

# 2-way Control Valve type M1F

Cast iron, PN 16, DN 15/4 – 50 mm

0-2.3.02-L

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## APPLICATIONS

Control valves type M1F are designed for regulating low, medium and high pressure hot water, steam and lubricating oils. 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, seat 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 single-seated. The leakage rate is less than 0.05% of the full flow (according to VDI/VDE 2174).

## FUNCTION

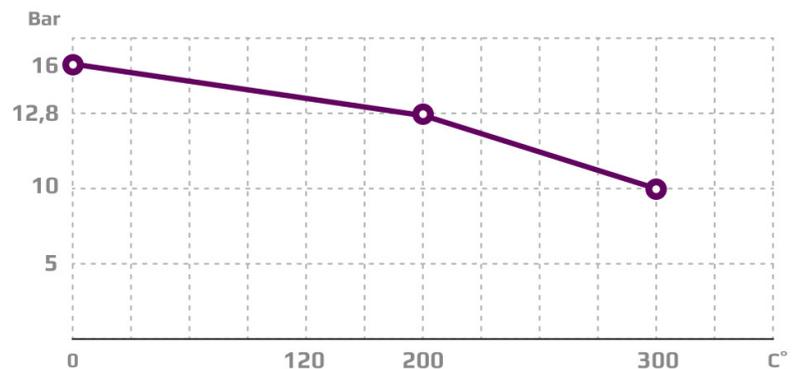
Without the actuator being connected, the valve is held in open position by means of a spring. With pressure on the spindle the valve will close. In connection with our thermostats, pneumatic or electronic actuators, the valves will close at rising temperatures. For cooling circuits the valve can be 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
- Low leakage rate reduces the risk of overheating

## PRESSURE/TEMPERATURE DIAGRAM

According to DIN 2401



## TECHNICAL DATA

### Materials:

- Valve body	Cast iron EN-GJS-400-15
- Components	Stainless steel
- Bolts, nuts	24 CrMo 4/A4
- Gasket	Graphite
Nominal pressure	PN 16
Seating	Single-seated,
Flow characteristic	Quadratic
Leakage rate	$\leq 0,05\%$ of Kvs
Regulating capability	Kvs/Kvr > 25

Flanged ends  
drilled according to

EN 1092-2  
PN 16

Counter flanges

DIN 2633/BS 4504

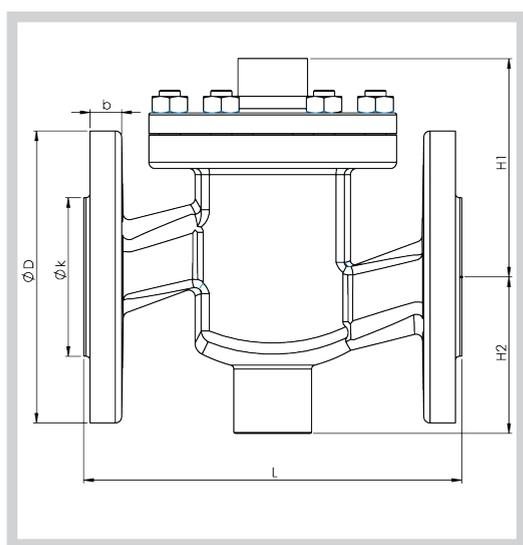
Subject to change without notice.

## MOUNTING

The valve can be installed with vertical as well as horizontal spindles. For valve temperatures of max. 170 °C, the thermostat/ actuator can be fitted below or above the valve. For valve mounted with thermostats in media temperatures above 170 °C, 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)
15/4 M1F	130	80	60	14	95	65	14x(4)
15/6 M1F	130	80	60	14	95	65	14x(4)
15/9 M1F	130	80	60	14	95	65	14x(4)
15/12 M1F	130	80	60	14	95	65	14x(4)
15 M1F	130	80	60	14	95	65	14x(4)
20 M1F	150	85	65	16	105	75	14x(4)
25 M1F	160	95	70	16	115	85	14x(4)
32 M1F	180	105	75	18	140	100	14x(4)
40 M1F	200	110	85	18	150	110	14x(4)
50 M1F	230	125	95	20	165	125	14x(4)

## SPECIFICATIONS

Type	Flange connection DN in mm	Opening mm	$k_{vs}$ -value $m^3/h$	Lifting height mm	Weight kg
15/4 M1F	15	4	0.20	6	3
15/6 M1F	15	6	0.45	6	3
15/9 M1F	15	9	0.95	6	3.1
15/12 M1F	15	12	1.70	6	3.1
15 M1F	15	15	2.75	6	3.1
20 M1F	20	20	5	6.5	4.2
25 M1F	25	25	7.50	7	5.5
32 M1F	32	32	12.50	8	8.1
40 M1F	40	40	20	9	9.7
50 M1F	50	50	30	10	14