NENUTEC®

INNOVATIVE MEMBER OF SWISTEC

2F.. – 2-way single seat globe valves

CE According to (PED) 97/23/EC



The appearance of the product may differ from the illustration. Technical specifications are subject to change.

2F.. SERIES

APPLICATION AND USE

Valves in compliance with 97/23/CE PED.

2F.. series valves are used to control fluids belonging to the group showed in the table according to article 9 of 97/23/CE directive (PED) in air-conditioning, thermoventilation and heating plants and in industrial processes; therefore, they cannot be employed as safety valves.

DESIGN

They consist in a two-way simple seat valve body to be assembled with an electrical bidirectional actuator.

TECHNICAL SPECIFICATION

Model	2FGB DN25÷150	2FGA DN15÷100	2FSA DN25÷65	2FAA DN15÷80	2FAA.P DN15÷80
Konstrukcja	PN16	PN16	PN25	PN40	PN40
Body	cast iron	cast iron	spheroidal cast iron	steel	steel
Seat	cast iron	stainless steel	steel	stainless steel	stainless steel
Valve plug	forged brass	stainless steel	steel	stainless steel	stainless steel
Stem (diameter 9 mm)	stainless steel	stainless steel	stainless steel	stainless steel	stainless steel
Control characteristic	equal percentage	equal percentage	equal percentage	equal percentage	equal percentage
Stem sealing	Viton O-ring (4)	Teflon V-ring	Teflon V-ring	Teflon V-ring	(2)
Max. fluid temp. [°C]	150	200	230	230	350
Min. fluid temp. [°C]	-10 (1)	-10 (1)	-10 (1)	-10 (1)	-20 (1) (3)
Fluid, (5)	Group 2	Group 2	Group 2	Group 2	Group 1
Connections	Flanges PN16	Flanges PN16	Flanges PN25	Flanges PN40	Flanges PN40
Leakage % Kvs	0.03	0.02	0.02	0.02	0.02
Lowered stem action	normally open	normally closed	normally open	normally closed	normally closed

(1) For applications with possible ice formation on stem and gasket (see 248 accessory).

(2) Graphite packing for high temperatures; forced lubrication on extended neck. Teflon gasket for low temperatures, see (3).

(3) For applications on fluids from -10 to -20°C, replace letter P with T, e.g. 2FAA50T.
In such case the max temperature is 230°C

(4) Double O-ring and graphite teflon scraper ring.

(5) Group 1: water, overheated water, steam, diathermic oil.
For different fluids belonging to group 1, please contact our Sales Support.
Group 2: water, overheated water, steam.
For different fluids belonging to group 2, please contact our Sales Support.

Motorized valves options

MODEL	DESCRIPTON
A125-2	flanges with ANSI 125 bolt holes (for 2FGA DN25,32,50,65 and 2FGB DN25÷150 valves)
A150-2	flanges with ANSI 150 bolt holes (for 2FAA DN32÷65 and 2FSA DN50÷65 valves)
A300-2	flanges with ANSI 300 bolt holes (for 2FSA DN25÷65 and 2FAA DN15,32,40,50,65 valves)

Accessories

MODEL	DESCRIPTON
248	Stem heating
AG61	For assembly with PL actuator

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DN mm	Kvs				2FGB						2FGA						2FSA					2FAA					
	2FGB	2FSA	2FAA	2FGA	MVH	MVHA/C*	MVF58	MVF515	MVH3K	EN	MVH	MVHA/C*	MVF58	MVF515	MVH3K	EN	MVH	MVHA/C*	MVF58	MVF515	EN	MVH	MVHA/C*	MVF58	MVF515	MVH3K	EN
15R0	--	--	--	0.6	--	--	--	--	--	--	16	16	16	16	--	16	--	--	--	--	--	--	--	--	--	--	--
15R1	--	--	--	1	--	--	--	--	--	--	16	16	16	16	--	16	--	--	--	--	--	--	--	--	--	--	--
15R2	--	--	1.6	1.6	--	--	--	--	--	--	16	16	16	16	--	16	--	--	--	--	--	30	30	30	30	--	30
15R3	--	--	--	2.5	--	--	--	--	--	--	16	16	16	16	--	16	--	--	--	--	--	--	--	--	--	--	--
15	--	--	4	4	--	--	--	--	--	--	16	16	16	16	--	16	--	--	--	--	--	30	18	20	30	--	11
20	--	--	6.3	6.3	--	--	--	--	--		16	15	16	16	--	10.5	--	--	--	--	--	29	10	12	29	--	6.5
25R4	4	4	--	--	16	11	12	16	--	8	--	--	--	--	--	--	25	21	24	25	16	--	--	--	--	--	--
25R7	6.3	6	--	--	16	11	12	16	--	8	--	--	--	--	--	--	22	11	12	22	8	--	--	--	--	--	--
25	10	10	10	10	16	11	12	16	--	8	16	9	10	16	--	6.3	22	11	12	22	8	18	7	7.5	18	--	3.9
32	--	16	16	16	--	--	--	--	--	--	16	9	10	16	--	6.3	15	7.1	8	15	5.4	18	7	7.5	18	--	3.9
40	25	25	24	24	12	5.8	6.6	12	--	4.4	14	6	7	14	--	4.3	11	5.1	6	11	3.8	12	4	4.9	12	--	2.5
40R19	--	--	--	--	12	5.8	6.6	12	--	4.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50	40	40	40	40	8	3.6	4.1	8	--	2.7	9	3.8	4	9	--	2.7	6.5	3.2	4	6.5	2.4	8	3	3	8	--	1.6
65	63	63	63	63	5	2.1	2.4	5	--	1.6	3.5	1.5	2	3.5	--	1	4	1.8	2	4	1.4	3	1	1.2	3	--	0.6
80	100	--	110	110	3	1.3	1.5	3	6	--	2	1	1	2	--	--	--	--	--	--	--	2	1	0.8	2	5	--
100	130	--	140	140	2	0.8	0.9	2	4	--	1.5	0.6	1	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
125	200	--	--	--	1	0.5	0.6	1	2	--	--	--	--	--	6	--	--	--	--	--	--	--	--	--	--	--	--
150	300	--	--	--	1	0.3	0.4	1	2	--	--	--	--	--	4	--	--	--	--	--	--	--	--	--	--	--	--

NOTICE: In order to avoid wear between plug and seat, we recommend not to overcome the differential pressure as shown in the following table:
2FGB= 2 bar
2FGA = 6 bar
2FSA = 8 bar
2FAA = 12 bar

Kvs is the flow rate in m3/h of water at a temperature between 5 °C and 40 °C passing through a valve open at nominal stroke with 100 kPa (1 bar) differential pressure.

* **2FGB-2FSA** safety position of MVHA actuator – valve closed, safety position of MVHC actuator – valve open. **2FGA-2FAA** valves safety position of MVHA actuator – valve open, safety position of MVHC actuator – valve closed.

Note: The max operating pressures at different temperatures for various NP classes must correspond to the following standards: UNI 1092-02 and UNI 12516-1.

Actuators technical characteristics, electrical wiring diagram and installation

See actuators data sheets and mounting instructions.

Installation

HYDRAULIC CONNECTIONS

Respect the fluid direction as indicated by the arrow on the valve body or, in case letters are used with inlet in A and outlet AB.

VALVE MOUNTING

Before mounting the valve, make sure pipes are clean, free from welding slags. The pipes must be perfectly aligned with the valve body and not subjected to vibrations. For installations on plants with high temperature fluids (steam, overheated water, diathermic oil) use expansion joints to avoid the dilatation of pipes to stress the valve body. Install the valves with the actuator in vertical position for fluid temperature up to 120°C; with higher temperatures they should be mounted horizontally.

Avoid the valve installation in plants, which are considered aggressive and/or corrosive for valve materials.
Please contact our Sales Support in order to determine which potentially aggressive or polluting substances can be used.
We disclaim all responsibility in case of valve failure due to external fortuitous events (fire, earthquakes etc.).
Notes: The actuator can be rotated with respect to the valve body by blocking the ring nut; after such operation re-tighten the ring nut.

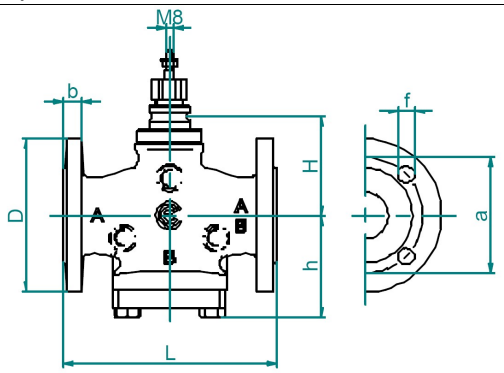
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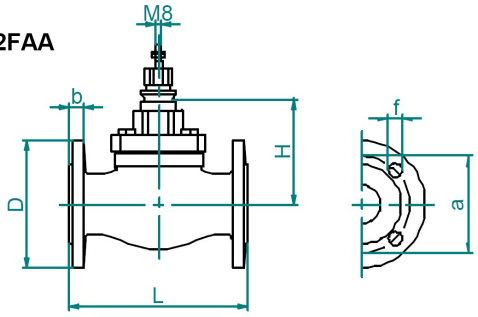
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DIMENSION (mm)

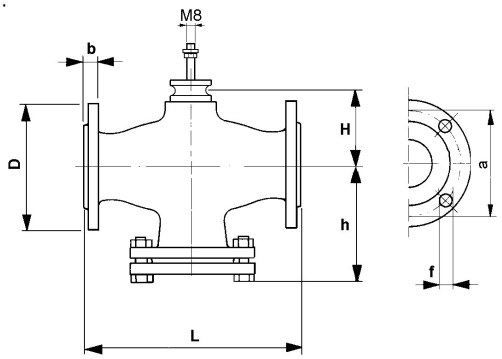
2FGB



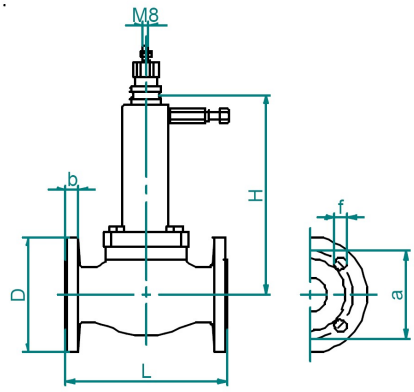
2FGA/2FAA



2FSA



2FA.P



Model	DN	L	H	h	D	b	a	f	Number of holes	Weight [kg]	Stroke [mm]
2FGB PN16	25	160	50	106	115	16	85	14	4	5	16.5
	40	200	64	128	150	18	110	18	4	9.6	25
	50	230	66	145	165	20	125	18	4	13	25
	65	290	84	175	185	20	145	18	4	18	25
	80	310	94	187	200	22	160	18	8	28.6	45
	100	350	105	207	220	22	180	18	8	32	45
	125	400	128	234	250	24	210	18	8	45	45
	150	480	146	277	285	24	240	22	8	60	45
2FGA PN16	15	130	107	—	95	16	65	14	4	3.5	16.5
	20	150	109	—	105	16	75	14	4	4.5	16.5
	25	160	112	—	115	16	85	14	4	5.5	16.5
	32	180	121	—	140	18	100	18	4	8.7	25
	40	200	129	—	150	18	110	18	4	10.3	25
	50	230	137	—	165	20	125	18	4	13.7	25
	65	270	175	—	185	20	145	18	4	19.6	25
	80	310	190	—	200	22	160	18	8	31.7	45
	100	350	215	—	220	24	180	18	8	43.5	45
2FAA PN40	15	130	107	—	95	16	65	14	4	4.1	16.5
	20	150	109	—	105	16	75	14	4	5.1	16.5
	25	160	112	—	115	16	85	14	4	6.1	16.5
	32	180	121	—	140	18	100	18	4	10.1	25
	40	200	152	—	150	18	110	18	4	12.3	25
	50	230	160	—	165	20	125	18	4	17	25
	65	270	175	—	185	20	145	18	8	23.8	25
	80	310	190	—	200	22	160	18	8	32	45
2FSA PN25	25	160	92	83	115	18	85	14	4	6	16.5
	32	180	97	102	140	18	100	18	4	10	25
	40	200	98	104	150	18	110	18	4	11	25
	50	230	107	110	165	20	125	18	4	16	25
	65	270	117	124	185	22	145	18	8	20	25
2FA.P PN40	15	130	178	—	95	16	65	14	4	6.2	16.5
	20	150	180	—	105	18	75	14	4	8.3	16.5
	25	160	183	—	115	18	85	14	4	8.6	16.5
	32	180	269	—	140	18	100	18	4	14.7	25
	40	200	277	—	150	18	110	18	4	15.4	25
	50	230	285	—	165	20	125	18	4	25	25
	65	270	300	—	185	22	145	18	8	29	25
	80	310	315	—	200	24	160	18	8	38	45

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Due to continuous product improvement, specifications are subject to change without notice.

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