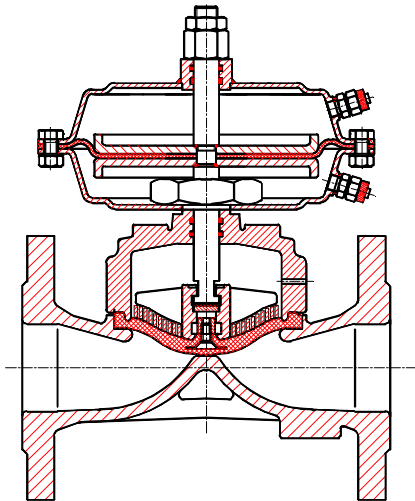




**pneumatic actuated
diaphragm valve**

type SISTO-16/16 S/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-16/16 S
type series booklet 8643.1 SISTO-20

Operating data

actuator

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

valve

- operating temperature range from -30°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 B |
| - final inspection | EN 10204 3.1 B |

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

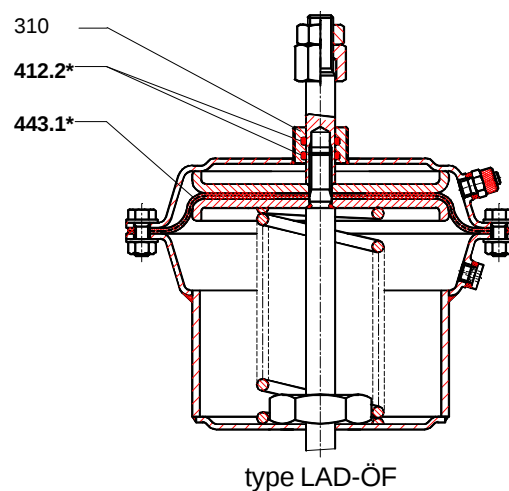
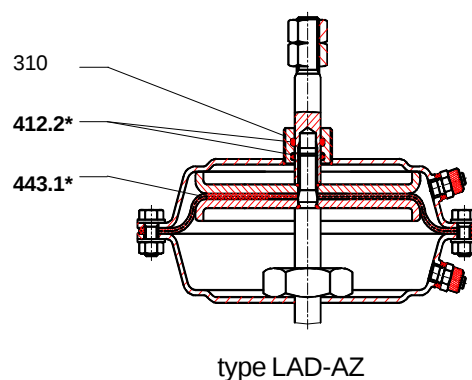
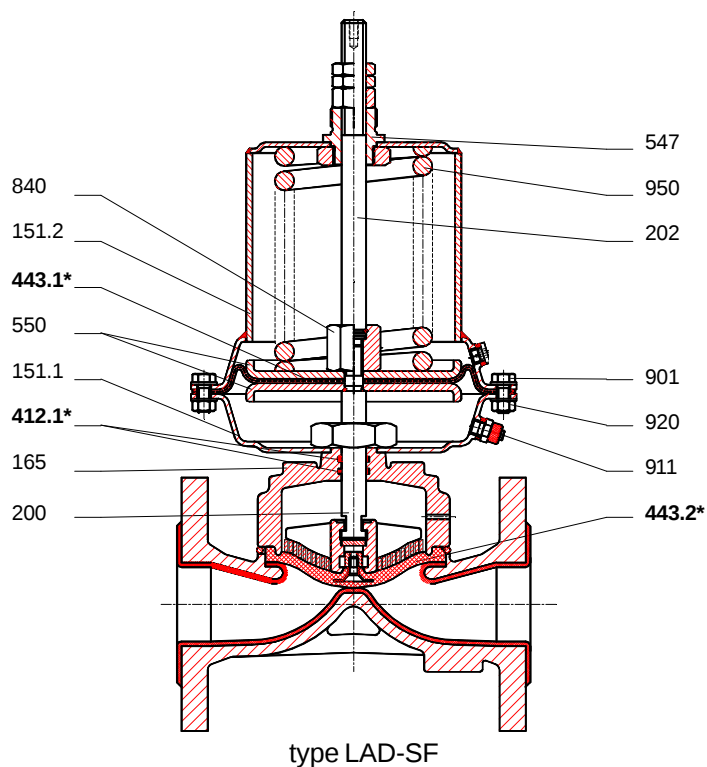
- 1 - type
- 2 - operating pressure P_{st}
- 3 - accessories
- 4 - type series booklet-number

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



Construction



Item no.	Designation	Material	Note
151.1	lower cover	St 37/RN	for options refer to type series booklet 8835.1/8643.1
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	
443.1*	actuator diaphragm	NBR	
443.2*	valve diaphragm	EPDM	
547	guide bush	SoMs59	for PA-tube 8 x 1
550	diaphragm support	St 37/galvanized	
840	coupling	1.4104	
901	bolt	8.8 A2E	
911	compressed air connection	Ms	
920	hexagon nut	A2-70	
950	spring	spring steel	

*recommended replacement part

Operating instructions

0570.821

material limitations

data sheet

8630.165

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-16 S

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

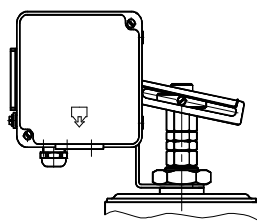
LAD-SF-100.001.5	12	5	6	x	x	x	x	x	x	x	d1 = 160
LAD-SF-150.002	16	16	16	13	8	4	x	x	x	x	d1 = 210
LAD-SF-220.003.7	-	-	-	16	16	10	10	x	3	x	d1 = 290

- select a smaller actuator

■ rubber diaphragm

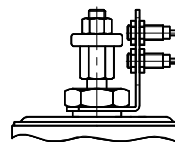
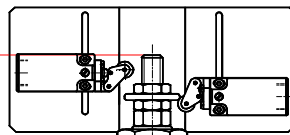
x select a bigger actuator

□ PTFE-diaphragm

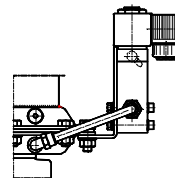


Design for positioner

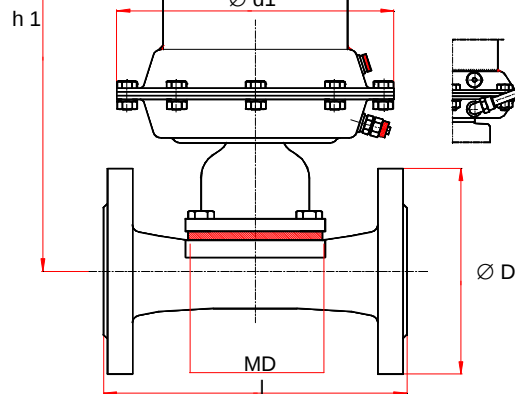
Design for mechanic limit switches



Design for proximity switches



Design for solenoid valve



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

*) with rubber lining add. 5 mm

**) with limit switches add. 50 mm

all dimensions in mm

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

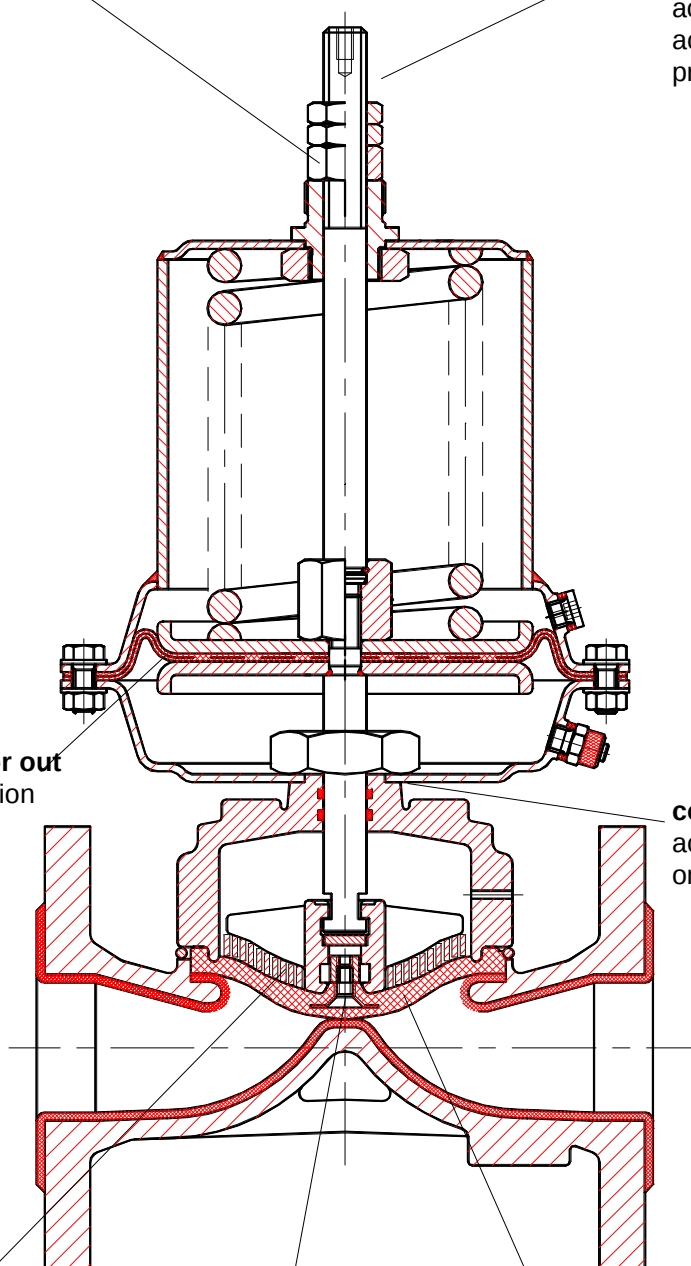
**diaphragm of actuator out
of NBR** minimizes friction
during operation

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.

8635.1 PC/1-10 / 01.09.2003