2-way Control Valve type M2F,

Cast iron, PN 16, DN 20 – 80 mm, 2 seats, Flanged ends

0-2.3.04-N

APPLICATIONS

Control valves type M2F are designed for regulating hot water, steam and lubricating oil systems. The double-seated valves are used in installations where the system pressure necessitates a closing force greater than available in the actuator programme for a single-seated valve. The valves are used in conjunction with our temperature or pressure differential regulators for controlling industrial processes, district or central heating plants or marine installations.

DESIGN

The valve components - spindle, seats and cone - are made of stainless steel. The valve body is made of cast iron EN-GJS-400-15 with flanges drilled according to EN 1092-2. The thread for the actuator connection is G1B ISO 228. The valves are double-seated. The leakage rate is less than 0.5% of the full flow (according to VDI/VDE 2174).

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 the valve can be used in conjunction with a reverse acting electric actuator. Alternatively a reverse acting valve can be used with our self-acting thermostats. The quadratic characteristic will not cease, until the flow has dropped below 4% of the full flow.

FEATURES

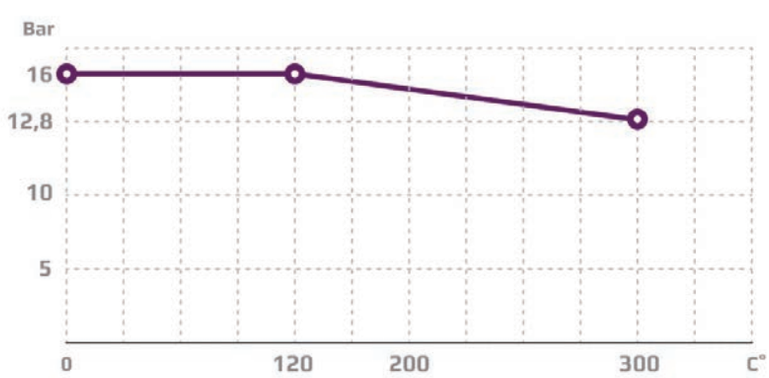
- Simple design secures reliable controls.
- Location of the pack box in the actuator makes the valve service friendly
- Reliable and secure due to internal parts of stainless steel

TECHNICAL DATA

Materials:	
- Valve body	Cast iron EN-GJS-400-15
- Spring	1.4568
- Cone	1.4408, 1.4305
- Gasket	Stainless steel foil and graphite
- Upper seat	AISI 303
- Lower seat	1.4301, 1.4305, 1.4307
- Bolts, nuts	24 CrMo 4/A4
Nominal pressure	PN 16
Seating	Double-seated
Flow characteristic	Quadratic
Leakage rate	≤ 0,5% of Kvs
Regulating capability	Kvs/Kvr > 25
Flanges drilled according to	EN 1092-2 PN 16
Counter flanges	DIN 2633/BS 4504
Adjustable seat interspace	

PRESSURE/TEMPERATURE DIAGRAM

According to DIN 2401

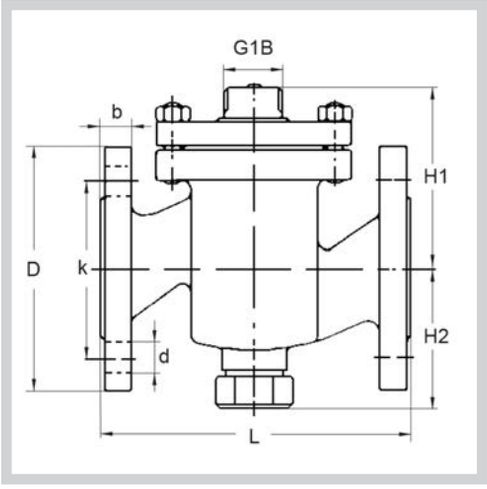


Subject to change without notice.

MOUNTING

The valve can be installed with vertical as well as horizontal spindles. For valve temperatures of max. 170 ºC, the thermostat/ actuator can be fitted below or above the valve. For valve mounted with thermostats in media temperatures above 170 ºC, a cooling unit has to be applied with connection downwards (please refer to data sheet for thermostat accessories). For electric actuators a high temperature adaptor must be used (please refer to datasheets for the electric actuators).

DIMENSION SKETCH



Type	L mm	H1 mm	H2 mm	b mm	D (dia.) mm	k (dia.) mm	d mm dia. (number)
20 M2F	150	85	70	16	105	75	14x(4)
25 M2F	160	95	77	16	115	85	14x(4)
32 M2F	180	105	82	18	140	100	19x(4)
40 M2F	200	110	92	19	150	110	19x(4)
50 M2F	230	125	102	19	165	125	19x(4)
65 M2F	290	135	120	19	185	145	19x(4)
80 M2F	310	145	130	19	200	160	19x(8)

SPECIFICATIONS

Type	Flange connection DN in mm	Opening mm	k_{vs}-value m^3/h	Lifting height mm	Weight kg
20 M2F	20	20	5	6.5	5
25 M2F	25	25	7.5	7	6.5
32 M2F	32	32	12.5	8	9
40 M2F	40	40	20	9	11
50 M2F	50	50	30	10	16
65 M2F	65	65	50	11	21
80 M2F	80	80	80	13	38