2-way Control Valves type M2F
Cast iron, PN 16, DN 100 – 150 mm

Characteristics

- Nominal pressure PN 16
- Regulating capability $\frac{k_{vs}}{k_{vr}}$ > 25
- Double-seated

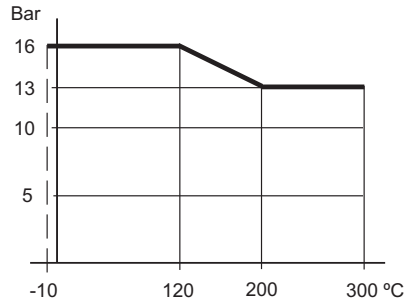
Applications

Control valves type M2F are designed for regulating hot water, steam and hot oil systems.
The valves are installed combined with temperature- or pressure-differential regulators in control systems for heating to domestic premises, district- and group heating schemes, industrial processes or marine installations.

Dimensioning

For sizing of control valves and selection of actuators please see "Quick Choice" leaflet no. 9.0.00.

Pressure/Temperature Diagram
According to DIN 2401



Design

The valve components - spindle, seats and cone - are made of stainless steel. The valve body is made of cast iron GG 25 with flanges drilled according to EN 1092-2. The connection thread for the actuator connection is G1B ISO 228.
The valves are double-seated and designed for tight closure.The leakage rate is less than 0.5% of the full flow (according to VDI/VDE 2174).

Quality assurance

All valves are manufactured under an ISO 9001 certification, and are pressure and leakage tested before shipment.

Function

Without the actuator being connected, the valve is held in open position by means of a spring. With pressure on the spindle the valve will close.
In connection with our thermostats or electronic actuators, the valves will close at rising temperatures. For cooling circuits a reverse acting valve can be used.
The linear characteristic will not cease, until the flow has dropped below 4% of the full flow.

Technical Data

Materials:	
- Valve body	Cast iron GG 25
- Components	Stainless steel
- Bolts, nuts	24 CrMo 4/A4
Nominal pressure	PN 16
Seating	Double-seated
Valve characteristic	Almost quadratic
Regulating capability	$\frac{k_{vs}}{k_{vr}}$ > 25
Function	Closing with pressure on spindle
Leakage rate	≤ 0.5% of k_{vs}
Temperature range	See pressure/temperature diagram
Mounting	See page 2
Flanges drilled according to	EN 1092-2
Counter flanges	DIN 2633
Colour	Grey

Specification

Type	Flange connection DN in mm	Opening mm	k_{vs}-value m^3/h	Lifting height mm	Weight kg
100 M2F	100	100	125	20	32
125 M2F	125	125	215	20	50
150 M2F	150	150	310	20	70

Subject to changes without notice.

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Definition of k_{VS}-value

The k_{VS}-value is identical to the IEC flow coefficient k_V and defined as the water flow rate in m^3/h through the fully open valve by a constant differential pressure, Δp_V of 1 bar.

Mounting

Up to 170ºC the valve can be installed vertically as well as horizontally. For media temperature above 170ºC, a cooling unit of type KS has to be applied. It must then be installed with electric actuator/thermostat downwards, and according to the following instructions:

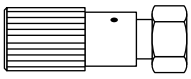
Valve Temperature	Cooling Unit	Suitable for
170ºC - 250ºC	KS-4	All actuators
250ºC - 300ºC	KS-5	Thermostats
250ºC - 300ºC	KS-6	El. actuators

Strainer

It is recommended to use a strainer in front of the control valve if the liquid contains suspended particles.

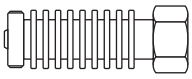
Accessories

Manual Adjusting Device



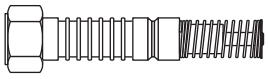
The device has a built-in stuffing box. For tightening and manual operation of valves when an actuator has not been fitted, e.g. during periods of construction (max. 170ºC).

Cooling Unit KS-4

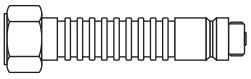


Cooling Unit protecting the stuffing box of the electric actuator/thermostat. To be applied at valve temperatures between 170ºC and 250ºC.

Cooling Unit KS-5

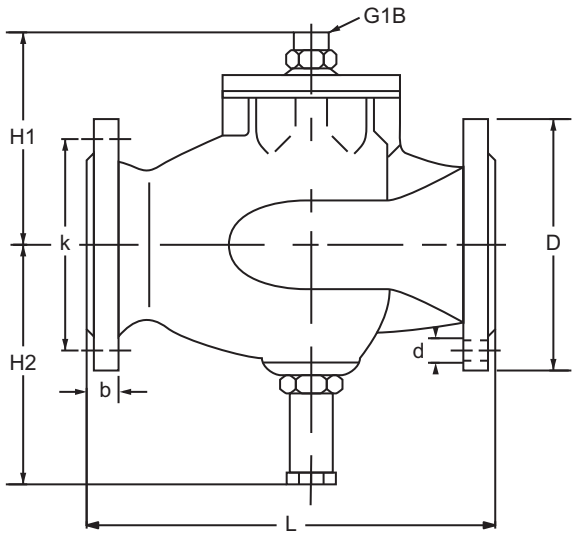


Cooling Unit KS-6



Cooling units with built-in bellow glands, replacing stuffing box of thermostat (KS-5) or electric valve actuator (KS-6). Must be applied at valve temperatures above 250ºC.

Dimension sketch



Dimensions

Type	L mm	H1 mm	H2 mm	b mm	D (dia.) mm	k (dia.) mm	d mm dia. (number)
100 M2F	350	185	209	24	220	180	18x(8)
125 M2F	400	205	224	26	250	210	18x(8)
150 M2F	400	240	244	26	285	240	22x(8)

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