***pneumatic*** actuated
diaphragm valve**type SISTO-16/16S/20**with diaphragm actuator
Compact-construction**PN 16**
DN 15- 125**Fields of application / Specifications / Materials / Options**

according to: type series booklet 8635.1 SISTO-16
type series booklet 8635.101 SISTO-16S
type series booklet 8643.1 SISTO-20

Operating data**actuator**

- max. closing force: 13500 N
- operating medium: air pressure (max. +80°C/6 bar)

valve

- operating temperature range from -10°C up to +160°C
- operating pressure range from vacuum up to 16 bar

Design

- soft sealing diaphragm valve with pneumatic diaphragm actuator mounted directly on bonnet: *compact construction*
- O-ring sealed stem
- mechanical travel limitation in closed and opened position
- emergency actuation on spring close actuator (SF)

Inspection

- | | |
|------------------------|--------------|
| certificate - material | EN 10204 2.2 |
| | EN 10204 3.1 |
| - final inspection | EN 10204 3.1 |

Accessories

limit switches, solenoid valve, throttling valve, silencer and valve positioner

actuator function**Standard**

- fail safe - spring closing typ LAD-SF

Options

- fail safe - spring opening typ LAD-ÖF
- pneumatic double acting typ LAD-AZ

On all inquiries / orders please specify**Actuator**

- 1 - type
- 2 - operating pressure P_{St}
- 3 - accessories
- 4 - type series booklet-number

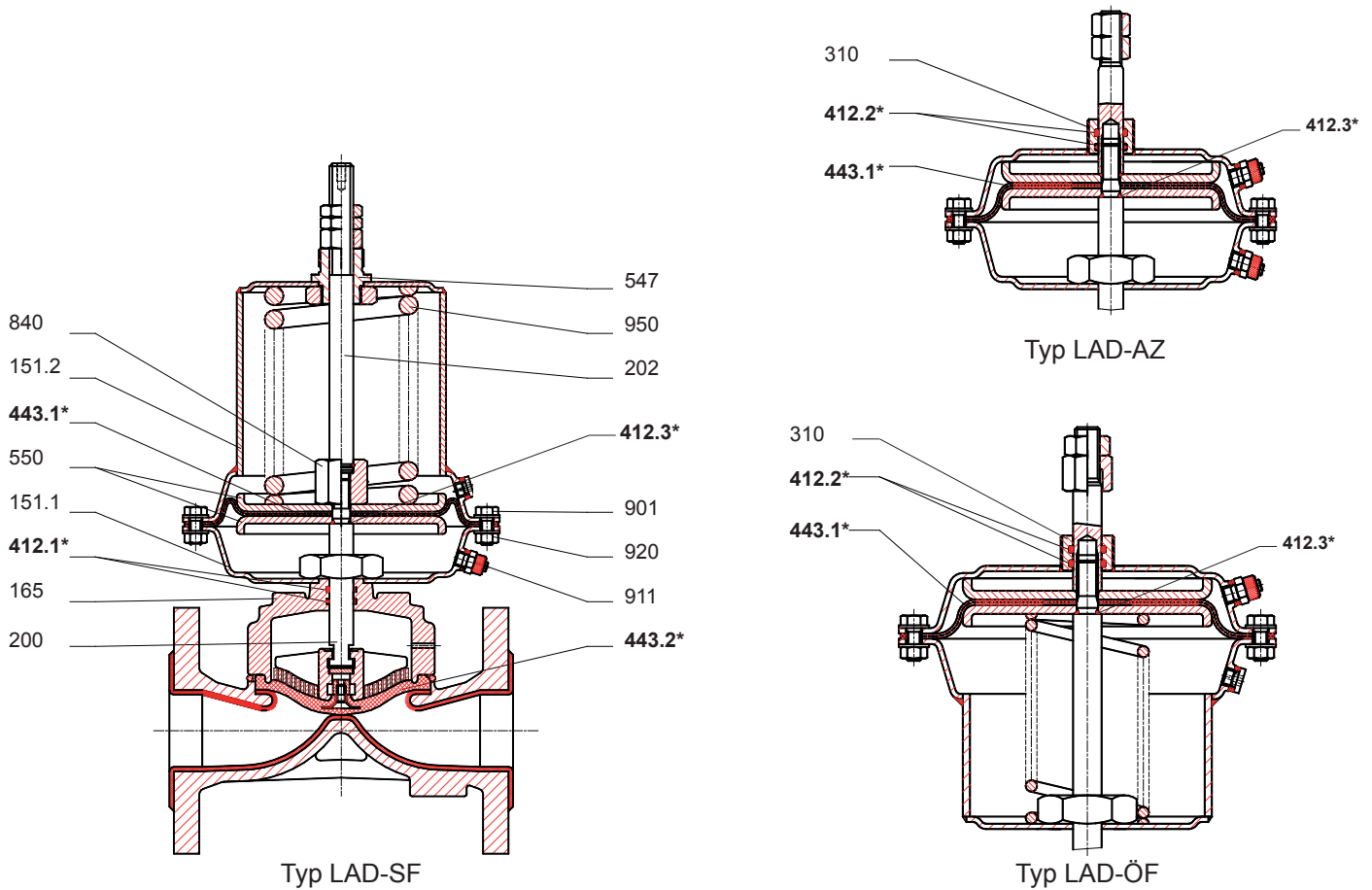
Valve

- 5 - type
- 6 - PN
- 7 - DN
- 8 - working pressure
- 9 - differential pressure
- 10 - working temperature
- 11 - medium
- 12 - pipe connection
- 13 - variants
- 14 - certificate



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Construction



Item no.	Designation	Material	Note
151.1	lower cover	St 37/RN	
151.2	upper cover	St 37/RN	
165	bonnet	JS-1025	
200	slide stem	1.4104	
202	thrust stem	1.4104	
310	slide bush	1.4305	
412.1*	O-ring	NBR	
412.2*	O-ring	NBR	
412.3*	Sealing ring	NBR	
443.1*	actuator diaphragm	NBR	
443.2*	valve diaphragm	EPDM	for options ref. to type series booklet 8635.1/8635.101/8643.1
547	guide bush	SoMs59	
550	diaphragm support	St 37/galvanized	
840	coupling	1.4104	
901	bolt	8.8 A2E	
911	compressed air connection	Ms	for PA-tube 8 x 1
920	hexagon nut	A2-70	
950	spring	spring steel	

*recommended spare part

Operating instructions

0570.821

material limitations

data sheet

8630.165

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SISTO-16/16S/20

table for maximal permissible line pressure in bar

minimal required operating pressure: 4 bar

nom. size	DN 15-25	DN 32/40	DN 50	DN 65/80	DN 100/125	SISTO-16/20
actuator	DN 20-32	DN 40	DN 50/65	DN 80	DN 100/125	SISTO-16S

function: double acting actuators

LAD-AZ-100	16	12	10	x	x	x	x	x	x	x	d1 = 160
LAD-AZ-150	-	16	16	16	11	6	x	x	x	x	d1 = 210
LAD-AZ-220	-	-	-	-	16	15	11	4	6	x	d1 = 290

function: fail safe spring open

LAD-ÖF-100.014	14	10	8	x	x	x	x	x	x	x	d1 = 160
LAD-ÖF-150.102	16	16	16	14	9	5	x	x	x	x	d1 = 210
LAD-ÖF-220.001	-	-	-	16	16	13	10	2	5	x	d1 = 290

function: fail safe spring close

LAD-SF-100.001.5	12	5	6	x	x	x	x	x	x	x	d1 = 160
LAD-SF-150.002	16	16	16	13	8	4	x	x	x	x	d1 = 210
LAD-SF-220.003.7	-	-	-	16	16	10	10	x	3	x	d1 = 290

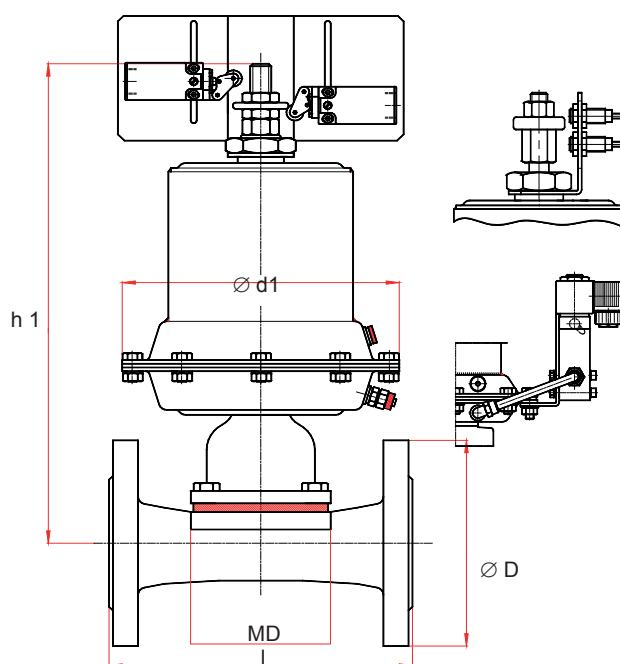
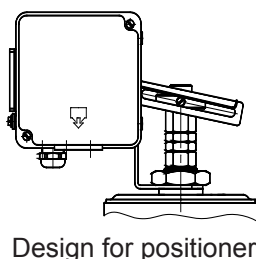
- select a smaller actuator

▒ rubber diaphragm

x select a bigger actuator

□ PTFE-diaphragm

Design for mechanic limit switches



Design for proximity switches

Design for solenoid valve

nom. size DN	diaphragm MD (Ø)		overall length l		flange diameter Ø D	max. height h1**)									weight approx. in kg type LAD-SF		
	S-16/20	S-16S	S-16/20	S-16S		100			150			220			100	150	220
						AZ	ÖF	SF	AZ	ÖF	SF	AZ	ÖF	SF			
015	65	-	130 ¹⁾	-	95	165	225	225	205	275	325	-	-	-	9,5	11,5	-
020	65	65	150 ¹⁾	117 ²⁾	105	165	225	225	205	275	325	-	-	-	10,0	12,0	-
025	65	65	160	127 ²⁾	115	165	225	225	205	275	325	-	-	-	11,0	13,0	-
032	92	65	180	146 ²⁾	140	210	270	270	210	280	330	350	520	520	12,5	14,5	20,5
040	92	92	200	159 ²⁾	150	210	270	270	210	280	330	350	520	520	15,0	17,0	23,0
050	115	115	230	190 ²⁾	165	-	-	-	235	305	355	370	540	540	-	20,5	26,5
065	168	115	290	216 ²⁾	185	-	-	-	-	-	-	430	600	600	-	-	34,0
080	168	168	310	254 ²⁾	200	-	-	-	-	-	-	430	600	600	-	-	40,0
100	202	202	350	305 ²⁾	220	-	-	-	-	-	-	530	700	700	-	-	54,0
125	202	202	400	356 ²⁾	250	-	-	-	-	-	-	530	700	700	-	-	68,0

*) with rubber lining add. 5 mm

**) with limit switches add. 50 mm

1) SISTO 20 - l = 160 mm with lining PTFE

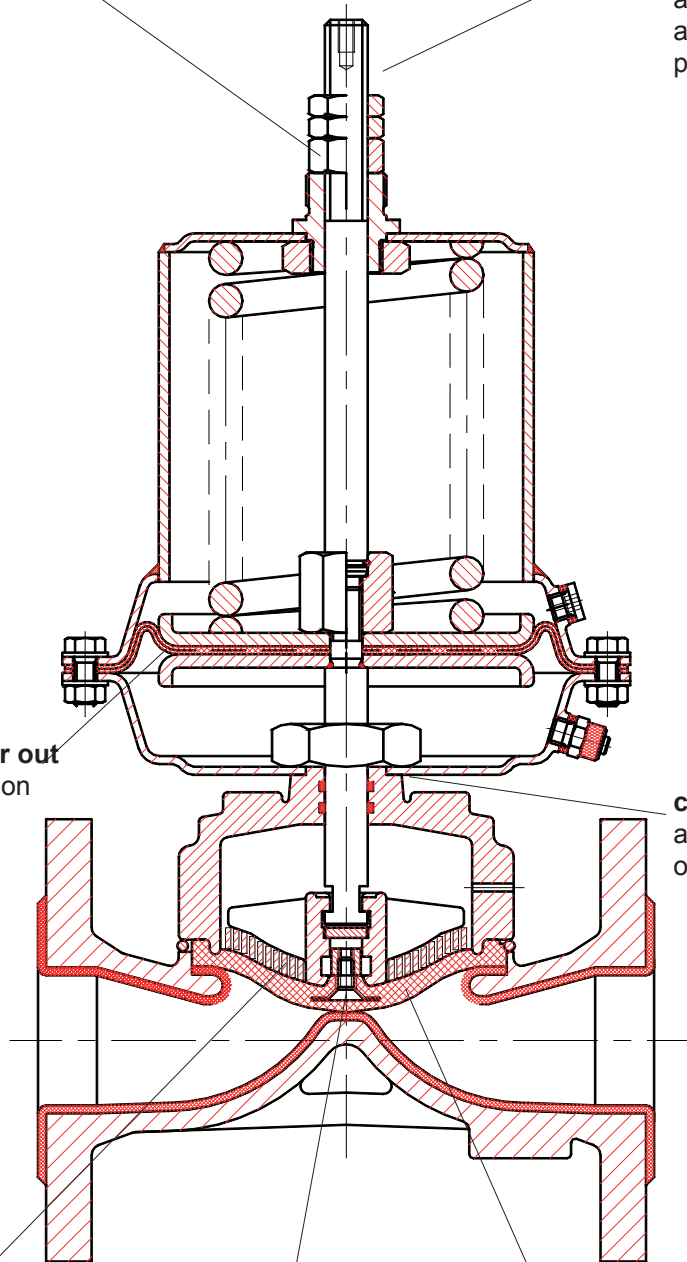
2) l = plus 6 mm with lining NR-H, IIR, PTFE (TFM)

all dimensions in mm

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travel limitation in closed position
increases service life of valve diaphragm

emergency actuation
standard at spring closing
actuator (SF),
actuation possible without air
pressure supply



diaphragm of actuator out of NBR minimizes friction during operation

compact construction
actuator mounted directly on bonnet

diaphragm support
increases the reliability during the operation, the service life and the pressure limit of the diaphragm

balanced diaphragm support
increases life time of diaphragm

enclosed diaphragm
guarantees
- absolute tightness towards the outside
- hermetic sealing of the stem

This document is not contractual and may be amended without notice.

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