

Diaphragm Valve

SISTO-16RGAMaXX

PN 16
DN 15-80 / Rp ½-3 in.
Stainless Steel

Type Series Booklet



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Type Series Booklet SISTO-16RGAMaXX

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Diaphragm Valves

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

SISTO-16RGAMaXX



Main applications

- Pressure boosting
- Fire-fighting systems
- Domestic water supply
- Air-conditioning systems
- Cooling circuits
- Rainwater harvesting

Fluids handled

- Drinking water up to 90 °C
- Drinking water, particularly drinking water installations to DIN 1988
- Other fluids on request.

Operating data

Table 1: Operating properties

Characteristic	Value
Nominal pressure	PN 16
Nominal size	DN 15 - 80
Nominal size [inch]	Rp ½ - 3
Max. permissible pressure [bar]	16
Min. permissible temperature [°C]	≥ -10
Max. permissible temperature [°C]	≤ +90

Valve body materials

Table 2: Overview of available materials

Material	Material number	Temperature limit
GX2CrNiMo19-11-2	1.4409	≤ 90 °C

Design details

Design

- Soft-seated shut-off valve in straight-way pattern
- Rising handwheel
- 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.
- Balanced diaphragm suspension for increased functional reliability of the diaphragm
- Maintenance-free: All functional parts are located outside the fluid.
- High level of reliability with thrust bearing minimising the closing torques required
- Optimised long-term operation: The position indicator with integrated stem protection prevents the ingress of contaminants.
- High level of reliability: The valve hydraulics without dead volume ensure optimum conditions for high-purity fluids.
- Long service life: The diaphragm support increases valve life and extends the pressure limit of the diaphragm.
- The SISTOMaXX diaphragm material and the body material 1.4409 meet the recommendations of the German Environment Agency (elastomers guideline) and DVGW Worksheet W270.





Product information

Product information as per Regulation No. 1907/2006 (REACH)

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see <https://www.ksb.com/ksb-en/About-KSB/Corporate-responsibility/reach/>.

Certifications

Table 3: Overview

Label	Effective in:
	Germany ¹⁾
	Switzerland ¹⁾
	Belgium
	Denmark ¹⁾

DN	MD ²⁾ [mm]	Kvs value [m ³ /h]
50	92	66,5
65	115	114
80	168	234

Related documents

Table 4: Information/documents

Document	Reference number
Operating manual	0570.821
Engineering information	8638.030

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

Flow coefficients

Table 5: Flow coefficients for unlined valves with threaded socket ends

DN	MD ²⁾ [mm]	Kvs value [m ³ /h]
15	40	7,6
20	40	7,4
25	65	28,3
32	65	29
40	65	28

8638.1/18-EN

¹ SISTO-16RGAMaXX diaphragm valves with threaded sockets DN 15 - 50 are DVGW/SVGW/VA-registered.

² MD = diaphragm diameter

Materials of manually operated valve SISTO-16RGAMaXX

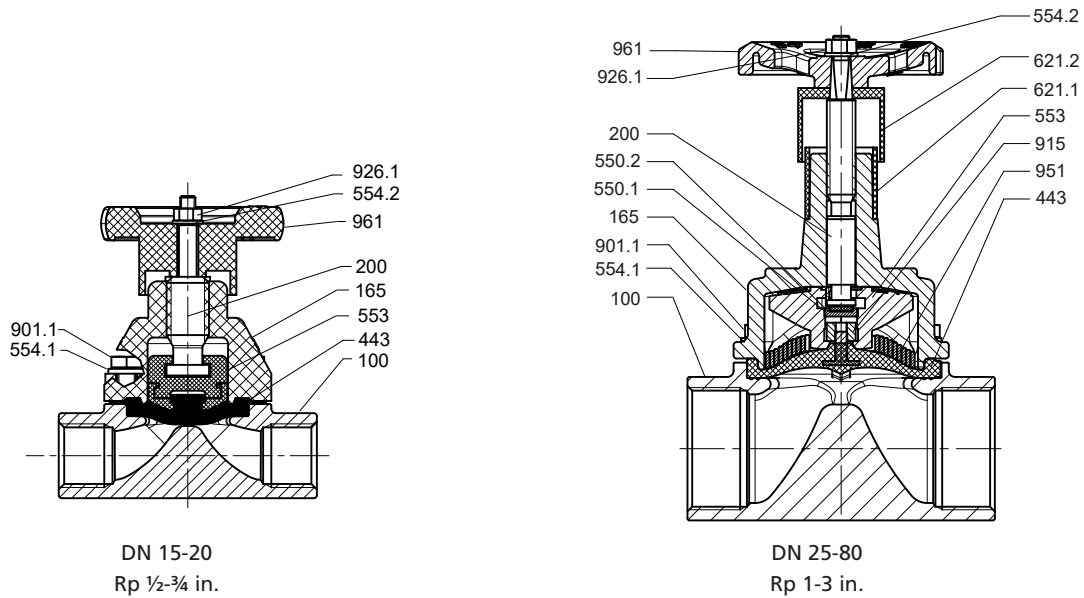


Table 6: Parts list

Part No.	Description	Diaphragm diameter 40 DN 15 - 20 Rp 1/2 - 3/4 in.		Diaphragm diameters 65 - 168 DN 25 - 80 Rp 1 - 3 in.	
		Material		Material	
		Designation	Number	Designation	Number
100	Body	GX2CrNiMo19-11-2	1.4409	GX2CrNiMo19-11-2	1.4409
165	Bonnet	POM	-	EN-GJL-250	5.1301
200	Stem	CuZn39Pb3	CW614N	X14CrMoS17	1.4104
443 ³⁾	Diaphragm	SISTOMaXX (EPDM/W270)	-	SISTOMaXX (EPDM/W270)	-
550.1	Bearing disc	-	-	11SMnPb30 From DN 32 - 80	1.0718
550.2	PTFE disc	-	-	PTFE/graphite From DN 32 - 80	-
553	Compressor	GD-ZnAl4Cu1	-	EN-GJS-400-15 For DN 25 = GD-ZnAl4Cu1	5.3106
554.1	Washer	A2-70	-	A2-70	-
554.2	Washer	A2-70	-	A2-70	-
621.1	Position indicator, lower part	-	-	ASA Luran	-
621.2	Position indicator, upper part	-	-	ASA Luran	-
901.1	Hexagon head bolt	A2-70	-	A2-70	-
915	Floating nut	-	-	11SMnPb30	1.0718
926.1	Prevailing torque nut	A2-70	-	A2-70	-
951	Support spiral	-	-	St 2K BK	-
961	Handwheel	Polycarbonate	-	EN-GJL-200	5.1300

³⁾ Recommended spare parts

Dimensions and weights of SISTO-16RGAMaXX manually operated valve

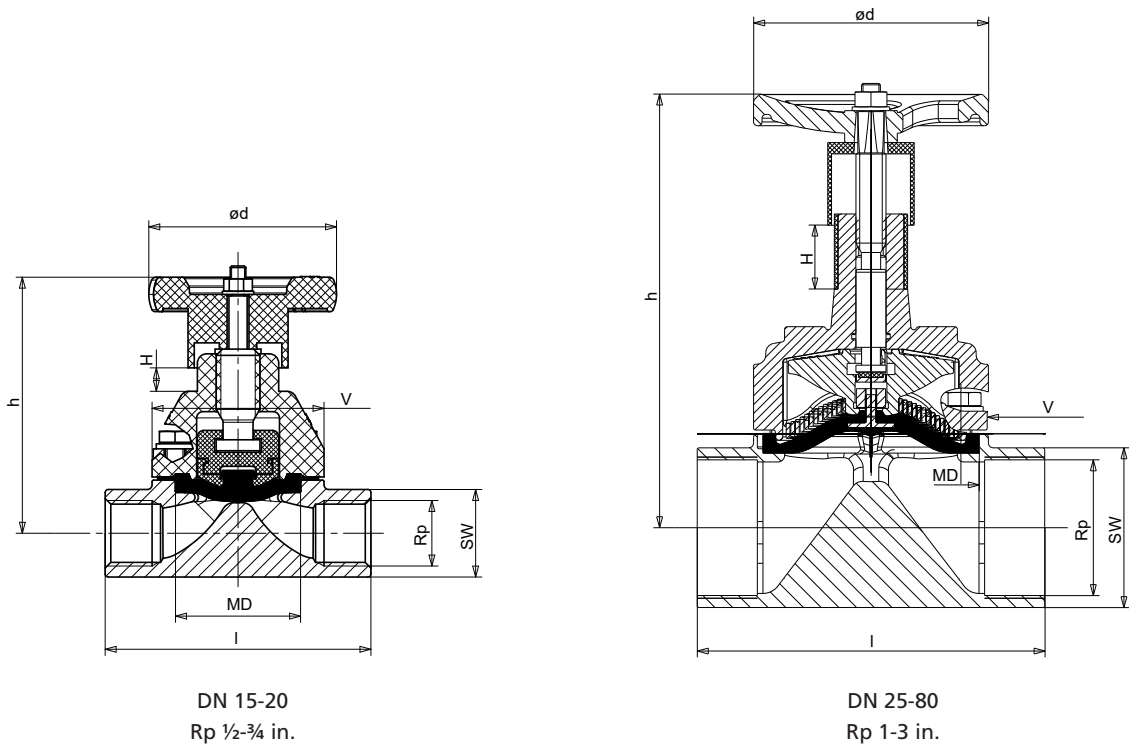


Table 7: Dimensions and weights

DN	MD ⁴⁾ [mm]	[inch]	l [mm]	h [mm]	Ø d [mm]	V [mm]	SW [mm]	H [mm]	[kg]
15	40	1/2	85	87	63	55	28	7	0,5
20	40	3/4	95	90	63	55	34	7	0,6
25	65	1	105	151	100	80	41	13	2,5
32	65	1 1/4	120	154	100	80	50	13	2,5
40	65	1 1/2	130	157	100	80	58	13	3,0
50	92	2	150	201	100	105	70	22	5,0
65	115	2 1/2	185	248	125	125	85	30	8,0
80	168	3	220	329	200	190	100	45	16,5

Mating dimensions as per standard

Pipe threads: DIN EN 10226-1 (ISO 7/1)
Face-to-face length: EN 16722

8638.1/18-EN

⁴ MD = diaphragm diameter



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