastic cap. FF threaded connections. 1/4" pressure gauge connection.
PN25. Adjustable downstream pressure: 1.5 to 6 bar. Max. fluid temperature: 30°C.
Suitable for water, compressed air and inert gases.

Part no.	DN	Pcs/pack	Package	€ each
0502015	1/2" FF	1	30	31,50
0502020	3/4" FF	1	15	36,40

Dimensions on page 429

DRV

Diaphragm pressure reducing valve with compensated seat complete with unions. CW617N brass body and cap. Stainless steel strainer. Plastic valve seat. Interchangeable filter-regulator unit. PN25. Adjustable downstream pressure: 1,5 to 6 bar. Can be used for water, compressed air and neutral gases up to 30°C. Pressure drops less than 1,3 bar at DIN characteristic flow rate.
Noise < 20 dB - Class 1 in Germany.
Compliant with DVGW, SVGW. Complies with the requirements of Italian Ministerial Decree 174/2004

Part no.	DN	Pcs/pack	Package	€ each
0501115	1/2" MM	1	20	77,60
0501120	3/4" MM	1	20	107,00
0501125	1" MM	1	12	130,60
0501132	1.1/4" MM	1	1	300,30
0501140	1.1/2" MM	1	1	557,00
0501150	2" MM	1	1	633,00

Dimensions on page 429

DRVM

As per DRV but with M1-ABS50 pressure gauge.

Part no.	DN	Pcs/pack	Package	€ each
0501315	1/2" MM	1	20	88,00
0501320	3/4" MM	1	20	115,80
0501325	1" MM	1	12	139,30
0501332	1.1/4" MM	1	1	309,40
0501340	1.1/2" MM	1	1	567,10
0501350	2" MM	1	1	643,20

Dimensions on page 429

RDRV **SPARE PARTS**

Pair of replacement unions complete with nut and gaskets for DRV Series pressure reducing valves.

Part no.	DN	Pcs/pack	Package	€ each
0599001	1/2" MM	1	10	12,20
0599002	3/4" MM	1	10	21,20
0599003	1" MM	1	10	29,40
0599004	1.1/4" MM	1	10	46,60
0599005	1.1/2" MM	1	10	90,70
0599006	2" MM	1	10	115,40

DRVN

Patented diaphragm pressure reducing valve with compensated seat, outlet pressure adjuster knob and external graduated scale for easy reading of set pressure. Complete with unions. Pressed, shotblasted CW617N brass body. Stainless steel filter cartridge. Pressure gauge connection on both sides: 1/4". Materials in contact with fluids are KTW certified. PN25.
Adjustable downstream pressure: 1,5 and 6 bar. Max. operating temperature: 30°C.
Can be used for water, air and neutral gases. Noise < 20 dB - Class 1 in Germany.
DVGW compliant. Complies with the requirements of Italian Ministerial Decree 174/2004

Part no.	DN	Pcs/pack	Package	€ each
0502515	1/2" MM	1	20	67,50
0502520	3/4" MM	1	20	88,00
0502525	1" MM	1	15	107,00
0502532	1.1/4" MM	1	1	243,10
0502540	1.1/2" MM	1	1	466,00
0502550	2" MM	1	1	592,10

Dimensions on page 429

DRVMN

As per DRVN but with M3A-ABS50 pressure gauge.

Part no.	DN	Pcs/pack	Package	€ each
0502615	1/2" MM	1	20	77,00
0502620	3/4" MM	1	20	97,40
0502625	1" MM	1	15	115,80
0502632	1.1/4" MM	1	1	253,40
0502640	1.1/2" MM	1	1	474,80
0502650	2" MM	1	1	600,80

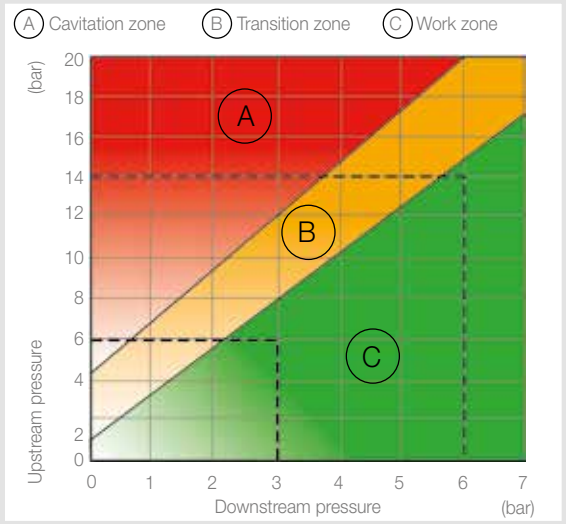
Dimensions on page 429

TECHNICAL NOTE - Cavitation diagram for DRV Series pressure reducing valves

CAVITATION
The cavitation diagram shows three operating zones of the pressure reducing valve plotted against the upstream and downstream pressures:
Zone C: normal duty, no cavitation
Zone B: medium duty, risk of cavitation
Zone A: heavy duty, the pressure reducing valve shows cavitation.
Continuous operation in the red cavitation zone could cause rapid deterioration of the internal parts.

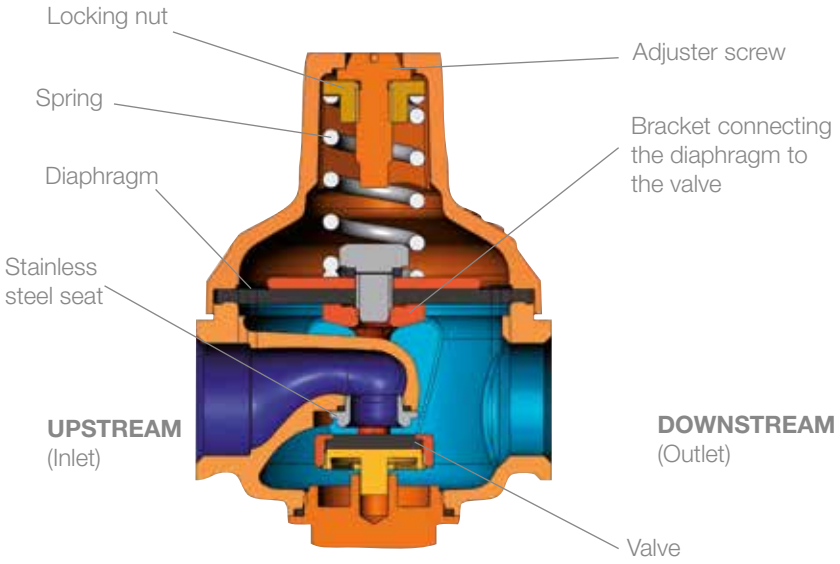
SIZING
Example 1 (cavitation)
Pressure reducing valve with:
Inlet pressure P1 = 14 bar
Outlet pressure P2 = 3 bar
From the cavitation diagram it can be seen that the pressure reducing valve is constantly working in the red zone. To avoid rapid deterioration, two pressure reducing valves could be used, one connected upstream of the other.

Upstream pressure reducing valve: pressure drop from 14 to 6 bar (green zone).
Downstream pressure reducing valve: pressure drop from 6 to 3 bar (green zone).



Desbordes pressure reducing valves

Desbordes pressure reducing valves have a bronze body, are unaffected by limescale or debris and do not require an internal strainer, which may become clogged and cause pressure drops. Maintenance-free. They are equipped with two side outlets for pressure gauges (1/4"). They can be installed in any position provided that the flow direction indicated by the arrow is observed. With EPDM seal, they are suitable for water and for compressed air only if free from oil and grease. Diaphragms in other materials available to order.
Desbordes pressure reducing valves are guaranteed for 5 years.



When there is no demand for flow, the entire lower surface of the regulator diaphragm is subject to the downstream pressure. The force exerted by this pressure compresses the spring and when it exceeds the force of the latter, it closes the valve.
The downstream pressure is therefore kept at the set value.

When there is demand for water, the downstream pressure tends to fall and the spring exerts pressure on the diaphragm again, thus opening the valve.
In the event of prolonged flow, the valve opening self-adjusts. The DESBORDES pressure reducing valve is therefore a pressure regulator.

10 SERIES

Diaphragm pressure reducing valve with bronze body and two side outlets for pressure gauges (1/4"). **Series for high flow rates.**
Max. upstream pressure: 25 bar, maximum temperature: 80°C.
Downstream adjustment range: 1 to 6 bar (indicative value to EN1567). **EPDM diaphragm: for water (standard).**
Diaphragms for other fluids: available to order.
Approvals: ACS (Attestation de Conformité Sanitaire).

10 BIS: female inlet, female outlet.

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7004	15	1/2	FF	1	1	160,90
149B7005	20	3/4	FF	1	1	203,90
149B7006	25	1	FF	1	1	285,90
149B7007	32	1 1/4	FF	1	1	532,40
149B7008	40	1 1/2	FF	1	1	739,30
149B7009	50	2	FF	1	1	1.031,60
149B7011	65	2 1/2	FF	1	1	1.741,50
149B7012	80	3	FF	1	1	2.135,30
149B7225	100	4	FF	1	1	3.769,20

Dimensions on page 429

10 TER: with PN16 flanges.

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7032	32	1 1/4	FLANGED	1	1	1.173,00
149B7033	40	1 1/2	FLANGED	1	1	1.452,30
149B7034	50	2	FLANGED	1	1	1.871,10
149B7036	65	2 1/2	FLANGED	1	1	2.870,20
149B7037	80	3	FLANGED	1	1	3.574,50
149B7226	100	4	FLANGED	1	1	5.255,00

Dimensions on page 429

11 SERIES

Diaphragm pressure reducing valves with bronze body, stainless steel seat and two side outlets for pressure gauges (1/4"). Max. upstream pressure: 25 bar, maximum temperature: 80°C. Downstream adjustment range: 1 to 5,5 bar (indicative value to EN 1567). Supplied pre-set to 3 bar. Fitting a compensation spring (RC) provides downstream adjustments from 0.5 bar (DN 1/2" and 3/4" - 11RC and 11BIS RC models). **EPDM diaphragm: for water (standard). RC models and diaphragms for other fluids available to order**
Approvals: ACS (Attestation de Conformité Sanitaire).

11: male inlet/male outlet.

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7054	15	1/2	MM	1	1	174,00
149B7055	20	3/4	MM	1	1	222,70
149B7489	25	1	MM	1	1	307,00
149B7548	32	1 1/4	MM	1	1	477,20
149B7567	40	1 1/2	MM	1	1	712,70
149B7565	50	2	MM	1	1	788,40

Dimensions on page 430

11BIS: female inlet, female outlet

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7056	15	1/2	FF	1	1	126,70
149B7057	20	3/4	FF	1	1	162,70
149B7314	25	1	FF	1	1	269,50
149B7549	32	1 1/4	FF	1	1	443,10
149B7558	40	1 1/2	FF	1	1	634,00
149B7561	50	2	FF	1	1	692,40

Dimensions on page 430

11DO: male inlet and outlet with unions

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7640	15	1/2	MM	1	1	153,10
149B7641	20	3/4	MM	1	1	185,60
149B7228	25	1	MM	1	1	268,70
149B7550	32	1 1/4	MM	1	1	455,00
149B7559	40	1 1/2	MM	1	1	657,20
149B7562	50	2	MM	1	1	797,40

Dimensions on page 430

7 SERIES

Diaphragm pressure reducing valves with bronze body. Side outlets for pressure gauges (1/4"). Max. upstream pressure: 16 bar, maximum temperature: 80°C. Downstream adjustment range: 1 to 5,5 bar (indicative value to EN 1567).
Supplied pre-set to 3 bar (only with EPDM seal)
Approvals: ACS (Attestation de Conformité Sanitaire).

MULTI 7: includes 3 fittings, which allow 16 possible 1/2" and 3/4" connections.

Part no.	Description	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B7540	RDP MULTI7 DN20	20	3/4	Multi-fittings	1	1	118,30

Dimensions on page 430

7 BIS: female inlet, female outlet. **EPDM diaphragm: for water (standard). Diaphragms for other fluids: available to order.**

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B7209	15	1/2	FF	1	1	49,10
149B7210	20	3/4	FF	1	1	55,40
149B7552	25	1	FF	1	1	102,90
149B7553	32	1 1/4	FF	1	1	190,20
149B7554	40	1 1/2	FF	1	1	269,80
149B7555	50	2	FF	1	1	404,80

Dimensions on page 430

487
PRESSURE GAUGE HOLDER
Female/male with 1/4" female square socket. Made of bronze.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B7179	PRESSURE GAUGE HOLDER	15/21	1/2	-	1	1	24,30
149B7180	PRESSURE GAUGE HOLDER	20/27	3/4	-	1	1	28,10
149B7181	PRESSURE GAUGE HOLDER	26/34	1	-	1	1	34,70
149B7182	PRESSURE GAUGE HOLDER	33/42	1 1/4	-	1	1	56,90
149B7183	PRESSURE GAUGE HOLDER	40/49	1 1/2	-	1	1	65,10
149B7184	PRESSURE GAUGE HOLDER	50/60	2	-	1	1	88,80
149B7185	PRESSURE GAUGE HOLDER	60/70	2 1/2	-	1	1	109,70
149B7186	PRESSURE GAUGE HOLDER	66/76	2 1/2	-	1	1	119,40
149B7187	PRESSURE GAUGE HOLDER	80/90	3	-	1	1	138,00

DRVD16

Flanged pressure reducing valve with single spring-compensated seat with 1/4" pressure gauge connections upstream and downstream. Cast iron body, cap and flanges with epoxy paint finish. PN16. Adjustable downstream pressures: standard execution: 1,5 to 6 bar.
Special execution: 2 to 8 bar/4 to 12 bar. Pressure control: turn clockwise to increase pressure, turn anticlockwise to reduce pressure. Suitable for installation on horizontal pipes, observing the direction of flow. For use with water. Temperature: 0 to 40°C. Flanged connections, UNI 1092-2.
Complies with the requirements of Italian Ministerial Decree 174/2004
Approvals: ACS (Attestation de Conformité Sanitaire), WRAS.

Part no.	DN	bar	Pcs/pack	Package	€ each
0504053	50	1.5 - 6	1	1	1.024,20
0504068	65	1.5 - 6	1	1	1.405,10
0504083	80	1.5 - 6	1	1	1.553,20
0504103	100	1.5 - 6	1	1	2.080,40
0504128	125	1.5 - 6	1	1	3.413,80
0504153	150	1.5 - 6	1	1	4.307,50
0504203	200	1.5 - 6	1	1	7.984,70
0504054	50	2 - 8	1	1	1.116,50
0504069	65	2 - 8	1	1	1.553,20
0504084	80	2 - 8	1	1	1.758,30
0504104	100	2 - 8	1	1	2.344,10
0504129	125	2 - 8	1	1	3.501,70
0504154	150	2 - 8	1	1	4.717,80
0504204	200	2 - 8	1	1	8.599,90
0504055	50	4 - 12	1	1	1.220,50
0504070	65	4 - 12	1	1	1.699,70
0504085	80	4 - 12	1	1	1.934,00
0504105	100	4 - 12	1	1	2.593,40
0504130	125	4 - 12	1	1	3.809,50
0504155	150	4 - 12	1	1	5.171,70
0504205	200	4 - 12	1	1	9.786,80

Dimensions on page 430

DRVD25

As per DRVD16 but with PN25.
A PN40 version is also available to order.

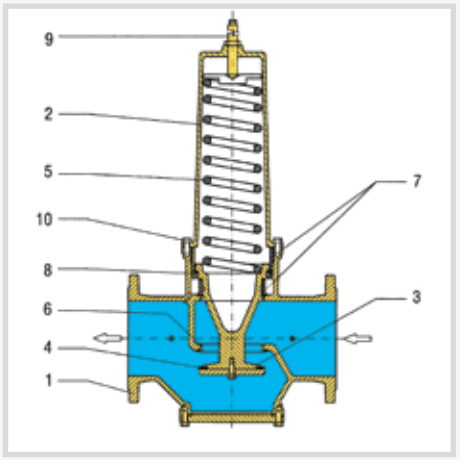
Part no.	DN	bar	Pcs/pack	Package	€ each
0504050	50	1.5 - 6	1	1	1.024,20
0504065	65	1.5 - 6	1	1	1.405,10
0504080	80	1.5 - 6	1	1	1.553,20
0504100	100	1.5 - 6	1	1	2.080,40
0504125	125	1.5 - 6	1	1	3.413,80
0504150	150	1.5 - 6	1	1	4.307,50
0504200	200	1.5 - 6	1	1	7.984,70
0504051	50	2 - 8	1	1	1.116,50
0504066	65	2 - 8	1	1	1.553,20
0504081	80	2 - 8	1	1	1.758,30
0504101	100	2 - 8	1	1	2.344,10
0504126	125	2 - 8	1	1	3.501,70
0504151	150	2 - 8	1	1	4.717,80
0504201	200	2 - 8	1	1	8.599,90
0504052	50	4 - 12	1	1	1.220,50
0504067	65	4 - 12	1	1	1.699,70
0504082	80	4 - 12	1	1	1.934,00
0504102	100	4 - 12	1	1	2.593,40
0504127	125	4 - 12	1	1	3.809,50
0504152	150	4 - 12	1	1	5.171,70
0504202	200	4 - 12	1	1	9.786,80

Dimensions on page 430

TECHNICAL NOTE - DRVD Series pressure reducers

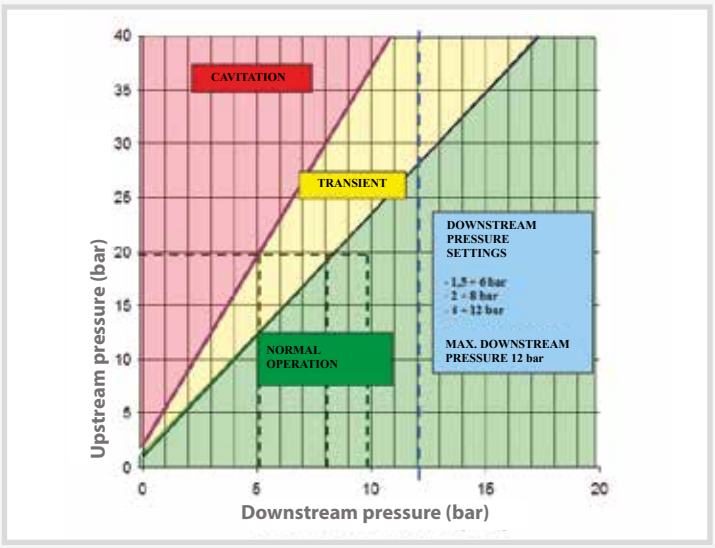
The DRVD Series spring-compensated pressure reducing valve is capable of automatically reducing and stabilising the pressure of the downstream fluid at a constant pre-set value, irrespective of upstream changes in pressure and flow rate.

It is used at the supply pipe inlet for **safety** reasons (to keep the downstream network pressure below the permitted maximum) and for the purposes of **practicality** (to run the downstream network at a constant pressure and reduce consumption).



Key:

1 Body
2 Cap
3 Disc
4 Packing
5 Spring
6 Seal ring
7 Guide bushings
8 Lip seal
9 Setting spring
10 Cap mounting screws



CAVITATION DIAGRAM

The cavitation diagram shows three operating zones of the pressure reducing valve plotted against the upstream and downstream pressures.
Avoid continuous operation in the transition and cavitation zones.

Example:
Upstream P = 20 bar
Downstream P = 10 bar

In this case there are no cavitation problems and downstream pressure can fall briefly to between 5 and 8,5 bar.

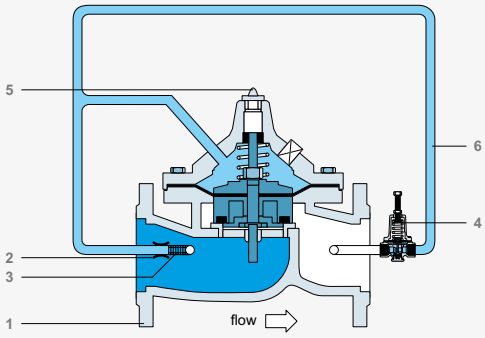
PR500

Pilot-operated pressure reducing valve designed to reduce and stabilise downstream pressure. Easy to install and simple to adjust. Body: GGG40 ductile iron. Internal and external epoxy finish. Diaphragm: NBR. Max. operating temperature: +70°C. PN 16 and PN 25. Adjustment range of pilot: Standard: 1,4 to 12 bar. Available to order: 0,1 to 2 bar, 7 to 21 bar. Fluid: water.

Part no.	DN	Pn	Pcs/pack	Package	€ each
149F049790	50	16	1	1	1.449,50
149B049308	65	16	1	1	1.469,40
149F049791	80	16	1	1	1.519,80
149B049309	100	16	1	1	2.231,00
149B049310	125	16	1	1	2.791,60
149B049311	150	16	1	1	3.207,00
149F049793	200	16	1	1	5.685,30
149B041486	50	25	1	1	1.522,00
149B045777	65	25	1	1	1.572,80
149B050120	80	25	1	1	1.595,80
149B046159	100	25	1	1	2.388,00
149B047065	125	25	1	1	2.988,00
149B046870	150	25	1	1	3.367,20
149B049503	200	25	1	1	5.969,70

Dimensions on page 431

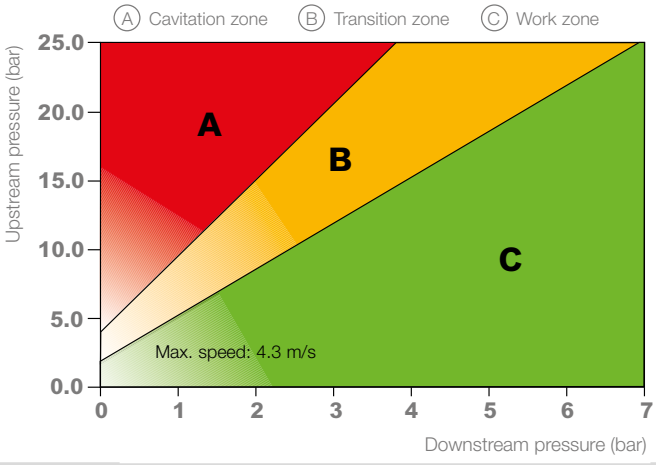
TECHNICAL NOTE



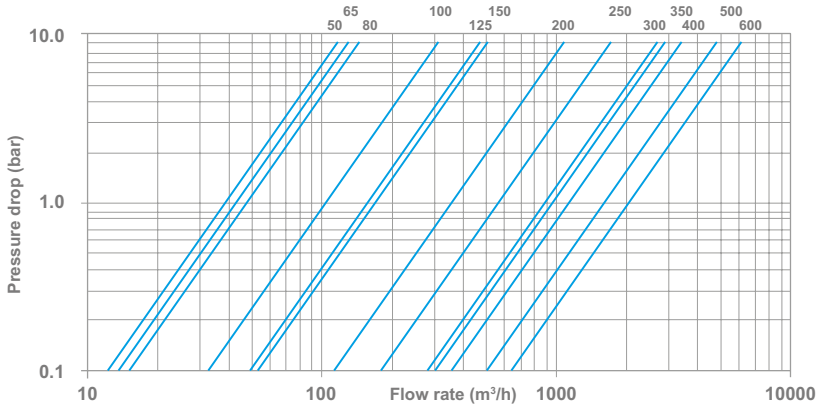
PR500

1 Body/Main valve
2 Fixed orifice
3 Flow strainer
4 Pilot valve
5 Air vent
6 Flexible tubing

CAVITATION DIAGRAM



FLOW RATE/ PRESSURE DROP DIAGRAM

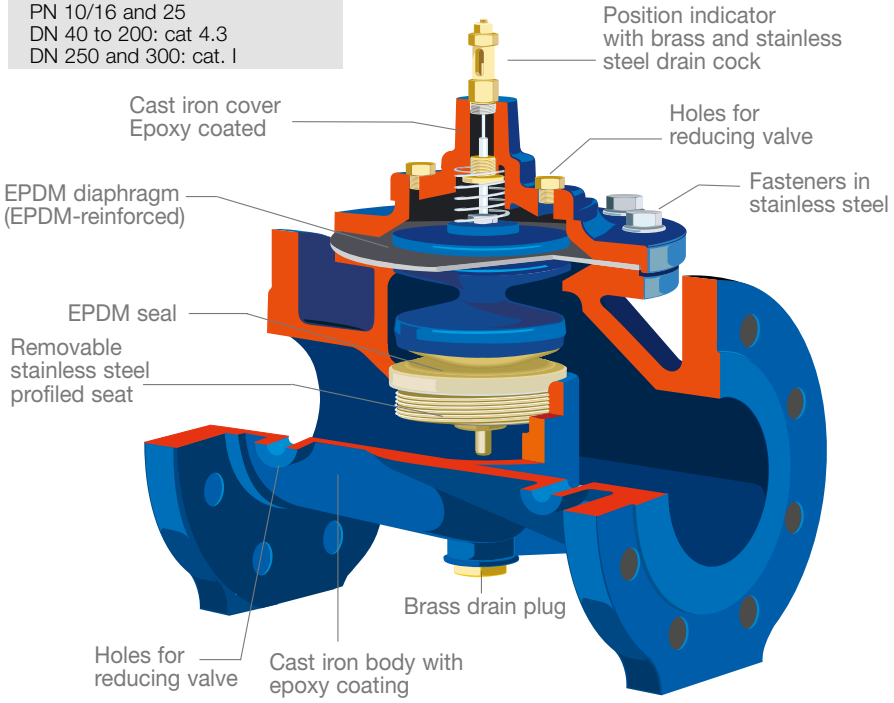


Control valves

Control valves balance the water distribution in the system at various levels for the convenience of the user and to maximise the effectiveness of the supply for minimum expenditure of energy.

CE PED 2014/68/UE
for all control valves
PN 10/16 and 25
DN 40 to 200: cat 4.3
DN 250 and 300: cat. I

PN to EN 1092-2

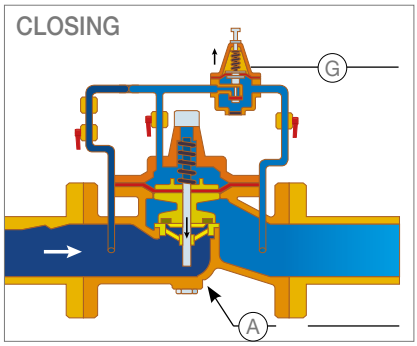


PRESSURE TABLES FOR CONTROL VALVES

DN		PN	PFA	PS				Cat
"	mm		bar	L1	L2	G1	G2	
1 1/2"		10/16	16	16	16	x	x	4.3
	40 and 50	10/16	16	16	16	x	x	4.3
	65	10/16	16	16	16	x	x	4.3
	80	10/16	16	16	16	x	x	4.3
	100	10/16	16	16	16	x	x	4.3
	125	10/16	16	16	16	x	x	4.3
	150	10/16	16	16	16	x	x	4.3
	200	10	10	10	10	x	x	4.3
	250	10	10	10	10	x	x	I
	300	10	10	10	10	x	x	I
	200	16	16	10	16	x	x	4.3
	250	16	16	10	16	x	x	I
	300	16	16	10	16	x	x	I
1 1/2"		25	25	25	25	x	x	4.3
	40 and 50	25	25	25	25	x	x	4.3
	65	25	25	25	25	x	x	4.3
	80	25	25	25	25	x	x	4.3
	100	25	25	20	25	x	x	4.3
	125	25	25	16	25	x	x	4.3
	150	25	25	13	25	x	x	4.3
	200	25	25	10	25	x	x	4.3
	250	25	25	10	25	x	x	I
	300	25	25	10	25	x	x	I

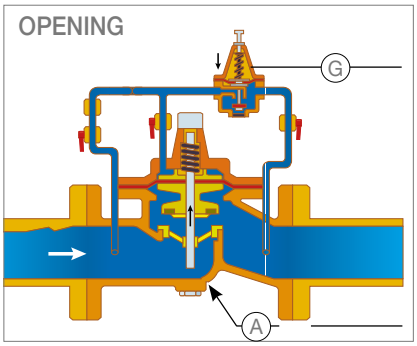
OPERATING PRINCIPLES (C101 downstream stabiliser)

CLOSING



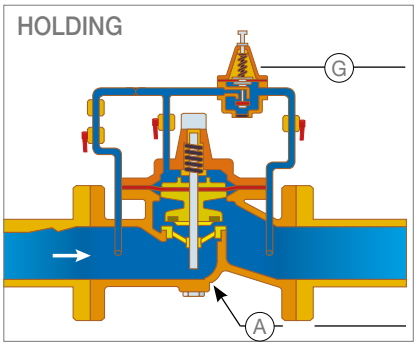
When the downstream pressure increases, the pilot G closes, the pressure in the circuit is exerted on the diaphragm of valve A and closes the valve disc.

OPENING



When the downstream pressure decreases, the pilot G opens, the pressure in the circuit is exerted more lightly on the diaphragm of valve A and opens the valve disc.

HOLDING



When the pilot opens or closes, the pressure is exerted variably on the valve diaphragm and the valve disc opens or closes as a result.

CHOOSING THE RIGHT DIAMETER

To select the right size of valve and avoid inconvenient malfunctions (noise, excessive wear, incorrect adjustment) caused by oversizing or undersizing, use the table below:

1. For applications requiring large variations in flow rate, use two valves installed in parallel.
2. The maximum flow rates shown in the table were measured at a speed of 4.5 m/second. The control valve can handle higher flow rates of brief duration, within a limit of 25% above the maximum operation flow rate
3. For the C900 series: minimum flow rate 1 m/s

Size	Mini m3/h (except C900)	C900	Maxi m3/h
40 mm	0,675	5	32,00
50 mm	0,675	7	32,00
65 mm	0,855	14	54,00
80 mm	1,600	18	82,00
100 mm	2,720	28	127,00
125 mm	4,400	44	199,00
150 mm	5,280	64	286,00
200 mm	13,500	113	509,00
250 mm	25,000	177	795,00
300 mm	40,900	255	1145,00

C101 - DOWNSTREAM STABILISERS

Controls and maintains a constant pre-set, reduced downstream pressure irrespective of fluctuations in demand and upstream pressure (minimum upstream-downstream pressure difference 0,5bar). **Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.**

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B001158	C101 DN 40	40	-	10/16/25	1	1	2.098,00
149B001175	C101 DN 50	50	-	10/16/25	1	1	2.098,00
149B10106N	C101 DN 65	65	-	10/16/25	1	1	2.138,70
149B10108N	C101 DN 80	80	-	10/16/25	1	1	2.138,70
149B10110N	C101 DN 100	100	-	10/16 1)	1	1	2.579,00
149B10111N	C101 DN 125	125	-	10/16 1)	1	1	3.948,80
149B10112N	C101 DN 150	150	-	10/16 1)	1	1	3.948,80
149B10114N	C101 DN 200	200	-	10 2)	1	1	6.701,80
149B10115N	C101 DN 250	250	-	10 2)	1	1	12.121,30
149B10116N	C101 DN 300	300	-	10 2)	1	1	16.417,00

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C301 - UPSTREAM STABILISERS

Controls and maintains a pre-set upstream pressure irrespective of fluctuations in downstream demand. **Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.**

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B007872	C301 DN 40	40	-	10/16/25	1	1	2.247,90
149B007875	C301 DN 50	50	-	10/16/25	1	1	2.247,90
149B30106N	C301 DN 65	65	-	10/16/25	1	1	2.291,60
149B30108N	C301 DN 80	80	-	10/16/25	1	1	2.291,60
149B30110N	C301 DN 100	100	-	10/16 1)	1	1	2.864,10
149B30111N	C301 DN 125	125	-	10/16 1)	1	1	4.422,70
149B30112N	C301 DN 150	150	-	10/16 1)	1	1	4.422,70
149B30114N	C301 DN 200	200	-	10 2)	1	1	6.868,20
149B30115N	C301 DN 250	250	-	10 2)	1	1	12.581,00
149B30116N	C301 DN 300	300	-	10 2)	1	1	17.513,80

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C701 - FLOAT-OPERATED ALTITUDE VALVE

Controls the level of a tank and keeps it constant by means of a float.
(10/12 mm pipe connecting float to valve not included). PFA max.10 bar.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B010458	C701 DN 40	40	-	10/16/25	1	1	2.214,10
149B010463	C701 DN 50	50	-	10/16/25	1	1	2.214,10
149B70106N	C701 DN 65	65	-	10/16/25	1	1	2.378,50
149B70108N	C701 DN 80	80	-	10/16/25	1	1	2.697,50
149B70110N	C701 DN 100	100	-	10/16 1)	1	1	3.034,60
149B70111N	C701 DN 125	125	-	10/16 1)	1	1	4.283,10
149B70112N	C701 DN 150	150	-	10/16 1)	1	1	4.785,00
149B70114N	C701 DN 200	200	-	10 2)	1	1	6.485,30
149B70115N	C701 DN 250	250	-	10 2)	1	1	12.050,60
149B70116N	C701 DN 300	300	-	10 2)	1	1	15.807,50

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C717 - FLOAT-OPERATED ALTITUDE VALVE

Keeps the volume of water in a tank within a certain range by means of a float with 2 positions. Closes at a pre-set upper limit and opens at a given lower limit. Maximum level difference 3,6 metres. 4/6 mm hose for connecting the valve to the float is not supplied. PFA max.10 bar.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B010543	C717 DN 40	40	-	10/16/25	1	1	AVAILABLE TO ORDER
149B010544	C717 DN 50	50	-	10/16/25	1	1	AVAILABLE TO ORDER
149B71706N	C717 DN 65	65	-	10/16/25	1	1	AVAILABLE TO ORDER
149B71708N	C717 DN 80	80	-	10/16/25	1	1	AVAILABLE TO ORDER
149B71710N	C717 DN 100	100	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B71711N	C717 DN 125	125	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B71712N	C717 DN 150	150	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B71714N	C717 DN 200	200	-	10 2)	1	1	AVAILABLE TO ORDER
149B71715N	C717 DN 250	250	-	10 2)	1	1	AVAILABLE TO ORDER
149B71716N	C717 DN 300	300	-	10 2)	1	1	AVAILABLE TO ORDER

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C707 - ELECTRICALLY OPERATED ALTITUDE VALVE

Keeps the volume of water in a tank within a certain range by means of electric level sensors (not supplied). Closes at a pre-set upper limit and opens at a given lower limit. Electric altitude valves.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B010496	C707 DN 40	40	-	10/16/25	1	1	AVAILABLE TO ORDER
149B010498	C707 DN 50	50	-	10/16/25	1	1	AVAILABLE TO ORDER
149B70706N	C707 DN 65	65	-	10/16/25	1	1	AVAILABLE TO ORDER
149B70708N	C707 DN 80	80	-	10/16/25	1	1	AVAILABLE TO ORDER
149B70710N	C707 DN 100	100	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B70711N	C707 DN 125	125	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B70712N	C707 DN 150	150	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B70714N	C707 DN 200	200	-	10 2)	1	1	AVAILABLE TO ORDER
149B70715N	C707 DN 250	250	-	10 2)	1	1	AVAILABLE TO ORDER
149B70716N	C707 DN 300	300	-	10 2)	1	1	AVAILABLE TO ORDER

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C401 - OVERPRESSURE RELIEF VALVE

Discharges accidental overpressure from the system. Special requirements: to be installed in parallel.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B008015	C401 DN 40	40	-	10/16/25	1	1	2.247,90
149B008022	C401 DN 50	50	-	10/16/25	1	1	2.247,90
149B40106N	C401 DN 65	65	-	10/16/25	1	1	2.291,60
149B40108N	C401 DN 80	80	-	10/16/25	1	1	2.291,60
149B40110N	C401 DN 100	100	-	10/16 1)	1	1	2.864,10
149B40111N	C401 DN 125	125	-	10/16 1)	1	1	4.422,70
149B40112N	C401 DN 150	150	-	10/16 1)	1	1	4.422,70
149B40114N	C401 DN 200	200	-	10 2)	1	1	6.868,20
149B40115N	C401 DN 250	250	-	10 2)	1	1	12.581,00
149B40116N	C401 DN 300	300	-	10 2)	1	1	17.513,80

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C801 - ELECTRICALLY-OPERATED ON/OFF VALVE

C801: Normally closed valve. The valve opens when contact is made. PN according to control solenoid valve.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B010597	C801 DN 40	40	-	10/16/25	1	1	2.054,40
149B010600	C801 DN 50	50	-	10/16/25	1	1	2.054,40
149B80106N	C801 DN 65	65	-	10/16/25	1	1	2.688,10
149B80108N	C801 DN 80	80	-	10/16/25	1	1	2.688,10
149B80110N	C801 DN 100	100	-	10/16 1)	1	1	3.059,60
149B80111N	C801 DN 125	125	-	10/16 1)	1	1	3.933,70
149B80112N	C801 DN 150	150	-	10/16 1)	1	1	4.589,30
149B80114N	C801 DN 200	200	-	10 2)	1	1	7.430,10
149B80115N	C801 DN 250	250	-	10 2)	1	1	9.659,20
149B80116N	C801 DN 300	300	-	10 2)	1	1	14.270,10

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on technical data sheets

C802 - ELECTRICALLY-OPERATED ON/OFF VALVE

Normally open valve. The valve stops when contact is made. Valves operating in full opening or closure. Electric ON/OFF control.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B010645	C802 DN 40	40	-	10/16/25	1	1	2.054,40
149B010646	C802 DN 50	50	-	10/16/25	1	1	2.054,40
149B80206N	C802 DN 65	65	-	10/16/25	1	1	2.688,10
149B80208N	C802 DN 80	80	-	10/16/25	1	1	2.688,10
149B80210N	C802 DN 100	100	-	10/16 1)	1	1	3.059,60
149B80211N	C802 DN 125	125	-	10/16 1)	1	1	3.933,70
149B80212N	C802 DN 150	150	-	10/16 1)	1	1	4.589,30
149B80214N	C802 DN 200	200	-	10 2)	1	1	7.430,10
149B80215N	C802 DN 250	250	-	10 2)	1	1	9.659,20
149B80216N	C802 DN 300	300	-	10 2)	1	1	14.270,10

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on page 431

C901 - FLOW CONTROL

Monitors and maintains a pre-set maximum outflow rate through the valve regardless of upstream and downstream pressure changes.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU.

Part no.	Description	DN mm	DN"	PN	Pcs/ pack	Package	€ each
149B011432	C901 DN 40	40	-	10/16/25	1	1	AVAILABLE TO ORDER
149B011441	C901 DN 50	50	-	10/16/25	1	1	AVAILABLE TO ORDER
149B90106N	C901 DN 65	65	-	10/16/25	1	1	AVAILABLE TO ORDER
149B90108N	C901 DN 80	80	-	10/16/25	1	1	AVAILABLE TO ORDER
149B90110N	C901 DN 100	100	-	10/16 1	1	1	AVAILABLE TO ORDER
149B90111N	C901 DN 125	125	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B90112N	C901 DN 150	150	-	10/16 1)	1	1	AVAILABLE TO ORDER
149B90114N	C901 DN 200	200	-	10 2)	1	1	AVAILABLE TO ORDER
149B90115N	C901 DN 250	250	-	10 2)	1	1	AVAILABLE TO ORDER
149B90116N	C901 DN 300	300	-	10 2)	1	1	AVAILABLE TO ORDER

1) PN25 available to order
2) PN16 and PN25 available to order
Dimensions on page 431

OTHER AUTOMATIC CONTROL VALVE MODELS AVAILABLE TO ORDER

PRESSURE GAUGES

10 bar, 16 bar, 25 bar pressure gauges: see MG1-INOX 63 models in chapter 4

3/8" – ¼" M/F adaptor KIT for pressure gauge connection – Ref. 149F010741

Thermostatic mixers

The use of thermostatic mixers keeps the mixed water temperature at the set value regardless of changes in the temperature of the incoming hot and cold water.
Watts has a wide range of mixers, which can be divided as shown in the tables below.

Temperature control at point of use – Aquamix Models

61C
Setting range: 32 to 50°C FF connections

61CM
Setting range: 32 to 50°C MM union connections

62C
Setting range: 42 to 60°C FF connections

Temperature control at inlet For collective installations Ultramix models

TX90 - ULTRAMIX®
Temperature control range: 10 to 50°C and 30 to 70°C

Temperature control at inlet For collective installations with high flow rates and industrial applications T70 models

T70
Adjustment range: 10 to 50°C.

Anti-legionella system with programmable thermal disinfection, for collective installations

e-ULTRAMIX is a latest-generation system designed to electronically control (locally or remotely) the temperature of the mixed water in collective installations.

It is equipped with a smart control unit for automatic programming of thermal disinfection cycles, thus preventing the risks associated with legionella. It also includes 3 sensors for temperature measurement.

The data recorded by the programming unit can be recovered by using a micro-SD card, or by remote connection to a BMS (Modbus) using the appropriate interface.

Thermostatic mixing valves

61C - AQUAMIX

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety.
Setting range: 32 to 50°C. Max. differential pressure: 2 bar. Female connections.
Compliant with EN 1111 and EN 1287.

Part no.	DN	Pcs/pack	Package	€ each
6109C12	1/2" F	1	36	80,70
6110C34	3/4" F	1	36	80,70
6111C1	1" F	1	36	85,70

Dimensions on page 432

61CM - AQUAMIX

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety.
Setting range: 32 to 50°C. Max. differential pressure: 2 bar. Male union connections.
Compliant with EN 1111 and EN 1287.

Part no.	DN	Pcs/pack	Package	€ each
61CM12	1/2" M	1	24	116,50
61CM34	3/4" M	1	24	118,80
61CM1	1" M	1	24	121,70

Dimensions on page 432

62C - AQUAMIX

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety.
Setting range: 42 to 60°C. Max. differential pressure: 2 bar. Female connections.
Compliant with EN 1111 and EN 1287.

Part no.	DN	Pcs/pack	Package	€ each
6209C12	1/2" F	1	36	80,70
6210C34	3/4" F	1	36	80,70
6211C1	1" F	1	36	85,70

Dimensions on page 432

Thermostatic mixing valves for collective facilities

e-ULTRAMIX

Anti-legionella system with programmable thermal disinfection, consisting of:
- bimetallic strip thermostatic mixing valve with male threaded connections, brass body, anti-seize mechanism with strainers and check valves, anti-scald protection, PN 10, max. hot water inlet temperature: 85°C, recommended operating pressure: 2-4 bar, minimum inlet/outlet temperature differential: 5°C;
- electronic control unit for programming disinfection cycles and saving data on micro SD card. CE compliant, IP20. Power supply: 90-230 V AC - 50/60 Hz. Temperature control range: 30 to 70°C, disinfection temperature: 50 to 70°C. With auxiliary relays for controlling drainage, circulation, DHW production (10A / 250V AC NO) and alarms (8 A / 250 V AC NO/NC). Remote management interface;
- mixed water probe (L=2m);
- DHW contact probes and recirculation return probes (L=3m);
- electric actuator (0-10 V DC, consumption 1.5W, IP54) Length of actuator/control unit cable 2m.

Compliant with EN 1111/00 and UNI EN 1287/02.
Approvals: ACS (Attestation de Conformité Sanitaire).

Part no.	Description	l/min	No. of consumers	Pcs/ pack	Package	€ each
22TX91E37ELECV3	e-ULTRAMIX 3/4"	5-56	1-7	1	1	1.266,30
22TX92E37ELECV3	e-ULTRAMIX 3/4"	5-80	1-10	1	1	1.351,40
22TX93E37ELECV3	e-ULTRAMIX 1"	5-120	1-15	1	1	1.493,80
22TX94E37ELECV3	e-ULTRAMIX 1 1/4"	5-175	1-21	1	1	1.636,00
22TX95E37ELECV3	e-ULTRAMIX 1 1/2"	8-260	1-32	1	1	2.276,00
22TX96E37ELECV3	e-ULTRAMIX 2"	8-400	1-50	1	1	2.845,00

Dimensions on page 432

e-KIT

KIT for conversion of mechanical ULTRAMIX mixer to electronic e-ULTRAMIX, comprising cartridge, electronic actuator, programming unit, MicroSD card, temperature sensors (DHW / mixer / return).

Part no.	For models	l/min	No. of consumers	Pcs/ pack	Package	€ each
22TX1E37EKITV3	e-KIT 3/4"	5-56	1-7	1	1	1.011,10
22TX2E37EKITV3	e-KIT 3/4"	5-80	1-10	1	1	1.011,10
22TX3E37EKITV3	e-KIT 1"	5-120	1-15	1	1	1.245,60
22TX4E37EKITV3	e-KIT 1 1/4"	5-175	1-21	1	1	1.392,10
22TX5E37EKITV3	e-KIT 1 1/2"	8-260	1-32	1	1	1.758,40
22TX6E37EKITV3	e-KIT 2"	8-400	1-50	1	1	1.904,70

Dimensions on page 432

E-ULTRAMIX **SPARE PARTS**
Replacement cartridge for e-ULTRAMIX thermostatic mixer series V3

Part no.	For models	l/min	No. of consumers	Pcs/ pack	Package	€ each
22TX1E37ECARTV3	e-CARTRIDGE 3/4"	5-56	1-7	1	1	423,80
22TX2E37ECARTV3	e-CARTRIDGE 3/4"	5-80	1-10	1	1	423,80
22TX3E37ECARTV3	e-CART 1"	5-120	1-15	1	1	516,20
22TX4E37ECARTV3	e-CART 1 1/4"	5-175	1-21	1	1	567,30
22TX5E37ECARTV3	e-CART 1 1/2"	8-260	1-32	1	1	805,30
22TX6E37ECARTV3	e-CART 2"	8-400	1-50	1	1	1.123,80

NB: compatible exclusively with e-ULTRAMIX series V3 mixing valves. For previous series contact our technical department.

E-ULTRAMIX accessories

Anti-scald protection. For installation at all outlets to protect users from the risk of scalding caused by accidental release of water during thermal disinfection cycles. Flow shuts off immediately in the event of water temperature exceeding 48 °C. Chrome-plated brass body.
Maximum pressure: 10bar, dynamic: 5bar.

Part no.	Connection - Application	Pcs/pack	Package	€ each
2297155	MF 1/2" - for sink	1	1	42,80
2297156	M24x1 with aerator - for showerhead	1	1	42,80

NORMALLY CLOSED SOLENOID VALVE

Anti-scald accessory for the mixing valve (outside thermal disinfection phase).
Alarm relay managed as control of the normally closed valve.
Solution to be used together with anti-scald protection.
Does not protect the draw-off points during thermal disinfection.

Code 220V / 50 Hz	Code 24V / 50 Hz	Code 24V DC	Diameter	Pcs/pack	Package	€ each
149B6969	149B6982	149B6995	3/4"	1	1	131,90
149B6970	149B6983	149B6996	1"	1	1	155,10
149B6971	149B6984	149B6997	1 1/4"	1	1	247,40
149B6972	149B6985	149B6998	1 1/2"	1	1	282,20
149B6973	149B6986	149B6999	2"	1	1	349,30

MOMENTARY POWER FAILURE PROTECTION DEVICE (D.E.R.)

Keeps the solenoid valve open during a momentary power failure (4 to 10 seconds).
Does not protect the draw-off points during thermal disinfection.

Part no.	Dimensions	Pcs/pack	Package	€ each
22L0908905	165 x 140 x 155	1	1	245,20

REMOTE PROBE KIT

Installed on domestic hot water networks, with or without a recirculating loop, and measures the temperature of the mixed water. The temperature measurement probe is equipped with a pocket and can be connected directly to the relative inlets provided on the e-ULTRAMIX mixer (mixed water, return loop, DHW, etc.) or to other components having NTC electrical resistance of 10 KΩa at 25 °C. Accuracy ± 0,5 °C.

Part no.	DN "	DN mm	Outlets *	Pcs/pack	Package	€ each
22029700	3/4"	20 x 27	1_10	1	1	120,70
22029701	1"	26 X 34	1_15	1	1	140,90
22029702	1 1/4"	33 X 42	1_21	1	1	154,20
22029703	1 1/2"	40 X 49	1_32	1	1	194,50
22029704	2"	50 X 60	1_50	1	1	199,80

*Indicative only. Take into account the number of draw-off points connected to the network and the simultaneous use correction factor.

e-ULTRAMIX IP 55 WATER-RESISTANT ENCLOSURE

Wall-mounting water-resistant enclosure with IP 55 protection rating, ideal for shielding devices connected to the electricity network against all likely aggressive agents (dust, damp, water splashes, etc.). Equipped with housing and plate for fixing the e-ULTRAMIX programming control unit.
Cable outlet with gland (4 x ISO16 and 1 x ISO20) and plugs.
Four wall-mounting bracket. Wall mounting screws not provided.

Part no.	Dimensions	Pcs/pack	Package	€ each
22029800	240 X 190 X 94	1	1	322,50

TX90 - ULTRAMIX®

Exposed thermostatic mixing valves for facilities such as swimming pools, sports centres, schools, military bases, factories, camp sites, hospitals, spas, etc., for setting and maintaining a constant mixed water temperature, also in case of pressure fluctuations (max. 1.5 bar). Brass body.
Grey epoxy cover with blue graduated knob (Code E).
Chrome-plated cover with white graduated knob (Code C).
Anti-seize mechanism with strainers and check valves.
Steel bimetallic strip coated with rilsan to protect against scale formation.
Temperature control range: 10 to 50°C and 30 to 70°C (only for models with epoxy cover) with locking function. Anti-scald protection: water shut off in less than two seconds in the absence of cold water.
PN10. Max. hot water temperature: 85°C.
Flow rates guaranteed with upstream dynamic pressure: 3 bar.
Hot water inlet on left, mixed water outlet at the top.
Minimum inlet/outlet temperature differential: 5°C.
Compliant with EN 1111/00 and UNI EN 1287/02.
Approvals: ACS (Attestation de Conformité Sanitaire).

Part no.	DN	Temp. adjust.	No. of consumers	l/min	Pcs/ pack	Package	€ each
TX91E	3/4"M	10-50°C	1-7	3-56 *	1	1	404,50
TX92E	3/4"M	10-50°C	1-10	3-80 *	1	1	414,70
TX93E	1"M	10-50°C	1-15	3-120 *	1	1	573,10
TX94E	1.1/4"M	10-50°C	1-21	5-175 *	1	1	820,80
TX95E	1.1/2"M	10-50°C	1-32	5-260 *	1	1	1.198,50
TX96E	2"M	10-50°C	1-50	6-400 *	1	1	1.446,20
TX91C	3/4"M	10-50°C	1-7	3-56 *	1	1	517,10
TX92C	3/4"M	10-50°C	1-10	3-80 *	1	1	549,30
TX93C	1"M	10-50°C	1-15	3-120 *	1	1	678,40
TX94C	1.1/4"M	10-50°C	1-21	5-175 *	1	1	955,50
TX95C	1.1/2"M	10-50°C	1-32	5-260 *	1	1	1.361,20
TX96C	2"M	10-50°C	1-50	6-400 *	1	1	1.641,00
TX91E37	3/4"M	30-70°C	1-7	3-56 *	1	1	404,50
TX92E37	3/4"M	30-70°C	1-10	3-80 *	1	1	414,70
TX93E37	1"M	30-70°C	1-15	3-120 *	1	1	573,10
TX94E37	1.1/4"M	30-70°C	1-21	5-175 *	1	1	820,80
TX95E37	1.1/2"M	30-70°C	1-32	5-260 *	1	1	1.198,50
TX96E37	2"M	30-70°C	1-50	6-400 *	1	1	1.446,20

Dimensions on page 433
* for indicative purposes, take account of the simultaneity factor

CAR-TX90 **SPARE PARTS**
Replacement cartridge for TX90 ULTRAMIX® Series collective mixer units.

Part no.	For models	l/min	Pcs/pack	Package	€ each
TX1	TX91E,TX91C	3-56	1	1	376,70
TX2	TX92E,TX92C	3-80	1	1	376,70
TX3	TX93E,TX93C	3-120	1	1	458,90
TX4	TX94E,TX94C	5-175	1	1	504,20
TX5	TX95E,TX95C	5-260	1	1	644,20
TX6	TX96E,TX96C	6-400	1	1	998,80

T70

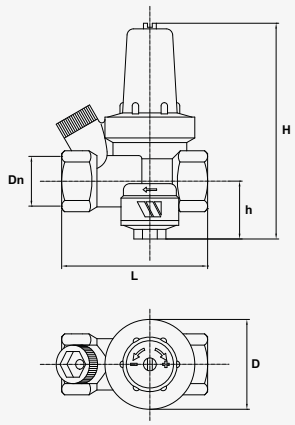
Thermostatic mixing valve for central DHW systems with high flow rates: apartment complexes, factories, hotels, hospitals, schools, etc. Cast iron body and bronze/brass internal parts.
PN16 flanged series. Adjustment range: 10 to 50°C. 30 to 70°C available to order.
PN10. Max. temperature: 85°C.
Flow rates guaranteed with upstream dynamic pressures: 3 bar. Max. dynamic pressure: 6 bar.
Hot water inlet on left and cold water inlet on right, mixed water outlet at the top. A strainer and check valve should be installed at the hot/cold water inlets. Adoption of this unit discharges obligation under Italian Presidential Decree no. 412/93 governing domestic hot water production.
Compliant with EN 1111/00 and UNI EN 1287/00.

Part no.	DN	No. of consumers	l/min	Pcs/ pack	Package	€ each
T70065	65	1-36	10-360*	1	1	4.047,60
T70080	80	1-70	12-700*	1	1	4.869,90
T70100	100	2-120	14-1200*	1	1	6.452,20

Dimensions on page 433
* for indicative purposes, take account of the simultaneity factor

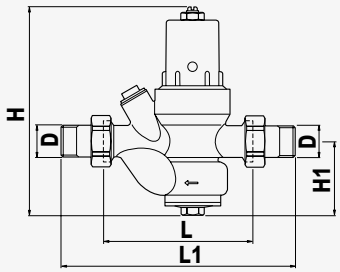
Overall dimensions

DRV/E



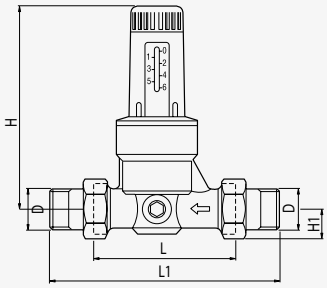
DN	L	D	H	h
1/2”	64	42	93	23
3/4”	75	45	112	30

DRV/DRVM



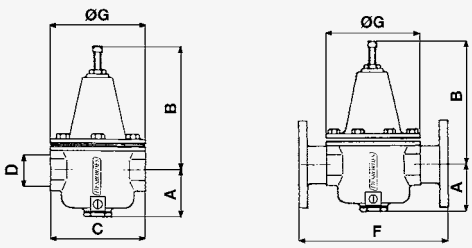
DN	L	L1	H	H1
1/2”	97	152	135	48
3/4”	110	171	155	58
1”	120	191	182	66
1.1/4”	140	211	227	75
1.1/2”	160	246	255	82
2”	175	261	262	88

DRVN/DRVMN



DN	L	L1	H	H1
1/2”	84	135	113	16,5
3/4”	94	151	133	20,5
1”	104	161	140	26
1.1/4”	109	175	192	29,5
1.1/2”	134	214	200	36
2”	144	224	205	42

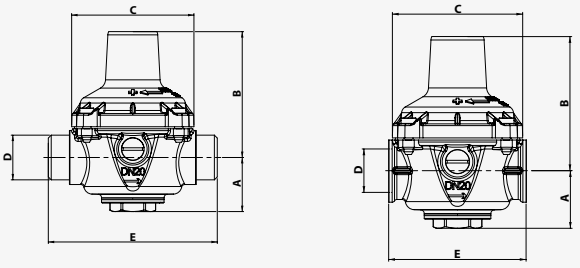
10BIS 10TER



DN	D mm	D ”	A mm	B mm	C mm	F mm	G mm
10	3/8	12/17	48	120	92	-	92
15	1/2	15/21	48	120	92	-	92
20	3/4	20/27	55	130	108	-	108
25	1	26/34	60	160	123	-	123
32	11/4	33/42	77	180	155	240	155
40	11/2	40/49	84	205	172	260	172
50	2	50/60	105	235	198	288	198
65	21/2	66/76	118	270	215	305	215
80	3	80/90	143	300	234	330	234

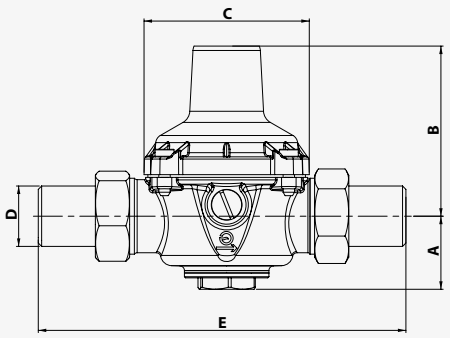
Overall dimensions

11 11BIS



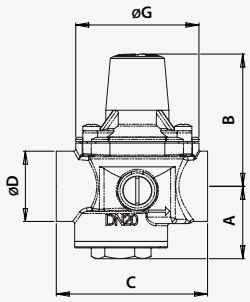
DN	D mm	D "	A mm	B mm	C mm	E 11 mm	E11BIS mm
15	15/21	1/2	230	160	85	165	85
20	20/27	3/4	290	170	85	165	95
25	26/34	1	310	175	85	265	95
32	33/42	1 1/4	350	190	120	210	100
40	40/49	1 1/2	350	190	120	210	110
50	50/60	2	400	200	150	285	125

11DO



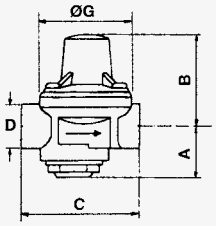
DN	D mm	D "	A mm	B mm	C mm	E mm
15	15/21	1/2	31	60	59	140
20	20/27	3/4	32	75	73	160
25	26/34	1	40	102	94	180
32	33/42	1 1/4	51	179	104	200
40	40/49	1 1/2	46	185	104	220
50	50/60	2	54	194	104	250

MULTI 7



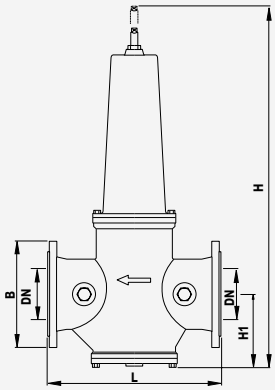
DN	D mm	D "	A mm	B mm	C mm	G mm
20	20/27	3/4	33	61	70	57

7BIS



DN	D mm	D "	A mm	B mm	C mm	G mm
15	15/21	1/2	30	56	64,5	50
20	20/27	3/4	33,5	61	70	57
25	26/34	1	30	68	81	70
32	33/42	1 1/4	34,5	91	97	81
40	40/49	1 1/2	36,5	106	110	92
50	50/60	2	45,5	106	135	120

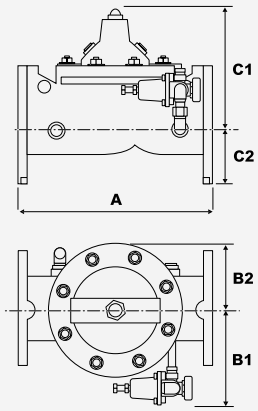
DRVD16 - DRVD25



DN	L	H	H1	B
50	230	382	82	165
65	290	440	90	185
80	310	490	100	200
100	350	561	121	220
125	400	712	152	250
150	450	839	169	285
200	550	1284	234	340

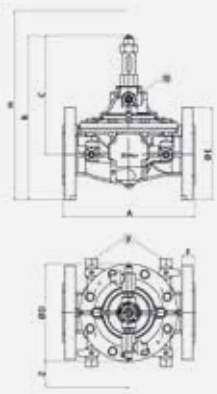
Overall dimensions

PR500



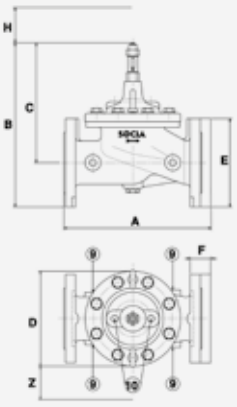
DN	PN	A	B1	B2	C1	C2
50	10/16/25	230	160	85	165	85
65/80	10/16/25	290	170	85	165	95
80	10/16/25	310	175	85	265	95
100	10/16	350	190	120	210	100
100	25	350	190	120	210	110
125	10/16	400	200	150	285	125
125	25	400	200	150	285	145
150	10/16	480	210	150	285	170
150	25	480	210	150	285	150

CONTROL VALVES (all models except C901)



DN "	A mm	B mm	C mm	ØD mm	ØE mm	F mm	H mm	Z mm	9 "	10 "
1 1/2 (F/F)	230	267	210	170	6 pans[1]	-	400	254	1/4	3/8
40	230	285	210	170	152	23	400	254	1/4	3/8
50	230	285	210	170	161	23	400	254	1/4	3/8
65	290	352	257	200	185	24	470	254	3/8	1/4
80	310	372	272	217	200	26	500	254	3/8	3/8
100	350	423	302	241	235	28	510	254	3/8	3/8
125	400	506	371	296	270	30	570	254	3/8	3/8
150	480	551	401	363	300	20	650	254	3/8	3/8
200	600	709	529	467	360	22	750	254	3/8	3/8
250	730	844	631	587	425	24	900	254	1/2	1/2
300	850	975	730	680	486	27	1100	254	1/2	1/2

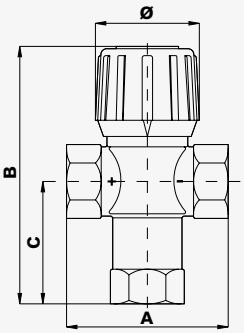
C901



DN "	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	Z mm	9 "	10 "
40	274	285	210	170	152	23	57	55	254	1/4	3/8
50	274	285	210	170	161	23	57	55	254	1/4	3/8
60	314	352	257	200	185	24	48	76	254	3/8	1/4
65	334	372	272	217	200	26	50	90	254	3/8	3/8
100	374	423	302	241	235	28	52	90	254	3/8	3/8
125	430	506	371	296	270	30	60	100	254	3/8	3/8
150	512	551	401	363	300	20	52	100	254	3/8	3/8
200	626	709	529	467	360	22	48	114	254	3/8	3/8
250	760	844	631	587	425	24	54	127	254	1/2	1/2
300	880	975	730	680	486	27	57	140	254	1/2	1/2

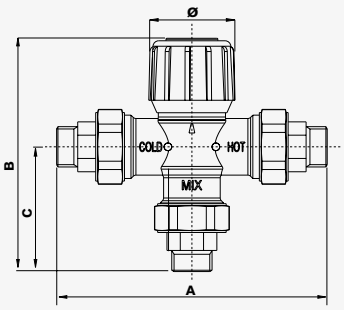
Overall dimensions

61C/62C



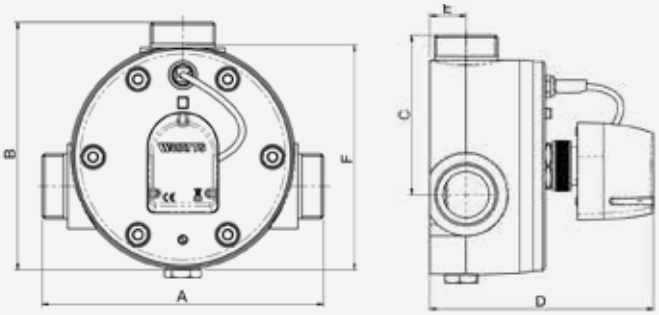
DN	A	B	C	Ø
1/2”	70	107	52	45
3/4”	70	107	52	45
1”	80	110	52	45

61CM



DN	L	D	H	h
1/2”	136	122	65	45
3/4”	140	124	67	45
1”	154	131	74	45

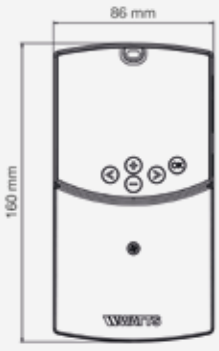
E-ULTRAMIX THERMOSTATIC MIXING VALVE WITH ACTUATOR



	A mm	B mm	C mm	D mm	E mm	F mm	ø fitting mm
3/4"	117	120	81	133	19	98	G 3/4"
1"	144	142	96	141	23	116	G 1"
1 1/4"	182	160	108	156	24	145	G 1 1/4"
1 1/2"	218	200	129	171	36	175	G 1 1/2"
2"	242	217	144	181	36	198	G 2"

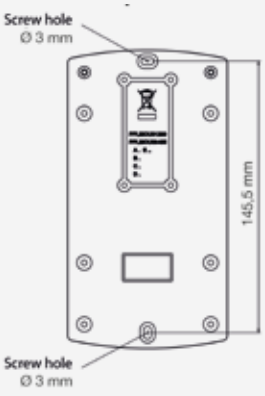
E-ULTRAMIX ELECTRONIC CONTROL UNIT

Front view



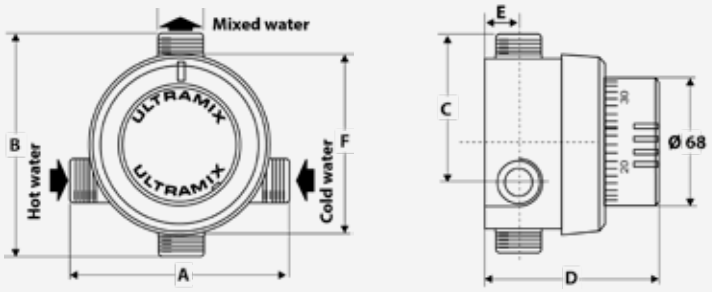
Side view

Rear view



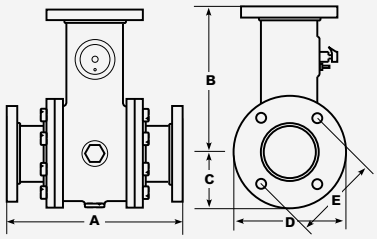
Overall dimensions

TX90



DN	A	B	C	D	E	F
3/4"M	117	120	81	93	18	98
1"M	144	142	95	101	23	116
1.1/4"M	182	166	107	116	24	145
1.1/2"M	218	199	129	127	32	175
2"M	242	224	144	141	36	198

T70



DN	A	B	C	D	E
2.1/2"	294	215	90	185	145
3"	336	270	105	200	160
4"	404	270	125	220	180

Chapter 11.3

PROTECTION OF WATER DISTRIBUTION SYSTEMS

SYSTEMS FOR THE PROTECTION OF DRINKING WATER NETWORKS

Farming, chemicals, food, collective and individual residences, craft and commerce: every sector of activity is connected to the same drinking water distribution network, so the risk of pollution from the backflow of contaminated water from these users is very high. The choice of protection system must be made according to the hazard posed by the fluids in question.

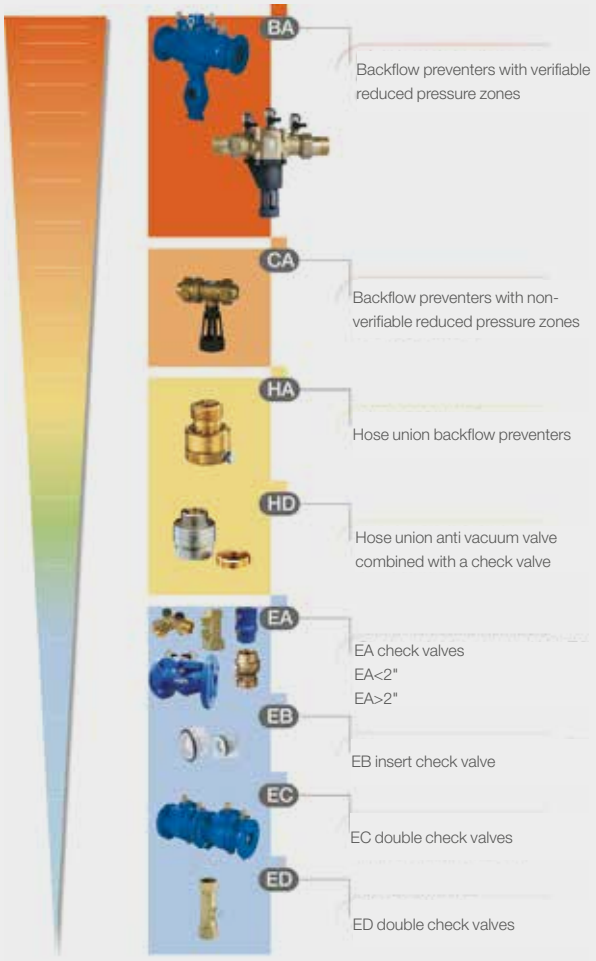
HOW TO SELECT PROTECTION DEVICES

Specific reference should be made to the types of fluids that UNI EN 1717 divides into 5 categories, with which the various configurations of backflow preventer must be compatible:

FLUID CATEGORIES:

1. HUMAN CONSUMPTION
   Water to be used for human consumption coming directly from a potable water distribution system.
2. NO HUMAN HEALTH HAZARD
   Fluid that does not pose any health risk as a result of compromised qualities associated with a change in temperature, taste, odour, appearance (or treatment)
3. SLIGHT HUMAN HEALTH HAZARD
   Fluid that poses a slight health risk due to the concentration of “low-toxicity” substances
4. SIGNIFICANT HUMAN HEALTH HAZARD
   Fluid that poses a significant health risk due to the concentration of “toxic substances”
5. SERIOUS HUMAN HEALTH HAZARD
   Fluid that poses a serious health risk due to the concentration of “pathogenic organisms, radioactive substances or highly toxic substances”

WATTS-SOCLA ANTI-POLLUTION RANGE



A COMPREHENSIVE RANGE

Threaded backflow preventers

BABM X

Compact threaded backflow preventer with regulated reduced pressure zone to EN 1717 and EN 12729 standards. Max. operating temperature 65°C (max. peak 90°C hour/day). PN10. Body and internal parts made entirely of 316L stainless steel, appropriate for use in corrosive atmospheres or environments (swimming pools, laboratories, boats, etc.). Stainless steel construction ensures superior resistance to aggressive water or fluids (sea water, demineralized water, ammonia, acetone, etc.). Suitable for facilities/networks that could represent a source of pollution, typically trade and industry (industrial systems, surface treatments, chemical sector) sanitary (hospitals, laboratories, dialysis centres, water treatment), utilities (heating, air conditioning, irrigation, drinking fountains, sprinkler systems). It is mandatory to fit an Y222P Series Y-strainer upstream.
For horizontal installation. BA protection.
Compliant with EN1717 and EN12729 standards.

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
2231153	BABMX DN15	15	1/2	Threaded MM	1	1	1.684,00
2231253	BABMX DN20	20	3/4	Threaded MM	1	1	1.763,00
2231353	BABMX DN25	25	1	Threaded MM	1	1	2.050,00
2231453	BABMX DN32	32	1 1/4	Threaded MM	1	1	2.440,00
2231553	BABMX DN40	40	1 1/2	Threaded MM	1	1	2.670,00
2231653	BABMX DN50	50	2	Threaded MM	1	1	2.850,00

Dimensions on page 452

BABM

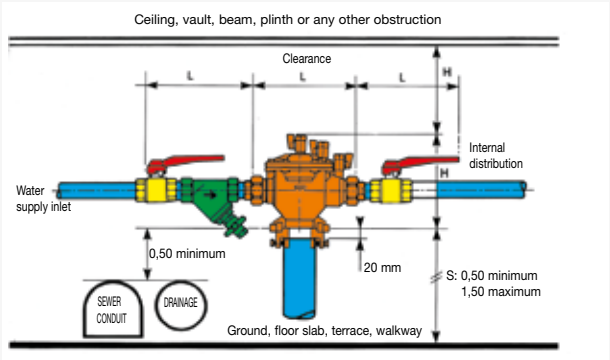
Compact threaded backflow preventer with regulated reduced pressure zone to EN 1717 and EN 12729 standards. Max. operating temperature 65°C (max. peak 90°C hour/day). PN10. CW602N DZR brass body. It is mandatory to fit an Y222P Series Y-strainer upstream.
For horizontal installation. BA protection.
Certified to UNI EN 12729.
Compliant with Kiwa, DVGW, NF, BELGAQUA, SVGV, ACS (Attestation de Conformité Sanitaire) and UK Reg4.

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B70000	BABM DN15	15	1/2	Threaded MM	1	1	309,70
149B70001	BABM DN20	20	3/4	Threaded MM	1	1	351,80
149B70002	BABM DN25	25	1	Threaded MM	1	1	464,40
149B70003	BABM DN32	32	1 1/4	Threaded MM	1	1	620,70
149B70004	BABM DN40	40	1 1/2	Threaded MM	1	1	968,90
149B70005	BABM DN50	50	2	Threaded MM	1	1	1.017,40

Dimensions on page 452

TECHNICAL NOTE

It is mandatory for controllable reduced pressure zone backflow preventers to be equipped with the following:
UPSTREAM: • a manual stop valve,
• a strainer with rinsing tap
DOWNSTREAM: • a manual stop valve.
The following accessories are recommended:
- Manual ball stop valve, DN 1/2" to 2" full bore.
- DN 65 to 250 mm butterfly valve.
- Inclined strainer with rinsing tap, 1/2" to 2" threaded.
- Inclined strainer with flange-type rinsing tap PN 10 from DN 65 to 250 for BA 4760.
- Built-in evacuation funnel.
- Horizontal installation.



PRECAUTIONS:
- If there is a shut-off upstream in the vicinity of the backflow preventer, install a check valve between the two.
- Always operate the upstream valve slowly to ensure gradual pressurisation of the backflow preventer.

Y222P

Brass Y-strainer with removable stainless steel screen and 1/4" brass rinsing tap (1/8” for DN 1/2”). Threaded female / female connections (BSP EN ISO 228-1). Maximum pressure: 25 bar - Maximum temperature: 110°C.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, Bureau Veritas.

Part no.	DN"	DN mm	Filtration rating	Pcs/pack	Package	€ each
149B5950	1/2”	15	300 µm	1	1	23,00
149B5160	3/4”	20	500 µm	1	1	25,90
149B5161	1”	25	500 µm	1	1	32,10
149B5191	1.1/4”	32	500 µm	1	1	46,30
149B5162	1.1/2”	40	500 µm	1	1	58,00
149B5163	2”	50	500 µm	1	1	100,10

Dimensions on page 452

SPARE PARTS FOR BABM TYPE BRASS BACKFLOW PREVENTERS

RBM1

Replacement first check valve (upstream) for BA BM backflow preventer, consisting of check valve, gasket and cover closing bolt.

Part no.	DN	Pcs/pack	Package	€ each
149B050111	DN15 and DN20	1	1	85,70
149B050115	DN25 and DN32	1	1	116,50
149B049561	DN40 and DN50	1	1	171,10

RBM2

Replacement second check valve (downstream) for BA BM backflow preventer, consisting of check valve, gasket and cover closing bolt.

Part no.	DN	Pcs/pack	Package	€ each
149B050112	DN15 and DN20	1	1	39,60
149B050116	DN25 and DN32	1	1	61,30
149B049562	DN40 and DN50	1	1	158,60

RBMS

Replacement drain valve for BA BM backflow preventer, consisting of drain valve, drain valve extraction bolt, gasket and cover closing bolt.

Part no.	DN	Pcs/pack	Package	€ each
149B049835	DN15 and DN20	1	1	144,10
149B050114	DN25 and DN32	1	1	280,50
149B049563	DN40 and DN50	1	1	366,20

COMPLETE SPARE PARTS KIT

Supplied in a single pack, the spare parts kit for BABM type backflow preventers includes: 1 upstream check valve assembly, 1 downstream check valve assembly, 1 drain valve assembly.

Part no.	DN	Pcs/pack	Package	€ each
149B1391	DN15 and DN20	1	1	202,00
149B1393	DN25 and DN32	1	1	343,70
149B1395	DN40 and DN50	1	1	521,70

BABM PROTECTION UNIT

A unit (unassembled) consisting of:
- one BABM threaded backflow preventer
- one F/F threaded shut-off ball valve
- one M/F threaded shut-off ball valve
- one threaded Y-strainer Y222P

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B70012	BABM DN15 UNIT	15	1/2	Threaded MM	1	1	421,30
149B70013	BABM DN20 UNIT	20	3/4	Threaded MM	1	1	476,40
149B70014	BABM DN25 UNIT	25	1	Threaded MM	1	1	632,40
149B70015	BABM DN32 UNIT	32	1 1/4	Threaded MM	1	1	838,20
149B70016	BABM DN40 UNIT	40	1 1/2	Threaded MM	1	1	1.285,90
149B70017	BABM DN50 UNIT	50	2	Threaded MM	1	1	1.486,40

BABM CD

Threaded backflow preventer with regulated reduced pressure zone with elbow funnel for vertical installation.
Body: brass. PA polyamide drain valve unit. POM polyoxymethylene check valves. PFA pressure 10 bar. Max. temperature: 65°C. An Y222P Series Y-strainer must be fitted upstream. For vertical descending installation. BA protection.
Certified to UNI EN12729.
Approvals: ACS (Attestation de Conformité Sanitaire), NF, BELGAQUA, KIWA, DVGW.

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B70018	BABM CD D15	15	1/2	Threaded MM	1	1	387,10
149B70019	BABM CD D20	20	3/4	Threaded MM	1	1	439,80
149B70020	BABM CD D25	25	1	Threaded MM	1	1	580,50
149B70021	BABM CD D32	32	1 1/4	Threaded MM	1	1	775,40
149B70022	BABM CD D40	40	1 1/2	Threaded MM	1	1	1.210,60
149B70023	BABM CD D50	50	2	Threaded MM	1	1	1.271,80

Dimensions on page 452

Flanged backflow preventers

BA4760

Compact flanged backflow preventer with regulated reduced pressure zone to EN 1717 and EN 12729 standards. Cast iron body with epoxy finish. Stainless steel springs. Complete with drain system with cast iron funnel. Max. operating temperature: 65°C. PN10. It is mandatory to fit an Y333P Series Y-strainer upstream. Flanged connections: EN 1092-2. BA protection.
Certified to UNI EN 12729.
Compliant with NF, ACS (Attestation de Conformité Sanitaire) and UK Reg4, BELGAQUA, KIWA.
Its construction and test characteristics make it suitable for installation in fire-suppression systems with maximum pressure of 12 bar.

Part no.	Description	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B3486	BA4760 DN65	65	2 1/2	Flanged PN10	1	1	1.946,10
149B3097	BA4760 DN80	80	3	Flanged PN10	1	1	2.341,90
149B3098	BA4760 D100	100	4	Flanged PN10	1	1	3.903,90
149B3400	BA4760 D150	150	6	Flanged PN10	1	1	5.406,50
149B3401	BA4760 D200	200	8	Flanged PN10	1	1	12.135,50
149B3402	BA4760 D250	250	10	Flanged PN10	1	1	15.124,70

Dimensions on page 452

Y333P

Y-strainer in GG25 cast iron (DN40 and 50) or GGG40 cast iron (DN65 to 400), with internal and external epoxy finish, stainless steel mesh 1/2" brass rinsing tap. Filtration Ø: 500 microns (DN40 and 50), 800 microns (DN65), 1250 microns (DN80 to 200), 1600 microns (DN250 to 400). Maximum pressure: 16 bar (DN40 to 150), 10 bar (DN200 to 400). Max. temperature: 100°C.
Approvals: ACS (Attestation de Conformité Sanitaire), PED 2014/68/EU, BUREAU VERITAS.

Part no.	Description	DN mm	DN"	PN	PFA water	Package	€ each
149B3280	STRAINER Y333P DN40	40	1 1/2	16	16	1	149,70
149B3281	STRAINER Y333P DN50	50	2	16	16	1	149,70
149B3282	STRAINER Y333P DN65	65	2 1/2*	16	16	1	163,20
149B3283	STRAINER Y333P DN80	80	3**	16	16	1	204,70
149B3284	STRAINER Y333P DN100	100	4	16	16	1	271,90
149B3285	STRAINER Y333P DN125	125	5	16	16	1	424,00
149B3286	STRAINER Y333P DN150	150	6	16	16	1	594,70
149B3287	STRAINER Y333P DN200	200	8	10	10	1	1.203,00
149B3288	STRAINER Y333P DN250	250	10	10	10	1	2.270,70
149B3289	STRAINER Y333P DN300	300	12	10	10	1	2.571,20

* Double drilling DN65/DN60 - ** Double drilling 4 and 8 holes.

Dimensions on page 452

PN16 DRILLINGS

Part no.	Description	DN mm	DN"	PN	PFA water	Package	€ each
149B23118	STRAINER Y333P DN200	200	8	16	10	1	1.261,00
149B23120	STRAINER Y333P DN250	250	10	16	10	1	2.384,40
149B23122	STRAINER Y333P DN300	300	12	16	10	1	2.647,30

Dimensions on page 452

Spare parts for flanged backflow preventers, type BA 4760

FIRST CHECK VALVE ASSEMBLY (UPSTREAM) FOR BACKFLOW PREVENTER TYPE BA 4760

Part no.	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B055301	65	2 1/2	for BA4760	1	1	290,70
149B055370	80	3	for BA4760	1	1	290,70
149B055371	100	4	for BA4760	1	1	821,90
149B055372	150	6	for BA4760	1	1	1.070,90
149B055373	200	8	for BA4760	1	1	2.564,60
149B055373	250	10	for BA4760	1	1	2.564,60

SECOND CHECK VALVE ASSEMBLY (DOWNSTREAM) FOR BACKFLOW PREVENTER TYPE BA 4760

Part no.	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B055374	65	2 1/2	for BA4760	1	1	290,70
149B055375	80	3	for BA4760	1	1	290,70
149B055376	100	4	for BA4760	1	1	821,90
149B055377	150	6	for BA4760	1	1	1.070,90
149B055378	200	8	for BA4760	1	1	2.564,60
149B055378	250	10	for BA4760	1	1	2.564,60

DRAIN VALVE ASSEMBLY FOR BACKFLOW PREVENTER TYPE BA 4760

Part no.	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B055379	65	2 1/2	for BA4760	1	1	410,20
149B055380	80	3	for BA4760	1	1	410,20
149B055381	100	4	for BA4760	1	1	672,30
149B055382	150	6	for BA4760	1	1	784,30
149B055383	200	8	for BA4760	1	1	1.456,40
149B055383	250	10	for BA4760	1	1	1.456,40

COMPLETE SPARE PARTS KIT

Supplied in a single pack, the spare parts kit for BA 4760 type flanged backflow preventers includes: 1 upstream check valve assembly, 1 downstream check valve assembly, 1 drain valve assembly.

Part no.	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B19	65	2 1/2	for BA4760	1	1	736,90
149B20	80	3	for BA4760	1	1	767,60
149B21	100	4	for BA4760	1	1	1.992,70
149F017922	150	6	for BA4760	1	1	2.278,70
149B25	200	8	for BA4760	1	1	6.453,90
149B25	250	10	for BA4760	1	1	6.453,90

BA BACKFLOW PREVENTER TEST KIT

Kit for testing BA backflow preventers. Equipped with one pressure gauge upstream, one downstream and one for measuring the differential pressure. Includes brass adaptors for connecting BA backflow preventers to the test valves.
The unit is supplied in a rugged carrying case.

Part no.	Description	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B053592	TEST KIT	-	-	for BA backflow preventers	1	1	5.926,80

Other backflow preventers and anti-pollution valves

CA9C

NEW

Non-controllable different pressure zone backflow preventer with built-in strainer. Simple and effective in preventing back-siphonage and contamination of drinking water supply lines. (Class 3 fluids). Developed for DN 1/2" and 3/4" connections to the water supply line and heating systems rated > 45 kW. FF unions. Body: DZR bronze. Springs: stainless steel. Seals: rubber. Drain funnel: plastic. Connection to funnel: Ø 40. PN10. Max. operating temperature: 65°C. Protection: CA.
Compliant with: EN 1717. Approvals: BELGAQUA, KIWA, NF.

Part no.	Description	DN	Pcs/pack	Package	€ each
407015290	CA9C	1/2" FF	1	10	130,60
407020290	CA9C	3/4" FF	1	10	141,40
407015300	CA9C	1/2" MM	1	10	130,60
407020300	CA9C	3/4" MM	1	10	141,40

Dimensions on page 453

CA 2096

Non-controllable reduced pressure zone backflow preventer with built-in funnel. Body: brass. Valves: POM (polyacetal), brass, stainless steel. Diaphragm and gaskets: EPDM and silicone. Funnel: ABS. Female fittings with fastening nut. Springs: stainless steel. PFA pressure 10 bar. Max. operating temperature: 65°C.
Special requirements: Horizontal installation. Application: Heating installation (Class 3 fluids).
Approvals: NF, BELGAQUA, KIWA, SVGW, ACS (Attestation de Conformité Sanitaire).

Part no.	Description	DN	DN"	Connection	Pcs/pack	Package	€ each
149B3781	CA 2096	15	1/2	Threaded FF	1	10	96,00
149B3782	CA 2096	20	3/4	Threaded FF	1	10	96,00

Dimensions on page 453

CA 2096 PROTECTION UNIT

Protection assembly for heating systems of rated power less than 70 kW
Consisting of one CA2096 backflow preventer and two interchangeable modules (according to the desired configuration) consisting of one ball valve with vent and one union nut. M/M fittings
Approvals: ACS, NF.

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B3800	GRUPPO CA2096 DN15	15	1/2	Threaded MM	1	1	125,30
149B3801	GRUPPO CA2096 DN20	20	3/4	Threaded MM	1	1	125,30

Dimensions on page 453

ALIM CA UNIT

NEW

"Alim CA" automatic feeder kit with CA type non-controllable backflow preventer designed for filling single-dwelling or central heating systems of rated power less than 70 kW.

Part no.	Description	DN mm	DN"	Connection	Pcs/pack	Package	€ each
2230704	ALIM CA UNIT	15X21	1/2	F/F threaded.	1	1	239,80

Dimensions on page 453

EA291NF

Body: Brass FF with 2 x 1/4" drilled bosses. Plugs: POM (polyacetal). Guide + disc: POM
Seal: EPDM. Spring: stainless steel.
Temperature: -10°C +80°C. Maximum pressure: 10 bar.
Applications: Clear liquids, inert gases, protection of drinking water networks.
Approvals: ACS, NF, Bureau Veritas, Belgaqua.

Part no.	PFA water	DN	DN"	Connection	Pcs/pack	Package	€ each
149B2220	10	15	1/2"	FF	1	1	18,30
149B2212	10	20	3/4"	FF	1	1	19,70
149B2222	10	25	1"	FF	1	1	29,70
149B2213	10	32	1 1/4"	FF	1	1	60,90
149B2214	10	40	1 1/2"	FF	1	1	80,20
149B2215	10	50	2"	FF	1	1	134,20
149B2216	10	50	2 fittings 2 1/2	FF	1	1	257,90

Dimensions on page 454

DAWS

Anti-siphon vacuum breaker for sanitary appliances. Recommended whenever there is a risk of flowback when immersing a hose in a bath or sink. Chrome-plated brass body. Stainless steel spring. Max. temperature: 60°C. PN10. Protection: HA. Vertical descending installation.
ASSE, CSA and ANSI compliant.

Part no.	DN	Pcs/pack	Package	€ each
1505315	1/2" MF	1	50	52,50

Dimensions on page 453

DAWNF

Anti-siphon vacuum breaker device for washing and watering taps outside the home. Install between the tap and the hose. Equipped with an anti-freeze device to allow valve drainage. Brass body. Stainless steel spring. Max. temperature: 60°C. PN10. Protection: HA. Vertical descending installation.
ASSE, CSA and ANSI compliant.

Part no.	DN	Pcs/pack	Package	€ each
1505320	3/4" MF	1	50	39,50

Dimensions on page 453

HD206

Anti-siphon vacuum breaker for taps and sanitary appliances. Particularly suitable for shower hoses. To be installed without downstream closure device. Chrome-plated brass body, POM (polyacetal) guide, POM disc, NBR diaphragm. Vertical ascending installation.
Approvals: ACS (Attestation de Conformité Sanitaire).

Part no.	Connection F"	M"	Pcs/pack	Package	€ each
149B2179	1/2"	1/2"	1	1	60,00
149B24056	3/4"	1/2"	1	1	60,00

Dimensions on page 454

HA216

Anti-siphon vacuum breaker for taps and sanitary appliances. Ideal for washing and watering taps outside the home.
Brass or chrome-plated brass body. Brass disc. Diaphragm vacuum breaker.
Vertical descending installation.
Approvals: ACS (Attestation de Conformité Sanitaire). Belgaqua.

Part no.	Description	Connection F"	M"		Pcs/pack	Package	€ each
149B2160	brass body	3/4"	3/4"	F/M threaded	1	1	61,70
149B2161	chrome-plated brass body	3/4"	3/4"	F/M threaded	1	1	78,40

Dimensions on page 454

DAWN

Anti-siphon vacuum breaker device for constant pressure applications. To be installed on the tap end-piece at the water outlet. As it is equipped with a direct safety drain it is installed above the service pipework. Chrome-plated brass body. Stainless steel internal components. PN10.
Max. temperature: 60°C. Protection: HA. Vertical descending installation.
ASSE, CSA and ANSI compliant.

Part no.	DN	Pcs/pack	Package	€ each
1505330	3/8" FF	1	50	78,30

Dimensions on page 453

Solenoid valves

WKB2

Diaphragm solenoid valve, indirect control, normally closed, 2-way. Brass body.
Brass and stainless steel internal system. F/F fittings.
EPDM diaphragm (-10 to 140°C). Fluoroelastomer (FKM) diaphragm (-10 to 140°C).
Protection: IP65 with connector (included in the package).
Optional: manual control.
Approvals: ACS (Attestation de Conformité Sanitaire), EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	Coil	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B6967	30E: 220/230V-50/60Hz-8VA	10	3/8	EPDM - 220V/50Hz AC	1	1	85,60
149B6968	30E: 220/230V-50/60Hz-8VA	15	1/2	EPDM - 220V/50Hz AC	1	1	85,60
149B6969	30E: 220/230V-50/60Hz-8VA	20	3/4	EPDM - 220V/50Hz AC	1	1	131,90
149B6970	30E: 220/230V-50/60Hz-8VA	25	1	EPDM - 220V/50Hz AC	1	1	155,10
149B6971	30E: 220/230V-50/60Hz-8VA	32	1 1/4	EPDM - 220V/50Hz AC	1	1	247,40
149B6972	20E: 220/230V-50/60Hz-15VA	40	1 1/2	EPDM - 220V/50Hz AC	1	1	282,20
149B6973	20E: 220/230V-50/60Hz-15VA	50	2	EPDM - 220V/50Hz AC	1	1	349,30
149B6974	30E: 220/230V-50/60Hz-8VA	15	1/2	FKM - 220V/50Hz AC	1	1	108,70
149B6975	30E: 220/230V-50/60Hz-8VA	20	3/4	FKM - 220V/50Hz AC	1	1	155,00
149B6976	30E: 220/230V-50/60Hz-8VA	25	1	FKM - 220V/50Hz AC	1	1	176,00
149B6977	30E: 220/230V-50/60Hz-8VA	32	1 1/4	FKM - 220V/50Hz AC	1	1	270,60
149B6978	20E: 220/230V-50/60Hz-15VA	40	1 1/2	FKM - 220V/50Hz AC	1	1	305,10
149B6979	20E: 220/230V-50/60Hz-15VA	50	2	FKM - 220V/50Hz AC	1	1	372,20
149B6980	30B: 24V-50/60HZ-8VA	10	3/8	EPDM - 24V/50Hz AC	1	1	85,60
149B6981	30B: 24V-50/60HZ-8VA	15	1/2	EPDM - 24V/50Hz AC	1	1	85,60
149B6982	30B: 24V-50/60HZ-8VA	20	3/4	EPDM - 24V/50Hz AC	1	1	131,90
149B6983	30B: 24V-50/60HZ-8VA	25	1	EPDM - 24V/50Hz AC	1	1	155,10
149B6984	30B: 24V-50/60HZ-8VA	32	1 1/4	EPDM - 24V/50Hz AC	1	1	247,40
149B6985	20B: 24V-50/60HZ-15VA	40	1 1/2	EPDM - 24V/50Hz AC	1	1	282,20
149B6986	20B: 24V-50/60HZ-15VA	50	2	EPDM - 24V/50Hz AC	1	1	349,30
149B6987	30B: 24V-50/60HZ-8VA	15	1/2	FKM - 24V/50Hz AC	1	1	108,70
149B6988	30B: 24V-50/60HZ-8VA	20	3/4	FKM - 24V/50Hz AC	1	1	155,00
149B6989	30B: 24V-50/60HZ-8VA	25	1	FKM - 24V/50Hz AC	1	1	176,00
149B6990	30B: 24V-50/60HZ-8VA	32	1 1/4	FKM - 24V/50Hz AC	1	1	270,60
149B6991	20B: 24V-50/60HZ-15VA	40	1 1/2	FKM - 24V/50Hz AC	1	1	305,10
149B6992	20B: 24V-50/60HZ-15VA	50	2	FKM - 24V/50Hz AC	1	1	372,20
149B6993	301: 24V/DC-6,5W	10	3/8	EPDM - 24V DC	1	1	85,60
149B6994	301: 24V/DC-6,5W	15	1/2	EPDM - 24V DC	1	1	85,60
149B6995	301: 24V/DC-6,5W	20	3/4	EPDM - 24V DC	1	1	131,90
149B6996	301: 24V/DC-6,5W	25	1	EPDM - 24V DC	1	1	155,10
149B6997	301: 24V/DC-6,5W	32	1 1/4	EPDM - 24V DC	1	1	247,40
149B6998	201: 24V/DC-10W	40	1 1/2	EPDM - 24V DC	1	1	282,20
149B6999	201: 24V/DC-10W	50	2	EPDM - 24V DC	1	1	349,30
149B12400	301: 24V/DC-6,5W	15	1/2	FKM - 24V DC	1	1	108,70
149B12401	301: 24V/DC-6,5W	20	3/4	FKM - 24V DC	1	1	155,00
149B12402	301: 24V/DC-6,5W	25	1	FKM - 24V DC	1	1	176,00
149B12403	301: 24V/DC-6,5W	32	1 1/4	FKM - 24V DC	1	1	270,60
149B12404	201: 24V/DC-10W	40	1 1/2	FKM - 24V DC	1	1	305,10
149B12405	201: 24V/DC-10W	50	2	FKM - 24V DC	1	1	372,20

Dimensions on page 454

WZB2

Diaphragm solenoid valve, indirect control, normally open, 2-way. Brass body.
Brass and stainless steel internal system. F/F fittings.
EPDM diaphragm (-10 to 140°C). Fluoroelastomer (FKM) diaphragm (-10 to 140°C).
Protection: IP65 with connector (included in the package).
Optional: manual control.
Approvals: ACS (Attestation de Conformité Sanitaire), EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	Coil	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B12406	30E: 220/230V-50/60Hz-8VA	10	3/8	EPDM - 220V/50Hz AC	1	1	84,40
149B12407	30E: 220/230V-50/60Hz-8VA	15	1/2	EPDM - 220V/50Hz AC	1	1	113,50
149B12408	30E: 220/230V-50/60Hz-8VA	20	3/4	EPDM - 220V/50Hz AC	1	1	164,10
149B12409	30E: 220/230V-50/60Hz-8VA	25	1	EPDM - 220V/50Hz AC	1	1	189,50
149B12410	30E: 220/230V-50/60Hz-8VA	32	1 1/4	EPDM - 220V/50Hz AC	1	1	274,10
149B12411	20E: 220/230V-50/60Hz-15VA	40	1 1/2	EPDM - 220V/50Hz AC	1	1	333,20
149B12412	20E: 220/230V-50/60Hz-15VA	50	2	EPDM - 220V/50Hz AC	1	1	387,20
149B12413	30E: 220/230V-50/60Hz-8VA	15	1/2	FKM - 220V/50Hz AC	1	1	136,60
149B12414	30E: 220/230V-50/60Hz-8VA	20	3/4	FKM - 220V/50Hz AC	1	1	187,40
149B12415	30E: 220/230V-50/60Hz-8VA	25	1	FKM - 220V/50Hz AC	1	1	210,30
149B12416	30E: 220/230V-50/60Hz-8VA	32	1 1/4	FKM - 220V/50Hz AC	1	1	297,10
149B12417	20E: 220/230V-50/60Hz-15VA	40	1 1/2	FKM - 220V/50Hz AC	1	1	356,20
149B12418	20E: 220/230V-50/60Hz-15VA	50	2	FKM - 220V/50Hz AC	1	1	410,60
149B12419	30B: 24V-50/60HZ-8VA	10	3/8	EPDM - 24V/50Hz AC	1	1	84,40
149B12420	30B: 24V-50/60HZ-8VA	15	1/2	EPDM - 24V/50Hz AC	1	1	113,50
149B12421	30B: 24V-50/60HZ-8VA	20	3/4	EPDM - 24V/50Hz AC	1	1	164,10
149B12422	30B: 24V-50/60HZ-8VA	25	1	EPDM - 24V/50Hz AC	1	1	189,50
149B12423	30B: 24V-50/60HZ-8VA	32	1 1/4	EPDM - 24V/50Hz AC	1	1	274,10
149B12424	20B: 24V-50/60HZ-15VA	40	1 1/2	EPDM - 24V/50Hz AC	1	1	333,20
149B12425	20B: 24V-50/60HZ-15VA	50	2	EPDM - 24V/50Hz AC	1	1	387,20
149B12426	30B: 24V-50/60HZ-8VA	15	1/2	FKM - 24V/50Hz AC	1	1	136,60
149B12427	30B: 24V-50/60HZ-8VA	20	3/4	FKM - 24V/50Hz AC	1	1	187,40
149B12428	30B: 24V-50/60HZ-8VA	25	1	FKM - 24V/50Hz AC	1	1	210,30
149B12429	30B: 24V-50/60HZ-8VA	32	1 1/4	FKM - 24V/50Hz AC	1	1	297,10
149B12430	20B: 24V-50/60HZ-15VA	40	1 1/2	FKM - 24V/50Hz AC	1	1	356,20
149B12431	20B: 24V-50/60HZ-15VA	50	2	FKM - 24V/50Hz AC	1	1	410,60
149B12432	301: 24V/DC-6,5W	10	3/8	EPDM - 24V DC	1	1	84,40
149B12433	301: 24V/DC-6,5W	15	1/2	EPDM - 24V DC	1	1	113,50
149B12434	301: 24V/DC-6,5W	20	3/4	EPDM - 24V DC	1	1	164,10
149B12435	301: 24V/DC-6,5W	25	1	EPDM - 24V DC	1	1	189,50
149B12436	301: 24V/DC-6,5W	32	1 1/4	EPDM - 24V DC	1	1	274,10
149B12437	201: 24V/DC-10W	40	1 1/2	EPDM - 24V DC	1	1	333,20
149B12438	201: 24V/DC-10W	50	2	EPDM - 24V DC	1	1	387,20
149B12439	301: 24V/DC-6,5W	15	1/2	FKM - 24V DC	1	1	136,60
149B12440	301: 24V/DC-6,5W	20	3/4	FKM - 24V DC	1	1	187,40
149B12441	301: 24V/DC-6,5W	25	1	FKM - 24V DC	1	1	210,30
149B12442	301: 24V/DC-6,5W	32	1 1/4	FKM - 24V DC	1	1	297,10
149B12443	201: 24V/DC-10W	40	1 1/2	FKM - 24V DC	1	1	356,20
149B12444	201: 24V/DC-10W	50	2	FKM - 24V DC	1	1	410,60

Dimensions on page 454

WBI2

Diaphragm solenoid valve, indirect control (except for 1/4", which is direct control), normally closed, 2-way. 316 stainless steel body and stainless steel internal system. F/F fittings. Fluoroelastomer (FKM) diaphragm (-10 to +140°C). Protection: IP65 with connector (included in the package). Optional: manual control, except DN 1/4".
Approvals: EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	Coil	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B12445	30E: 220/230V-50/60Hz-8VA	4,5	1/4	FKM - 220V/50Hz AC	1	1	162,30
149B12446	30E: 220/230V-50/60Hz-8VA	15	1/2	FKM - 220V/50Hz AC	1	1	459,90
149B12447	30E: 220/230V-50/60Hz-8VA	20	3/4	FKM - 220V/50Hz AC	1	1	648,90
149B12448	30E: 220/230V-50/60Hz-8VA	25	1	FKM - 220V/50Hz AC	1	1	665,30
149B12449	GDV14230AY: 220/240V-50/60Hz-31VA	32	1 1/4	FKM - 220V/50Hz AC	1	1	1.054,60
149B12450	GDV14230AY: 220/240V-50/60Hz-31VA	40	1 1/2	FKM - 220V/50Hz AC	1	1	2.352,30
149B12451	20B: 24V-50/60HZ-8VA	4,5	1/4	FKM - 24V/50Hz AC	1	1	162,30
149B12452	30B: 24V-50/60HZ-8VA	15	1/2	FKM - 24V/50Hz AC	1	1	459,90
149B12453	30B: 24V-50/60HZ-8VA	20	3/4	FKM - 24V/50Hz AC	1	1	648,90
149B12454	30B: 24V-50/60HZ-8VA	25	1	FKM - 24V/50Hz AC	1	1	665,30
149B12455	GDV14024DY: 24V-50/60HZ	32	1 1/4	FKM - 24V/50Hz AC	1	1	1.054,60
149B12456	GDV14024DY: 24V-50/60HZ	40	1 1/2	FKM - 24V/50Hz AC	1	1	2.352,30
149B12457	201: 24V/DC-6,5W	4,5	1/4	FKM - 24V DC	1	1	162,30
149B12458	301: 24V/DC-6,5W	15	1/2	FKM - 24V DC	1	1	459,90
149B12459	301: 24V/DC-6,5W	20	3/4	FKM - 24V DC	1	1	648,90
149B12460	301: 24V/DC-6,5W	25	1	FKM - 24V DC	1	1	665,30
149B12461	GDV14024CY: 24V/DC-14W	32	1 1/4	FKM - 24V DC	1	1	1.054,60
149B12462	GDV14024CY: 24V/DC-14W	40	1 1/2	FKM - 24V DC	1	1	2.352,30

Dimensions on page 454

HK2

Direct-control assisted-lift solenoid valve, normally closed, 2-way.
DZR brass body. Brass and stainless steel internal system. F/F fittings.
EPDM diaphragm (-10 to 140°C).
Protection: IP65 with connector (included in the package).
Approvals: ACS (Attestation de Conformité Sanitaire), EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	Coil	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B12472	20E: 220/230V-50/60Hz-30VA	10	3/8	EPDM - 220V/50Hz AC	1	1	114,80
149B12473	52E: 220/230V-50/60Hz-30VA	15	1/2	EPDM - 220V/50Hz AC	1	1	122,90
149B12474	52E: 220/230V-50/60Hz-30VA	20	3/4	EPDM - 220V/50Hz AC	1	1	170,90
149B12475	52E: 220/230V-50/60Hz-30VA	25	1	EPDM - 220V/50Hz AC	1	1	192,20
149B12476	20B: 24V-50/60HZ-30VA	10	3/8	EPDM - 24V/50Hz AC	1	1	114,80
149B12477	52B: 24V-50/60HZ-30VA	15	1/2	EPDM - 24V/50Hz AC	1	1	122,90
149B12478	52B: 24V-50/60HZ-30VA	20	3/4	EPDM - 24V/50Hz AC	1	1	170,90
149B12479	52B: 24V-50/60HZ-30VA	25	1	EPDM - 24V/50Hz AC	1	1	192,20
149B12480	201: 24V/DC-27W	10	3/8	EPDM - 24V DC	1	1	114,80
149B12481	521: 24V/DC-27W	15	1/2	EPDM - 24V DC	1	1	122,90
149B12482	521: 24V/DC-27W	20	3/4	EPDM - 24V DC	1	1	170,90
149B12483	521: 24V/DC-27W	25	1	EPDM - 24V DC	1	1	192,20

Dimensions on page 454

AKB2

Direct-control solenoid valve for diesel, normally closed, 2-way.
Brass body. Brass and stainless steel internal system. F/F fittings.
Fluoroelastomer (FKM) diaphragm (-10 to 140°C).
Protection: IP65 with connector (included in the package).
Approvals: EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	Coil	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B12484	20E: 220/230V-50/60Hz-15VA	3	1/4	FKM - 220V/50Hz AC	1	1	65,50
149B12485	20E: 220/230V-50/60Hz-15VA	4,5	1/4	FKM - 220V/50Hz AC	1	1	65,50
149B12486	20E: 220/230V-50/60Hz-15VA	4,5	3/8	FKM - 220V/50Hz AC	1	1	65,50
149B12487	20E: 220/230V-50/60Hz-15VA	8	1/2	FKM - 220V/50Hz AC	1	1	80,20
149B12488	20B: 24V-50/60HZ-15VA	3	1/4	FKM - 220V/50Hz AC	1	1	65,50
149B12489	20B: 24V-50/60HZ-15VA	4,5	1/4	FKM - 24V/50Hz AC	1	1	65,50
149B12490	20B: 24V-50/60HZ-15VA	4,5	3/8	FKM - 24V/50Hz AC	1	1	65,50
149B12491	20B: 24V-50/60HZ-15VA	8	1/2	FKM - 24V/50Hz AC	1	1	80,20
149B12492	201: 24V/DC-10W	3	1/4	FKM - 24V/50Hz AC	1	1	65,50
149B12493	201: 24V/DC-10W	4,5	1/4	FKM - 24V DC	1	1	65,50
149B12494	201: 24V/DC-10W	10	3/8	FKM - 24V DC	1	1	65,50
149B12495	201: 24V/DC-10W	8	1/2	FKM - 24V DC	1	1	80,20

Dimensions on page 454

REPLACEMENT COILS

Part no.	Model	DN mm	DN"	Voltage	Pcs/ pack	Package	€ each
149B12504	201	-	-	24V/DC.10W.	1	1	36,40
149B12507	301	-	-	24V/DC.6,5W.	1	1	36,40
149B12506	521	-	-	24V/DC.27W.	1	1	36,40
149B12501	20B	-	-	24 V. 50/60HZ.15VA	1	1	36,40
149B12497	20E	-	-	220/230V.50/60HZ.15VA	1	1	36,40
149B12503	30B	-	-	24 V. 50/60HZ.8VA	1	1	36,40
149B12499	30E			220/230V.50/60HZ.8VA	1	1	36,40
149B12502	52B			24 V. 50/60HZ.30VA	1	1	36,40
149B12498	52E			220/230V.50/60HZ.30VA	1	1	36,40
149B12505	GDV14024CY	-	-	24V/DC.14W.	1	1	69,30
149B12607	GDV14024DY			24V/50Hz AC	1	1	69,30
149B12500	GDV14230AY			220/240V.50/60HZ.31VA	1	1	69,30

12V DC version available to order

Part no.	Description	Pcs/pack	Package	€ each
149B12633	Connector for coil models 2.. / 5..	1	1	10,90
149B12634	Connector for coil models 3..	1	1	10,90

850T - Discontinued series, available while stocks last

Solenoid valve for water and air. Operating temperature: -10 to 90°C.
Available in normally closed (NC) and normally open (NO) versions.
Max. differential pressure: 16 bar.
IMPORTANT: the PG9 connector must always be ordered together with the valve.
Approvals: EMC 2014/30/EU, LVD 2014/35/EU.

Part no.	DN	Power supply	Version	Pcs/pack	Package	€ each
850T38W220	3/8"	230V	NC	1	24	75,50
850T38W24	3/8"	24V	NC	1	24	75,50
850T12W220	1/2"	230V	NC	1	24	75,50
850T12W24	1/2"	24V	NC	1	24	75,50
850T34W220	3/4"	230V	NC	1	13	124,40
850T34W24	3/4"	24V	NC	1	13	124,40
850T1W220	1"	230V	NC	1	13	137,30
850T1W24	1"	24V	NC	1	13	137,30
850T114W220	1.1/4"	230V	NC	1	1	271,80
850T112W220	1.1/2"	230V	NC	1	1	285,50
850T38W220NA	3/8"	230V	NO	1	24	103,80
850T38W24NA	3/8"	24V	NO	1	24	103,80
850T12W220NA	1/2"	230V	NO	1	24	103,80
850T12W24NA	1/2"	24V	NO	1	24	103,80
850T34W220NA	3/4"	230V	NO	1	13	145,00
850T34W24NA	3/4"	24V	NO	1	13	145,00
850T1W220NA	1"	230V	NO	1	13	159,70
850T1W24NA	1"	24V	NO	1	13	159,70
850T114W220NA	1.1/4"	230V	NO	1	1	291,60
850T112W220NA	1.1/2"	230V	NO	1	1	310,00
P99035	Single connector			1	100	5,80

Dimensions on page 454

RB850T **SPARE PARTS**
Replacement coil for 850T Series solenoid valves.

Part no.	Power supply	Pcs/pack	Package	€ each
RB850T230V	230V	1	1	35,50
RB850T24VCA	24 VAC	1	1	35,50
RB850T24VCC	24 VDC	1	1	35,50
RB850T12VCA	12 VAC	1	1	35,50
RB850T12VCC	12 VDC	1	1	34,30

Expansion vessels, pressure switches and flow meters

ACS CE

Interchangeable diaphragm expansion vessels suitable for domestic cold and hot water, heating, chilling and autoclaves. Operating temperature: -10 to 100°C.
Compliant with PED 2014/68/EU. The 2 and 5 litre models do not require CE marking.

Part no.	Description	Pmax	Pre-charge	Connection	Pcs/ pack	Package	€ each
06510242WAV	ACS 2 l	10 bar	3,5	1/2" M	1	1	40,00
06510542WAV	ACS 5 l	10 bar	2,5	3/4" M	1	1	44,80
06510842WAV	ACS CE 8 l	10 bar	2,5	3/4" M	1	1	48,20
06511242WAV	ACS CE 12 l	10 bar	2,5	3/4" M	1	1	53,70
06511842WAV	ACS CE 18 l	8 bar	2,5	3/4" M	1	1	57,50
06512442WAV	ACS CE 24 l	8 bar	2,5	1" M	1	1	63,00

Dimensions on page 455

PA5

Pressure switch for pumps and autoclaves. Adjustment range: 1 to 5 bar. Factory setting: 1,4 bar (close contacts) 2.8 bar (open contacts). Differential 0,5 to 2,5 bar. Contact rating: 16A (10).
Max. fluid temperature: 90°C. Max. room temperature: 55°C.
IP rating: IP44.
Compliant with Directives EMC 2014/30/EU, LVD 2014/35/EU, PED 2014/68/EU.

Part no.	DN	Rated voltage	Pcs/pack	Package	€ each
0402202	1/4"	250V - Single-phase	1	50	18,80
0402105	1/4"	500V - Three-phase	1	50	20,80

Dimensions on page 455

PA12

Pressure switch for pumps and autoclaves. Adjustment range: 2 to 12 bar.
Factory setting: 5 bar (close contacts). 7 bar (open contacts). Differential 1,5 to 4 bar.
Other specifications as per PA5.

Part no.	DN	Rated voltage	Pcs/pack	Package	€ each
0402206	1/4"	250V - Single-phase	1	50	20,20
0402205	1/4"	500V - Three-phase	1	50	21,20

Dimensions on page 455

WACOPUMP2

Electronic system for pump control. Starts and stops the pump when any tap or valve in the system opens or closes.
When the pump starts, it keeps running as long as any connected tap remains open, sending constant flow rate and pressure to the network. Equipped with special anti-water-hammer check valve and pressure gauge with scale 0 to 10 bar. Supply voltage: 220/240 V. Max. current: 10(6) A. Frequency: 50/60 Hz. Degree of protection: IP65. Max. water temperature: 60°C. Max. flow rate: 10.000 l/h. PN10 bar. Re-start pressure: 1,5 to 2,5 bar. Max. pump power: 1,5HP (1100 W). Inlet-outlet connection: 1"M. Pressure gauge 0 to 10 bar. Manual RESET pushbutton. POWER LED. Pump ON LED.
FAILURE LED (safety system triggered). Replacement electronic card available to order.
Compliant with: LVD 2006/95/EC, EMC 2004/108/EC.

Part no.	Power supply	Pcs/pack	Package	€ each
0605226	220/240 VAC	1	1	112,90

Dimensions on page 455

RSW **SPARE PARTS**
Replacement electronic card for Wacopump2 electronic system.

Part no.	Pcs/pack	Package	€ each
RSW10378	1	1	81,70

Air vent valves

VE320

GGG40 ductile iron body, PA 6.6 (polyamide) spindle, stainless steel drain cock, nitrile drain cock seal. Large orifice seal in polyurethane or NBR (DN 100). The isolator valve enables maintenance to be carried out without stopping the water. Max. temperature: 60°C.
Triple function for clear water.
Approvals: ACS (Attestation de Conformité Sanitaire).

Part no.	Description	DN mm	DN"	Connection	Pcs/ pack	Package	€ each
149B5884	PFA 16 bar	40-50-60	-	flange PN16	1	1	1.638,20
149B5885	PFA 16 bar	65	-	flange PN16	1	1	1.774,50
149B5886	PFA 16 bar	80	-	flange PN16	1	1	2.548,00
149B5887	PFA 16 bar	100	-	flange PN16	1	1	3.776,30
149B009166	PFA 25 bar	40-50-60	-	flange PN25	1	1	1.683,50
149B009168	PFA 25 bar	65	-	flange PN25	1	1	2.411,50
149B009170	PFA 25 bar	80	-	flange PN25	1	1	2.775,50
149B009171	PFA 25 bar	100	-	flange PN25	1	1	5.823,80

With shut-off valve.

Part no.	Description	DN mm	DN"	Connection	Pcs/ pack	Package	€ each
149B5884R	PFA 16 bar	40-50-60	-	PN16	1	1	1.728,90
149B5885R	PFA 16 bar	65	-	PN16	1	1	1.820,00
149B009167	PFA 25 bar	40-50-60	-	PN25	1	1	1.774,50
149B009169	PFA 25 bar	65	-	PN25	1	1	2.502,50

Dimensions on page 455

VE330

Body in GGG40 ductile iron (DN80 and 100) or steel (DN 150), PA 6.6 (polyamide) spindle, stainless steel drain cock, polyurethane seal. Large orifice seal in polyurethane or NBR (DN 100).
Triple function for waste water.

Part no.	Description	DN mm	DN"	Connection	Pcs/ pack	Package	€ each
149B5888	PFA 16 bar	80	-	flange PN16	1	1	3.958,40
149B5889	PFA 16 bar	100	-	flange PN16	1	1	4.231,40
149B5890	PFA 16 bar	150	-	flange PN16	1	1	6.235,50

Dimensions on page 455

VE120

GGG40 ductile iron body, PA 6.6 (polyamide) spindle, stainless steel drain cock, nitrile drain cock seal. Large orifice seal in polyurethane or NBR (DN 100). Maximum pressure: 16 bar.
Max. temperature: 60°C.
Approvals: ACS (Attestation de Conformité Sanitaire).

VE120 - PN16

Part no.	Description	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B2867	PFA 16 bar	25	1	Valve F	1	1	348,70
149B2867BR	PFA 16 bar	25	1	Valve, fitting, flange*	1	1	414,80
149B2867RM	PFA 16 bar	25	1	Valve, fitting M	1	1	359,10
149B2867VA	PFA 16 bar	25	1	Valve, ball valve	1	1	359,10
149B2867VB	PFA 16 bar	25	1	Valve, ball valve, flange*	1	1	414,80

*Flange DN 40/50/60

VE120 - PN25

Part no.	Description	DN mm	DN"	Feature	Pcs/ pack	Package	€ each
149B2868	PFA 25 bar	25	1	Valve F	1	1	366,80
149B2868BR	PFA 25 bar	25	1	Valve, fitting, flange*	1	1	454,00
149B2868RM	PFA 25 bar	25	1	Valve, fitting M	1	1	378,80
149B2868VA	PFA 25 bar	25	1	Valve, ball valve	1	1	378,80
149B2868VB	PFA 25 bar	25	1	Valve, ball valve, flange*	1	1	454,00

*Flange DN 40/50/60 Dimensions on page 455

ACCESSORIES FOR PUMPS

PULSAIR 3

Air supply valve. For submersible pump without foot valve. Brass body, PA12 (polyamide) disc, EPDM O-ring.

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149B123	-	1	FF	1	1	124,60
149B133	-	1 1/4	FF	1	1	142,90
149B143	-	1 1/2	FF	1	1	182,30
149B153	-	2	FF	1	1	248,40

PULSAIR 3A

Vent valve for fitting on a TEE.

Part no.	DN mm	DN"	Connection	Pcs/pack	Package	€ each
149F013552	-	1/2"	-	1	1	56,90

PULSAIR 4

Polyacetal air regulator. Without pressure gauge connection.

Part no.	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B33		1 1/4	without pressure gauge connection	1	1	73,40

INSUFLAIR 65+300

Membrane air injector for tanks up to 300 litres (65 model) or 750 litres (300 model). Supplied with 5/7 stainless steel braided hose and fittings. Maximum pressure: 5 bar.
Max. temperature: 40°C.

Part no.	Model	Tanks (litres)	Feature	Pcs/ pack	Package	€ each
149B5371	65	300	suction height >2m	1	1	73,20
149B5372	300	750	suction height >2m	1	1	155,40

Note: Insuflair 65 and 300 require a minimum suction height of 2 metres to operate.

INSUFLAIR 600+SURPRESS 2

Float air injector for tanks up to 1000 litres (INSUFLAIR 600) or 2000 litres (SURPRESS 2). Supplied with stainless steel braided hose (1,5m 8/10 for INSUFLAIR 600 or 0,3m 10/12 for SURPRESS 2). Maximum pressure: 10 bar. Max. temperature: 40°C.

Part no.	Model	Tanks (litres)	Feature	Pcs/pack	Package	€ each
149B5373	600	1000	With/without suction	1	1	202,50
149B5374	Surpress 2	2000	With/without suction	1	1	287,50

Note: operates with or without suction.

INSUFLAIR DOSING DEVICE

Brass air inlet dosing device for submerged pumps. Accessories not included.

Part no.	Description	DN mm	DN"	Feature	Pcs/pack	Package	€ each
149B5376	26/34	26/34	1	for submersible pumps	1	1	47,00

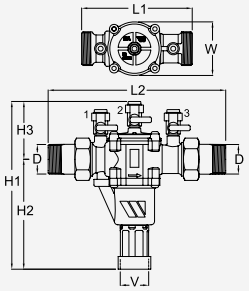
ELETTRO INSUFLAIR

Float air injector complete with electronic programmer. For water tanks from 500 to 10000 litres. Includes 1m PA 12 (polyamide) 8/10 hose, solenoid valve and programmer. Maximum pressure: 10 bar. Max. temperature: 40°C.

Part no.	Model	Tanks (litres)	Feature	Pcs/pack	Package	€ each
149B5375	Electro	from 500 to 10000	with electronic programmer	1	1	782,80

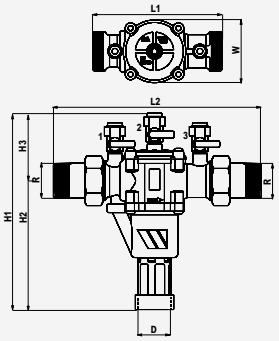
Overall dimensions

BABM X



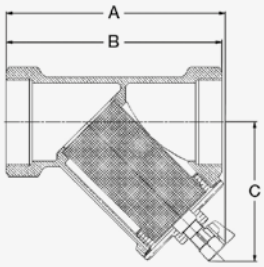
DN	D	V	L1	L2	H1	H2	H3	W
"	mm	mm	mm	mm	mm	mm	mm	mm
1/2	15	32	122	201	166	103	63,5	53
3/4	20	32	122	201	166	103	63,5	53
1	25	40	157	252	236	156	80	76
1 1/4	32	40	157	252	236	156	80	76
1 1/2	40	50	220	336	301	202,5	99	115
2	50	50	220	336	301	202,5	99	115

BABM



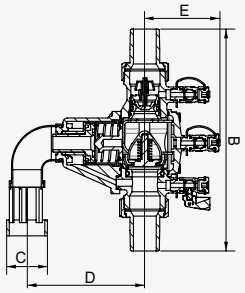
DN	R	D	L1	L2	H1	H2	H3	W
15	1/2"	32	122	201	168.5	103	65.5	53
20	3/4"	32	122	201	168.5	103	65.5	53
25	1"	40	157	252	238	156	82	76
32	1.1/4"	40	157	252	238	156	82	76
40	1.1/2"	50	220	336	303.5	202.5	101	115
50	2"	50	220	336	303.5	202.5	101	115

Y222P



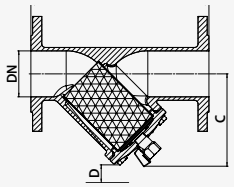
DN		A	B	C	Mesh
"	mm	mm	mm	mm	mm
1/2"	15/21	84	65	64	0,30
3/4"	20/27	90	66	76	0,50
1"	26/34	106	87	76	0,50
1.1/4"	33/42	116	105	82	0,50
1.1/2"	40/49	127	115	90	0,50
2"	50/60	155	147	104	0,50

BABM CD



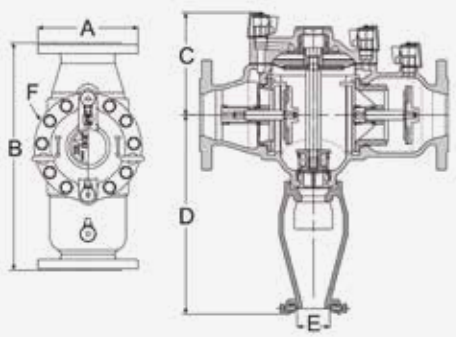
A	B	C	D	E
"	mm	mm	mm	mm
1/2"	201	32	76	65,5
3/4"	201	32	76	65,5
1"	252	40	116	82
1.1/4"	252	40	116	82
1.1/2"	336	50	150	101
2"	336	50	150	101

Y333P



ø	A	C	D
mm	mm	mm	mm
40	200	130	35
50	230	145	50
65	290	137	65
80	310	159	75
100	350	187	90
125	400	249	125
150	480	301	170
200	600	403	220
250	730	472	200
300	850	508	250

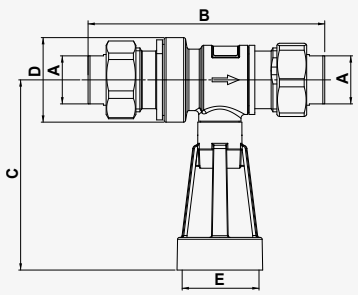
BA4760



DN	R	A	B	C	D	ØE	F
65	2"1/2"	185	356	155	326	63	180
80	3"	200	440	173	337	63	200
100	4"	220	530	201	434	80	255
150	6"	285	630	230	456	80	310
200	8"	340	763	272	499	80	390
250	10"	395	763	272	499	80	390

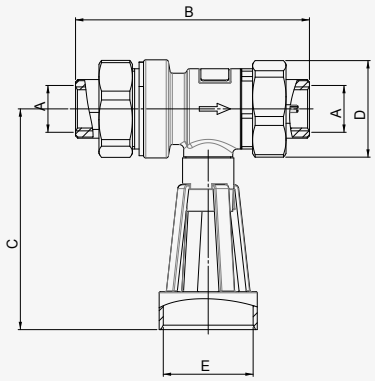
Overall dimensions

CA9C



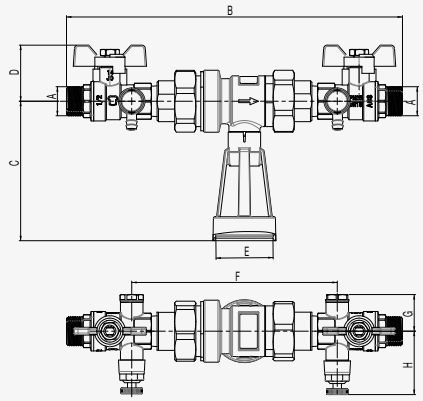
ø A	B mm	C mm	D mm	E mm
F/F 1/2" (15x21)	122	99	44	40
M/M 1/2" (15x21)	150	99	44	40
F/F 3/4" (20x27)	153	99	44	40
M/M 3/4" (20x27)	150	99	44	40

CA 2096



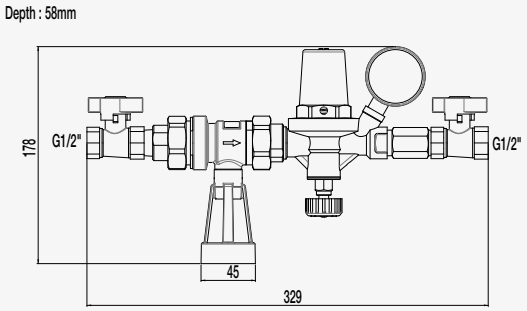
DN	A	B	C	D	E
15	1/2	105	99	44	40
20	3/4	105	99	44	40

CA 2096 PROTECTION UNIT



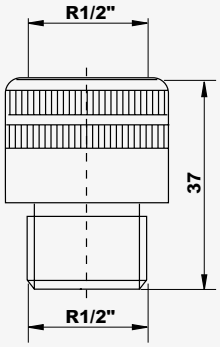
DN mm	A "	B mm	C mm	D mm	E mm	F mm	G mm	H mm
15	1/2	239	99	40	40	146	26	45
20	3/4	256	99	43	40	151	29	48

ALIM CA UNIT



DN	Length (mm)	Height (mm)	Depth (mm)
15	325	178	58

DAWS



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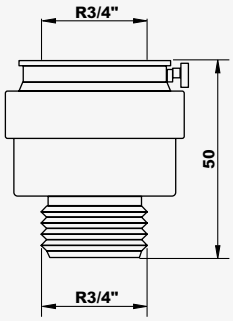

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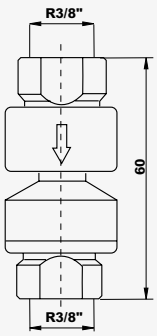
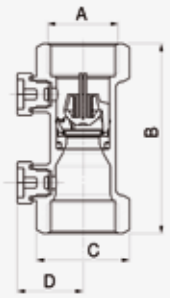
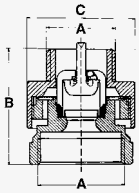


Overall dimensions

EA291NF

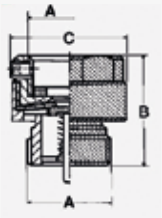


HD206



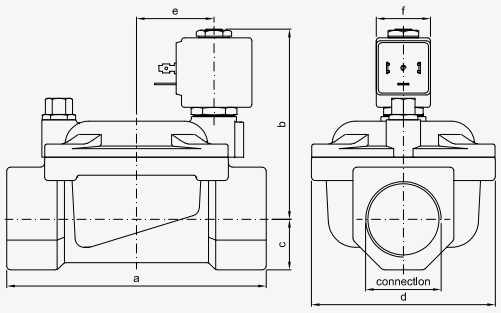
A" F inlet	A" M outlet	B mm	C mm
1/2”	1/2”	36	33
3/4”	1/2”	36	33

HA216



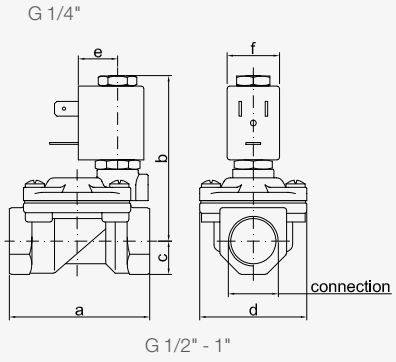
A"		B	C	Weight	KV
F	M	mm	mm	kg	m³/H
3/4	3/4	41	37	0,14	4,10

WKB2-WZB2



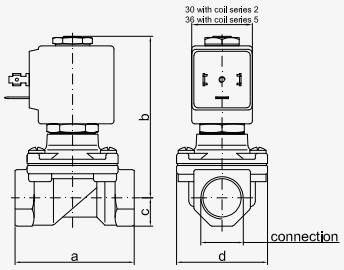
DN ''	Orifice	A mm	B mm	C mm	D mm	E mm	F mm
3/8	12	59	70	14	45	16	22
1/2	12	59	70	14	45	16	22
3/4	18	79	76	18	55	16	22
1	25	96	85	20	72	16	22
1 1/4	30	119	92	25	85	16	22
1 1/2	37	142	105	28	102	21	30
2	50	158	115	35	119	21	30

WBI2



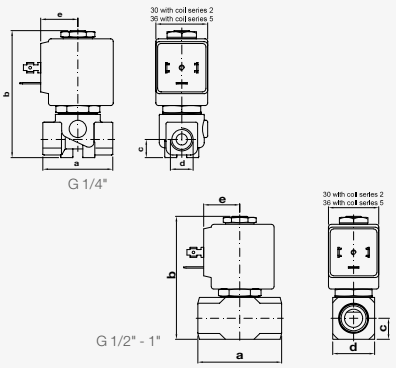
DN ''	Orifice	A	B	C	D	E	F
1/4	2,5	44	73,5	12,5	25	21,5	30
1/2	12	59	70	13	45	16	22
3/4	18	79	76	18	55	16	22
1	25	96	85	20	72	16	22

HK2



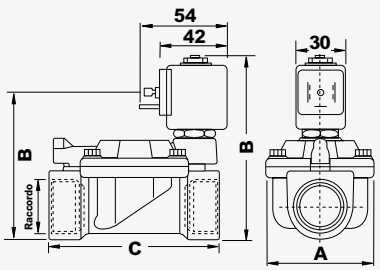
DN ''	Orifice	A mm	B mm	C mm	D mm
3/8	12	59	83	14	45
1/2	12	59	83	14	45
3/4	18	79	90	18	55
1	25	96	101	20	72

AKB2



DN ''	Orifice	A mm	B mm	C mm	D mm	E mm
1/4	2,5	40,5	73,5	10,5	25	21,5
3/8	12	50	73,5	12,5	25	21,5
1/2	12	58	73,5	12,5	25	21,5

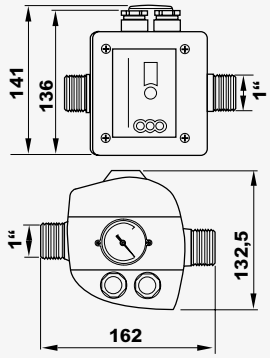
850T



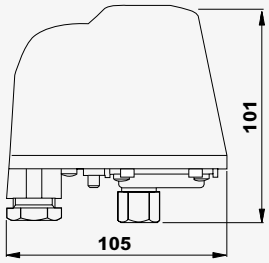
DN	A	B	C
3/8”	40	103	72
1/2”	40	103	72
3/4”	65	105	104
1”	65	112	104

Overall dimensions

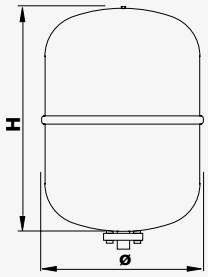
WACOPUMP2



PA5/PA12

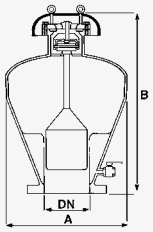


ACS CE



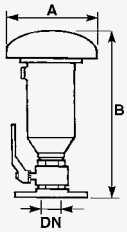
Capacity (L)	Ø	H
2	120	240
5	170	275
8	220	305
12	260	315
18	260	380
24	260	490

VE330



DN	For pipe ø mm	A mm	B mm
80	80 to 200	325	580
100	200 to 600	325	580
150	> 600	360	650

VE320

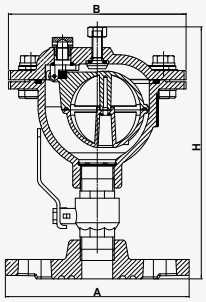


With stop valve

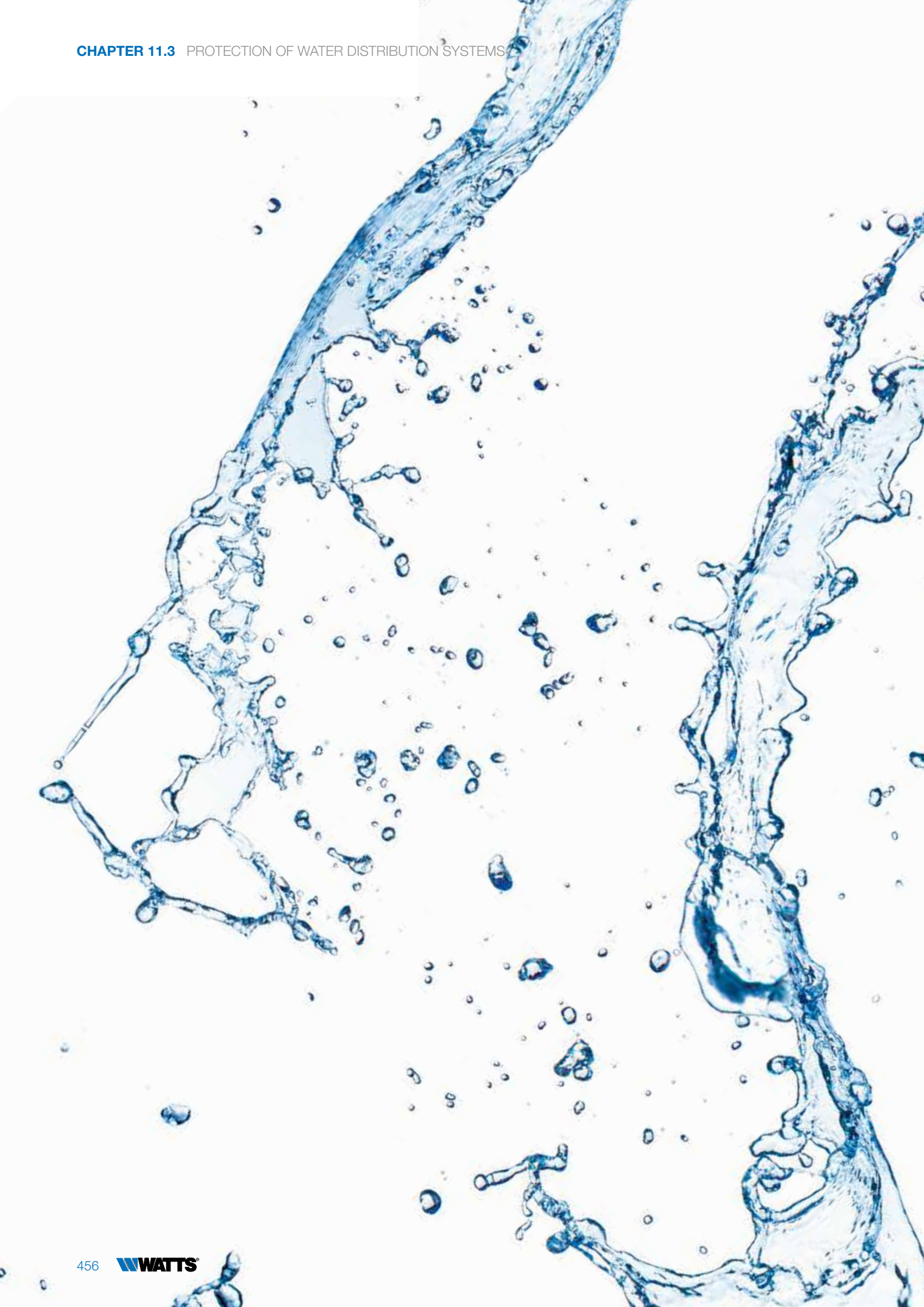
DN	For pipe ø mm	A mm	B mm
40/50/60	≤ 200	196	380
65	≤ 200	196	375
80	≤ 500	224	350
100	≤ 500	224	400

DN	For pipe ø mm	A mm	B mm
40/50/60	≤ 200	196	380
65	≤ 200	196	375

VE120



	A mm	B mm	Total height mm
Valve only F1"		175	158
Valve+fitting+flange 40/50/60	185	175	214
Valve+fitting M1"		175	180
Valve+valve M1"		175	218
Valve+valve+flange 40/50/60	185	175	246



Chapter 12

Components for renewable energy systems

MMV-S
Thermostatic mixing valve

Thermostatic
Internal anti-scale coating
Anti-scald safety

Chapter 12

SYSTEM COMPONENTS FOR RENEWABLE ENERGY SYSTEMS

Solar thermal

SOLARKIT

Thermostatic unit for thermal integration of solar thermal systems and boilers, consisting of an MMV-S Series mixing valve, a T-fitting and a diverter valve. CW602N DZR brass body. Setting positions: 5. Mixed water temperature: 30-65 ± 2°C.
Flow rate at 3 bar: 63 l/min - Minimum flow rate: 5 l/min. PN 10. Operating pressure: 0,2 to 5 bar. Mixing valve side hot water operating temperature: 52 to 110°C. Mixing valve side cold water operating temperature: 5 to 20°C. Diverter valve opening temperature: 45°C.

Part no.	DN	Pos. Setting	Pcs/pack	Package	€ each
97590	1" M	5	1	1	235,00

Dimensions on page 466

MMV-S

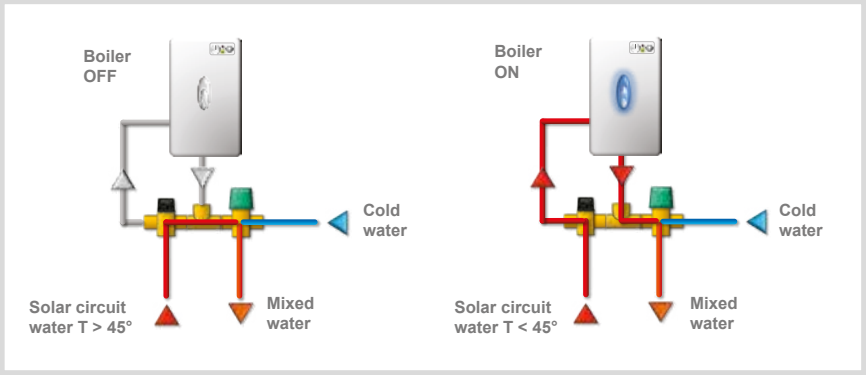
Thermostatic mixing valve for solar energy systems. Nickel-plated brass body.
Setting positions: 5. Mixed water temperature: 30-65 ± 2°C. Flow rate at 3 bar: 63 l/min.
Minimum flow rate: 5 l/min. PN10. Operating pressure: 0,2 to 5 bar.
Hot water operating temperature: 52 to 110°C. Cold water operating temperature: 5 to 25°C.
Compliant with EN 1111/00 and EN 1287/02.

Part no.	DN	Finish	Pcs/pack	Package	€ each
97500	1" with 1/2" M fitting	Brass	1	1	152,30
97501	1" with 3/4" M fitting	Brass	1	1	140,00
97560	1" M	Brass	1	1	103,20
97530	1" with 1/2" M fitting	Nickel-plated	1	1	152,30
97531	1" with 3/4" M fitting	Nickel-plated	1	1	143,00
97561	1" M	Nickel-plated	1	1	104,70

Dimensions on page 466

TECHNICAL NOTE
SOLARKIT operation

The SOLARKIT thermostatic unit for thermal integration of solar thermal systems and boilers is a fully automatic component for controlling solar thermal systems for domestic hot water production. Without drawing energy from any external sources, the unit uses thermostats to divert the water to a back-up boiler when there is not enough solar energy to heat the domestic hot water to the desired temperature.



SVE-SOL

Diaphragm safety valve for solar energy systems. CW617N brass body and cap, EN 12165-99. Elastomer diaphragm. Pre-set and sealed discharge pressure. Max. operating temperature: -10 to 160°C. Fluids: water with glycol up to 50% as per DIN 4757 Part 1.
Compliant with PED Directive 2014/68/EU.

Part no.	DN	bar	Pcs/pack	Package	€ each
0215825	1/2" x 3/4"	2,5	1	40	30,80
0215830	1/2" x 3/4"	3	1	40	30,80
0215835	1/2" x 3/4"	3,5	1	40	30,80
0215840	1/2" x 3/4"	4	1	40	30,80
0215860	1/2" x 3/4"	6	1	40	30,80
0215880	1/2" x 3/4"	8	1	40	30,80
0215899	1/2" x 3/4"	10	1	40	30,80

Dimensions on page 466

SOL - SOLARVENT

Automatic air vent valve for solar thermal systems with unscrewable inspection cover. CW617N brass body and cover, EN 1265-99. High-strength polythene float switch. Connection between reservoir and cover sealed with a reinforced polyamide gasket. DN 3/8" connection. AISI 304 stainless steel vacuum breaker. Max. operating pressure: 12 bar. Max. operating temperature: 160°C.

Part no.	DN	Temp. Max	Pcs/pack	Package	€ each
0248410	3/8"	160°C	1	60	20,50
0248410-K10	3/8"	160°C	10	60	16,10

Dimensions on page 466

RIA/MV-SOL

Automatic shut-off valve for SOLARVENT Series air vent valves. Makes it possible to change the valve with the system running. CW614N brass body, EN 12164-01.
Gasket: high-strength elastomer. Plug: high-strength polymer.
Spring: stainless steel. MF 3/8" and 1/2" DIN - ISO 228/1 connections.

Part no.	DN	Spring	Pcs/pack	Package	€ each
0259310	3/8" x 3/8"	stainless steel	10	10	4,15
0259315	1/2" x 1/2"	stainless steel	10	400	6,55
0259320WK	3/8" - 1/2"	stainless steel	10	10	5,75

Dimensions on page 466

SOLAR

Expansion vessel for solar thermal systems. PN 10. Pre-charge pressure: 2,5 bar.
Operating temperature: -10 to 70°C.
Compliant with PED Directive 2014/68/EU.

Part no.	Capacity litres	Connections	Pcs/pack	Package	€ each
06400012WS	12	3/4" M	1	1	77,00
06400018WS	18	3/4" M	1	1	89,10
06400024S	24	3/4" M	1	1	113,10
06400035S	35	3/4" M side and foot	1	1	136,90
06400050S	50	3/4" M side and foot	1	1	147,80

Dimensions on page 467

WH-MAG

SK-SOL Series wall bracket with quick coupling for expansion vessel.
For installation of the expansion vessel connected to the FlowBox Solar Series module.

Part no.	Description	Notes	Pcs/pack	Package	€ each
WID4188117	Vessels up to 18 litres	-	1	1	37,00
WID4188118	24 litre vessels	-	1	1	41,80

Dimensions on page 467

SK-SOL

Quick coupling for solar thermal systems. Enables you to test and replace expansion vessels in solar thermal systems without draining the system.
Max. operating temperature: 160°C.

Part no.	Connection	Temp. Max	Pcs/pack	Package	€ each
0608102	quick coupling	160°C	10	50	16,50

Dimensions on page 467

QUICKFILL

Brass filling valve for solar circuits, equipped with double closure valve to facilitate filling and draining the system.
Quick to install, in any position.

Part no.	Description	Notes	Pcs/pack	Package	€ each
3499615	with 15 mm compression fitting	-	1	1	103,70
3499620	with 18 mm compression fitting	-	1	1	103,70
3499635	with 22 mm compression fitting	-	1	1	103,70
3499625	DN 3/4" M eurocone	-	1	1	97,30
10010383*	DN 1" M	flat seal	1	1	84,90

* Replaces 3499630

KFE

Full-bore ball valve for domestic water, heating and solar thermal systems, with pre-sealed threaded hose coupling and plug. PN 10. KTW approved gasket.
Max. operating temperature: 160°C.

Part no.	DN	Temp. Max	Pcs/pack	Package	€ each
0553615	1/2"	160°C	1	1	16,00

FBS20E

FlowBox Solar Series ready-to-fit, compact circulation unit for solar thermal systems. Equipped with pre-wired high-efficiency pump, WattFlow balancing valve complete with fill/drain cock, safety unit with pressure gauge, vent pipe, solar safety relief valve set to 6 bar and fill/drain cock. Wall-mounting bracket with hose for connection to expansion vessel. Ball-valves with built-in thermometer and gravity flow stop (check valve), which can be disabled by turning the knob to 45°. EPP heat insulation.
Available to order:
solar system safety relief valves with set pressure of 2,5/3/4/8/10 bar, compression fitting for 12/15/18 mm copper pipe for 3/4" Eurocone or 15/18/22 mm for M28x1,5.

Part no.	Description	Notes	Pcs/pack	Package	€ each
10084618	0.5- 6 l/min	WILO PARA PWM/7	1	1	771,60
10084619	2 -16 l/min	WILO PARA PWM/7	1	1	771,60
10084620	4 -36 l/min	WILO PARA PWM/8	1	1	771,60

Dimensions on page 468

N.B. FBS20E versions with Wilo circulation pump and PWM control signal, not compatible with Basic control unit.

FBS20S

FlowBox Solar Series ready-to-fit, compact single circulation unit for the return circuit of solar thermal systems. Equipped with pre-wired high-efficiency pump, WattFlow balancing valve complete with fill/drain cock, safety unit with pressure gauge, solar safety relief valve set to 6 bar and fill/drain cock. Wall-mounting bracket with hose for connection to expansion vessel. Ball-valve with built-in thermometer and gravity flow stop (check valve), which can be disabled by turning the knob to 45°. EPP heat insulation.
Available to order:
solar system safety relief valves with set pressure of 2,5/3/4/8/10 bar, compression fitting for 12/15/18mm copper pipe for 3/4" Eurocone or 15/18/22 mm for M28x1,5.

Part no.	Description	Notes	Pcs/pack	Package	€ each
10084616	2 -16 l/min	WILO PARA PWM/7	1	1	685,90
10084617	4 -36 l/min	WILO PARA PWM/8	1	1	685,90

N.B. FBS20S versions with Wilo circulation pump and PWM control signal, not compatible with Basic control unit.

ST

Pt1000 temperature sensors:
- in silicone sheath, up to 105°C, length 3 metres (suitable for tank);
- in PVC sheath, up to 180°C, length 1,5 metres (suitable for solar collector).

Part no.	Length	Temp. Max	Pcs/pack	Package	€ each
PPLELE00061	1,5 m	- 180 °C	1	1	22,80
PPLELE00060	3,0 m	- 105 °C	1	1	19,10

BASIC

Electronic control unit for solar panel systems with LED operating status indicator lights. Pt1000 solar collector sensors (ST Series-part no. PPLELE00060) and auxiliary tank included as standard. 2 x 230V AC-8A relay output for controlling heating circuit and solar circuit circulation pumps (ON-OFF). Easy to use, with just three pushbuttons. Solar circuit pump starts up automatically according to the temperature difference between the solar collector and the tank: 4 to 30°C (default 8°C).
Maximum tank temperature control: 30 to 90°C (default 90°C).
Tank temperature control with auxiliary sensor: 0 to 85°C (default 50°C).
Solar circuit protection:
- against overtemperature: 100 to 200°C (default 140°C);
- with operation of pump for 15 sec. if unused for 5 days.

Control of circulation pump ON-OFF mode, not compatible with PWM control signal.
Power supply: 230V AC-50Hz.

Part no.	No. of sensors	IP rating	Pcs/pack	Package	€ each
P03686	2 (one L = 3 m + one L = 1,5 m)	IP42	1	38	206,30

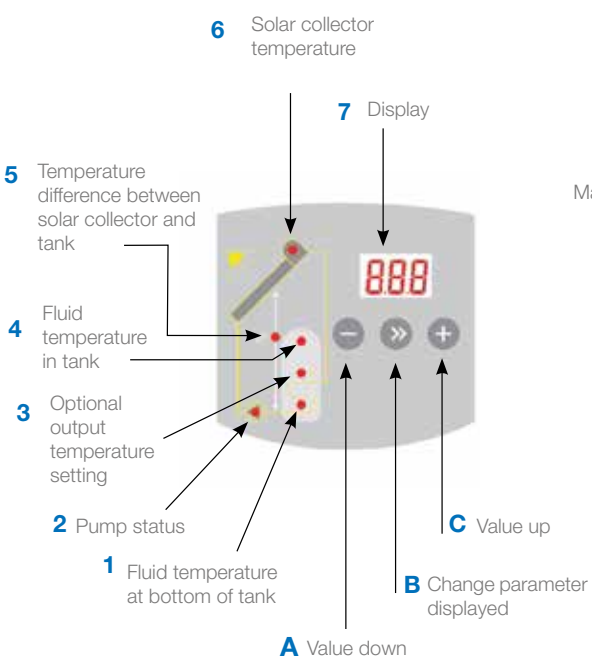
Dimensions on page 467

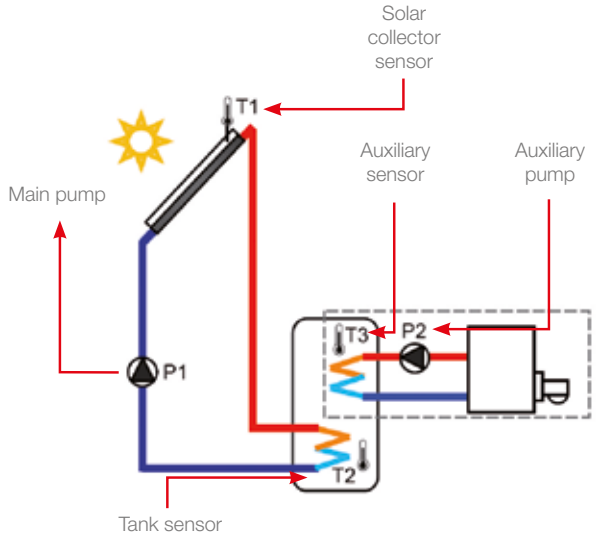
TECHNICAL NOTE - **Control unit for solar thermal systems**

Depending on the parameter selected (pushbutton B), the display (7) shows:
- tank bottom fluid temperature (1)
- fluid temperature in tank (4)
- temperature difference between collector and tank (5)
- solar collector temperature (6)
- optional output temperature setting (3)

The LED (2) shows the pump operating status
Changing the settings: pushbutton A (decrease), C (increase)
The recommended installation height is approximately 1,5 m from the ground.

Display LCD





Components for biomass systems

KLS25

Compact circulation unit for solid-fuel-fired boilers with thermostatic anti-condensation unit. Pre-wired circulation pump (centre distance 180mm), dynamic anti-condensation bypass with boiler return temperature of 58±2°C. Shut-off valves with built-in thermometer and manual/automatic check valve. 1"M union connections and wall-mounting bracket. EPP insulation. Suitable for heat output of up to 50 KW.

Part no.	Description	Connections	Pcs/pack	Package	€ each
10084645	GRUNDFOS UPM3A/7	1"	1	1	850,90
10084158	WILO PARA SC 25/6	1"	1	1	829,50
10027902	WITHOUT PUMP	1"	1	1	475,90

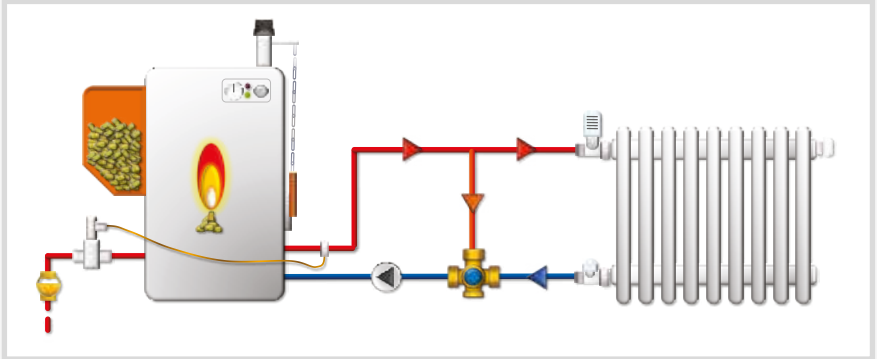
KLV

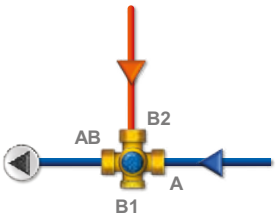
Thermostatic anti-condensation valve for solid-fuel-fired boilers with boiler return temperature of 58±2°C.
1.1/2" M x 1.1/2" F x 1.1/4" M connections. Suitable for heat output of up to 50 KW.

Part no.	Description	Notes	Pcs/pack	Package	€ each
3402100	KLV	up to 50KW	1	1	143,70

TECHNICAL NOTE - KLV thermostatic anti-condensation valve

During combustion in a boiler, the moisture naturally present in biomass is released into the flue gases in the form of water vapour. If cooled at a temperature below the dew point, this vapour (which is often acidic) condenses, causing the boiler to corrode and drastically reducing its service life. When the boiler starts up, the KLV thermostatic anti-condensation valve brings the system rapidly up to temperature, and if the water in the return circuit gets too cold during normal operation, the KLV valve mixes it with flow water before it reaches the boiler.





A = return
AB = mixed
B1 and B2 = draw-off from flow
(cap the unused port)

Components for geothermal systems

INDU2054-M

1.1/2” ready-to-mount brass manifold unit:
- flow manifold with shut-off valves;
- return manifold with pre-set valves;
- 2” MF head connections and 1/2” F filler union at top;
- side outlets complete with fitting for PE-x 25 x 2,3 pipe.

Can be combined up to a maximum of 24 outlets.

Part no.	Side outlets	Notes	Pcs/pack	Package	€ each
3421302	2 - 25 x 2,3	-	1	1	493,00
3421303	3 - 25 x 2,3	-	1	1	637,80
3421304	4 - 25 x 2,3	-	1	1	785,60
3421305	5 - 25 x 2,3	-	1	1	931,80
3421306	6 - 25 x 2,3	-	1	1	1.055,60

Dimensions on page 468

WH-INDU

Pair of brackets for the installation of INDU2054-M Series manifolds. Galvanised steel frame and anti-vibration mountings. Suitable for horizontal or wall-mounting of the manifolds.

Part no.	DN	Notes	Pcs/pack	Package	€ each
4225100	FOR PIPE Ø 1.1/2”	-	1	1	169,40

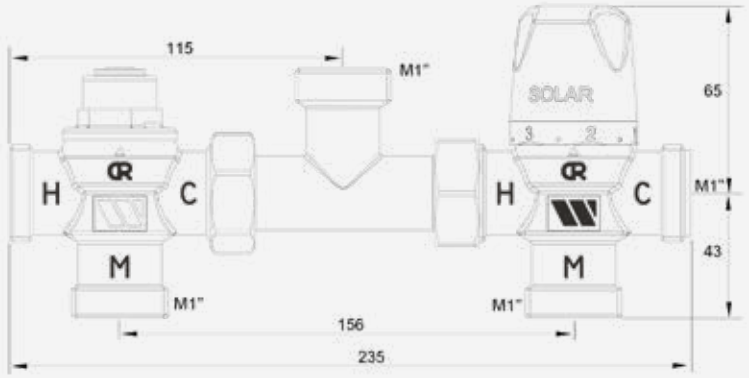
EK-KFE

Accessory kit for INDU2054-M Series manifolds, consisting of:
- 2 x 2” F end caps;
- 2 x 1/2” M system fill/drain valves complete with safety cap.

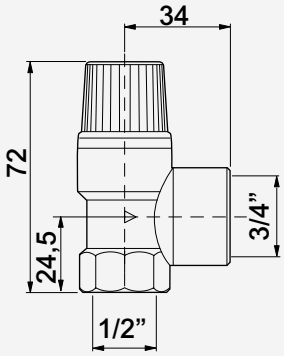
Part no.	Description	Notes	Pcs/pack	Package	€ each
3126150	EK-KFE	-	1	1	67,90

Overall dimensions

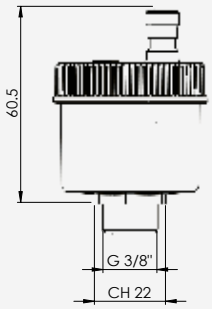
SOLARKIT



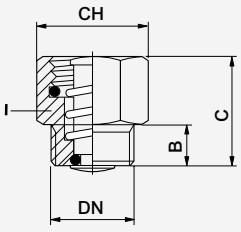
SVE-SOL



SOL

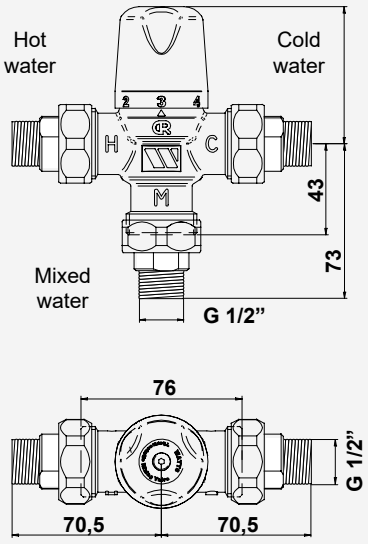


RIA/MV-SOL

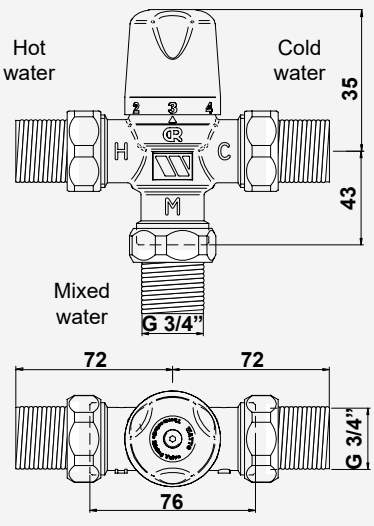


DN	B	C	CH
3/8"	8	11	19
1/2"	8	11	24

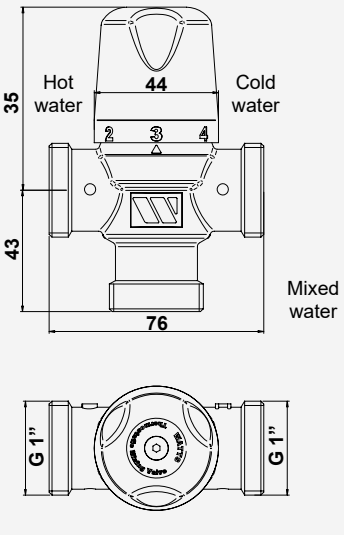
MMV-S 1/2"



MMV-S 3/4"

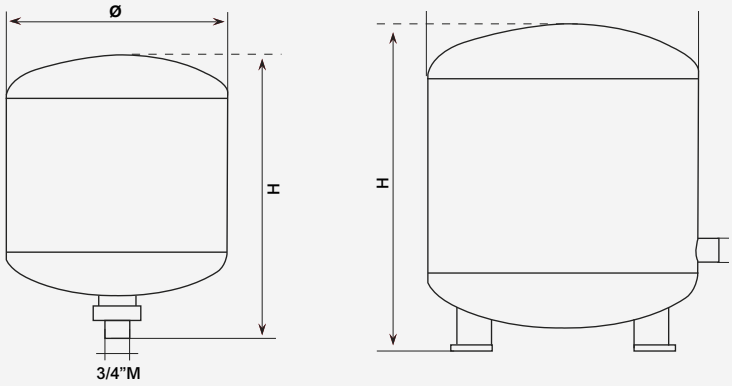


MMV-S 1"



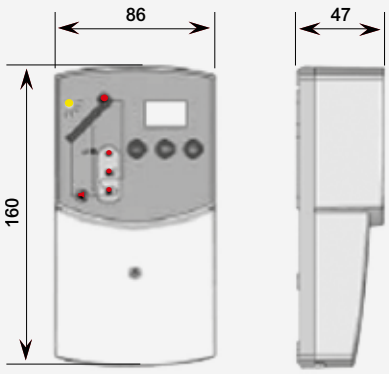
Overall dimensions

SOLAR 12 TO 24 litres SOLAR 35 TO 50 litres

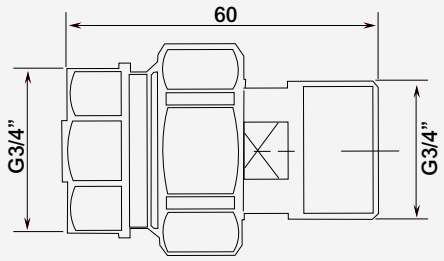


CAPACITY	Δ	H
12	260	315
18	260	380
24	260	490
35	380	535
50	380	565

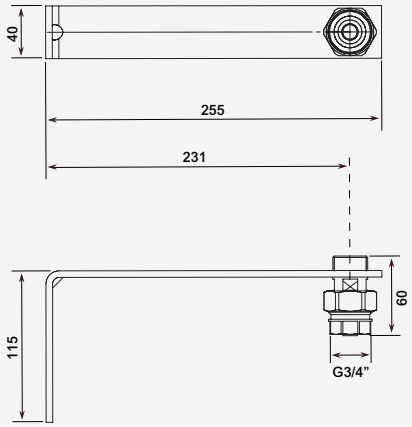
BASIC



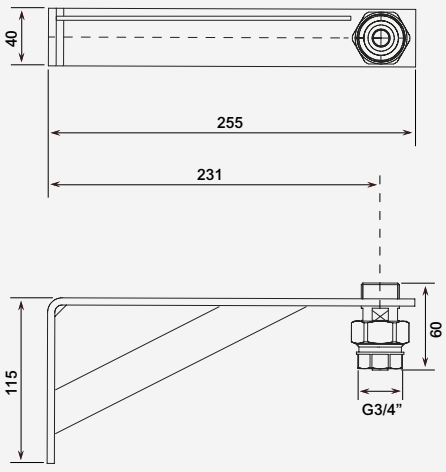
SK-SOL



WH-MAG -WID 4188117

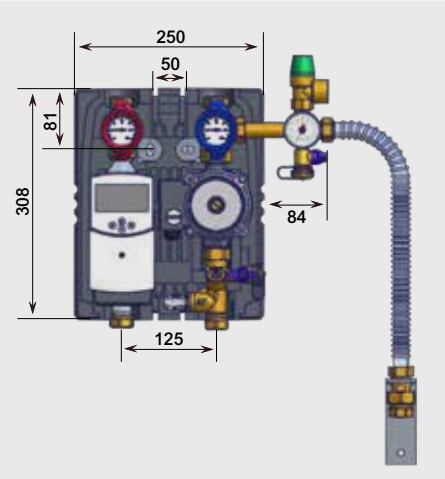


WH-MAG -WID 4188118



Overall dimensions

FBS20E



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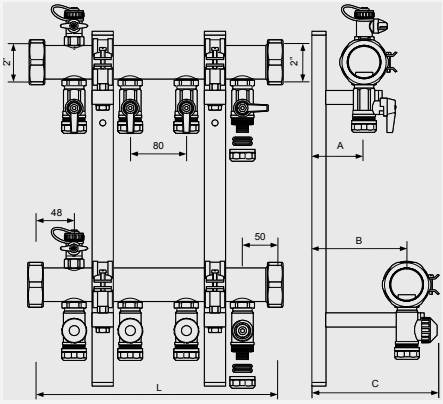
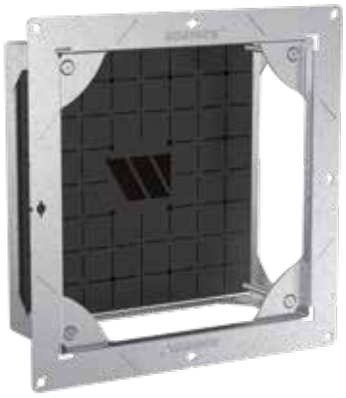


Chapter 13
Fittings



ROBIBOX®

Adjustable flush-mounting box for shower/bathtub mixers

Chapter 13

FITTINGS

ROBIFIX®

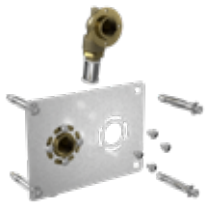
ROBIFIX® MC 150 - centre distance 150mm

The kit comprises:
- Mounting plate for ROBIFIX® with centre distance 150 mm (230x100 mm)
- 2 brass elbows for crimped multilayer pipe (U-H-TH profile)
- Masonry plugs and fixing screws

Part no.	Connection	Ø pipe	Pcs/pack	Package	€ each
008866IT	F 1/2"	16x2	1	1	66,30
008869IT	F 1/2"	20x2	1	1	66,30

Dimensions on page 478

ROBIFIX® MC 50 - centre distance 50mm



The kit comprises:
- Mounting plate for ROBIFIX® with centre distance 50 mm (130x100 mm)
- 2 brass elbows for crimped multilayer pipe (U-H-TH profile)
- Masonry plugs and fixing screws

Part no.	Connection	Ø pipe	Pcs/pack	Package	€ each
008867IT	F 1/2"	16x2	1	1	66,30
008870IT	M 3/8"	16x2	1	1	66,30

Dimensions on page 478

ROBIFIX® MC - single hole

The kit comprises:
- Mounting plate for ROBIFIX® Ø 78
- 1 brass elbow for crimped multilayer pipe (U-H-TH profile)
- Masonry plugs and fixing screws

Part no.	Connection	Ø pipe	Pcs/pack	Package	€ each
008868IT	F 1/2"	16x2	1	1	42,00

Dimensions on page 478

ROBIFIX® ACCESSORIES

Stainless steel plate for ROBIFIX®

Stainless steel plate for ROBIFIX®, clip-on style attachable to untiled walls.

Part no.	Centre distance	Dimensions	Fittings	Pcs/pack	Package	€ each
008848IT	150 mm	250x122	M1/2"-M3/4"	1	1	44,50
009115IT	50 mm	150x122	M1/2"-M3/8"	1	1	37,60
008849IT	single	Ø 82	M1/2"-M3/8" and M1/2"-F1/2"	1	1	21,70

ROBIBOX®

ROBIBOX® Adjustable flush-mounting box for shower/bathtub mixers

NEW

ROBIBOX® is a flush-mounting box specifically designed to accommodate built-in mixers on plasterboard or honeycomb drywalls with minimum depth of 100 mm.
The system incorporates complete adjustment of depth, vertical alignment, and flatness, assuring precise positioning and fast installation before installing wall coverings.
Compatible with all built-in mixers with maximum dimensions of 190 × 190 mm and depth adjustable from 20 to 90 mm.

Part no.	Dimensions	Pcs/pack	Package	€ each
22009301IT	310x310x109	1	1	193,00

Dimensions on page 479

Dielectric joints

GDWMF

Dielectric joints for joining pipes of different metals, thus eliminating corrosion risks due to stray currents or electrolytic phenomena. Use for water. Galvanised steel body F connection and brass M connection.
PN16. Max. temperature: 110°C at 10 bar. Electrical insulation up to 600 V with dry piping. Exclusive Watts GA1425 insulator.

Part no.	DN	Pcs/pack	Package	€ each
1505501	1/2" MF	1	12	7,40
1505502	3/4" MF	1	12	10,50

Dimensions on page 479

GDWFF

Dielectric joints for joining pipes of different metals, thus eliminating corrosion risks due to stray currents or electrolytic phenomena. Use for water. Galvanised steel body F connection and brass F connection.
PN16. Max. temperature: 110°C at 10 bar. Electrical insulation up to 600 V with dry piping.
Exclusive Watts GA1425 insulator.

Part no.	DN	Pcs/pack	Package	€ each
1505515	1/2" FF	1	12	22,30
1505520	3/4" FF	1	12	28,20
1505525	1" FF	1	12	44,40
1505532	1.1/4" FF	1	12	62,60
1505540	1.1/2" FF	1	6	114,40
1505550	2" FF	1	6	139,30

Dimensions on page 479

Fittings for copper pipe

872M - RAFIT+

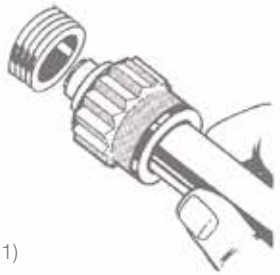
Soft-seal one-piece fitting for quick connection of copper pipes (UNI EN 1057) to male-threaded valves, lockshields and manifolds. EPDM taper ferrule with steel reinforcement core. High pull-out strength (cutting ring).

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
872M3810	3/8”	10	10	300	6,10
872M3812	3/8”	12	10	300	6,10
872M1210	1/2”	10	10	300	6,40
872M1212	1/2”	12	10	300	6,40
872M1214	1/2”	14	10	300	6,40
872M1215	1/2”	15	10	300	6,40
872M1216	1/2”	16	10	300	6,40
872M12S18	1/2”S *	18	10	150	10,55

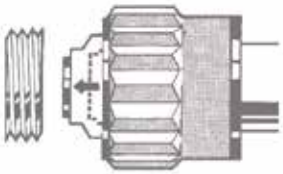
* 1/2”S M24x1,5 thread (for 102S and 119SX single-pipe valves with 1/2”S pipe-side connection)
Dimensions on page 480

TECHNICAL NOTE - **Installation of RAFIT one-piece quick fittings**

1 - When cutting the pipe, take care to remove any external burrs from the ends.
2 - Insert the pipe in the fitting by pushing it in until it butts up against the end stop (Fig.1) and holding it still in this position during tightening; the seal will thus be thrust outwards from the fitting body (Fig.2).
3 - Approach the fitting to the threaded end-piece until the head of the taper ferrule engages inside it, then tighten by hand.
4 - Fully tighten with the appropriate wrench (829M Series) (Fig.3), in accordance with the tightening torques for DN 3/8” 15to18Nm fittings and for DN 1/2” 20to25Nm fittings.



(Fig.1)



(Fig.2)

(Fig.3)

873M - VELOFIT

Compact soft-seal one-piece fitting for quick connection of copper pipes (UNI EN 1057) to male threads of valves, lockshields and manifolds.
Stainless steel cutting ring.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
873M3810	3/8”	10	10	300	4,30
873M3812	3/8”	12	10	300	4,30
873M1210	1/2”	10	10	300	4,30
873M1212	1/2”	12	10	300	4,30
873M1214	1/2”	14	10	300	4,30
873M1214-12	1/2"***	14	10	200	4,30
873M1215	1/2”	15	10	200	4,30
873M12S15-24****	1/2"S****	15	10	200	4,30
873M1216	1/2”	16	10	200	4,30
873M1216-12	1/2"***	16	10	200	4,30
873M12S16-24	1/2"S****	16	10	200	4,30
873M1218-12	1/2"***	18	10	200	4,30
873M12S18	1/2”S *	18	10	200	4,30
873M3418	3/4” **	18	10	200	5,80
873M122	1” **	22	10	100	6,60

*1/2”S thread M24x1.5 (for 102M and 119SX single-pipe valves with 1/2”S pipe-side connection) compatible with 1378...-24, 1388...-24, 1395...-24, 1379...-24, 1389...-24, 1396...-24, 378...-24, 388...-24, 395...-24, 379...-24, 389...-24, 396...-24, 102M...-24, 119S...M24SX Series valves
** For connection to valves only
*** Compatible with 1378...-12, 1388...-12, 1395...-12, 1379...-12, 1389...-12, 1396...-12, 378...-12, 388...-12, 395...-12, 379...-12, 389...-12, 396...-12 Series valves
**** Compatible with 1378...-24, 1388...-24, 1395...-24, 1379...-24, 1389...-24, 1396...-24, 378...-24, 388...-24, 395...-24, 379...-24, 389...-24, 396...-24, 102M...-24, 119S...M24SX series valves
Dimensions on page 480

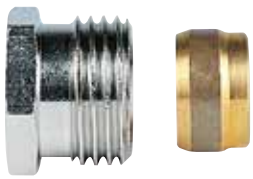
820R

Three-piece compression fitting for copper pipes (chrome-plated pipe lock nut, brass taper ferrule and reinforcement core) for connecting copper pipes to male-threaded valves, lockshields and manifolds. Metal seal.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
820R3812	3/8”	12	10	200	3,80
820R1210	1/2”	10	10	150	3,80
820R1212	1/2”	12	10	150	3,80
820R1214	1/2”	14	10	150	3,80
820R1215	1/2”	15	10	150	3,80
820R1216	1/2”	16	10	150	3,80
820R3422	3/4”	22	10	100	4,80

* 1/2”S M24x1,5 thread (for 102M and 119SX single-pipe valves with 1/2”S pipe-side connection)
Dimensions on page 480

197



Adaptor fitting with metal seal for connecting copper pipes (1mm wall thickness) to valves and lockshields with iron series female connections. Nickel-plated brass threaded ring-nut and brass biconical ring.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
197SN3810	3/8”	10	1	300	3,00
197SN3812	3/8”	12	1	300	3,00
197SN1214	1/2”	14	1	300	3,00
197SN1216	1/2”	16	1	300	3,00

Dimensions on page 480

829M

Steel wrench for tightening RAFIT+ and 820R fittings.

Part no.	DN	Pcs/pack	Package	€ each
829M2025	3/8” - 1/2”	1	1	48,65
829M2527	1/2” - 1/2”S	1	1	48,65

Fittings for cross-linked polyethylene and multi-layer pipes

817M

Three-piece nickel-plated compression fitting for **cross-linked polyethylene pipes** to UNI 9338. EPDM O-rings are not suitable for contact with oil.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
817MC12142	1/2”	14 x 2,0	1	200	6,60
817MC1215	1/2”	15 x 2,5	1	200	6,60
817MC121612	1/2”	16 x 2,0	1	200	6,60
817MC1216	1/2”	16 x 2,2	1	200	6,60
817MC12S18	1/2”S*	18 x 2,5	1	150	6,60
817MC341612	3/4”	16 x 2,0	1	150	7,20
817MC341713	3/4”	17 x 2,0	1	150	7,20
817MC341814	3/4”	18 x 2,0	1	100	7,20
817MC342016	3/4”	20 x 2,0	1	100	7,20

* 1/2”S M24x1,5 thread (for 102M and 119SX single-pipe valves with 1/2”S pipe-side connection).
Dimensions on page 480

817MS

Three-piece compression fitting for **multi-layer pipes**. Hose connections with EPDM O-rings are not suitable for contact with oil. Teflon washer to protect against stray current.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
817MSC121420	1/2”	14 x 2,0	1	200	5,35
817MSC121620	1/2”	16 x 2,0	1	150	5,35
817MSC12162-12	1/2"**	16 x 2,0	1	150	5,35
817MSC1216225	1/2”	16 x 2,25	1	200	5,35
817MSC12S162-24	1/2"S***	16 x 2,0	1	150	5,35
817MSC12S182-24	1/2"S***	18 x 2,0	1	150	5,35
817MSC341620	3/4”	16 x 2,0	1	100	6,60
817MSC3416225	3/4”	16 x 2,25	1	100	6,60
817MSC342020	3/4”	20 x 2,0	1	100	6,60
817MSC342025	3/4”	20 x 2,5	1	100	6,60
817MSC121626R	1/2” *	16.2 x 2,6	1	150	6,60
817MSC342029R	3/4” *	20 x 2,9	1	100	6,60

* REHAU three-piece compression fitting for multi-layer pipes.
** Compatible with 1378...-12, 1388...-12, 1395...-12, 1379...-12, 1389...-12, 1396...-12, 378...-12, 388...-12, 395...-12, 379...-12, 389...-12, 396...-12 Series valve
*** Compatible with 1378...-24, 1388...-24, 1395...-24, 1379...-24, 1389...-24, 1396...-24, 378...-24, 388...-24, 395...-24, 379...-24, 389...-24, 396...-24, 102M...-24, 119S...M24SX Series valves
Dimensions on page 480

ECP

Three-piece DN 3/4” EUROCONE compression fitting for connecting PEX pipe to valves and manifolds. EPDM O-rings are not suitable for contact with oil.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
ECP1620	3/4” EUROCONE	16 x 2,0	10	150	6,30
ECP1720	3/4” EUROCONE	17 x 2,0	10	150	6,30
ECP1820	3/4” EUROCONE	18 x 2,0	10	150	6,30
ECP2020	3/4” EUROCONE	20 x 2,0	10	150	6,30

ECM

Three-piece DN 3/4” EUROCONE compression fitting for connecting multi-layer pipe to valves and manifolds. EPDM O-rings are not suitable for contact with oil.

Part no.	DN	Ø pipe	Pcs/pack	Package	€ each
ECM1620-M	3/4” EUROCONE	16 x 2,0	2	150	6,50
ECM16225	3/4” EUROCONE	16 x 2,25	10	150	6,50
ECM2020	3/4” EUROCONE	20 x 2,0	10	150	6,50

Nipples, elbows, solder alloy

220

Three-piece nickel-plated elbow fitting.

Part no.	DN	Pcs/pack	Package	€ each
220SN38	3/8"	10	100	7,60
220SN12	1/2"	10	100	8,50
220SN34	3/4"	10	65	12,90
220SN1	1"	10	35	22,85

Dimensions on page 480

221

Three-piece nickel-plated straight fitting.

Part no.	DN	Pcs/pack	Package	€ each
221SN38	3/8"	10	10	6,40
221SN12	1/2"	10	100	6,80
221SN34	3/4"	10	60	11,30
221SN1	1"	10	35	18,50

Dimensions on page 481

893GL

Nipple fitting with male/female threaded connections (brass extensions).

Part no.	DN	Pcs/pack	Package	€ each
893GL38	3/8" MF	10	300	2,56
893GL12	1/2" MF	10	200	3,30
893GL34	3/4" MF	10	100	4,20
893GL38SN*	3/8" MF	10	300	2,80
893GL12SN*	1/2" MF	10	200	3,65

* Nickel-plated brass

Dimensions on page 481

892GL

Nipple fitting with male threaded connections.

Part no.	DN	Pcs/pack	Package	€ each
892GL38	3/8" MM	10	500	3,70
892GL12	1/2" MM	10	300	2,80
892GL34	3/4" MM	10	100	6,50

Dimensions on page 481

890GL

Elbow nipple fitting with male threaded connections.

Part no.	DN	Pcs/pack	Package	€ each
890GL12	1/2" MM	10	150	5,80

Dimensions on page 481

833M

Brass male/male adaptor.

Part no.	DN	Pcs/pack	Package	€ each
833M3812	3/8" - 1/2"	10	300	3,30
833M3834	3/8" - 3/4"	10	150	4,40
833M1234	1/2" - 3/4"	10	150	6,10
833M121	1/2" - 1"	10	50	8,00
833M341	3/4" - 1"	10	100	9,90

Dimensions on page 481

821M

Brass male/female adaptor.

Part no.	DN	Pcs/pack	Package	€ each
821M38M12F	3/8" M x 1/2" F	10	250	3,00
821M12M38F	1/2" M x 3/8" F	10	300	3,55
821M12M34F	1/2" M x 3/4" F	10	150	5,25
821M12F34M	1/2" F x 3/4" M	10	250	7,05
821M12M1F	1/2" M x 1" F	10	10	9,10
821M12F12SM	1/2" SM x 1/2" F	10	200	3,30
821M34M38F	3/4" M x 3/8"F	10	250	5,80
821M34M1F	3/4" M x 1" F	10	75	12,80

834M

Brass female plugs.

Part no.	DN	Pcs/pack	Package	€ each
834M38	3/8"	10	800	2,40
834M12	1/2"	10	400	3,00
834M34	3/4"	10	50	7,60
834M1	1"	10	50	8,20

Dimensions on page 481

4D

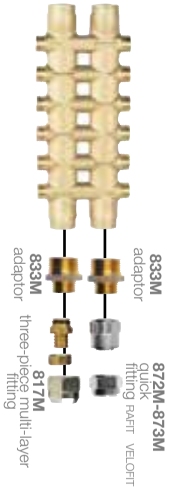
Eutectic solder alloy 96,55 Sn – 3,5% Ag.

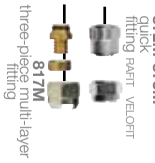
Part no.	Pcs/pack	Package	€ each
410D	1	50	152,00

FITTINGS TABLE

The meeting point between the pipe row and the thread column shows the correct fitting to use.

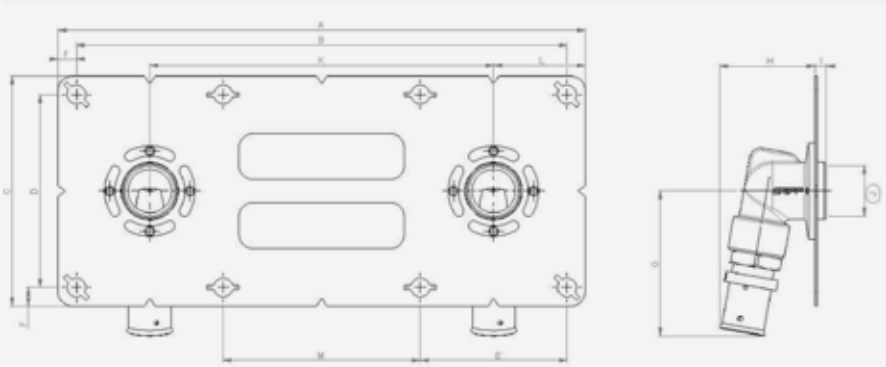
Pipe Ø	3/8" male threaded terminal (valves, lockshields, manifold side connections)	1/2" male threaded terminal (valves, lockshields, manifold side connections)	3/4" male threaded terminal (valves, lockshields, manifold side connections)	1" male threaded terminal (manifold head connections)
COPPER		**with fitting with metal seal (820R Series)**		
8	820R3808	adaptor 821M38M12F+820R3808		
10	820R3810	820R1210	adaptor 821M12M34F+fitting 820R1210	nipple 833M121+fitting 820R1210
12	820R3812	820R1212	adaptor 821M12M34F+fitting 820R1212	nipple 833M121+fitting 820R1212
14	adaptor 821M12M38F+ 820R1214	820R1214	adaptor 821M12M34F+fitting 820R1214	nipple 833M121+fitting 820R1214
15	-	820R1215	adaptor 821M12M34F+fitting 820R1215	nipple 833M121+fitting 820R1215
16	adaptor 821M12M38F + 820R1216	820R1216	adaptor 821M12M34F+fitting 820R1216	nipple 833M121+ fitting 820R1216
22	-	-	820R3422	nipple 833M341+fitting 820R3422
		with soft-seal fitting (RAFIT+)		
10	872M3810	872M1210	adaptor 821M12M34F+fitting 872M1210	nipple 833M121+fitting 872M1210
12	872M3812	872M1212	adaptor 821M12M34F+fitting 872M1212	nipple 833M121+fitting 872M1212
14	adaptor 821M12M38F+ fitting 872M1214	872M1214	adaptor 821M12M34F+fitting 872M1214	nipple 833M121+fitting 872M1214
16	adaptor 821M12M38F+ fitting 872M1216)	872M1216	adaptor 821M12M34F+fitting 872M1216	nipple 833M121+fitting 872M1216
18	-	adaptor 821M12F12SM+fitting 872M12S18	-	-
22	-	-	-	-
		with soft-seal fitting (VELOFIT)		
10	873M3810	873M1210	adaptor 821M12M34F+fitting 873M1210	nipple 833M121+fitting 873M1210
12	873M3812	873M1212	adaptor 821M12M34F+fitting 873M1212	nipple 833M121+fitting 873M1212
14	adaptor 821M12M38F+fitting 873M1214	873M1214	adaptor 821M12M34F+fitting 873M1214	nipple 833M121+fitting 873M1214
15	adaptor 821M12M38F+fitting 873M1215	873M1215	adaptor 821M12M34F+fitting 873M1216	nipple 833M121+fitting 873M1216
16	adaptor 821M12M38F+ fitting 873M1216	873M1216	-	-
18	-	adaptor 821M12F12SM+fitting 873M12S18	-	-
PEX		**with compression fitting (817M Series)**		
14 x 2,0	adaptor 821M12M38F+fitting 817MC12142	817MC12142	adaptor 821M12M34F+fitting 817MC12142	nipple 833M121+fitting 817MC12142
15 x 2,5	adaptor 821M12M38F+fitting 817MC1215	817MC1215	adaptor 821M12M34F+fitting 817MC1215	nipple 833M121+fitting 817M1215
16 x 2,0	adaptor 821M12M38F+fitting 817MC121612	817MC121612	817MC341620	nipple 833M121+fitting 817M121612
16 x 2,2	adaptor 821M12M38F+fitting 817MC1216	817MC1216	adaptor 821M12M34F+fitting 817MC1216	nipple 833M121+fitting 817M1216
17 x 2,0	-	-	817MC341713	nipple 833M341+fitting 817MC341713
18 x 2,0	-	-	817MC341814	nipple 833M341+fitting 817MC341814
20 x 2,0	-	-	817MC342016	nipple 833M341+fitting 817MC342016
(MULTI-LAYER)		**with compression fitting (817MS Series)**		
14 x 2,0	adaptor 821M12M38F+fitting 817MSC121420	817MSC121420	adaptor 821M12M34F+fitting 817MSC121420	nipple 833M121+fitting 817MSC121420
16 x 2,0	adaptor 821M12M38F+fitting 817MSC121620	817MSC121620	adaptor 821M12M34F+ fitting 817MSC121620	nipple 833M121+fitting 817M121620
16 x 2,25	adaptor 821M12M38F+fitting 817MSC1216225	817MSC1216225	adaptor 821M12M34F+fitting 817MSC1216225	nipple 833M121+fitting 817M1216225
16,2 x 2,6	adaptor 821M12M38F+fitting 817MSC121626R	817MSC121626R	adaptor 821M12M34F+fitting 817MSC121626R	nipple 833M121+fitting 817M121626R
20 x 2,0	-	adaptor 821M12F34M+fitting 817MSC342020	817MSC342020	nipple 833M341+fitting 817MC342020
20 x 2,5	-	adaptor 821M12F34M+fitting 817MSC342025	817MSC342025	nipple 833M341+fitting 817MC342025
20 x 2,9	-	adaptor 821M12F34M+fitting 817MSC342029R	817MSC342029R	nipple 833M341+fitting 817MC342029R





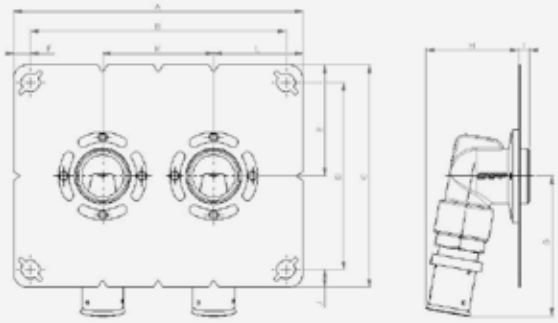
Overall dimensions

ROBIFIX® MC 150 - CENTRE DISTANCE 150MM



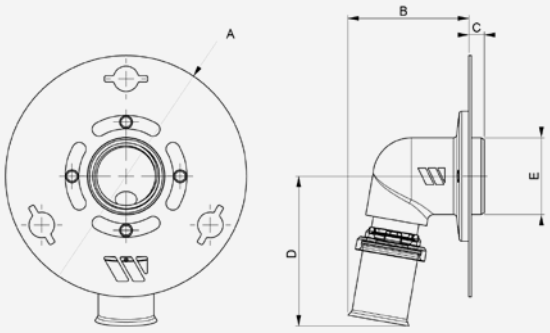
A	B	C	D	E	F	G	H	I	J	K	L	M
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
130	115	100	84	50	7,5	63	42	5	8	50	40	86

ROBIFIX® MC 50 - CENTRE DISTANCE 50MM



A	B	C	D	E	F	G	H	I	J	K	L
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
130	115	100	84	50	7,5	63	42	5	8	50	40

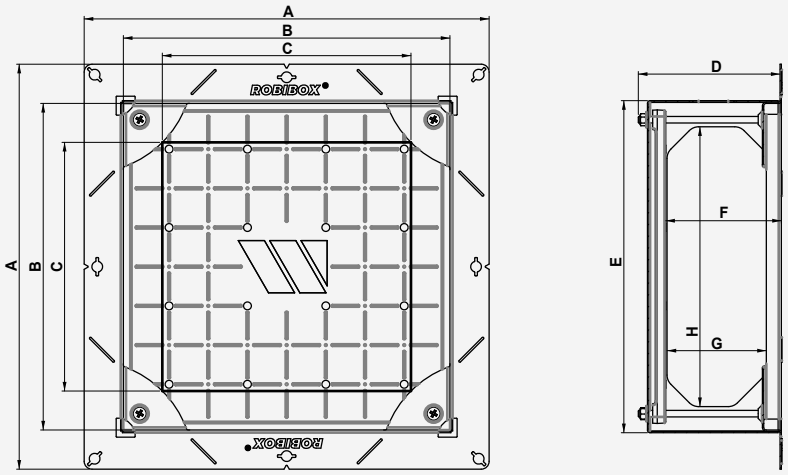
ROBIFIX® MC – SINGLE HOLE



A	B	C	D	E	F	G	H	I	J
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
80	64	86	70	43	8	63	42	5	19

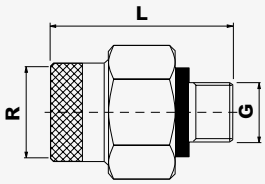
Overall dimensions

ROBIBOX®



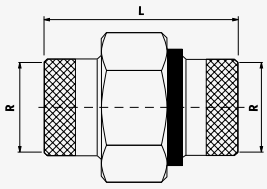
A	B	C	D	E	F	G	H
mm	mm	mm	mm	mm	mm	mm	mm
310	250	190	109	254	90	76	214

GDWMF



R	G	L
1/2"	1/2"	55
3/4"	3/4"	61

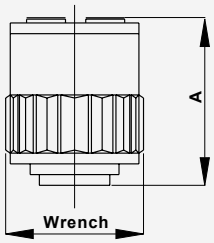
GDWFF



R	L
1/2"	53
3/4"	57
1"	65
1.1/4"	70
1.1/2"	70
2"	79

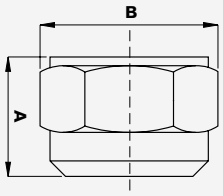
Overall dimensions

872M



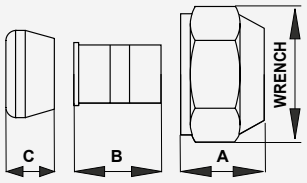
DN	A	Rafit wrench
3/8”	25	20
1/2”	27	25
1/2”S	29	27

873M



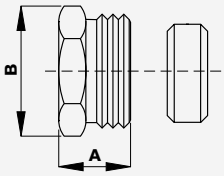
DN	A	B	Hex wrench
3/8” x 10	17.5	24	21
3/8” x 12	17	24	21
1/2” x 12	18.5	28	25
1/2” x 14	18.5	28	25
1/2” x 15	18.5	28	25
1/2” x 16	18	30	27
1/2”S x 18	17.5	30	27
3/4” x 18	18	30	--

820R



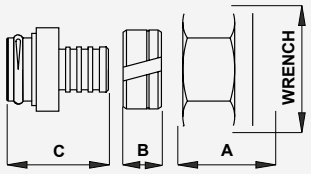
DN	A	B	C	Wrench
3/8”	17	24	9	20
1/2”	19	24	10	25
1/2”S	20	24	11	25
3/4”	20	24	11	32

197



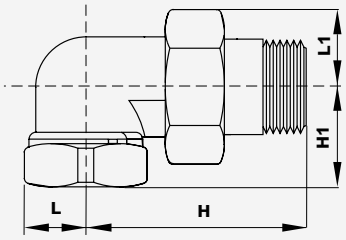
DN	A	B
3/8”	11	20
1/2”	14	24
3/4”	18	31

817M - 817MS



DN	A	B	C	Wrench
1/2”	23	8	21	20
1/2”S	26	8	22	25
3/4”	24	8	22	32

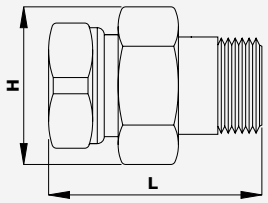
220



DN	H	H1	L	L1
3/8”MF	47	27	14	14
1/2”MF	53	34	16	18
3/4”MF	60	37	19	21
1”MF	77	46	23	27

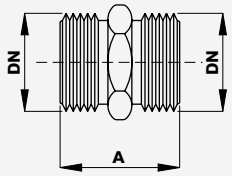
Overall dimensions

221



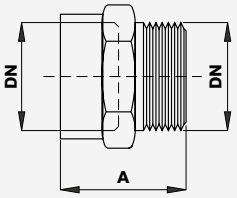
DN	H	L
3/8"MF	28	43
1/2"MF	35	51
3/4"MF	42	58
1"MF	54	62

892GL



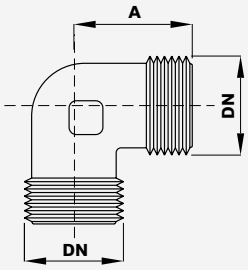
DN	A
3/8"	22
1/2"	25
3/4"	28

893GL



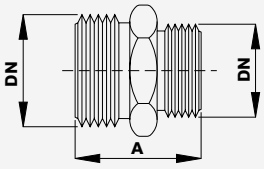
DN	A
3/8"	20
1/2"	23
3/4"	32

890GL



DN	A
1/2"	26

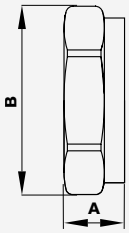
833M



DN	A
3/8" x 1/2"	24
3/8" x 3/4"	28
1/2" x 3/4"	30

DN	A
1/2" x 1"	34
3/4" x 1"	35

834M



DN	A	B
3/8"	7	19
1/2"	9	25
3/4"	18	35
1"	18	38

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GENERAL

1. These general conditions of sale shall be deemed automatically accepted by the customer in full upon issue of the order.
2. The order shall merely constitute a booking and shall not bind the company to either total or partial delivery of the ordered goods. The order shall not be deemed accepted until Watts Industries Italia sends the Customer confirmation of the order, including all the conditions applicable to it.
3. Orders for a net amount of less than 200,00 euros cannot be accepted. Shipping costs apply and will be billed at a minimum of 15,00 euros.
4. Any amendment to the contract (order and order confirmation) must be documented by an act dated and signed by both parties.
5. The descriptions and photographs contained in this product price list are supplied by way of information only and are not binding. Watts Industries Italia reserves the right to carry out any technical and design improvements to its products without prior notice.
6. All contracts concluded between the parties (order and confirmation of order) shall be governed by Italian law.
7. The prices shown in the price list are net of VAT.

DELIVERIES

8. Terms of delivery, even if notified/confirmed, are merely indicative: no delays in delivery shall therefore entitle the customer to compensation and/or damages. Deliveries of goods, even if only partial, may not be refused by the customer and shall not entitle the customer to cancel the order.
9. In the event of force majeure, strikes or lockouts, failure to supply or reduced supply of raw materials, transport difficulties, wars, riots, interruption of communications, however caused, plant failures and any other unforeseeable event, Watts Industries Italia reserves the right to suspend deliveries and to cancel accepted orders without entitling the customer to claim any compensation or damages.
10. Unless otherwise specified in the order confirmation, products shall be delivered ex-works. The sum of 15,00 euros will be billed by way of contribution to the cost of preparing goods for shipment. All liability on the part of Watts Industries Italia ceases upon delivery of the products to the customer or to the carrier, the material being shipped in any event at the risk and responsibility of the customer. Where, as a result of specific agreements with the customer, the material is sold "Delivered At Place", the cost of transport will be billed at a minimum of 15,00 euros per shipment. Claims for theft, breakage or tampering shall not be accepted. Any agreement with freight forwarders and carriers, including the price and payment of transport, shall always be deemed concluded by Watts Industries Italia in the name and on behalf of the customer, which accepts and approves the agreement with immediate effect.
11. In particular, the customer waives the right to make any claim in respect of shortfalls, damage or tampering in the case of:

a) orders for quantities other than those envisaged for standard packs;
b) withdrawals made directly by the customer or the carrier appointed by the customer;

PAYMENTS

12. All payments must be made to Watts Industries Italia by the due date specified in the order confirmation. In the event of late payment, without prejudice to our right to take immediate action to recover the sums due, the defaulting customer shall automatically be required to pay interest on arrears in accordance with Italian law 231/2002. Where prices are expressed in a foreign currency, invoices shall be paid in the currency specified therein. Should the said currency cease to exist, payment shall be made in the currency that replaces the currency no longer in circulation.
13. In the event of non-payment by the due date, Watts Industries Italia shall be entitled to suspend delivery of the products, either partially or as a whole, even in relation to order confirmations that have been accepted in accordance with these general conditions of sale.

COMPLAINTS AND DAMAGE

14. Any complaints relating to defective products shall be sent to Watts Industries Italia in writing within 8 days of receipt of the goods by the customer. The customer may, at its own expense and responsibility, return the defective product to Watts Industries Italia, only upon receipt of specific written approval.
15. Any damage caused by poor operation of the product must be reported within 24 hours, indicating the name of the injured party and the approximate amount of the claim for compensation. Immediately thereafter, photographs relating to the damage, together with the product in question, must be sent to Watts Industries Italia for examination. All items that might constitute documentary evidence of the damage and the event (material, etc.) must be kept at the disposal of Watts Industries Italia until such time as the dispute is settled.
16. Watts Industries Italia will accept no responsibility for any damage to persons, animals or property that may derive from use of the products while failing to comply with safety requirements or from incorrect installation and/or without carrying out the normal checks.
17. No complaints or disputes shall entitle the customer to withhold, suspend or delay payment for the products.

WARRANTY

18. All Watts products are carefully tested before leaving the factory. Warranty covers only the replacement or repair – at the sole discretion of Watts – of the component parts of the products supplied, free of charge provided that in the opinion of Watts the items in question exhibit verifiable manufacturing defects. The period of limitation for filing warranty claims citing non-conformance or questioning title of ownership is 2 (two) years from the date of delivery, or the date on which all risk in respect of the products is transferred to the purchaser. This warranty does not cover damage deriving from normal wear and tear or friction and does not apply to parts that may have been modified or repaired by the customer without prior approval from Watts, in respect of which Watts will not accept any claim for damages, direct or indirect.

COMPLIANCE WITH UNITED STATES EXPORT REGULATIONS

19. The sale or re-transfer of products supplied by Watts Industries Italia must be conducted in compliance with applicable laws restricting the export or re-export of such products ("Export Controls"), including all economic or financial sanctions and trade embargoes imposed, administered or enforced at whatever time by the government of the United States or of the EU (including its member states) or by any other competent sanctioning authority with jurisdiction over the Supplier ("Sanction Laws"). Concerning products supplied to the Customer, it is understood and accepted that:

a) The Customer shall not export, re-export or otherwise transfer the Products, directly or indirectly, to (i) a country, territory or person to which or to whom any such export, re-export or transfer is prohibited by applicable law, including, but not limited to, export controls and sanction laws; or (ii) a country or territory that is itself subject to or targeted by comprehensive sanction laws, including U.S. sanctions ("Sanctioned

Territories"). As at the date of this document, the Sanctioned Territories are Crimea, Cuba, Iran, North Korea, the disputed territories of Ukraine (including the Donetsk People's Republic or DNR, and the Luhansk People's Republic or LNR), and Syria, although the US government may add or remove Sanctioned Territories in the future;

b) The Customer shall neither directly nor indirectly sell, supply, export, re-export or otherwise transfer any of the products made by Watts Industries Italia falling within the scope of Article 12g of Council Regulation (EU) No. 833/2014 (as amended at whatever subsequent time), either to Russia or Belarus or for use in Russia or Belarus. The Customer shall neither directly nor indirectly intentionally transfer, sell, export or re-export products made by Watts Industries Italia to third parties, in the knowledge that such products will be used or sold, exported or transferred, in Russia or Belarus. If requested, the Customer shall provide Watts Industries Italia at the earliest opportunity with documentary evidence indicating compliance with the present clause and is bound to notify Watts Industries Italia immediately on becoming aware that its own organization or any of its trading partners or dealers may not be complying with this clause. Watts Industries Italia may suspend or terminate the performance of the contract in the event of a breach of this clause by the Customer, which would constitute a material breach of the present terms and conditions. Watts Industries Italia will also be entitled to ask that the Customer apply suitable remedies (without prejudice to other rights and remedies).

c) The Customer also confirms there is no intention to purchase the Products for military, nuclear or missilry uses or on behalf of an end user. Conversely, the Customer shall inform Watts Industries Italia S.r.l. immediately of any such intention in writing, in an e-mail to exportdocuments@wattswater.com.

PRIVACY

20. In accordance with the legislation currently in force on personal data protection, the company issuing this document, in its capacity as Data Controller, gives notice that personal data relating to its customers shall be processed in accordance with the said regulations, for the purposes necessary to the management of the customer/supplier relationship. For a full statement on the processing of personal data, please consult our special webpage at www.watts.eu/en.

JURISDICTION

21. Any dispute relating to the interpretation, execution, validity and termination of supply agreements entered into by Watts Industries Italia and the customer and governed by these general conditions shall be submitted to the exclusive jurisdiction of the Milan Law Courts.

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Watts hereby rejects any terms or conditions other than its own that may be contained in any communication received from the buyer, unless expressly agreed to in writing and signed by an officer of Watts Industries.

EVERY DROP COUNTS

Watts Industries Italia S.r.l.
Via Brenno, 21 • 20853 Biassono (MB) • Italy • Tel. +39 039 4986.1 • Fax +39 039 4986.222
infowattsitalia@wattswater.com • www.watts.eu/it

Numero Verde
800 33 25 95

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