

Diaphragm Valve

SISTO-20M

PN 16
DN 10-50/ Rp $\frac{3}{8}$ -2 in.
Stainless Steel

Type Series Booklet



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Type Series Booklet SISTO-20M

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Diaphragm Valves

Diaphragm Valves – No Dead Volume, Soft-seated, Glandless

SISTO-20M



Main applications

- Pressure boosting
- Fire-fighting systems
- Domestic water supply
- Air-conditioning systems
- Cooling circuits
- Rainwater harvesting
- Shipbuilding
- Heat recovery systems
- Hot-water heating systems

Fluids handled

- Service water
- River water, lake water and groundwater
- Drinking water, particularly drinking water installations to DIN 1988
- Other fluids on request.

Operating data

Operating properties

Characteristic	Value
Nominal pressure	PN 16
Nominal size	DN 10 - 50
Nominal size [inch]	Rp 3/8 - 2
Max. permissible pressure [bar]	16
Min. permissible temperature [°C]	≥ -10
Max. permissible temperature [°C]	≤ +90

Body materials

Overview of available materials

Material	Material number	Temperature limit
X2CrNiMo18-14-3	1.4435	-10°C to +90°C

Design details

Design

- Soft-seated shut-off valve in straight-way pattern
- Rising handwheel
- The valves do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, Group II, category 1 (zones 0+20), category 2 (zones 1+21) and category 3 (zones 2+22) to ATEX 2014/34/EU.
- Shut-off and sealing to atmosphere by spiral-supported, completely enclosed diaphragm
- Position indicator with integrated stem protection
- Manufactured and tested to EN 13397
- Marked in accordance with DIN EN 19 (ISO 5209)

Product benefits

- Reliable sealing ensured by one single sealing element (the diaphragm), which provides hermetic sealing to atmosphere and absolutely tight shut-off. The specially enclosed diaphragm ensures long service life and high operating reliability.
- Increased functional reliability of the diaphragm thanks to balanced diaphragm suspension
- Maintenance-free as all moving parts are separated from the fluid by the diaphragm.
- High level of reliability as the thrust bearing minimises the closing torques required.
- Optimised long-term operation as the position indicator with integrated stem protection prevents the ingress of contaminants.
- High level of reliability as the valve hydraulics without dead volume ensure optimum conditions for high-purity fluids.
- Long service life as the diaphragm support increases valve life and extends the pressure limit of the diaphragm.

Certifications

Overview

Label	Effective in:	Comment
	Switzerland	Approved in accordance with Swiss drinking water regulation

Related documents

Information/documents

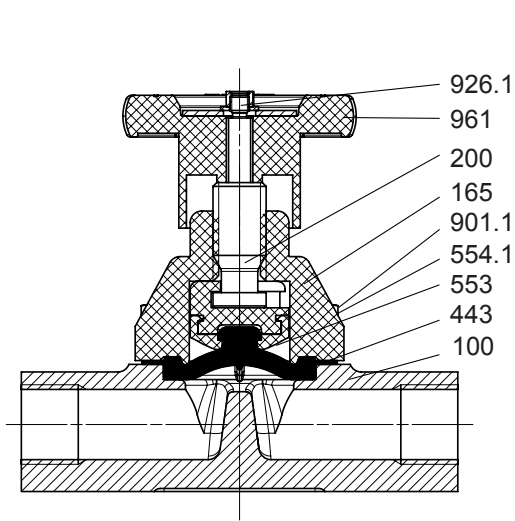
Document	Reference number
Operating manual	0570.82

Purchase order specifications

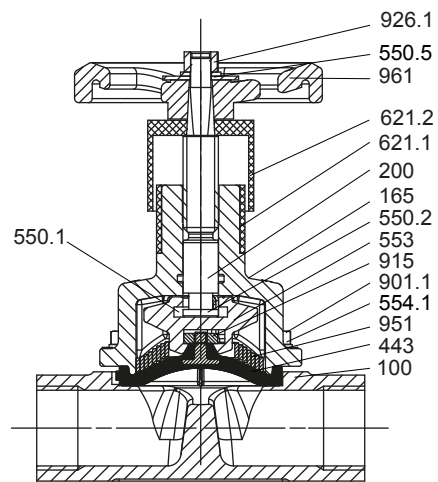
Please specify the following information in all enquiries or purchase orders:

1. Type
2. Nominal pressure
3. Nominal size
4. Operating pressure
5. Differential pressure
6. Operating temperature
7. Fluid handled
8. Pipe connection
9. Variants
10. Number of type series booklet
11. Certificate

Materials of SISTO-20M manually operated valve



DN 10-20
Rp 3/8-3/4 in.



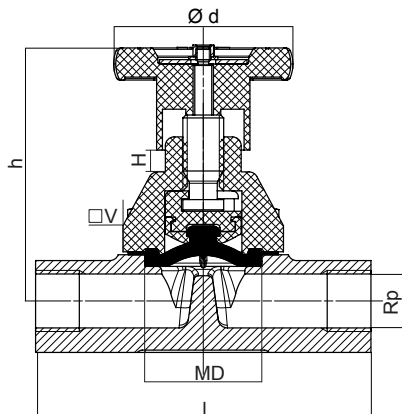
DN 25-50
Rp 1-1/2 in.

Parts list

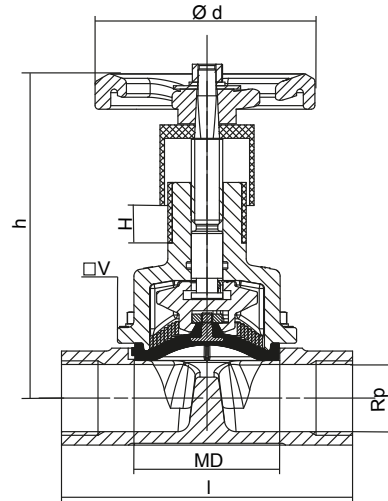
Part No.	Description	Diaphragm diameter 40 DN 10-20 Rp 3/8-3/4 in.		Diaphragm diameter 65 DN 25-32 Rp 1-1/4 in.		Diaphragm diameter 92 DN 40-50 Rp 1-1/2 in.	
		Material		Material		Material	
		Designation	Number	Designation	Number	Designation	Number
100	Body	X2CrNiMo18-14-3	1.4435	X2CrNiMo18-14-3	1.4435	X2CrNiMo18-14-3	1.4435
165	Bonnet	POM	-	EN-GJL-250/ PA-coated.	5.1301	EN-GJL-250/ PA-coated.	5.1301
200	Stem	X14CrMoS17	1.4104	X14CrMoS17	1.4104	X14CrMoS17	1.4104
443 ¹⁾	Diaphragm	EPDM/W270 ²⁾	-	EPDM/W270 ²⁾	-	EPDM/W270 ²⁾	-
550.1	Bearing disc	-	-	-	-	11SMnPb30	1.0718
550.2	PTFE disc	-	-	-	-	PTFE	-
550.5	Identification disc	Aluminium red/ green	-	Aluminium red/ green	-	Aluminium red/ green	-
553	Compressor	PA66-GF30	-	GD-ZnAl4Cu1	-	EN-GJL-250	5.1301
554.1	Washer	A2	-	A2	-	A2	-
621.1	Position indicator, lower part	-	-	ASA Luran	-	ASA Luran	-
621.2	Position indicator, upper part	-	-	ASA Luran	-	ASA Luran	-
901.1	Hexagon head bolt	A2-70	-	A2-70	-	A2-70	-
915	Floating nut	-	-	11SMnPb30	1.0718	11SMnPb30	1.0718
926.1	Prevailing torque nut	A2-70	-	A2-70	-	A2-70	-
951	Support spiral	-	-	St 2K BK	-	St 2K BK	-
961	Handwheel	PC	-	EN-GJL-200	5.1300	EN-GJL-200	5.1300

1) Recommended spare parts
2) In compliance with KTW recommendations for the use of elastomers in drinking water; hygienically safe and tested to DVGW Worksheet W270

Dimensions and weights of SISTO-20M manually operated valve



DN 10-20
Rp 3/8-3/4 in.



DN 25-50
Rp 1-2 in.

Dimensions and weights

DN	Inch	MD [mm] ³⁾	l [mm]	h [mm]	Ø d [mm]	□V [mm]	H [mm]	[kg]
10	3/8	40	115	88	63	55	7	1,2
15	1/2	40	115	88	63	55	7	1,2
20	3/4	40	115	90	63	55	7	1,2
25	1	65	130	148	100	80	13	2,0
32	1 1/4	65	140	153	100	80	13	2,5
40	1 1/2	92	180	194	125	105	22	3,5
50	2	92	190	199	125	105	22	4,0

Mating dimensions as per standard

Pipe threads: DIN EN 10226-1 (ISO 7/1)

3) MD = diaphragm diameter



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