



Easy-maintenance valves with straight flow paths

LPS SERIES

LPS[®] VALVES

Features

● Straight flow path

Flow path resistance is low, and structure is not prone to retention of process fluids or cleaning solutions.

● No shaft seal gland packing

More reliable against leakage than ball valves, butterfly valves, and other valves with gland packing.

● Can be dismantled and assembled with internal piping intact

● No buffing is used to finish internal surfaces

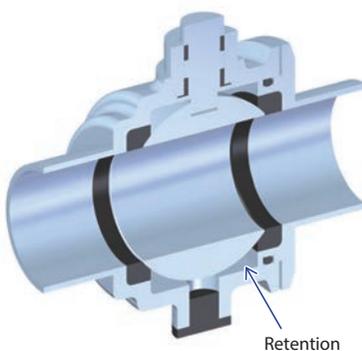
(electropolishing only)

● Lighter in weight because of special stainless steel machining

Mass is equivalent to that of Fujikin aluminum actuator diaphragm valves.

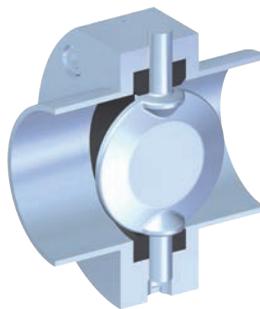
■ No shaft seal gland

Ball valve



- Shaft seal
- Has retention section
- Poor dismantling performance

Butterfly valve



- Shaft seal
- No retention section
- Poor dismantling performance

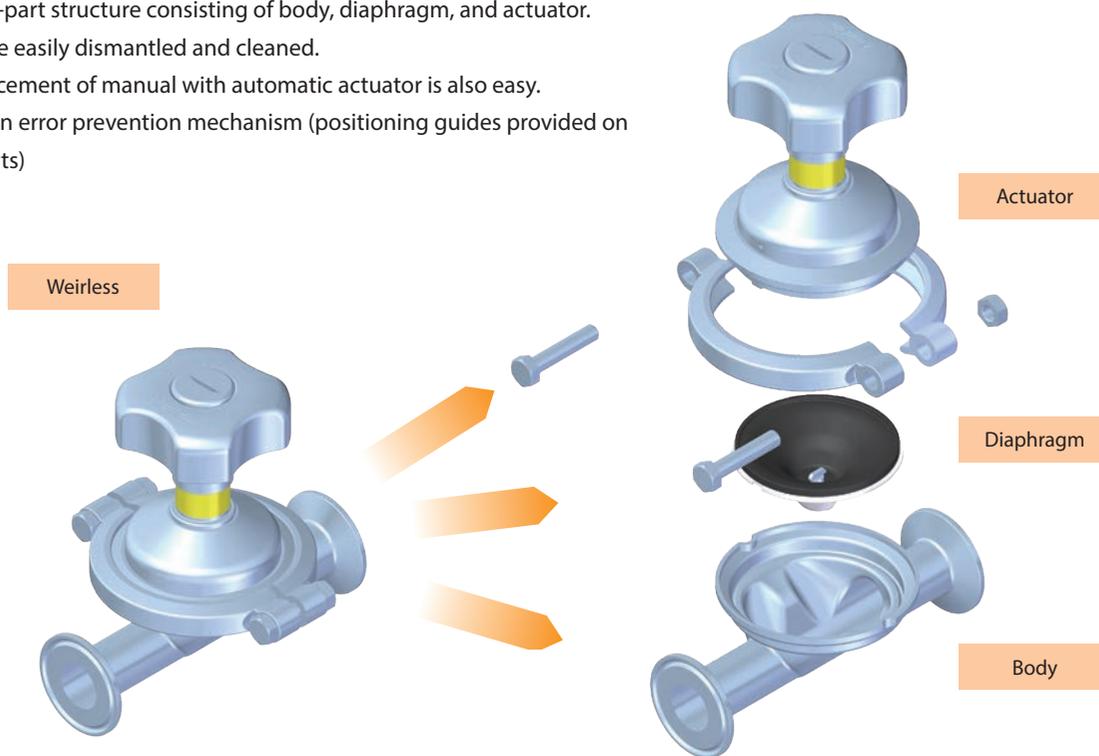
LPS_® valve



- Diaphragm seal
- No retention section
- Good dismantling performance

Can be dismantled and assembled with piping intact

- Three-part structure consisting of body, diaphragm, and actuator.
- Can be easily dismantled and cleaned.
- Replacement of manual with automatic actuator is also easy.
- Human error prevention mechanism (positioning guides provided on all parts)



Product specifications

Material	Body	Stainless steel (SUS316L)				
	Diaphragm	PTFE/EPDM (backup rubber)				
	Manual actuator	Stainless steel, etc. (bonnet section SUS316)				
	Automatic actuator	Stainless steel, etc. (bonnet section SUS316)				
Working pressure range		0–0.8 MPa				
Working temperature range		Fluid temperature: 0°C–140°C Working environment temperature (actuator working temperature): Constant 60°C Compatible with autoclaves				
Body surface roughness		Internal surfaces: Ra 1 μm or less (other than welded sections) + electropolishing External surfaces: Electropolishing				
Working fluid		Water, fluids such as water vapor that do not corrode wet members of valve, and inert gases such as air or nitrogen				
Actuator type		Manual M. (manual) Manual L. (level) Automatic N.C. (normal close) Automatic N.O. (normal open) Automatic D.A. (double action)				
Body connection		Clamp type				
Size		0.5 (8A)	0.75 (15A)	1.0 (1S)	1.5 (1.5S)	2.0 (2S)
Cv value		4	11	20	48	78
Dimensions	Face-to-face dimension (mm)	108	140	159	190	203
	Internal diameter (mm)	10.5	17.5	23	35.7	47.8
	Lift (mm)	6.5	10.5	14	21.5	25

Part number format

LPS C - 1 - 7 - P E - HP - 2K - PSC - * * *

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①	Valve series name
LPS	Diaphragm size: 15A, 1S
LPSN	Diaphragm size: 8A, 1.5S, 2S

②	Actuator operation type
C	Spring-back (normal close type) (N.C.)
O	Spring-back (normal open type) (N.O.)
D	Double action type (D.A.)
M	Round wheel type
L	Lever type

③	Diaphragm size
0.5	8A
0.75	15A
1	1S
1.5	1.5S
2	2S

④	Connection
5	Butt weld type (BW)
7	Ferrule type

⑤	Diaphragm wetted surface material
P	PTFE

⑥	Backup rubber material
E	EPDM

⑦	Actuator working pressure
HP	Standard type (0.5 MPa)

⑧	Bonnet section clamp
None	Bolt and nut type
2K	Butterfly screw type

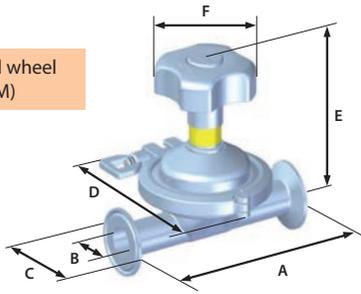
⑨	Options
None	No options
LC	With closed-side limit switch
LO	With open-side limit switch
LD	With open/closed dual limit switches
PSC	With closed-side proximity sensor
PSO	With open-side proximity sensor
PSD	With open/closed two-point proximity sensor
EP1	With electropneumatic positioner

⑩	Other
	Separate specifications (three-digit abbreviation)



Manual valve primary specifications

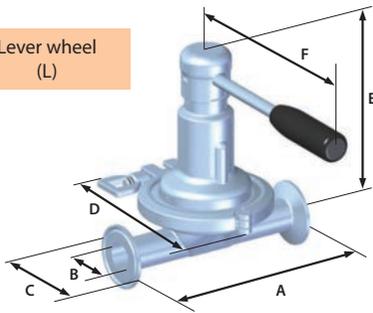
Round wheel (M)



Units (mm)

type	Size	A	φB	φC	D	E	φF	Mass (kg)	Part No.
Manual M	0.5 (8A)	108	10.5	34	92	81	40	0.59	LPSNM-0.5-7-PE-2K
	0.75 (15A)	140	17.5	34	119	109	60	1.1	LPSM-0.75-7-PE-2K
	1.0 (15)	159	23	50.5	134	127	80	1.4	LPSM-1-7-PE-2K
	1.5 (1.5S)	190	35.7	50.5	163	163	110	2.6	LPSNM-1.5-7-PE-2K
	2.0 (2S)	203	47.8	64	185	185	160	3.3	LPSNM-2-7-PE-2K

Lever wheel (L)

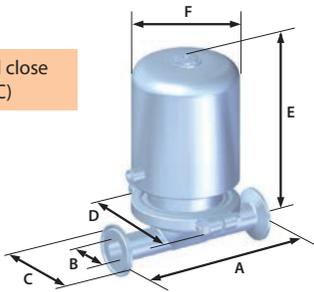


Units (mm)

type	Size	A	φB	φC	D	E	F	Mass (kg)	Part No.
Manual L	0.5 (8A)	108	10.5	34	92	104	99	0.74	LPSNL-0.5-7-PE-2K
	0.75 (15A)	140	17.5	34	119	154	140	1.7	LPSL-0.75-7-PE-2K
	1.0 (15)	159	23	50.5	134	161	180	2.1	LPSL-1-7-PE-2K
	1.5 (1.5S)	190	35.7	50.5	163	201	221	3.9	LPSNL-1.5-7-PE-2K
	2.0 (2S)	203	47.8	64	185	219	261	4.9	LPSNL-2-7-PE-2K

Automatic valve primary specifications

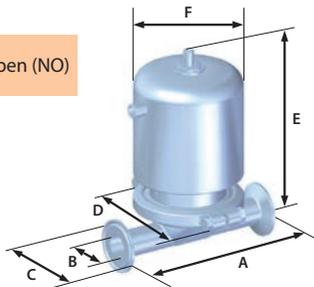
Normal close (NC)



Units (mm)

type	Size	A	φB	φC	D	E	φF	Mass (kg)	Part No.
Automatic NC	0.5 (8A)	108	10.5	34	86	111	52	0.88	LPSNC-0.5-7-PE-HP
	0.75 (15A)	140	17.5	34	115	149	82	2.0	LPSC-0.75-7-PE-HP
	1.0 (15)	159	23	50.5	130	193	103	3.2	LPSO-1-7-PE-HP
	1.5 (1.5S)	190	35.7	50.5	158	247	128	7.1	LPSNC-1.5-7-PE-HP
	2.0 (2S)	203	47.8	64	170	283	164	10.3	LPSNC-2-7-PE-HP

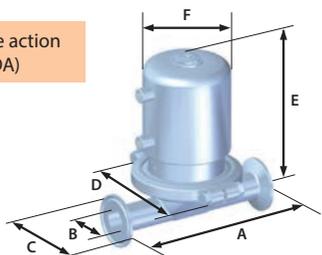
Normal open (NO)



Units (mm)

type	Size	A	φB	φC	D	E	φF	Mass (kg)	Part No.
Automatic NO	0.5 (8A)	108	10.5	34	86	111	52	0.86	LPSNO-0.5-7-PE-HP
	0.75 (15A)	140	17.5	34	115	149	82	1.8	LPSO-0.75-7-PE-HP
	1.0 (15)	159	23	50.5	130	178	103	2.6	LPSO-1-7-PE-HP
	1.5 (1.5S)	190	35.7	50.5	158	231	128	5.5	LPSNO-1.5-7-PE-HP
	2.0 (2S)	203	47.8	64	170	263	164	7.9	LPSNO-2-7-PE-HP

Double action (DA)



Units (mm)

type	Size	A	φB	φC	D	E	φF	Mass (kg)	Part No.
Automatic DA	0.5 (8A)	108	10.5	34	86	106	42	0.74	LPSND-0.5-7-PE-HP
	0.75 (15A)	140	17.5	34	115	137	65	1.4	LPSD-0.75-7-PE-HP
	1.0 (15)	159	23	50.5	130	160	82	2.0	LPSD-1-7-PE-HP
	1.5 (1.5S)	190	35.7	50.5	158	202	103	3.8	LPSND-1.5-7-PE-HP
	2.0 (2S)	203	47.8	64	170	221	128	5.1	LPSND-2-7-PE-HP

Components (diaphragms and actuators)

Diaphragm



Size	Part No.
0.5	LPSNP-0.5-PE
0.75	LPSNP-0.75-PE
1	LPSNP-1-PE
1.5	LPSNP-1.5-PE
2	LPSNP-2-PE

Actuator

Manual round wheel actuator



Size	Part No.
0.5	LPSNM-0.5
0.75	LPSM-0.75
1	LPSM-1
1.5	LPSNM-1.5
2	LPSNM-2

Manual lever actuator



Size	Part No.
0.5	LPSNL-0.5
0.75	LPSL-0.75
1	LPSL-1
1.5	LPSNL-1.5
2	LPSNL-2



Automatic N.C.



Automatic N.O.



Automatic D.A.

Size	Type	Part No.
0.5	N.C.	LPSNC-0.5-HP
	N.O.	LPSNO-0.5-HP
	D.A.	LPSND-0.5-HP
0.75	N.C.	LPSC-0.75-HP
	N.O.	LPSO-0.75-HP
	D.A.	LPSD-0.75-HP
1	N.C.	LPSC-1-HP
	N.O.	LPSO-1-HP
	D.A.	LPSD-1-HP
1.5	N.C.	LPSNC-1.5-HP
	N.O.	LPSNO-1.5-HP
	D.A.	LPSND-1.5-HP
2	N.C.	LPSNC-2-HP
	N.O.	LPSNO-2-HP
	D.A.	LPSND-2-HP

BMW series
Weir diaphragm valves

BSW series
Weirless diaphragm valves

LPS series
Weirless diaphragm valves

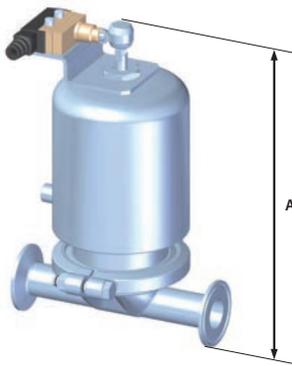
BY series
Angle seat valves

CARTEN®

CARTEN®
BPV series
Single-use punch valves

Pujol & CARTEN®
Products related to liquid processes

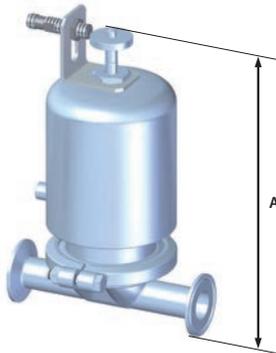
Automatic valve limit switch assembly (ex. N.C. type closed-side detection)



Units (mm)

Size	A
0.75	189
1	233
1.5	287
2	323

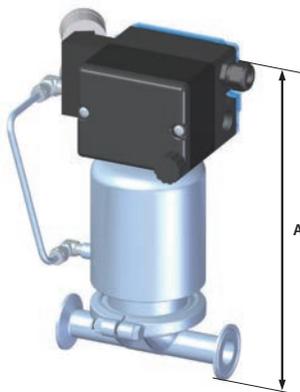
Automatic valve proximity sensor assembly (ex. N.C. type open-side detection)



Units (mm)

Size	A
0.75	189
1	229
1.5	287
2	319

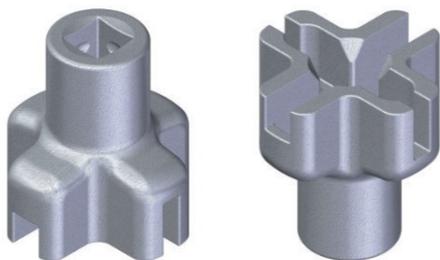
Automatic valve electropneumatic positioner assembly (ex. N.C. type)



Units (mm)

Size	A
0.75	223
1	263
1.5	310
2	342

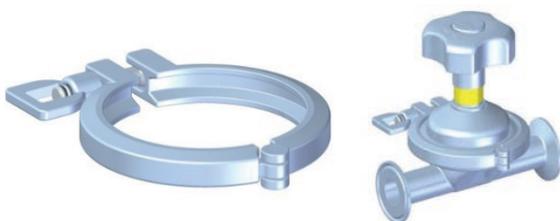
Joint for butterfly screw clamp fastening



Part No.
SCS13-CLAMPLOCK-FTG

Bonnet section clamp

Butterfly screw type



Size	Part No.
0.5	LPSNA-0.5-CLA-2K
0.75	LPSA-0.75-CLA-2K
1	LPSA-1-CLA-2K
1.5	LPSNA-1.5-CLA-2K
2	LPSNA-2-CLA-2K

Bolt and nut type



Size	Part No.
0.5	LPSNA-0.5-CLA-2D
0.75	LPSA-0.75-CLA-2D
1	LPSA-1-CLA-2D
1.5	LPSNA-1.5-CLA-2D
2	LPSNA-2-CLA-2D

Automatic actuator diaphragm replacement plug



Size	Part No.
0.5	LPSA-0.5-HS-4AJ
0.75	LPSA-1-HS-4AJ
1	
1.5	LPSA-1.5-HS-4AJ
2	

