

FlowBox Cooling

Pump groups for combined cooling and heating applications

Technical Datasheet



Description

Product features

- Pump groups for combined cooling and heating systems depending on seasonal requirements.
- Condensation does not form due to the watertight XPE low-temperature insulation shell pre-assembled at the factory.
- Pre-assembled connecting pipework enables quick installation of the pump group without dismantling the low-temperature insulation shell.
- Circulation pump for low operating temperatures with corrosion-resistant motor housing.
- Compact, space-saving design.

Pump groups FlowBox Cooling HK25-C and HK25-KH-C

Compact pump groups for unmixed cooling and heating circuits. GEG-compliant two-layer insulation consisting of an internal diffusion-tight XPE low-temperature insulation shell and an external EPP heat insulation shell. Easy installation with just one screw. Includes wall bracket and fastening set. Centre distance 125 mm.

Heating/cooling supply: multifunction ball valve with gravity check valve, thermometer 0 - 120 °C, circulation pump for low operating temperatures with corrosion-protected motor housing.

Heating/cooling return: multifunction ball valve, thermometer 0 - 120 °C.

Type	Part no.	DN	Version	Weight
HK25-C	10088551	25	Wilo Para G SC/7	7.5 kg
HK25-KH-C	10088550	25	Wilo Para G SC/7, additional ball valve below the pump	7.7 kg



Pump mixer group FlowBox Cooling HKM25-C

Compact pump group for mixed heating and cooling circuits. GEG-compliant two-layer insulation consisting of an inner diffusion-tight XPE low-temperature insulation shell and an outer EPP heat insulation shell. Easy installation with just one screw. Includes wall bracket and mounting kit. Centre distance 125 mm.

Heating/cooling supply: multifunction ball valve with gravity check valve, thermometer 0 - 120 °C, circulation pump for low operating temperatures with corrosion-protected motor housing, 3-way mixing valve with actuator.

Heating/cooling return: multifunction ball valve, thermometer 0 - 120 °C.

Type	Part no.	DN	Version	kvs Mischer	Weight
HKM25-C	10088549	25	Wilo Para G SC/7	6.3	8.7 kg



Insulation concept

The internal, watertight XPE (cross-linked polyethylene foam) low-temperature insulation shell prevents condensation forming during cooling and reduces heat losses during heating. The low-temperature insulation shell consists of several segments which are fixed to the pump group using plastic locking clamps. The segments fit perfectly around the pump group, removing any gaps and air pockets between the segments and the pump group.

In heating mode, the combination of an inner cold insulation shell and an outer EPP (expanded polypropylene) heat insulation shell significantly reduces heat loss. This makes the pump groups of the FlowBox Cooling series ideal for use in combined cooling and heating systems, especially in conjunction with reversible heat pumps.



Cooling mode



Condensation inhibiting effect



Heating mode



Transport and protective packaging

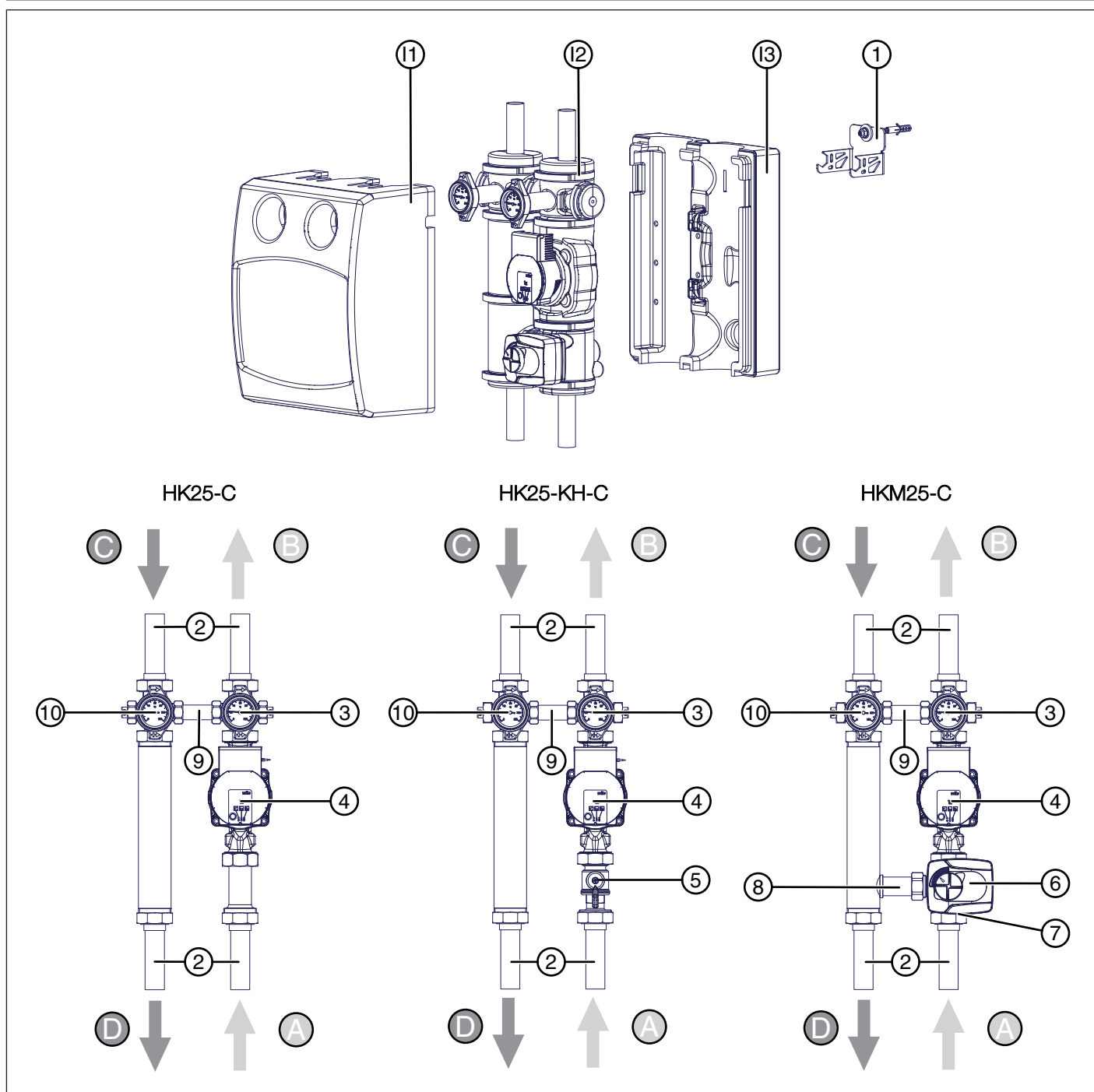
Internal XPE low-temperature insulation shell



External EPP insulation shell



Component overview



- A Primary circuit supply inlet
- B Heating/cooling circuit supply outlet
- C Heating/cooling circuit return inlet
- D Primary circuit return outlet
- I1 EPP heat insulation shell - front side
- I2 Internal XPE low-temperature insulation shell
- I3 EPP heat insulation shell - rear side

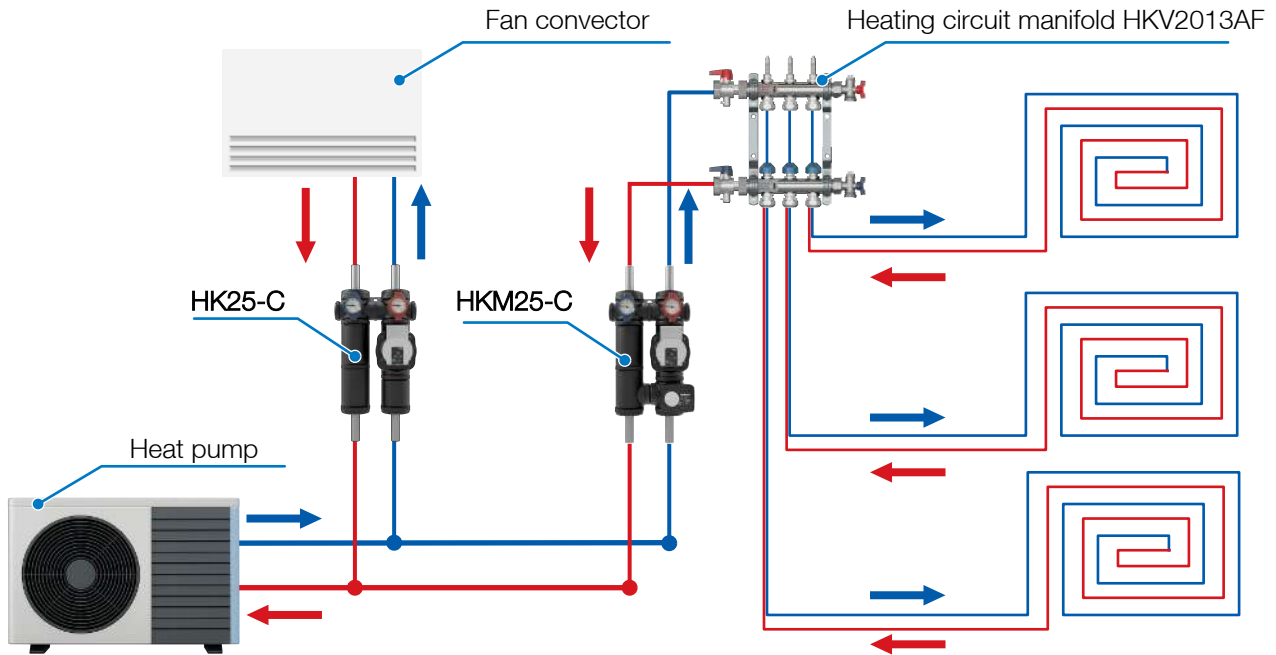
- 1 Wall bracket
- 2 Connecting pipework (4x)
- 3 Ball valve with gravity brake (supply)
- 4 Circulation pump
- 5 Additional ball valve
- 6 Actuator
- 7 3-way mixing valve
- 8 Bypass pipe
- 9 Connecting pipe
- 10 Ball valve (return)

Application

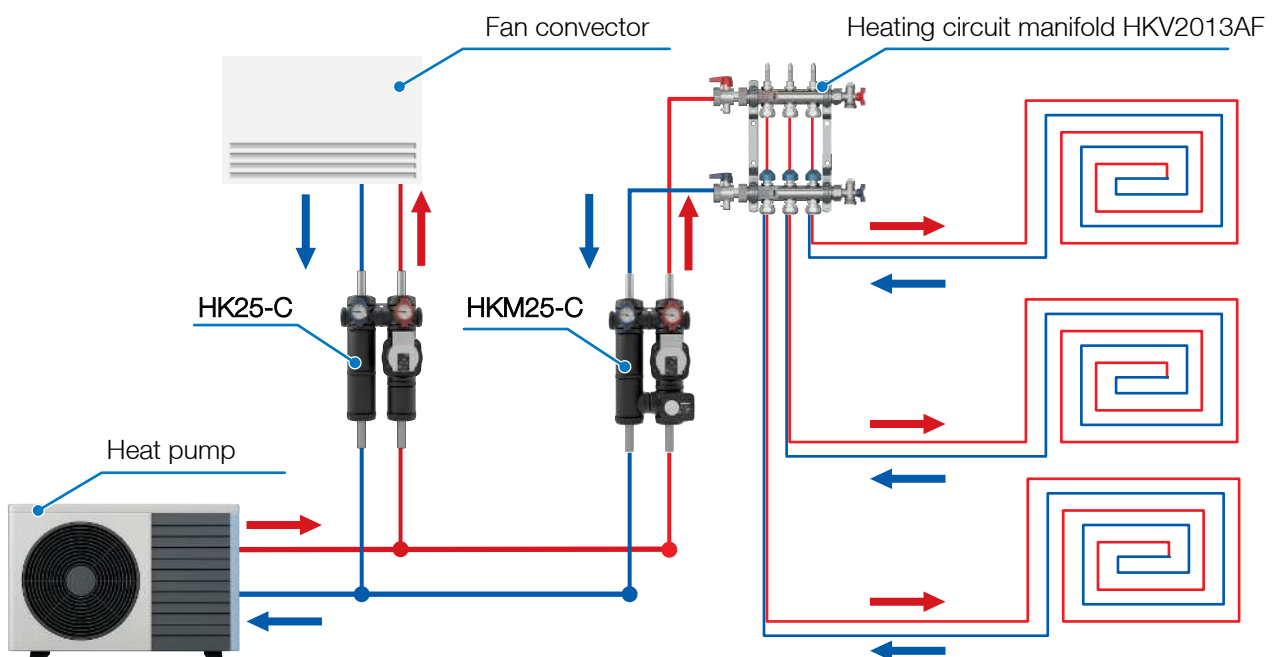
The FlowBox Cooling pump groups are designed specifically for combined cooling and heating systems. The HK25-C and HK25-KH-C pump groups, designed for unmixed heating and cooling circuits, are particularly suitable for use with fan coil units in active cooling applications. The HKM25-C pump mixer group, developed for mixed heating and cooling circuits, is ideal for use in surface heating and passive surface cooling.



Cooling mode



Heating mode

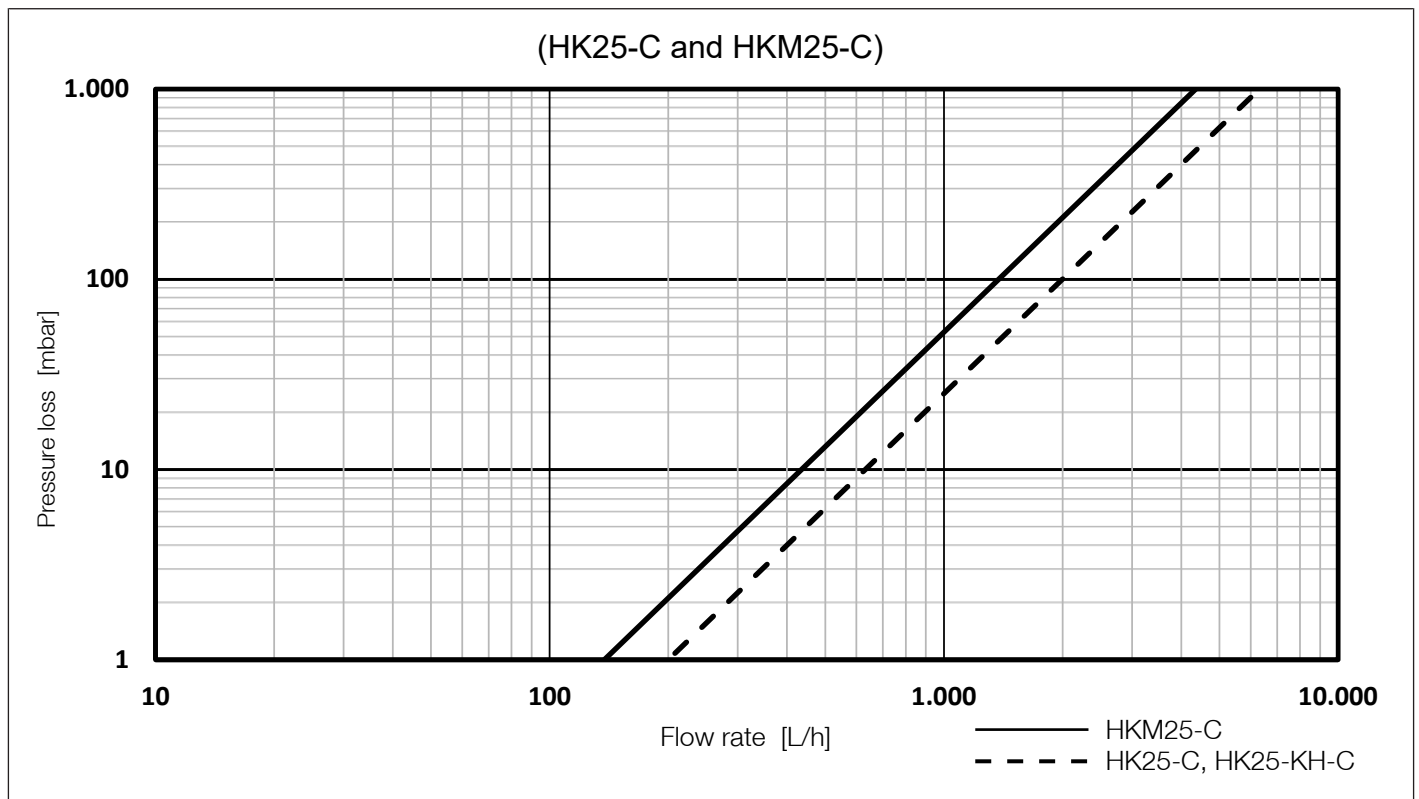


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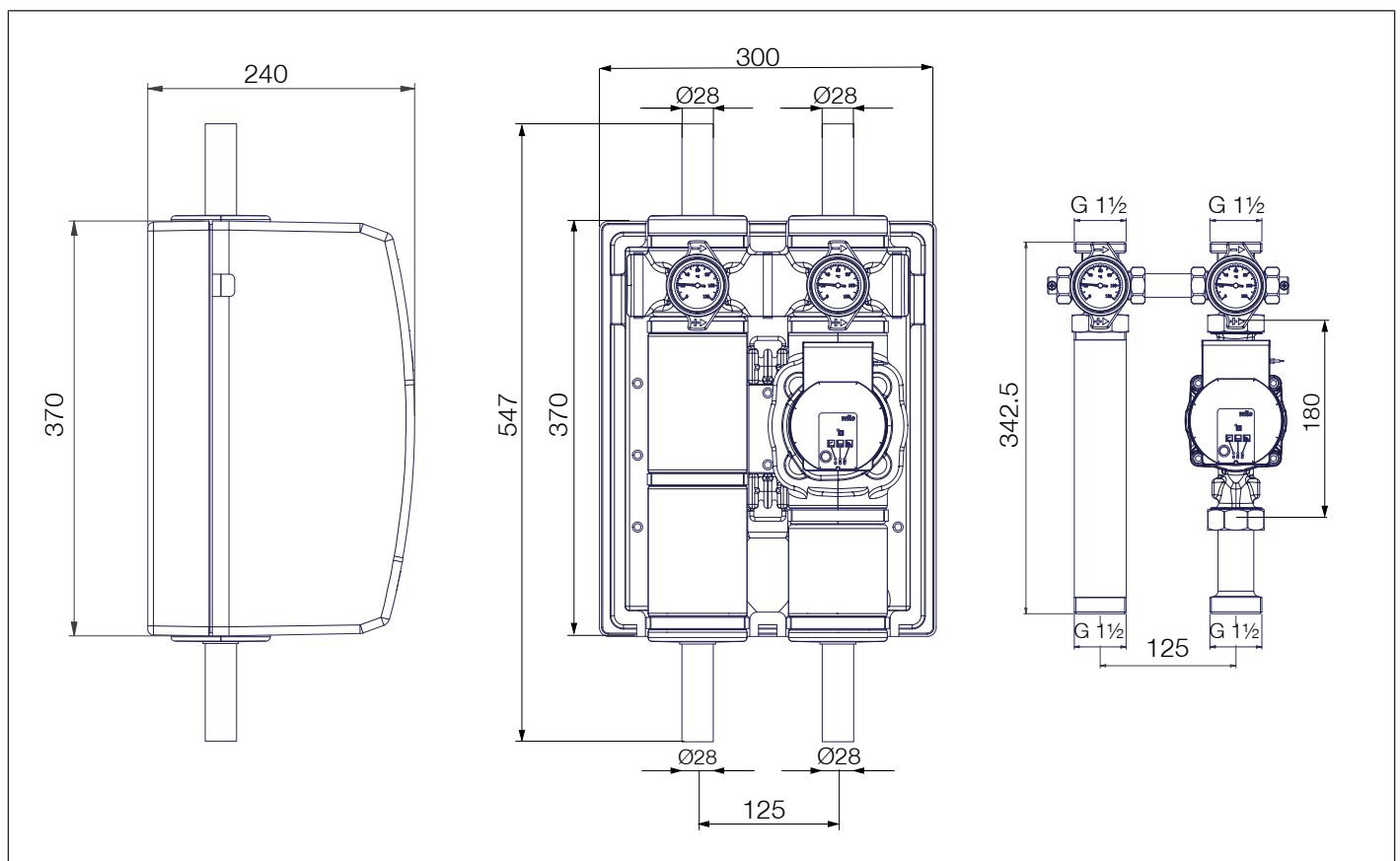
Hydraulic data	
Max. operating pressure	6 bar
Ambient temperature	+5 to +30 ° (see pump specifications)
Operating temperature ¹	+8 to +80 ° (see pump specifications)
Gravity brake opening pressure	10 mbar
Kvs mixing valve	HKM25-C: 6.3 m³/h
Temperature display range	0 - 120 °C
Nominal width	DN 25
Media	Water or water with glycol as per VDI (Association of German Engineers) 2035 / ÖNORM (Austrian standard) 5195
Electrical connection	
Power supply	See separate pump documentation
Dimensions	
Width x height x depth with EPP shell	300 x 547 (370) x 240 mm
Centre distance	125 mm
Sealing surfaces distance	342.5 mm
Weight	
Weight without packaging	HK25-C: 7.5 - 8.0 kg, depending on pump model. HKM25-C: 8.5 - 9.0 kg, depending on pump model.
Weight with packaging	approx. 0.6 kg more than without packaging
Connections to pipe network	
Heating circuit side connections	G 1½ male thread, with flat seals without connecting pipework. Ø 28 mm connecting pipework for compression fitting
Boiler side connections	G 1½ male thread, with flat seals without connecting pipework. Ø 28 mm connecting pipework for compression fitting
Tightening torques for screw fittings	
G ¾	35 Nm
G 1	55 Nm
G 1¼	90 Nm
G 1½	130 Nm
Materials	
Fittings	Brass CW617N
Pipes	Tubular steel
Bypass pipe	Brass CW617N
Gravity brake	POM, NBR, stainless steel
Wall brackets	Galvanised sheet steel
Insulation shell	EPP (expanded polypropylene)
Low-temperature insulation shell	XPE (cross-linked polyethylene foam)
O-rings	EPDM
Plastics	impact-resistant and temperature-resistant
Flat seals	AFM 34/2
Other	
Circulation pump	See separate pump documentation
Actuator	HKM25-C: see separate actuator documentation.

¹ To prevent condensation forming on system components, the cooling water temperature should not fall below +18 °C. Alternatively, appropriate precautions must be taken to prevent the temperature from falling below the dew point.

Pressure loss curve



Dimensions



Specification texts

FlowBox HK25-C

Pump group for connecting reversible heat and cooling generators to unmixed cooling and heating circuits. Compact design with 180 mm pump length and 125 mm centre distance. GEG-compliant, two-layer insulation consisting of an internal, diffusion-tight XPE low-temperature insulation shell and an external EPP heat insulation shell. Simple installation with only one screw, including wall bracket and fastening set. Concealed cable routing behind insulation. 4 connecting pipes ø28 mm for press connection. 2 multifunction shut-off valves with thermometer (0-120 °C), adjustable gravity check valve in the flow. For operation in closed heating and cooling systems with non-aggressive media such as water or water-glycol mixtures in accordance with VDI 2035/ÖNORM H 5195.

FlowBox HK25-KH-C

Pump group for connecting reversible heat and cooling generators to unmixed cooling and heating circuits. Compact design with 180 mm pump length and 125 mm centre distance. GEG-compliant, two-layer insulation consisting of an internal, diffusion-tight XPE low-temperature insulation shell and an external EPP heat insulation shell. Simple installation with just one screw, including wall bracket and fastening set. Concealed cable routing behind insulation. 4 connecting pipes, ø28 mm, for press connection. 2 multifunction shut-off valves with thermometer (0-120 °C), gravity check valve in supply. Additional ball valve in supply. For operation in closed heating and cooling systems with non-aggressive media such as water or water-glycol mixtures in accordance with VDI 2035/ÖNORM H 5195.

FlowBox HKM25-C

Pump mixer group for connecting reversible heat and cooling generators to mixed cooling and heating circuits. Compact design with 180 mm pump length and 125 mm centre distance. GEG-compliant, two-layer insulation consisting of an internal, diffusion-tight XPE low-temperature insulation shell and an external EPP heat insulation shell. Simple installation with just one screw, including wall bracket and fastening set. Concealed cable routing behind insulation. 4 connecting pipes ø28 mm for press connection. 2 multifunction shut-off valves with thermometer (0-120 °C), adjustable gravity check valve in the flow. 3-way mixer (Kvs 6.3) with actuator. For operation in closed heating and cooling systems with non-aggressive media such as water or water-glycol mixtures in accordance with VDI 2035/ÖNORM H 5195.

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