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Čerpadla ▪ Armatury ▪ Servis

SISTO-KB

Membránový ventil s přímým průchodem

SISTO

Aplikace

- Potravinářský a nápojový průmysl
- Průmysl, zařízení budov a elektrárny
- Chemické a procesní inženýrství
- Provozní voda
- Vzduch
- Olej
- Technické plyny
- Abrazivní a agresivní kapaliny

Více informací:
www.regom.cz

SISTO-KB s pneumatickým pohonem

Váš kontakt:

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SISTO-KB

Membránový ventil s přímým průchodem

1 Optimalizovaný dlouhodobý provoz
Indikátor polohy s integrovanou ochranou vřetena zabraňuje vniknutí nečistot

2 Provozní spolehlivost
Vřeteno a všechny vnitřní ovládací prvky ventilu nejsou v kontaktu s médiem

3 Snadné ovládání
Axiální ložisko minimalizuje uzavírací momenty

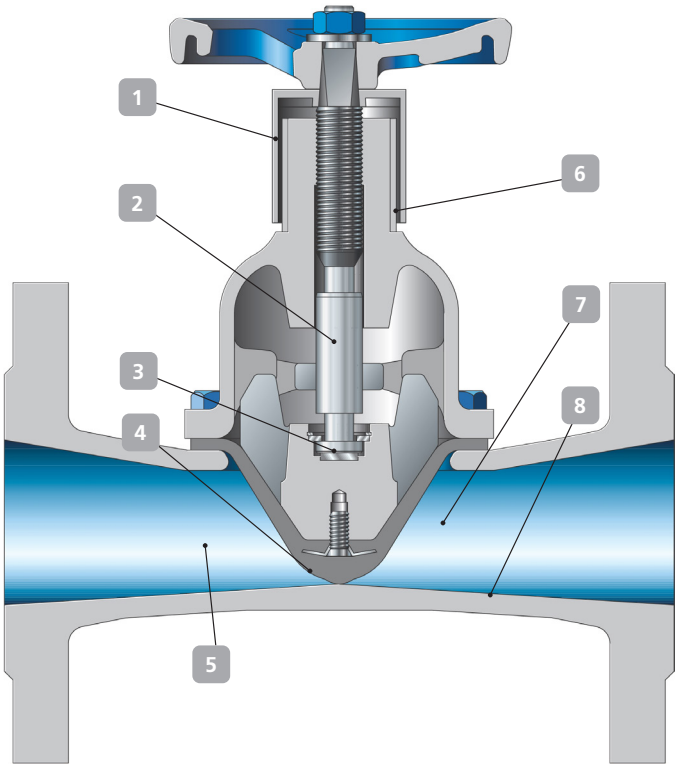
4 Dokonalá těsnost vůči průchodu média a atmosféře
Membrána zajišťuje hermetické utěsnění vůči atmosféře, průtoku média a všem ovládacím prvkům

5 Medium contamination control
Bez mrtvých zón -> Žádná kontaminace média
(Konstrukce těla ventilu bez mrtvých prostorů zajišťuje dohled nad kontaminací a zabraňuje usazeninám)

6 Rychlé určení polohy ventilu
Polohu ventilu lze snadno identifikovat pomocí jasného vizuálního indikátoru, který je viditelný z dálky

7 Nízká tlaková ztráta
Aerodynamická konstrukce ventilu s přímým průchodem

8 Vysoká odolnost proti korozi a abrazi
Vysoce kvalitní povlaky poskytují bezpečnost a dlouhou životnost



Materiály:

Tělo	Šedá litina, tvárná litina, nerezová ocel 1.4409*
Víko / horní díl ventilu	Odlitek, plast
Membrána	EPDM, IIR, CSM, NBR

Technické údaje

Rozměry	15-200
Max. jmenovitý tlak	10 bar
Teplotní rozsah	-20 až do +140 °C

* pro DN50, DN80, DN100, DN150

KSB

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regom instruments
WWW.REGOM.CZ

Diaphragm Valve

SISTO-KB

PN 10
DN 15-200

Type Series Booklet

Legal information/Copyright

Type Series Booklet SISTO-16

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Diaphragm Valves

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

SISTO-KB

Main applications

- Mining
- Chemical industry
- Drainage
- Drainage systems
- Descaling units
- Solids transport
- Industrial recirculation systems
- Waste water treatment plants
- Condensate transport
- Paint shops
- Pulp and paper industry
- Refineries
- Flue gas desulphurisation
- Sludge disposal
- Sludge processing
- Process engineering
- Water treatment

Fluids handled

- Abrasive fluids
- Waste water with faeces
- Waste water without faeces
- Aggressive fluids
- Inorganic fluids
- Activated sludge
- Brackish water
- Service water
- Distillate
- Digested sludge
- Solids-laden fluids
- Solids (ore, sand, gravel, ash)
- River water, lake water and groundwater
- Toxic fluids
- Corrosive fluids
- Cooling water
- Volatile fluids
- Solvents
- Seawater
- Fluids containing mineral oils
- Organic fluids
- Polymerising/crystallising fluids
- Raw sludge
- Lubricants
- Waste water
- Brine
- Dipping paints
- Other fluids on request.

Operating data

Operating properties

Characteristic	Value
Nominal pressure	PN 10
Nominal size	DN 15 - 200
Max. permissible pressure [bar]	10
Min. permissible temperature [°C][1)]	≥ -20
Max. permissible temperature [°C][1)]	≤ +140

SISTO-LAD diaphragm actuator

- Max. permissible control medium temperature: 80 °C
- Permissible control pressure: 4 - 6 bar

SISTO-LAP piston actuator

- Max. permissible control medium temperature: 80 °C

Permissible control pressure

Piston diameter	Actuator flange DIN ISO 5210 / DIN 3358	Permissible control pressure $P_{ctr.\ perm.}$
[mm]		[bar]
80 - 250	F10	5,5 - 10
250	F14	5,5 - 10
300	F10	5,5 - 7

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1 The temperatures indicated are for orientation only; they are not valid for all operating conditions.

Piston diameter	Actuator flange DIN ISO 5210 / DIN 3358	Permissible control pressure $P_{ctr.\ perm.}$
[mm]		[bar]
300	F14	5,5 - 10
D250[2)]	F14	5,5 - 10
D300[2)]	F14	5,5 - 7

Pneumatic actuators from SISTO are suitable for compressed air of purity class 5:4:4 in accordance with ISO 8573-1. If there is a risk of frost, purity class 5:3:4 must be applied to prevent damage caused by icing.

Valve body materials

Overview of available materials

Material	Material number	ASTM[3)]	Temperature limit
EN-GJL-250 (GG25)	5.1301	A48 Class 35 (UNS F12401)	-10 °C to +140 °C
EN-GJS-400-18-LT (GGG40.3)	5.3103	A536 Gr. 60-40-18	-20 °C to +140 °C
GX5CrNiMo19-11-2	1.4408[4)]	A 351 Gr. CF8M (UNS J92900)	-20 °C to +140 °C

Design details

Design

- Soft-seated shut-off valve in straight-way pattern
- Shut-off and sealing to atmosphere by diaphragm
- Position indicator with integrated stem protection
- Manufactured and tested to EN 13397
- Marked in accordance with DIN EN 19 (ISO 5209)

Variants

- Actuator (electric or pneumatic)
- Body lined with IIR (butyl), temperature limit: +120 °C
- Body lined with NRH (hard rubber), temperature limit: +100 °C
- Body coated with ECTFE (Halar), temperature limit: +90 °C
- Body coated with PA (Rilsan), temperature limit: +60 °C
- Chain wheel
- Diaphragm made of CSM, temperature limit: +100 °C
- Diaphragm made of EPDM, temperature limit: +140 °C
- Diaphragm made of IIR, temperature limit: +120 °C
- Diaphragm made of NBR, temperature limit: +90 °C
- Stem extension
- Certification to customer specification

Actuators

SISTO-LAD diaphragm actuator

- Sliding stem sealed by O-rings
- Mechanical travel stops in the actuator for closed position and open position
- Manual override available as standard for spring-to-close design

Actuator function

- Actuator type LAD-AZ
  - Air-to-open
  - Air-to-close
- Actuator type LAD-OF
  - Spring-to-open
  - Air-to-close
- Actuator type LAD-SF
  - Air-to-open
  - Spring-to-close

SISTO-LAP piston actuator

- Double-acting piston, piston rod extending from one end only, with or without spring
- Piston rod sealed by U-ring and scraper ring
- Piston with double cup seal and vulcanised metal disc
- Mechanical travel stops in the actuator for closed position and open position
- Flanges to DIN ISO 5210/DIN 3358
- Piston diameters 80 to 300 = F10
- Piston diameters 250 to 300 = F14

Actuator function

- Actuator type LAP-AZ
  - Air-to-open
  - Air-to-close
- Actuator type LAP-OF
  - Spring-to-open
  - Air-to-close
- Actuator type LAP-SF
  - Air-to-open
  - Spring-to-close

Electric actuator

- Multi-turn actuator
- Linear actuator

2 Double piston
3 ASTM materials similar to the materials indicated
4 DN 50, DN 80, DN 100 only

Product benefits

- **Reliable sealing to atmosphere and absolutely tight shut-off**
  The diaphragm provides absolutely tight shut-off as well as hermetic sealing to atmosphere and of all operating elements.
- **Low flow resistance coefficient**
  Streamlined straight-through type body design
- **Excellent resistance to corrosion and abrasion**
  High-quality linings offer reliability and a long service life.
- **Smooth actuation**
  The thrust bearing minimises the closing torques.
- **Optimised long-term operation**
  The stem protection integrated in the position indicator prevents ingress of contaminants.
- **Fluid purity**
  Valve hydraulics without dead volume ensure optimum conditions for high-purity fluids and protection against deposits.
- **Quick identification of valve position**
  The valve's position can be easily identified via a clear visual indicator, also visible from a distance.
- **Reliable operation**
  The stem and all internal operating elements are **not** in contact with the fluid.

Product information

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

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see http://www.ksb.com/reach.

Product information as per Pressure Equipment Directive 2014/68/EU (PED)

The valves satisfy the safety requirements of Annex I of the European Pressure Equipment Directive 2014/68/EU (PED) for fluids in Groups 1 and 2.

Product information as per Directive 2014/34/EU (ATEX)

Valves without electrical components 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. Components such as electric actuators, position switches, block terminals, solenoid valves, etc. may in certain circumstances be covered by Article 1 of Directive 2014/34/EU. They must be subjected to a conformity assessment procedure and separate evidence of compliance must be provided (e.g. EC Declaration of Conformity or manufacturer's declaration).

Related documents

Information/documents

Document	Reference number
Operating manual	0570.821
Type series booklet SISTO-LAD (diaphragm actuator)	9211.1
Type series booklet SISTO-LAP (piston actuator)	9210.1

Purchase order specifications

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

Valve

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

Actuator

1. Type
2. Control pressure P_{ctr}
3. Accessories

Flow coefficients

Flow coefficients for unlined valves

DN	Kvs value [m^3/h]	DN	Kvs value [m^3/h]
15	7,2	65	205,0
20	12,2	80	284,0
25	32,0	100	504,0
32	45,0	125	792,0
40	64,0	150	1440,0
50	108,0	200	2210,0

Pressure/temperature ratings

Permissible operating pressure [bar]

PN	Material	Material number	DN	[°C]			
				-20	-10 to +60	+100	+140
10	EN-GJL-250	5.1301	15-100	-	10	8	6
			125-150	-	6	4,5	3
			200	-	3	2,5	2
	EN-GJS-400-18-LT	5.3103	15-100	10	10	8	6
			125-150	6	6	4,5	3
			200	3	3	2,5	2
	GX5CrNiMo19-11-2	1.4408	50-100	10	10	8	6

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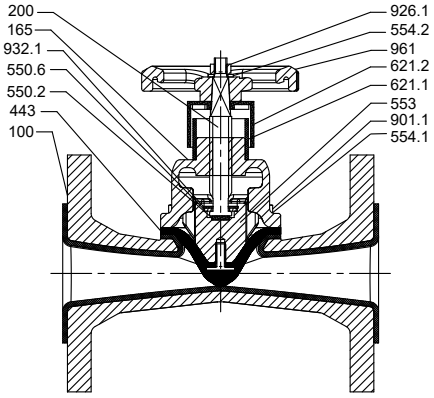
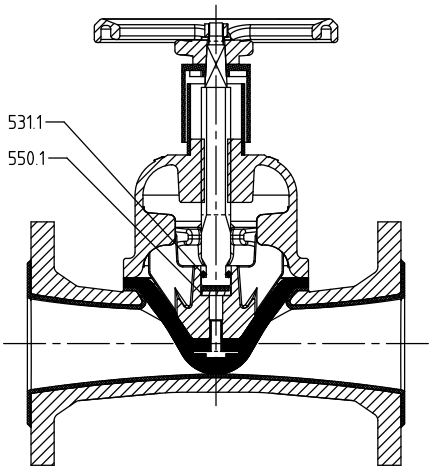
Materials

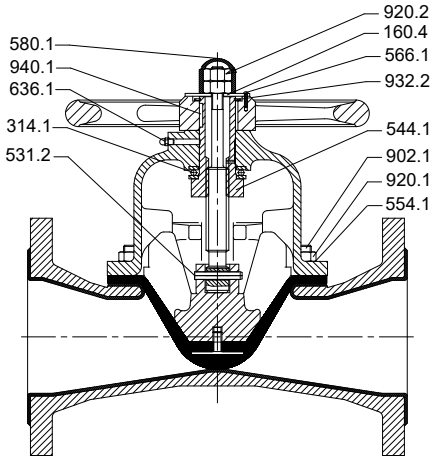
Materials of SISTO-KB manually operated valve



DN 15-40 design



DN 50-100 design



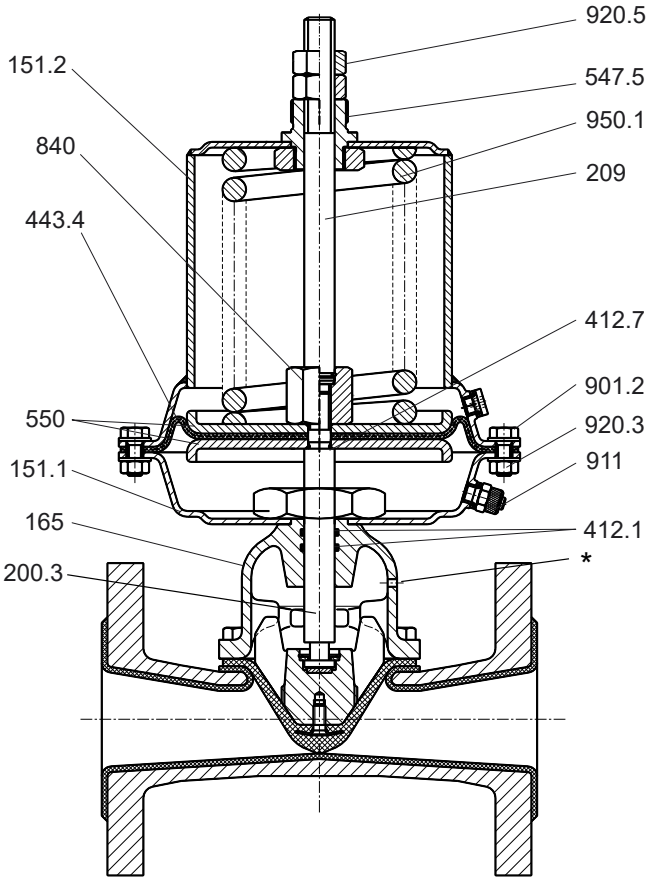
DN 125-200 design

Parts list

Part No.	Description	Material	Material number	Note
100	Body	EN-GJL-250	5.1301	-
160.4	Handwheel cover	EN-GJL-200	5.1300	For DN 125-200
165	Bonnet	EN-GJL-250	5.1301	-
200	Stem	X14CrMoS17	1.4104	-
314.1	Thrust bearing	Steel	-	For DN 125-200
443[5)]	Diaphragm	EPDM	-	-
531.1	Locking sleeve	Spring steel	-	For DN 50-100
531.2	Locking sleeve	Spring steel	-	For DN 125-200
544.1	Threaded bush	EN-GJS-400-18-C	5.3126	For DN 125-200
550.1	Bearing disc	Steel	-	For DN 50-100
550.2	PTFE disc	PTFE/graphite	-	For DN 15-100
550.6	Segmental disc	A2	-	For DN 15-40
553	Compressor	EN-GJL-250	5.1301	DN 15-20 = 5.3106
554.1	Washer	A2	-	For bodies with PA or ECTFE coating
554.2	Washer	A2	-	For DN 15-100
566.1	Half round head grooved pin	4.6	-	For DN 125-200
580.1	Cap	PE	-	For DN 125-200
621.1	Position indicator, lower part	ASA Luran	-	For DN 25-100
621.2	Position indicator, upper part	ASA Luran	-	For DN 15-100
636.1	Lubricating nipple	Steel	-	For DN 125-200
901.1	Hexagon head bolt	A2-70	-	For DN 15-80
902.1	Stud	A2-70	-	For DN 100-200
920.1	Nut	A2	-	For DN 100-200
920.2	Nut	A2	-	For DN 100-200
926.1	Prevailing torque nut	A2-70	-	For DN 15-100
932.1	Circlip	Spring steel	-	For DN 15-40
932.2	Circlip	Spring steel	-	For DN 125-200
940.1	Key	St50K	-	For DN 125-200
961	Handwheel	EN-GJL-200	5.1300	DN 15-20: PC

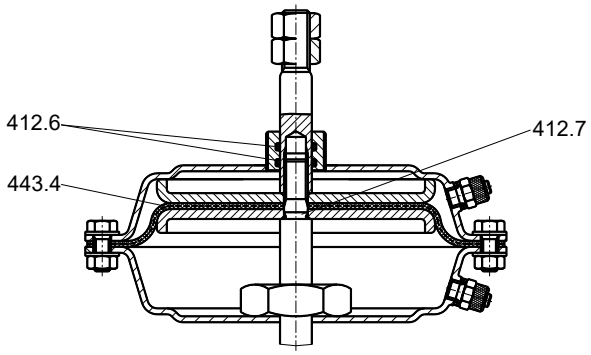
5 Recommended spare parts

Materials of SISTO-LAD diaphragm actuator

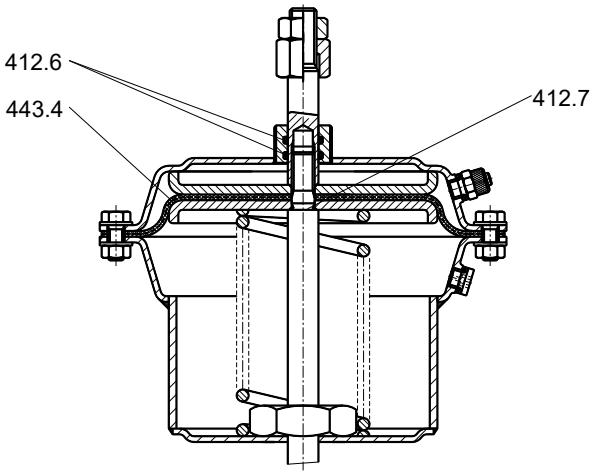


LAD-SF type

* = shown offset by 90°



LAD-AZ type



LAD-OF type

Parts list

Part No.	Description	Material	Material number	Note
151.1	Lower housing section	St 37/RN	-	-
151.2	Upper housing section	St 37/RN	-	-
165	Bonnet	EN-GJS-400-18-LT	5.3103	-
200.3	Stem	X14CrMoS17	1.4104	-
209	Piston rod	X14CrMoS17	1.4104	-
412.1[6)]	O-ring	NBR	-	-
412.6[6) 7)]	O-ring	NBR	-	-
412.7[6) 7)]	O-ring	NBR	-	-
443.4[6)]	Actuator diaphragm	NBR	-	-
547.5	Guide bush	SoMs59	-	-
550[7)]	Diaphragm plate	St 37/galvanised	-	-
840	Coupling	X14CrMoS17	1.4104	-
901.2	Hexagon head bolt	8.8 A2E	-	-
911	Compressed air port	Brass	-	For 8 x 1 PA hose
920.3	Nut	A2	-	-
920.5	Nut	A2	-	-
950.1	Spring	Spring steel	-	-

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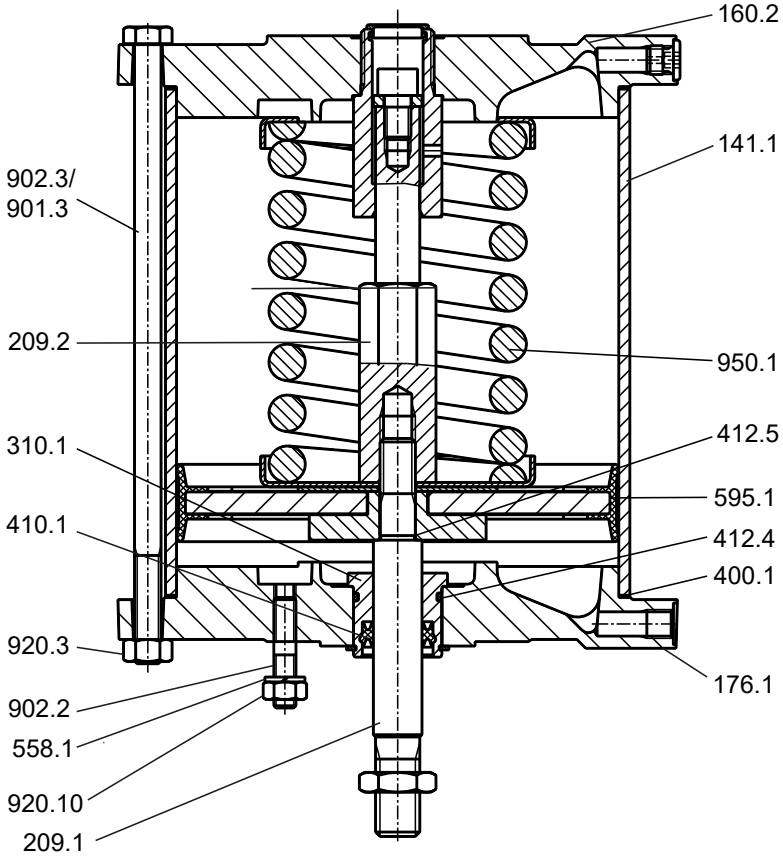
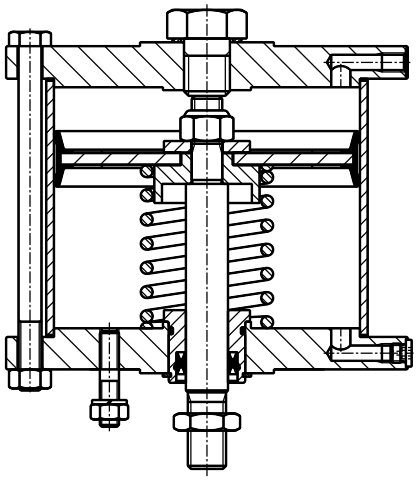
6 Recommended spare parts
7 We recommend having these parts replaced in our factory.

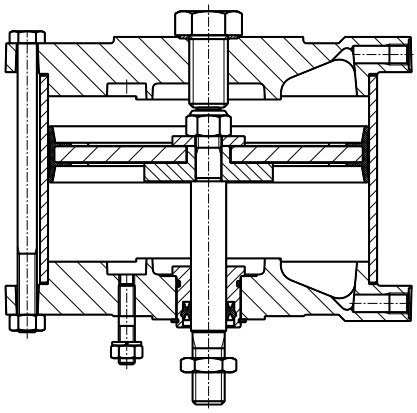
Materials of SISTO-LAP piston actuator



LAP-SF type



LAP-OF type



LAP-AZ type

Parts list

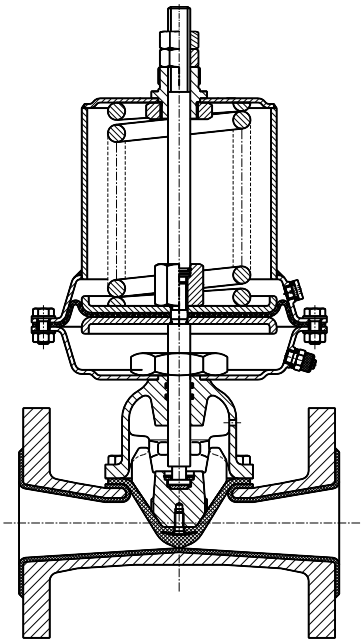
Part No.	Description	Material	Material number	Piston diameter [mm]
141.1	Cylinder	AlMgSi	3.3206	80 - 300
160.2	Top end cap	AlCu4PbMgMn AlSi7Mg0.3	3.1645 3.2371	80 - 160 200 - 300
176.1	Bottom end cap	AlCu4PbMgMn AlSi7Mg0.3	3.1645 3.2371	80 - 160 200 - 300
209.1	Lower piston rod	Stainless steel - X14CrMoS17	1.4104	80 - 300
209.2	Upper piston rod	Stainless steel - X14CrMoS17	1.4104	80 - 300
310.1[8) 9)]	Plain bearing	Plastic – POM	-	80 - 300
400.1[8) 9)]	Gasket	Plastic – AFM 30	-	80 - 300
410.1[8) 9)]	Seal/wiper set	Plastic – L96-SFR/NBR	-	80 - 300
412.4[8) 9)]	O-ring	NBR	-	-
412.5[8) 9)]	O-ring	NBR	-	-
558.1	Lock washer	A2	-	-
595.1[8) 9)]	Piston assembly	Steel/acrylonitrile butadiene rubber – St/NBR	-	80 - 300
901.3	Hexagon head bolt	8.8 A2E	-	-
902.2	Stud	8.8 A2E	-	-
902.3	Stud	A2-70	-	-

8 Recommended spare parts (= complete set of sealing elements)
9 We recommend having these parts replaced in our factory.

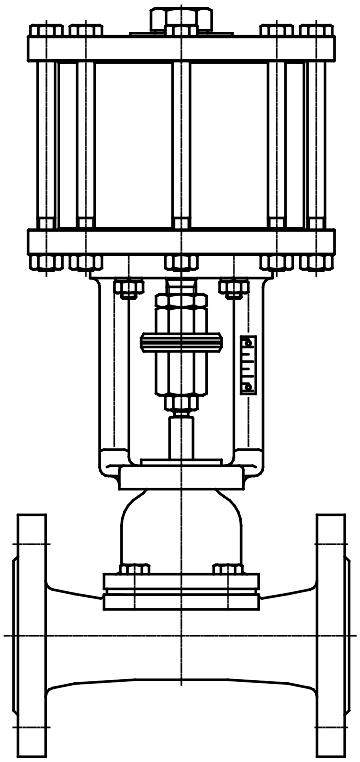
Part No.	Description	Material	Material number	Piston diameter [mm]
920.3	Nut	A2	-	-
920.10	Nut	A2	-	-
950.1	Spring	Spring steel	-	80 - 300

Variants

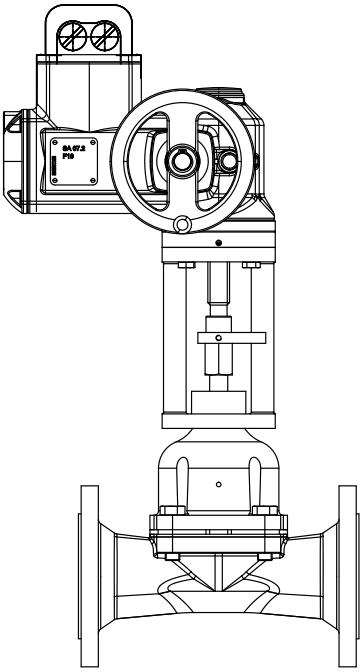
Variant illustrations of SISTO-KB manually operated valve



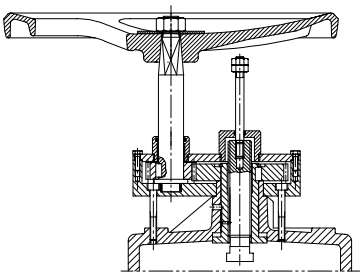
With SISTO-LAD



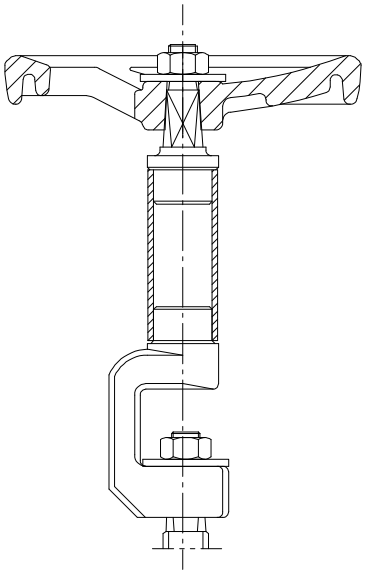
With SISTO-LAP



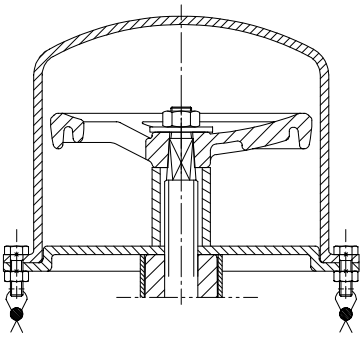
With electric actuator



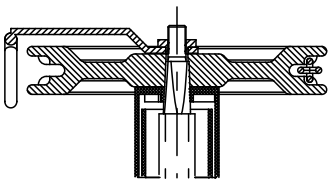
Gearbox



Stem extension

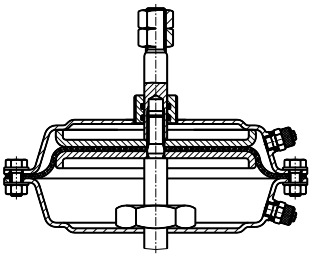


Lead-sealable cap

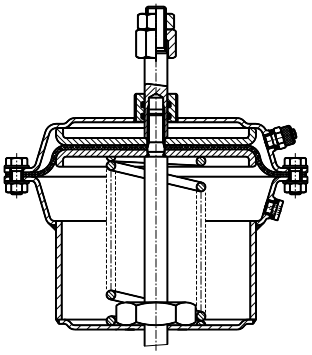


Chain wheel

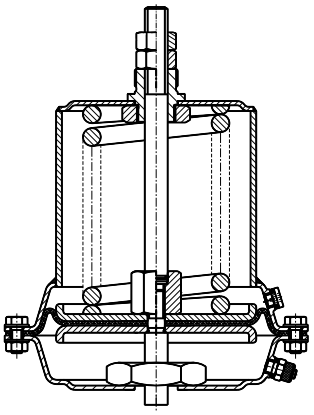
Variant illustrations of SISTO-LAD diaphragm actuator and accessories



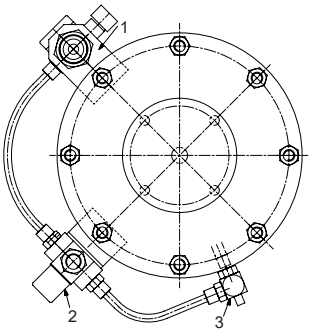
LAD-AZ type



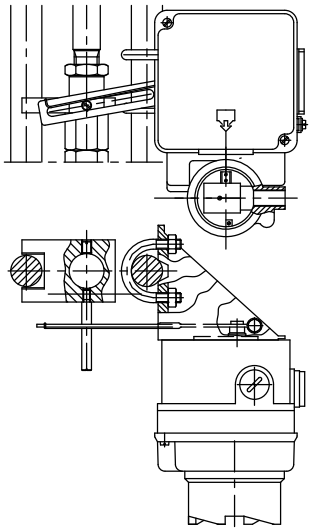
LAD-OF type



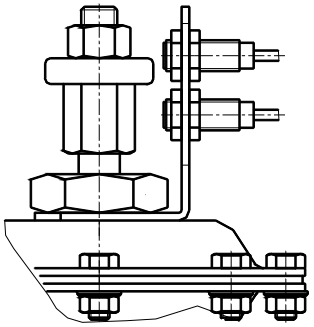
LAD-SF type



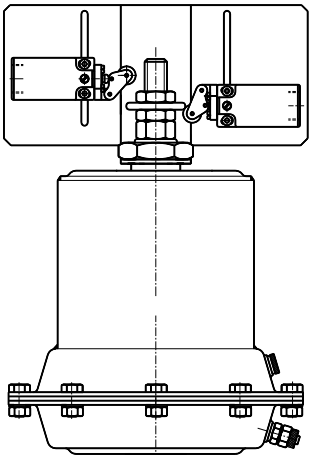
1) Filter/pressure reducer
2) Solenoid valve
3) Throttling valve



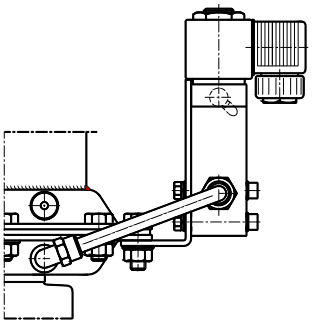
Configuration with positioner



Configuration with proximity sensor



Configuration with mechanical limit switches



Configuration with solenoid valve

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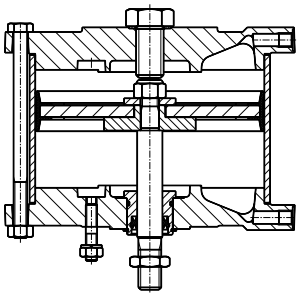
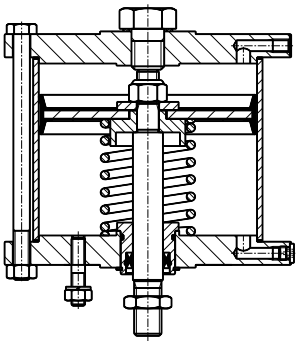
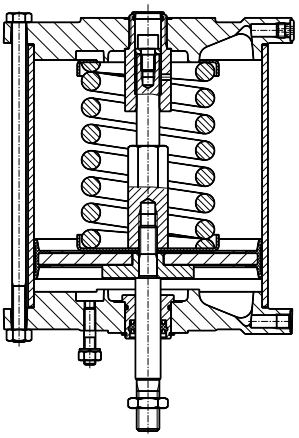
Variant illustrations of SISTO-LAP piston actuator and accessories



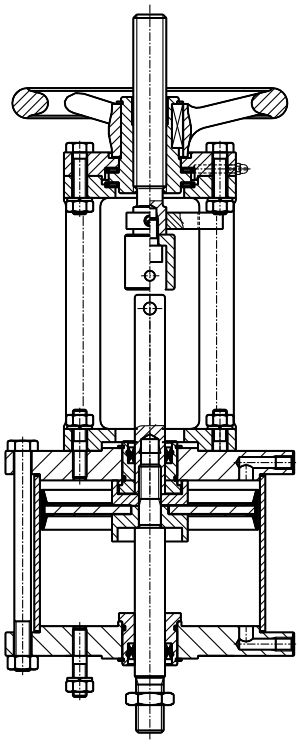
LAP-AZ type



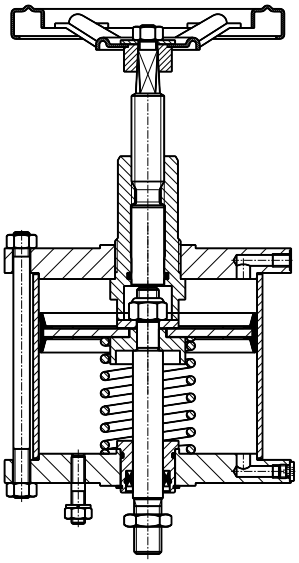
LAP-OF type



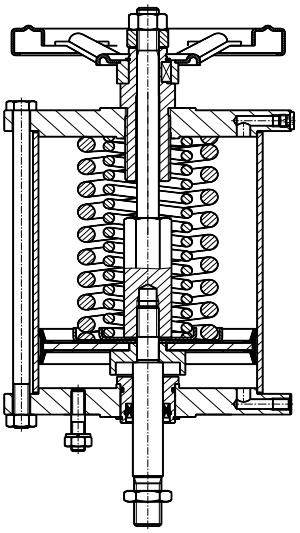
LAP-SF type



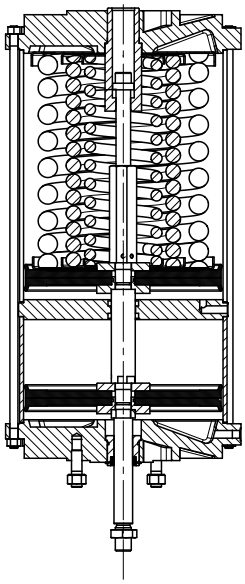
LAP-AZ type
with emergency handwheel



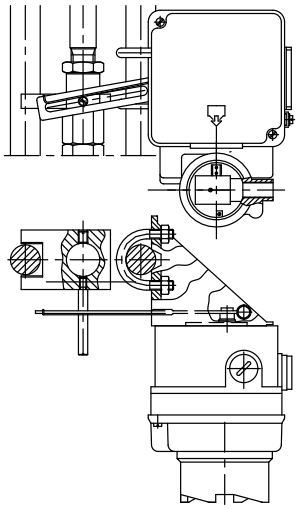
LAP-OF type
with emergency handwheel



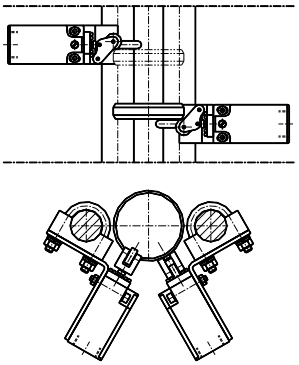
LAP-SF type
with emergency handwheel



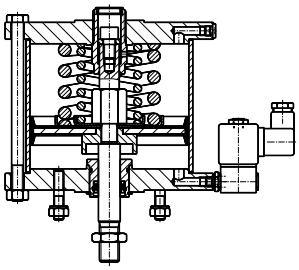
LAP-SF type with double piston



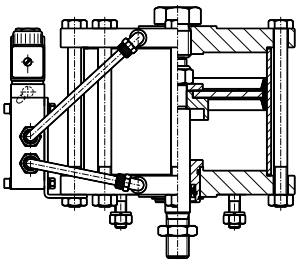
Configuration with positioner



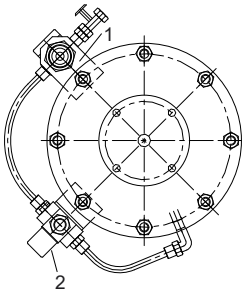
Configuration with limit switches



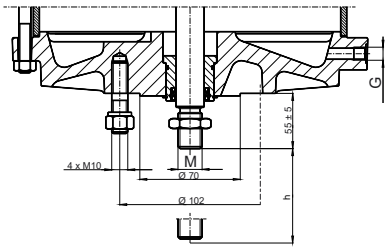
LAP-SF type with 3/2 directional control valve



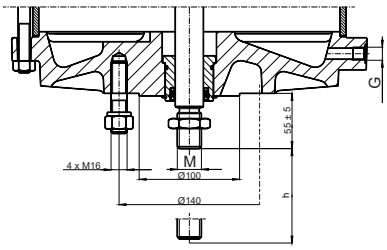
LAP-AZ type with 5/2 directional control valve



1) Filter/pressure reducer
2) Solenoid valve



Flange connection F10



Flange connection F14

Symbols key

Symbol	Description
G	G1/8 in. for piston diameters 80/125/160 G1/4 in. for piston diameters 200/250/300
M	M12 for piston diameters 80/125 M20 for piston diameters 160 to 300 M24 for piston diameters D300/F14 optional

Mating dimensions as per standard

Flange connection:	DIN ISO 5210 / DIN 3358
Pipe connection:	DIN ISO 228 G1/8 in. and G1/4 in.

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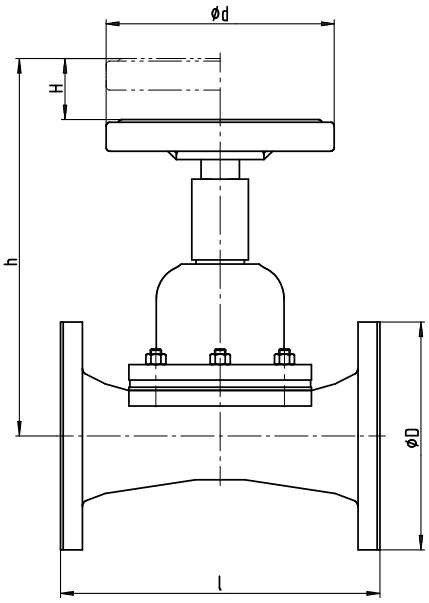
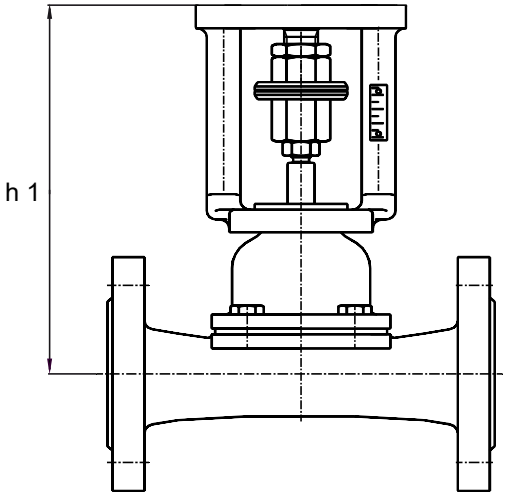
Dimensions and weights

Dimensions and weights of SISTO-KB manually operated valve



Manually operated valve



Diaphragm valve prepared for piston actuator SISTO-LAP
and electric actuator

Dimensions and weights

DN	Diaphragm [mm]	l [mm]	Ø D [mm]	H [mm]	Manually operated valve				Prepared for actuator	
					h [mm][10)]	Ø d [mm]	Handwheel turns	[kg]	Centre-to-top height h1 [mm] [10)]	Top flange
15	70 x 46	130	95	9	93	63	3	2,5	216	F10
20	70 x 46	150	105	9	93	63	3	3,1	216	F10
25	86 x 67	160	115	21	155	100	7	4,6	235	F10
32	86 x 67	180	140	21	155	100	7	5,7	235	F10
40	86 x 67	200	150	21	155	100	7	7,3	235	F10
50	111 x 86	230	165	33	220	125	8	10,5	300	F10
65	128 x 108	290	185	45	280	200	11	16,7	337	F10
80	169 x 134	310	200	46	320	200	11	23,0	362	F10
100	Ø 200	350	220	59	370	250	11	30,5	382	F10
125	Ø 230	400	250	73	360	320	15	47,3	444	F10
150	Ø 285	480	285	95	440	400	19	68,4	511	F10/F14
200	Ø 337	600	340	114	560	500	23	102,4	623	F10/F14

Mating dimensions as per standard

Face-to-face length:	EN 558-1 R1
Flanges:	DIN EN 1092-2
Flange facing:	DIN EN 1092-2, type B

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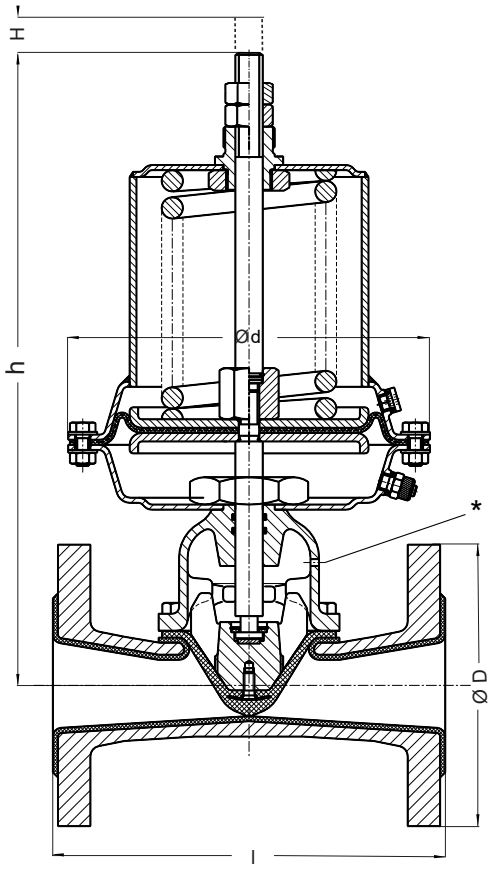
10 Add 5 mm for rubber-lined valves

Dimensions and weights of SISTO-LAD diaphragm actuator



Diaphragm valve with SISTO-LAD

Dimensions and weights

DN	Diaphragm [mm]	l [mm]	Ø D [mm]	H [mm]	AZ/OF/SF	AZ	OF	SF	AZ/OF/SF	AZ	OF	SF	AZ/OF/SF	AZ	OF	SF	LAD-SF type		
					Actuator size 100				Actuator size 150				Actuator size 220				100	150	220
					Ø d [mm]	h [mm][11)12)]			Ø d [mm]	h [mm][11)12)]			Ø d [mm]	h [mm][11)12)]			[kg]	[kg]	[kg]
15	70 x 46	130	95	9	160	200	260	260	210	230	300	350	-	-	-	-	9,5	11,5	-
20	70x 46	150	105	9	160	200	260	260	210	230	300	350	-	-	-	-	10,0	12,0	-
25	86 x 67	160	115	21	160	220	280	280	210	250	320	370	307	370	540	540	11,0	13,0	19,0
32	86 x 67	180	140	21	160	220	280	280	210	250	320	370	307	370	540	540	12,5	14,5	20,5
40	86 x 67	200	150	21	160	220	280	280	210	250	320	370	307	370	540	540	15,0	17,0	23,0
50	111 x 86	230	165	33	-	-	-	-	210	260	330	380	307	380	550	550	-	20,5	26,5
65	128 x 108	290	185	45	-	-	-	-	-	-	-	-	307	420	590	590	-	-	34,0
80	169 x 134	310	200	46	-	-	-	-	-	-	-	-	307	445	615	615	-	-	40,0
100	Ø 200	350	220	59	-	-	-	-	-	-	-	-	307	525	695	695	-	-	54,0

* = shown offset by 90°

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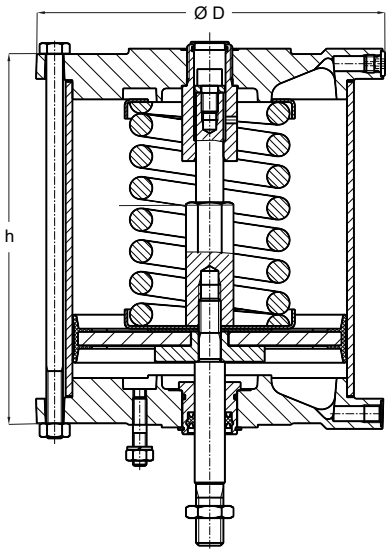
11 Add 5 mm for rubber-lined valves
12 Add 50 mm for limit switch configuration

Dimensions and weights of SISTO-LAP piston actuator



SISTO-LAP

Dimensions and weights for actuator function: air-to-open/air-to-close (AZ)

Type	Stroke [mm]	Ø D [mm]	h [mm]	[kg]
LAP-AZ-80-F10	15	130	111	4
LAP-AZ-80-F10	30	130	131	5
LAP-AZ-125-F10	15	170	131	6
LAP-AZ-125-F10	30	170	131	7
LAP-AZ-125-F10	45	170	151	8
LAP-AZ-125-F10	60	170	151	9
LAP-AZ-160-F10	45	210	168	11
LAP-AZ-160-F10	60	210	188	12
LAP-AZ-200-F10	45	255	190	18
LAP-AZ-200-F10	60	255	210	18
LAP-AZ-200-F10	80	255	230	20
LAP-AZ-250-F10	60	305	240	31
LAP-AZ-250-F10	80	305	260	32
LAP-AZ-250-F14	100	305	280	34
LAP-AZ-300-F14	100	355	294	44

Dimensions and weights for actuator function: spring-to-open/air-to-close (OF)

Type	Stroke [mm]	Ø D [mm]	h [mm]	[kg]
LAP-OF-80.101-F10	15	130	151	5
LAP-OF-125.101-F10	15	170	151	7
LAP-OF-125.102-F10	30	170	189	6
LAP-OF-160.102-F10	30	210	188	11
LAP-OF-200.001-F10	45	255	310	21
LAP-OF-200.001-F10	60	255	330	22
LAP-OF-250.001-F10	45	305	340	35
LAP-OF-250.001-F10	60	305	360	30
LAP-OF-250.002-F10	80	305	400	35
LAP-OF-300.002-F10	80	355	434	52
LAP-OF-D250.012-F14	100	305	524	55

Dimensions and weights for actuator function: air-to-open/spring-to-close (SF)

Type	Stroke [mm]	Ø D [mm]	h [mm]	[kg]
LAP-SF-125.002.5-F10	15	170	212	10
LAP-SF-125.002-F10	30	170	271	12
LAP-SF-160.012-F10	30	210	274	18
LAP-SF-160.012-F10	45	210	310	19

Type	Stroke [mm]	Ø D [mm]	h [mm]	[kg]
LAP-SF-200.003.7-F10	45	255	350	32
LAP-SF-250.004.7-F10	45	305	380	42
LAP-SF-250.004-F10	60	305	480	45
LAP-SF-250.004-F10	80	305	500	48
LAP-SF-300.034-F10	60	355	514	67
LAP-SF-300.034-F10	80	355	535	70
LAP-SF-D300.035-F14	100	355	812	127

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Technical data

Actuator size of SISTO-LAD diaphragm actuator

Selection table for maximum permissible operating pressure in bar for SISTO valve with elastomer diaphragm

Minimum required control pressure: 4 bar / maximum permissible control pressure: 6 bar

Symbols key

Symbol	Description
↑	Select smaller actuator.
↓	Select larger actuator.

Operating pressure in bar for actuator function air-to-open/air-to-close (AZ)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100
LAD-AZ-100	20	4	3	↓	↓	↓	↓
LAD-AZ-150	35	10	10	10	↓	↓	↓
LAD-AZ-220	56	↑	↑	↑	10	7	6

Operating pressure in bar for actuator function spring-to-open/air-to-close (OF)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100
LAD-OF-100.014	20	4	2	↓	↓	↓	↓
LAD-OF-150.102	35	10	9	8	↓	↓	↓
LAD-OF-220.001	56	↑	10	10	10	7	5

Operating pressure in bar for actuator function air-to-open/spring-to-close (SF)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100
LAD-SF-100.001.5	20	3	↓	↓	↓	↓	↓
LAD-SF-150.002	35	10	8	5	↓	↓	↓
LAD-SF-220.003.7	56	↑	10	10	7	4	2
LAD-SF-220.004.7S[13)]	56	↑	↑	↑	10	7	4

Other selection options on request

13 Min. 5 bar

Actuator size of SISTO-LAP piston actuator

Selection table for maximum permissible operating pressure in bar for SISTO valve with elastomer diaphragm

Minimum required control pressure: 5.5 bar/maximum permissible control pressure: 10 bar

Symbols key

Symbol	Description
↑	Select smaller actuator.
↓	Select larger actuator.

Operating pressure in bar for actuator function air-to-open/air-to-close (AZ)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
LAP-AZ-80-F10	15/30	4	3	↓	↓	↓	↓	↓	↓
LAP-AZ-125-F10	15/30	10	10	10	↓	↓	↓	↓	↓
LAP-AZ-125-F10	45/60	↑	↑	↑	3	↓	↓	↓	↓
LAP-AZ-160-F10	45/60	↑	↑	↑	8	5	3	↓	↓
LAP-AZ-200-F10	45	↑	↑	↑	10	10	↓	↓	↓
LAP-AZ-200-F10	60/80	↑	↑	↑	↑	↑	7	3	↓
LAP-AZ-250-F10	60/80	↑	↑	↑	↑	↑	10	6	↓
LAP-AZ-250-F14	100	↑	↑	↑	↑	↑	↑	↑	3
LAP-AZ-300-F14	100	↑	↑	↑	↑	↑	↑	↑	6

Operating pressure in bar for actuator function spring-to-open/air-to-close (OF)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
LAP-OF-80.101-F10	15	3	↓	↓	↓	↓	↓	↓	↓
LAP-OF-125.101-F10	15	10	↓	↓	↓	↓	↓	↓	↓
LAP-OF-125.102-F10	30	↑	10	6	↓	↓	↓	↓	↓
LAP-OF-160.102-F10	30	↑	↑	10	↓	↓	↓	↓	↓
LAP-OF-200.001-F10	45/60	↑	↑	↑	10	8	5	↓	↓
LAP-OF-250.001-F10	45/60	↑	↑	↑	↑	10	10	↓	↓
LAP-OF-250.002-F10	80	↑	↑	↑	↑	↑	↑	5	↓
LAP-OF-300.002-F10[14)]	80	↑	↑	↑	↑	↑	↑	6	↓
LAP-OF-D250.012-F14	100	↑	↑	↑	↑	↑	↑	↑	6

Operating pressure in bar for actuator function air-to-open/spring-to-close (SF)

Actuator size	Stroke [mm]	DN 15-20	DN 25-40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150
LAP-SF-125.002.5-F10	15	10	↓	↓	↓	↓	↓	↓	↓
LAP-SF-125.002-F10	30	↑	7	3	↓	↓	↓	↓	↓
LAP-SF-160.012-F10	30/45	↑	10	10	2	↓	↓	↓	↓
LAP-SF-200.003.7-F10	45	↑	↑	↑	7	5	↓	↓	↓
LAP-SF-250.004.7-F10	45	↑	↑	↑	10	9	↓	↓	↓
LAP-SF-250.004-F10	60/80	↑	↑	↑	↑	↑	6	↓	↓
LAP-SF-300.034-F10[14)]	60/80	↑	↑	↑	↑	10	10	6	↓
LAP-SF-D300.035-F14	100	↑	↑	↑	↑	↑	↑	↑	6

Other selection options on request

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14 Max. 7 bar

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