

Temperature control valve externally operated

Temperature regulation of lubrication and cooling loops with oil or water and solar systems



Applications:

- Compressors
- Diesel engines
- Gearboxes
- Steam turbines
- Gas turbines
- Refrigeration systems
- Solar systems

Sizes, Pressure Ratings:

- DN 20 – 40 Threaded connection ¾" – 1 ½"
- DN 20 – 50 flanges according to DIN PN16, PN25-40 according to ANSI CI150/ CI300

Flowrates, Delta p:

- Kvs value: 2 to 35 m³/h
- Delta-p: 0,15 to 1,3bar max.

Bodymaterial:

- Spheroidal graphite cast iron EN GJS 400
- Cast steel ASTM A216 WCB
- Stainless steel ASTM A351 CF-8M

We provide electrical and pneumatical control valves for mixing and short-circuit control in water or oil circuits.

Generally:

The temperature control valves are designed as 3-way valves and have a proportional respectively a to the process controller dependent control mode. The internals are generally made of stainless steel, the seals made of NBR, Viton or PTFE. The temperature control valves are capable of mounting insensitive, but should be installed standing upright with electric drive. Pneumatic actuators can be installed in any position. In order to achieve optimum control, the nominal diameter of the temperature controller should be selected carefully. For functional safety, the pipeline should be vented at the top of the plant.

The arrangement of the temperature sensor is system-specific set and requires the necessary experience from the system manufacturers.

Technical Data for electric/ pneumatic actuators

The technical data are valid for all sizes, materials and connection options

Elektric actuator

Power supply:

- 1~230 V/50-60 Hz

Input of electronic position:

- 0 (4)...20 mA
- 0 (2)...10 V

Actual value output:

- 0 (4)...20 mA
- 0 (2)...10 V

Limit switch electrically:

- 2 x Limit switch

Operating time total stroke:

- approx. 30 sec

Protection (according VDE 0530)

- IP 65 (with steelhood, hood seal and bellow)

Duty cycle:

- 30% ED max. 600 c/h

Operating conditions:

- Ambient temperature 0...+50°C

Pneumatic actuator

Air supply:

- 4...7 bar at + 10 bis + 40°C

Auxiliary voltage:

- 24 V DC +/- 10 %

Input electrically:

- 4...20 mA

Position signal:

- 4...20 mA

Protection (according VDE 0530):

- IP 65

Operation condition:

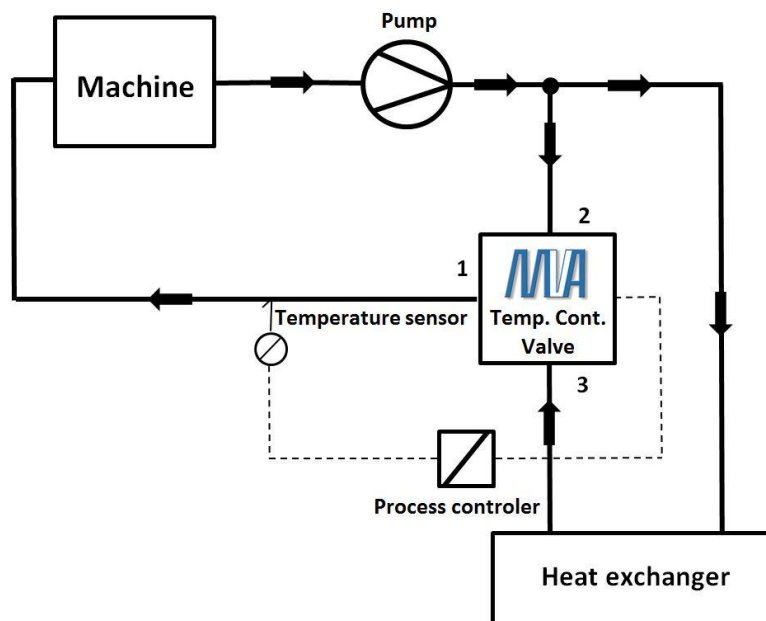
- Control medium acc. DIN ISO 8573-1
- Ambient temperature + 10...+ 50°C

Special feature:

- Safety function when power failure possible

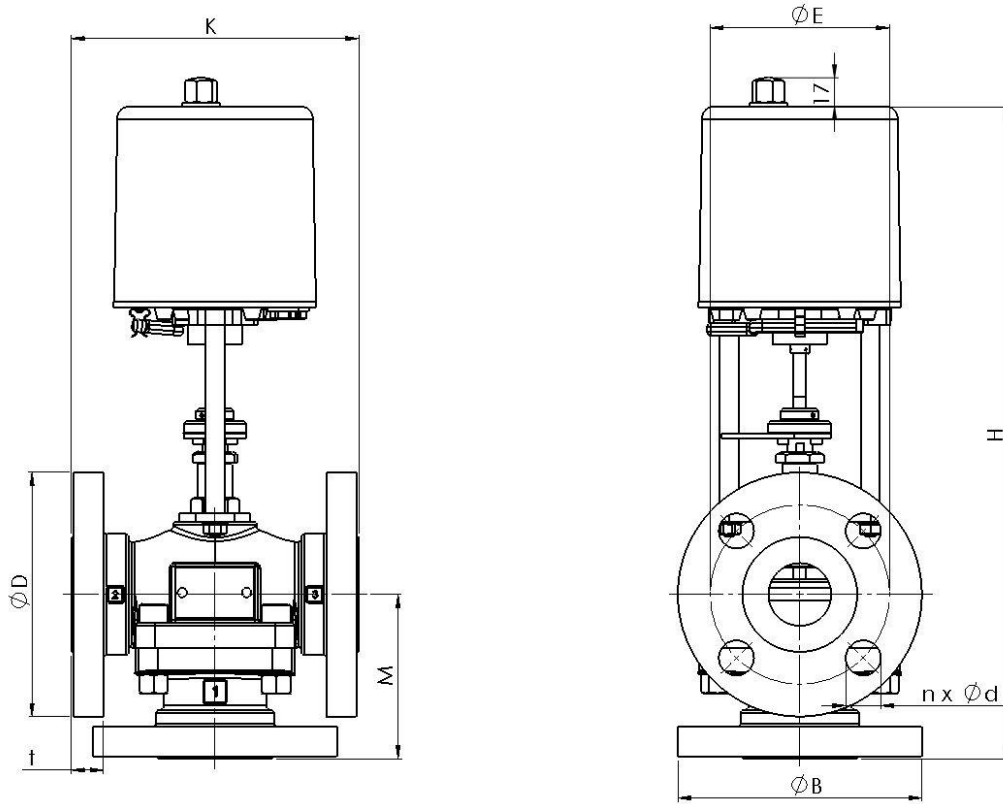
For our electrical and pneumatic valves we use high quality actuators from renowned German manufacturers.

Pipe diagram of control by mixing



Dimensions for externally operated valves

Dimensions



Dimensions type RF-20/25-T..				EL	PN	Flange dimensions				
EN-GJS-400-18/ WCB/CF8M	K [mm]	M [mm]	B [mm]	H [mm]	H [mm]	D [mm]	E [mm]	t [mm]	n	d [mm]
PN25/40	178,0	102,0	105,0	426,5	380,5	105,0	75,0	18,0	4,0	14,0
ANSI Class 150	178,0	102,0	98,6	426,5	380,5	98,6	70,0	18,0	4,0	18,8
ANSI Class 300	178,0	102,0	117,5	426,5	380,5	117,5	82,6	18,0	4,0	19,1

Dimensions type RF-40-T..				EL	PN	Flange dimensions				
EN-GJS-400-18/ WCB/ CF8M	K [mm]	M [mm]	B [mm]	H [mm]	H [mm]	D [mm]	E [mm]	t [mm]	n	d [mm]
PN16	178	102	150	436	390	150	110	18	4	18
PN25/40	178	102	150	436	390	150	110	18	4	18
ANSI Class 150	177,1	101,5	127	436	390	127	98,6	17,5	4	15,8
ANSI Class 300	183,1	104,6	155,5	436	390	155,5	114,3	20,6	4	22,4

Dimensions type RF-50-T..				EL	PN	Flange dimensions				
EN-GJS-400-18	K [mm]	M [mm]	B [mm]	H [mm]	H [mm]	D [mm]	E [mm]	t [mm]	n	d [mm]
PN16	225	150,5	165	503	457	165	125	20	4	18
ANSI Class 150	223,2	149,6	152,4	503	457	152,4	120,7	19,1	4	19,1

Dimensions type RF-50-T..				EL	PN	Flange dimensions				
WCB/CF8M	K [mm]	M [mm]	B [mm]	H [mm]	H [mm]	D [mm]	E [mm]	t [mm]	n	d [mm]
PN16	221	148	165	503	457	165	125	18	4	18
PN25/40	225	150	165	503	457	165	125	20	4	18
ANSI Class 150	223,2	149,1	152,4	503	457	152,4	120,7	19,1	4	19,1
ANSI Class 300	229,7	152,4	165,1	503	457	165,1	127	22,4	8	19,1

Code Temperature control valves

Temperature control valves externally operated Order code

Example:	R	F	- 40	- T	- S	- 1	- EI	- 00	- B
Controlertype									
Externally controlled									
Nominal diameter	DN		020						
	DN		025						
	DN		040						
	DN		050						
Shape									
Material	Speroidal graphite cast iron				D				
	Cast steel				S				
	Stainless steel				E				
Connection	BSP parallel					1			
	BSP Taper					2			
	NPT					3			
	Flange ANSI B16,5 (Class150)RF					5			
	Flange DIN 2501-1 PN40					6			
	Flange ANSI B16,5 (Class300)RF					7			
	Flange DIN 2501-1 PN16					8			
Actuator	Elektric						EI		
	Pneumatic						PE		
Gasket	NBR							00	
	Viton							10	
	PTFE							23	
Leakagehole	without leakage hole								A
	1mm leakage hole								B
	2mm leakage hole								C
	3mm leakage hole								D
	4mm leakage hole								E