

***pneumatic* actuated  
diaphragm valves**

**type SISTO-KB/KBS**

**with diaphragm actuator  
*Compact*-construction**

**PN 10  
DN 15- 100**

### Fields of application / Specification / Materials / Variants

according to diaphragm valve:  
SISTO-KB, type series booklet 8651.1  
SISTO-KBS, type series booklet 8651.101

### 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 +140°C
- operating pressure range from vacuum up to 10 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 type LAD-SF

#### Options

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

### On all inquiries / orders please specify

#### actuator

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

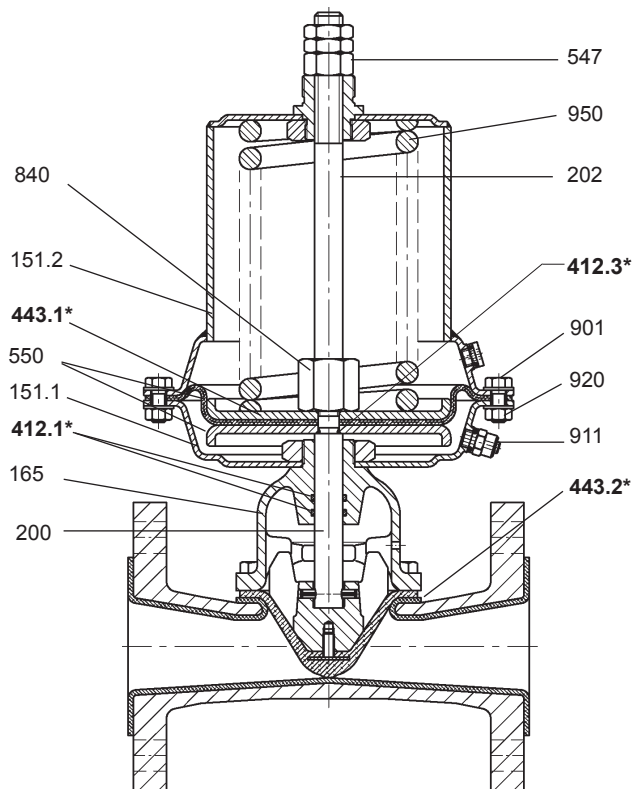
#### valve

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

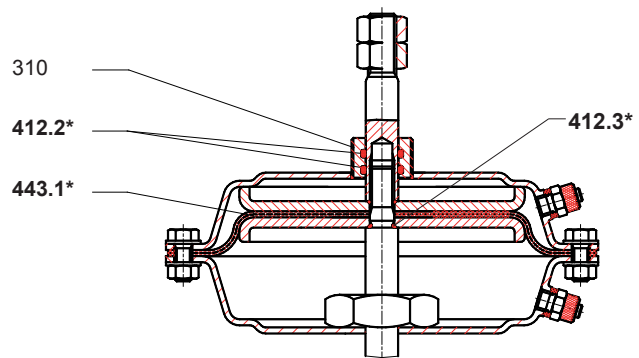


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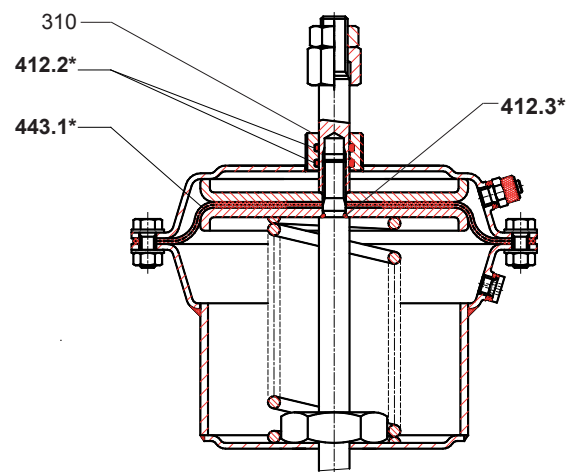
## Construction



Typ LAD-SF



Typ LAD-AZ



Typ LAD-ÖF

Item no.	Designation	Material	Note
151.1	lower pot	St 37/RN	
151.2	upper pot	St 37/RN	
165	bonnet	JS-1025	
200	slide stem	1.4104	
202	thrust stem	1.4104	
310	slide bush	1.4305	
<b>412.1*</b>	<b>sealing ring</b>	<b>NBR</b>	
<b>412.2*</b>	<b>sealing ring</b>	<b>NBR</b>	
<b>412.3*</b>	<b>sealing ring</b>	<b>NBR</b>	
<b>443.1*</b>	<b>diaphragm of actuator</b>	<b>NBR</b>	
<b>443.2*</b>	<b>valve diaphragm</b>	<b>EPDM</b>	
547	fairlead bush	SoMs59	
550	diaphragm support	St 37/galvanized	
840	coupling	1.4104	
901	screw	8.8 A2E	
911	compressed air supply	Ms	for PA-tube 8 x 1
920	hexagon screw	A2-70	
950	spring	spring steel	

variants refer to type series booklet 8651.1/8651.101

### \*recommended spare part

Operating instructions

0570.821

material limitations

data sheet

8630.165

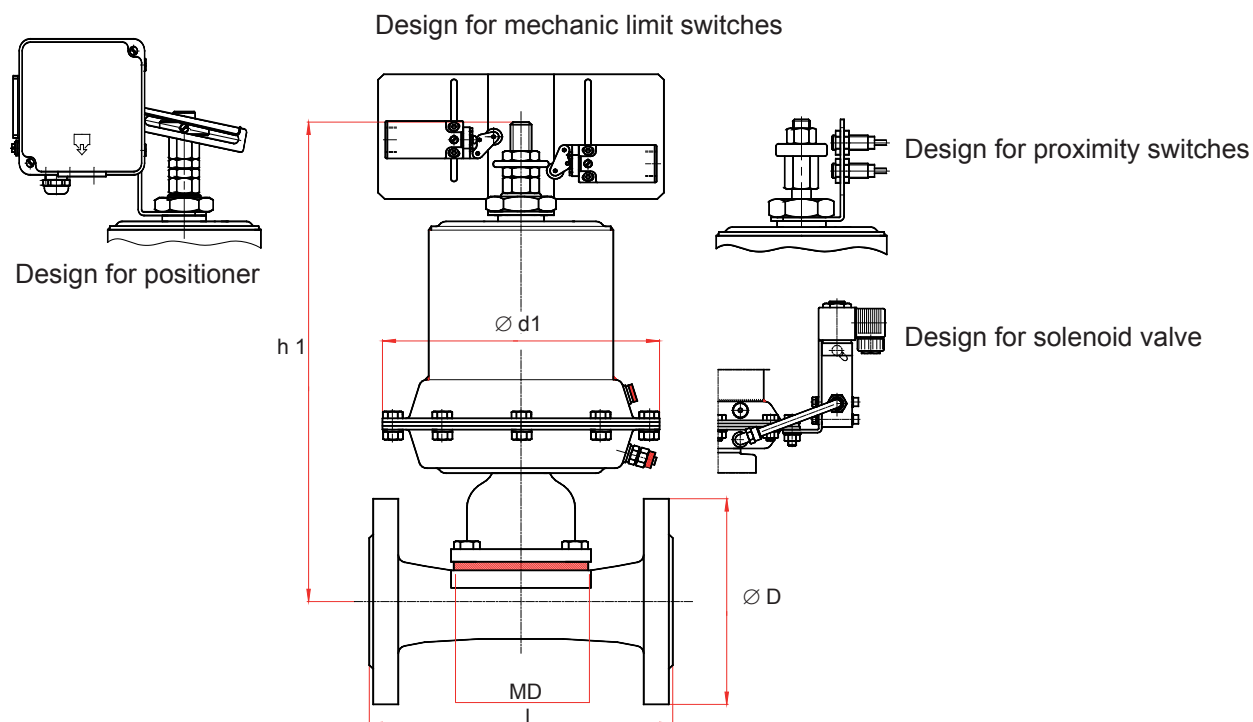
## table for maximal permissible line pressure in bar

minimal required operating pressure: 4 bar

actuator	DN 15/20	DN 25 - 40	DN 50	DN 65	DN 80	DN 100	
function: double acting actuators							
LAD-AZ-100	4	3	x	x	x	x	d1 = 160
LAD-AZ-150	10	10	10	x	x	x	d1 = 210
LAD-AZ-220	-	-	-	10	7	6	d1 = 290
function: fail safe spring open							
LAD-ÖF-100.014	4	2	x	x	x	x	d1 = 160
LAD-ÖF-150.102	10	9	8	x	x	x	d1 = 210
LAD-ÖF-220.001	-	10	10	10	7	5	d1 = 290
function: fail safe spring close							
LAD-SF-100.001.5	3	2	x	x	x	x	d1 = 160
LAD-SF-150.002	10	8	5	x	x	x	d1 = 210
LAD-SF-220.003.7	-	10	10	8	4	2	d1 = 290

- select a smaller actuator

x select a bigger actuator



nom. size	diaphragm MD (Ø/A x B)	overall-length		flange diameter Ø D	max. height h1**)									weight approx. in kg type LAD-SF		
		KB	KBS		100			150			220			100	150	220
DN					AZ	ÖF	SF	AZ	ÖF	SF	AZ	ÖF	SF			
015	70 x 46	130	108 <sup>1)</sup>	95	200	260	260	230	300	350	-	-	-	9,5	11,5	-
020	70 x 46	150	117 <sup>1)</sup>	105	200	260	260	230	300	350	-	-	-	10,0	12,0	-
025	86 x 67	160	127 <sup>1)</sup>	115	220	280	280	250	320	370	370	540	540	11,0	13,0	19,0
032	86 x 67	180	146 <sup>1)</sup>	140	220	280	280	250	320	370	370	540	540	12,5	14,5	20,5
040	86 x 67	200	159 <sup>1)</sup>	150	220	280	280	250	320	370	370	540	540	15,0	17,0	23,0
050	111 x 86	230	190 <sup>1)</sup>	165	-	-	-	260	330	380	380	550	550	-	20,5	26,5
065	136 x 108	290	216 <sup>1)</sup>	185	-	-	-	-	-	-	420	590	590	-	-	34,0
080	169 x 134	310	254 <sup>1)</sup>	200	-	-	-	-	-	-	445	615	615	-	-	40,0
100	Ø 198	350	305 <sup>1)</sup>	220	-	-	-	-	-	-	525	695	695	-	-	54,0

\*) with rubber lining add. 5 mm

\*\*) with limit switches add. 50 mm

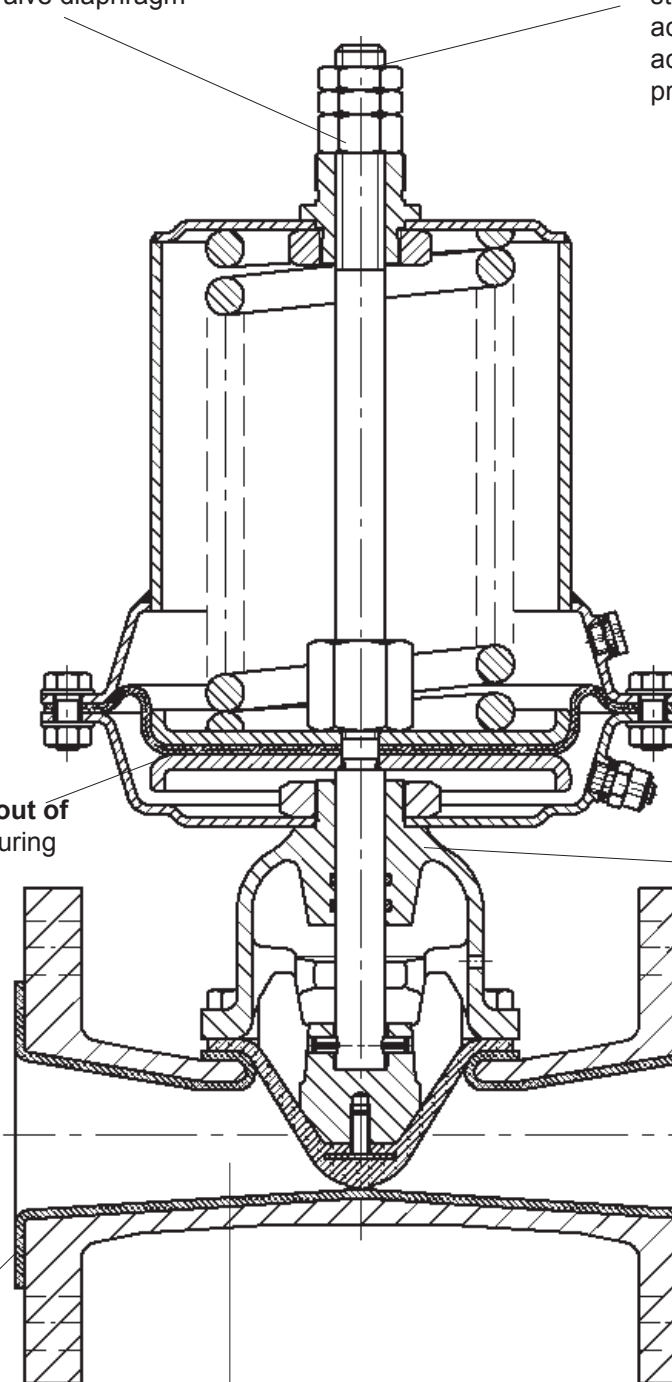
1) with rubber lining add. 6 mm

all dimensions in mm

# SISTOMAT-PC

**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

**body lining** up to the flange area

**hydrodynamic body shape**  
low flow drag,  
no entrapment areas,  
no sediments

**body on request**  
- without lining  
- with rubber lining  
- with plastic coating

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

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