

Characteristics

- Nominal pressure
DN 200-300 mm:
PN 16, max. 100°C (option 250°C)
DN 350-600 mm:
PN 10, max. 100°C (option 250°C)
- Slide in Nodular cast iron

Applications

Control valve type G2FM-T is a three-way control valve with blocked port making a two-way control valve. The slide for quarter turn operation designed for regulating of fresh water, lubricating oil and other liquid media.

The valves are designed for use in conjunction with industrial processes, district heating and marine installations with large water or lubricating oil quantities.

The valves are designed for use in conjunction with valve motor type RCEL with handle for manual operation or for use in conjunction with a pneumatic actuator.

Dimensioning

For sizing of control valves the following equation can be used:

$$k_{vs} = \frac{G(m^3/h)}{\sqrt{\Delta p(\text{bar})}}$$

$$\Delta p(\text{bar}) = \left(\frac{G(m^3/h)}{k_{vs}} \right)^2$$

Design

The valve body and the valve slide are made of nodular cast iron. The valve flanges are drilled according to EN 1092-2.

Quality assurance

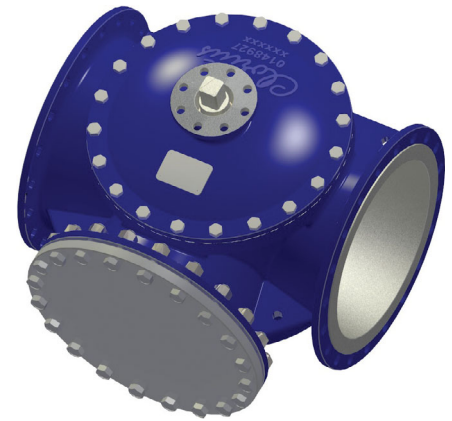
All valves are manufactured under an ISO 9001 certification, and are pressure and leakage tested before shipment. For marine applications the valves can be supplied with relevant test certificates from recognized classification societies.

Function

The slide is firmly connected with the motor spindle. When the slide is in the one extreme position by turning the spindle, connection A-AB is kept fully open. In the other extreme position connection the valve is fully closed. In the intermediate positions the opening degrees change proportionally. The valve has a small tolerance between body and slide. To minimize the leakage an O-ring is mounted in a groove on the slide.

Technical data

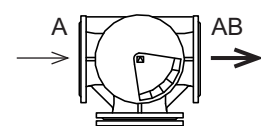
- Materials:
- Valve body, slide Nodular cast iron EN-GJS-400-15
 - O-ring NBR 70A



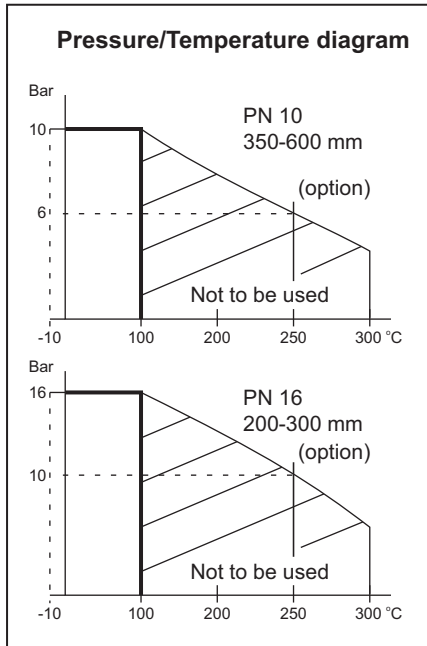
Nominal pressure:	
- DN 200-300	PN 16
- DN 350-600	PN 10
Valve characteristic	Almost linear
Leakage	Max. 0.5%
Temperature range	Max. 100°C (option 250°C)
Mounting	See page 2
Flanges	EN 1092-2 PN 10/16
Counter flanges (suggested)	DIN 2632 – PN 10 DIN 2633 – PN 16
Max. pressure Δp_L , against which the control can close:	
- DN 200-300	16 bar
- DN 350-600	10 bar

Specifications				
Type	Flange connection DN in mm	k_{vs} -value m ³ /h	Torque Nm	Weight kg
200 G2FM-T	200	1100	330	135
250 G2FM-T	250	1800	450	190
300 G2FM-T	300	2450	700	262
350 G2FM-T	350	3350	780	324
400 G2FM-T	400	3850	880	403
450 G2FM-T	450	4300	1250	507
500 G2FM-T	500	5050	1450	645
600 G2FM-T	600	6020	1750	890

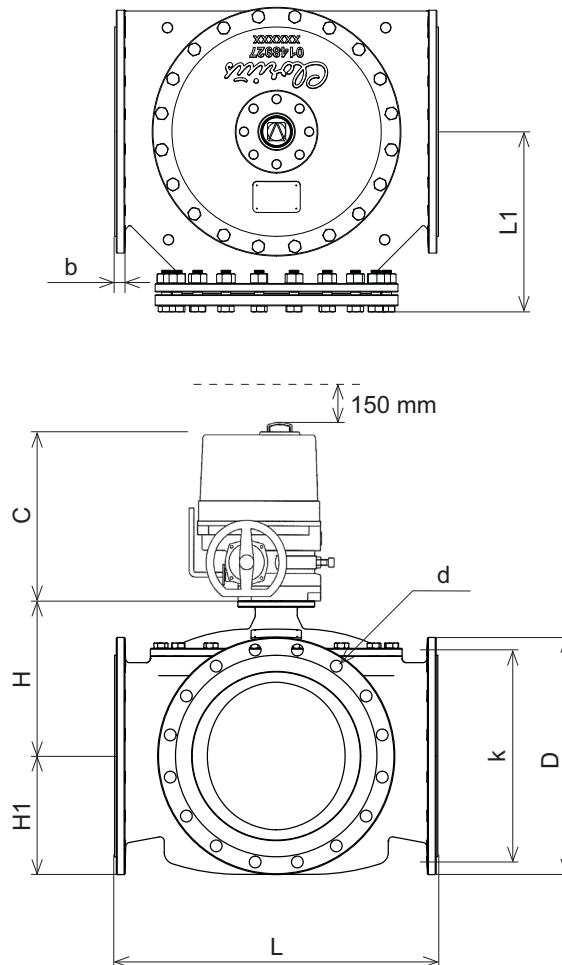
Port numbering



Subject to change without notice.



Dimension sketch



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

The valve connections are marked A and AB.

Check slide position before installation in the pipe. The slide position is marked on the top of the shaft.

The valves can be installed with vertical as well as horizontal spindles. The valves must be mounted in a way that the valve actuator will be exposed to a minimum of moisture and unnecessary vibrations.

Strainer

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

Type	L mm	L1 mm	H mm	H1 mm	b mm	C mm	D (dia.) mm	k (dia.) mm	d mm dia. (number)
200 G2FM-T	530	306	236	175	21	361	340	295	23 x (12)
250 G2FM-T	592	340	273	205	23	361	400	355	28 x (12)
300 G2FM-T	649	371	305	230	25.5	361	455	410	28 x (12)
350 G2FM-T	717	403	337	255	25.5	361	505	460	23 x (16)
400 G2FM-T	770	430	375	285	26	361	565	515	28 x (16)
450 G2FM-T	820	457	391	310	26.5	556	615	565	28 x (20)
500 G2FM-T	900	499	425	340	27.5	556	670	620	28 x (20)
600 G2FM-T	1000	553	470	393	31.0	556	780	725	31 x (20)

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