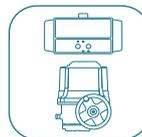
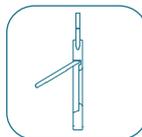
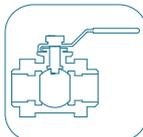
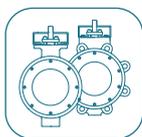


Y-angle seat valve

Fig.450



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Specifications and design features

Specifications

Size:	DN15 - DN65
Thread:	G1/8" - G2 1/2" (PT, NPT available on request)
Body:	Stainless steel AISI316
Actuator material:	Aluminium, stainless steel, plastic
Seat seal:	PTFE
Stem seal:	PTFE, FPM
Working pressure:	0 - 16bar
Application medium:	Water, neutral gas, oil, water steam, weak acid or weak alkaline solution
Medium temperature:	-10 °C ~ +180 °C
Environmental temperature:	-10 °C ~ +60 °C
Viscosity:	Max. 600mm ² /s(cst)
Control medium:	Air or neutral gas
Air supply pressure:	3bar ~ 10bar

Design features

With visible position indicator on actuator.

The seat cone is fixed without using nut to achieve better Kv value.

Actuator polished inside for lower friction to achieve longer lifetime.

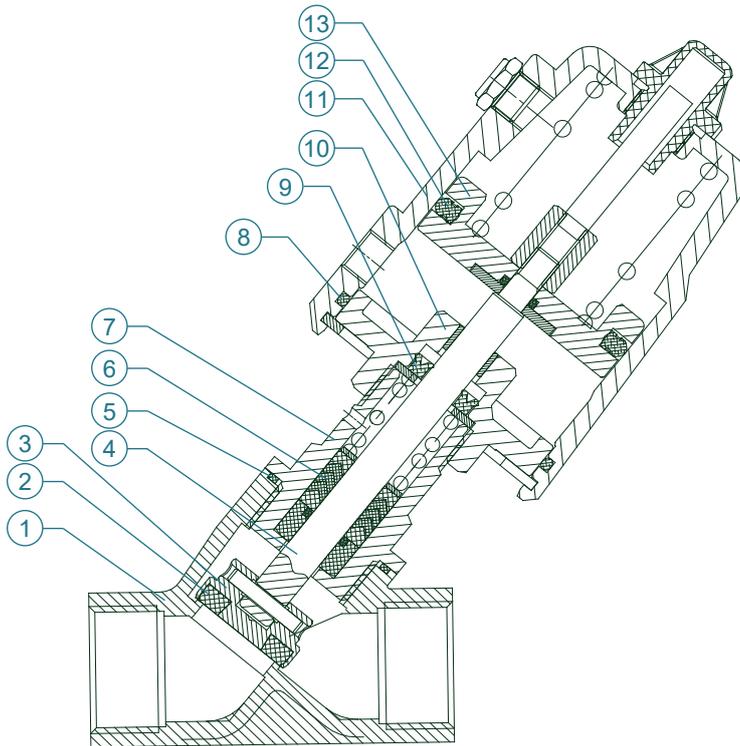
Sealing material in PTFE material which can be used in many applications.

Lubricating for inner parts, no need for maintenance.

No water hammer effect - when the flow is under the seat, the water hammer will be absorbed.



Material part list

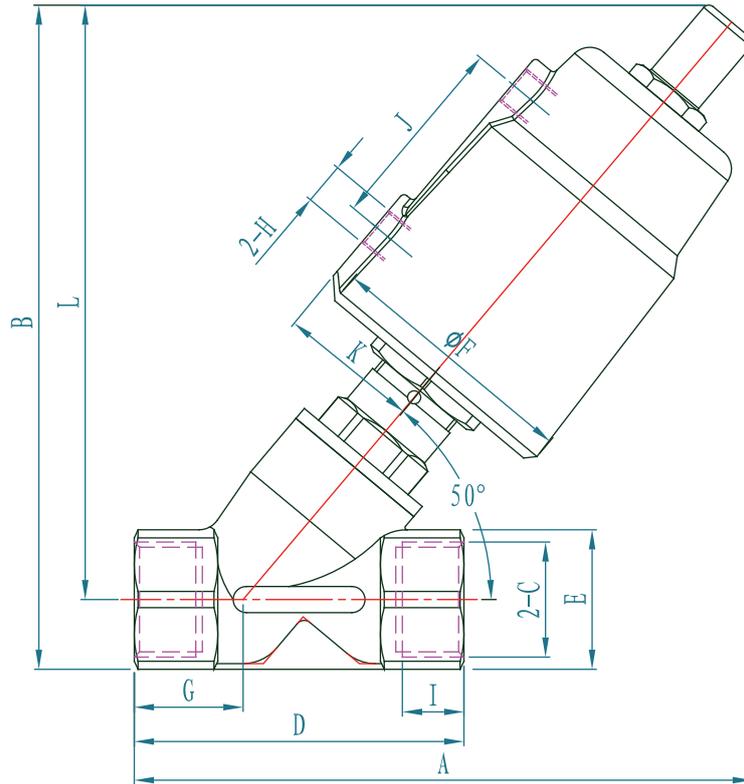


Material part list

No.	Part name	Material
1	Seat	SS316
2	Piston ring	PTFE
3	Piston	SS316
4	Plunger	SS316
5	Cover sealing	PTFE
6	Piston packing	PTFE
7	Cover	SS316
8	O-ring	FPM
9	Y-ring	FPM
10	Cover	SS304
11	Actuator body	SS304 ⁽¹⁾
12	Piston sealing	FPM
13	Piston	Aluminium alloy

⁽¹⁾ Actuator body available also in aluminium and plastic material. Contact Coreline for request.

Dimensions

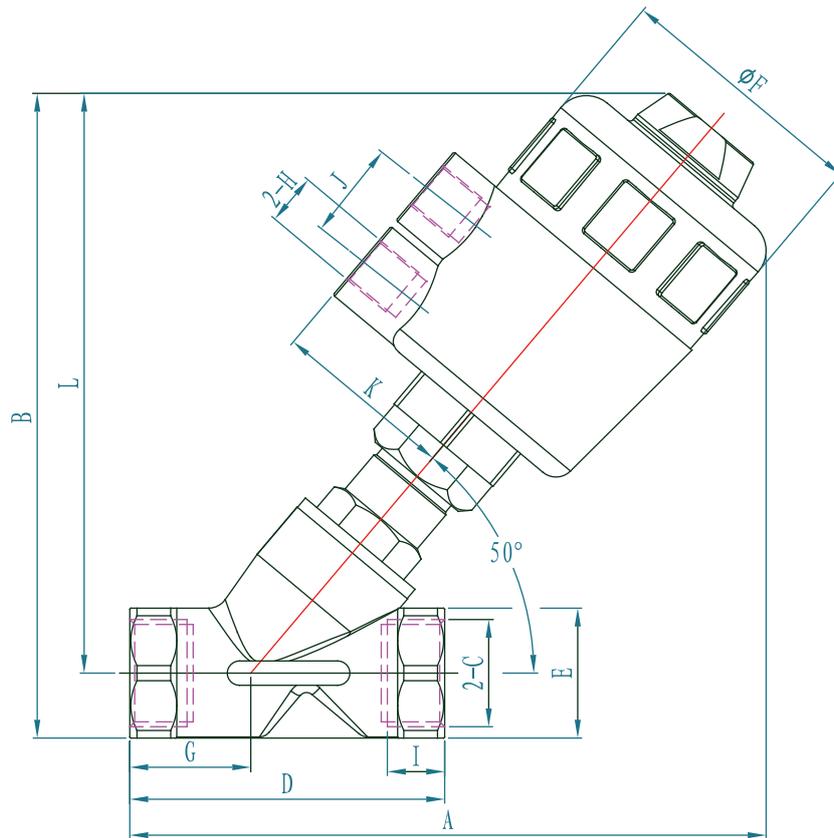


Dimensions (For SS actuator and Aluminium actuator type)

No.	Type	A	B	C (1)	D	E	F	G	H	I	J	K	L
1	450-S40-10	127.5	136	G3/8	69	27	50	25	G1/8	12	33.5	26.5	122.5
2	450-S50-10	140	150	G3/8	69	27	60.5	25	G1/8	12	45	32	136.5
3	450-S40-15	127.5	136	G1/2	69	27	50	23.1	G1/8	12	33.5	26.5	122.5
4	450-S50-15	140	150	G1/2	69	27	60.5	23.1	G1/8	12	45	32	136.5
5	450-S50-20	143	155	G3/4	75.5	32	60.5	25	G1/8	14	45	32	139
6	450-S50-25	163.5	176	G1	90.5	39	60.5	30.3	G1/8	14.5	45	32	156.5
7	450-S63-25	174.5	189.5	G1	90.5	39	77	30.3	G1/8	14.5	60	40.5	170
8	450-S63-32	190.5	207.5	G1 1/4	117.5	50	77	37.7	G1/8	20	60	40.5	180
9	450-S63-40	190.5	207.5	G1 1/4	117.5	55	77	37.7	G1/8	18.5	60	40.5	180
10	450-S80-40	207.5	220.5	G1 1/2	117.5	55	98	37.7	G1/4	18.5	74.5	51	193
11	450-S63-50	219.5	232.5	G1 1/2	137.5	70	77	48	G1/8	22	60	40.5	207.5
12	450-S80-50	233	253	G2	137.5	70	98	48	G1/4	22	74.5	51	218
13	450-S80-65	261.5	278	G2	170	85	98	52	G1/4	24	74.5	51	237.5
14	450-S100-65	270	290.5	G2 1/2	170	85	116	52	G1/4	24	80.5	63.5	248

(1) Thread type with PT and NPT for option. Contact Coreline for request.

Dimensions

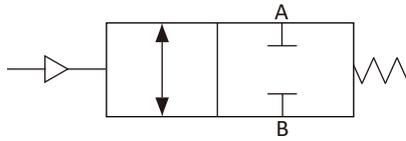
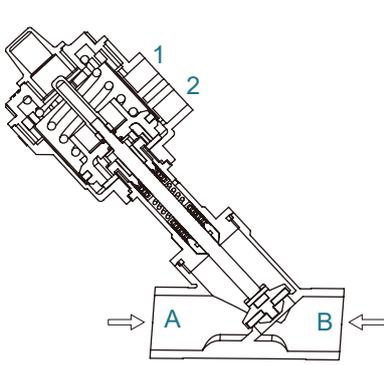


Dimensions (For plastic actuator type)

No.	Type	A	B	C (1)	D	E	F	G	H	I	J	K	L
1	450-P40-10	138	147	G3/8	69	27	53	25	G1/4	12	20.5	33	133.5
2	450-P50-10	148	157	G3/8	69	27	63.3	25	G1/4	12	24	44.5	143.5
3	450-P40-15	138	147	G1/2	69	27	53	25	G1/4	12	20.5	33	133.5
4	450-P50-15	148	157	G1/2	69	27	63.3	23.1	G1/4	12	24	44.5	143.5
5	450-P50-20	151	161.5	G3/4	75.5	32	63.3	25	G1/4	14	24	44.5	145.5
6	450-P50-25	172	183.5	G1	90.5	39	63.3	30.3	G1/4	14.5	24	44.5	164
7	450-P63-25	213.5	209	G1	90.5	39	79.5	30.3	G1/4	14.5	24	51.8	189.5
8	450-P63-32	213.5	227	G1 1/4	117.5	50	79.5	37.7	G1/4	20	24	51.8	199.5
9	450-P80-32	229	243.5	G1 1/4	117.5	50	100	37.7	G1/4	20	24	59	216
10	450-P63-40	213.5	227	G1 1/2	117.5	55	79.5	37.7	G1/4	18.5	24	51.8	199.5
11	450-P80-40	229	243.5	G1 1/2	117.5	55	100	37.7	G1/4	18.5	24	59	216
12	450-P63-50	237.5	251	G2	137.5	70	79.5	48	G1/4	22	24	51.8	216
13	450-P80-50	256	270.5	G2	137.5	70	100	48	G1/4	22	24	59	235.5

(1) Thread type with PT and NPT for option. Contact Coreline for request.

Different models and working principles

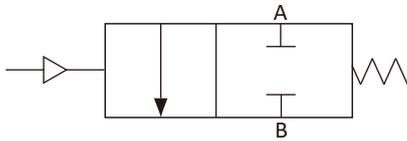


Normally Closed (NC) – Flow Below Seat

1 = Discharge

2 = Power

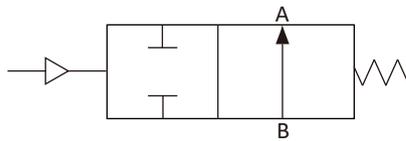
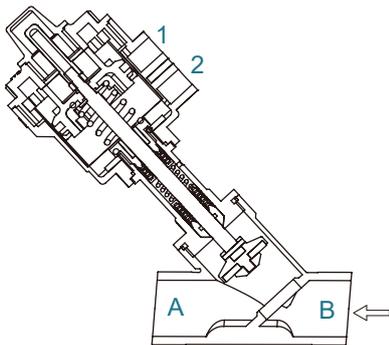
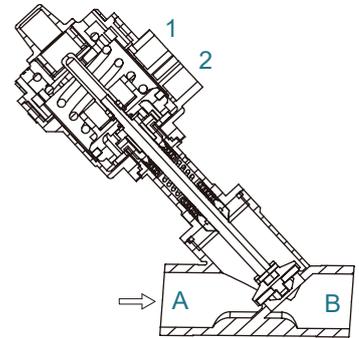
Water hammer is reduced when the medium flows from below the seat.



Normally Closed (NC) – Flow Above Seat

Attention!

Valves with flow direction from above the seat are only conditionally suitable for liquid media. There is a risk of water hammer.

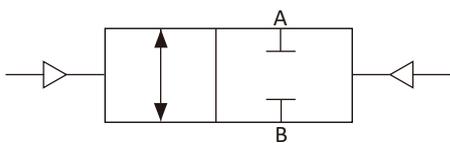


Normally Open (NO) – Flow Below Seat

1 = Power

2 = Discharge

Water hammer is reduced when the medium flows from below the plug.

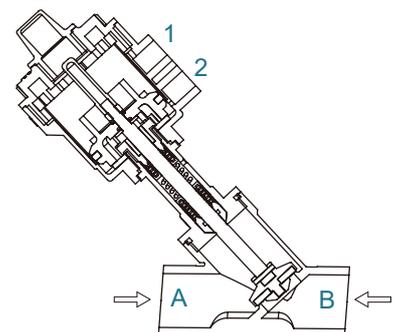


Double Acting – Bidirectional

1 = Discharge / Power

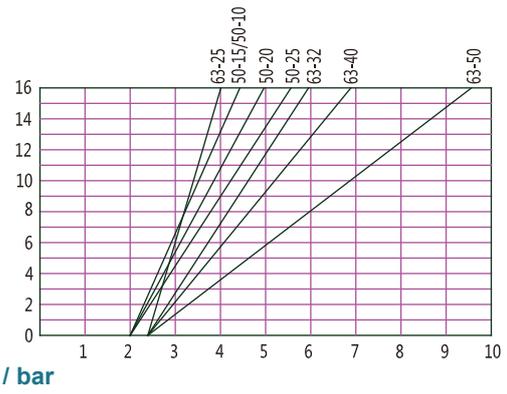
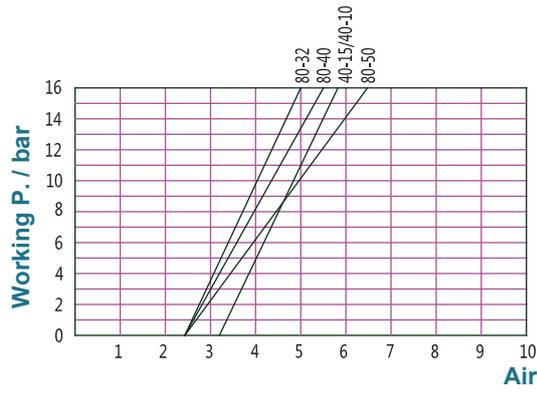
2 = Power / Discharge

Water hammer is reduced when the medium flows from below the plug.

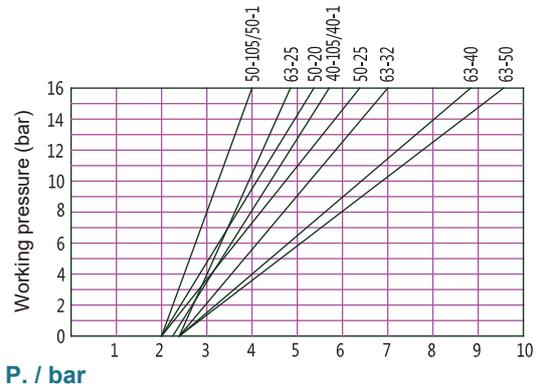
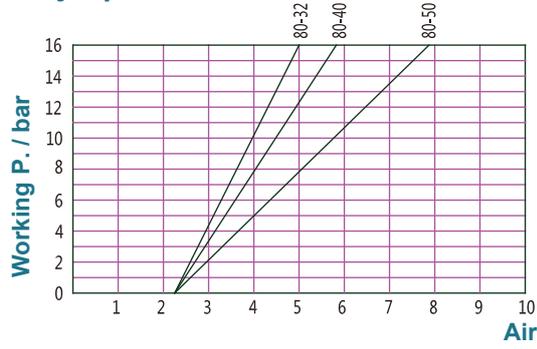


Technical data

Normally Closed (with water hammer) / Double Acting



Normally Open



NC		Double acting		NO	
Working P.	Air supply P.	Working P.	Air supply P.	Working P.	Air supply P.
0~16	3~4.5	0~16	3~4.5	0~16	≥3
0~16	3~3.5	0~16	3~3.5	0~16	≥3
0~16	3~4.5	0~16	3~4.5	0~16	≥3
0~16	3~3.5	0~16	3~3.5	0~16	≥3
0~16	3~4	0~16	3~4	0~12	≥3
0~16	3~4.5	0~16	3~4.5	0~3	≥3
0~16	3~3.5	0~16	3~3.5	0~16	≥4.5
0~16	3~5.5	0~16	3~5.5	0~14	≥4.5
0~16	3~6.5	0~16	3~6.5	0~14	≥4.5
0~9	3~7	0~9	3~7	0~6	≥4.5
0~16	2.5~4.5	0~16	2.5~4.5		
0~10	2~6	0~16	2~6		
0~16	2~4	0~16	2~4	0~12	≥4.5

Flow capacity and sizing

Type	Orifice [mm]	Thread	Actuator size	Kv [m³/h]	Max. working pressure [bar]			* Min. air supply [bar]	
					NC with water hammer	NO	Double acting	NC without water hammer	NC without water hammer
450-S(P)40-10	14	G3/8"	40	3.5	16	8	16	4.5	5
450-S(P)50-10	14	G3/8"	50	3.5	16	12	16	11	5
450-S(P)40-15	14	G1/2"	40	4	16	8	16	4.5	5
450-S(P)50-15	14	G1/2"	50	4	16	12	16	11	5
450-S(P)50-20	17.5	G3/4"	50	6	16	12	16	9	5
450-S(P)50-25	25	G1"	50	14	16	8	16	5	5
450-S(P)63-25	25	G1"	63	14	16	12	16	11	5.5
450-S(P)63-32	31	G1 1/4"	63	20	16	8	16	7	5.5
450-S(P)80-32	31	G1 1/4"	80	20	16	12	16	10	5
450-S(P)63-40	35	G1 1/2"	63	21	16	8	16	5	5.5
450-S(P)80-40	35	G1 1/2"	80	21	16	12	16	8	5
450-S(P)63-50	45	G2"	63	35	16	8	16	—	—
450-S(P)80-50	45	G2"	80	35	16	12	16	3.5	5
450-S80-65	58	G2 1/2"	80	58	14	8	14	—	—
450-S100-65	58	G2 1/2"	100	58	16	8	16	7	5.5

Electrical position feedback

Features

Compact electrical position feedback unit for angle seat valves, offering clear LED indication and reliable position feedback in demanding environments.

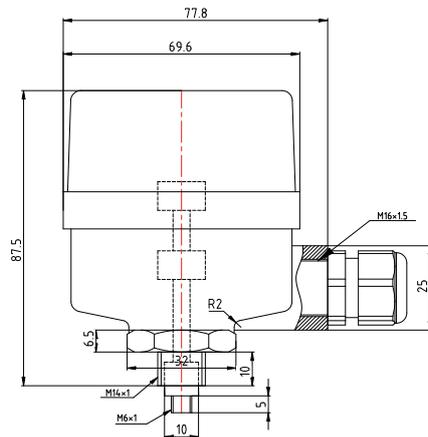
- Compact design; ideal for angle seat valves with linear motion.
- 360° adjustable and directly mounted on the valve.
- Green/Red LED for clear open/close position indication.
- Splash-proof, double-sealed housing to prevent water ingress.



Technical data

Item	Specification
Travel type	Linear motion
Switches	Mechanical switch 2×SPDT
Power supply	DC12V-48V
Enclosure	IP67, when wired and cable gland tightened
Ambient temp.	-20~60°C
Valve mounting	M26×1.5, M22×1.5, M16×1.5, M14×1, G1/4
Cable entry	M16×1.5
LED indicator	2-way: Green (Open), Red (Closed)

Dimensions



Note:

(1) M26×1.5, M22×1.5, M16×1.5, and G1/4 mounting threads are available on request.

(2) Different actuator strokes require different feedback devices. Currently, Coreline only offers this feedback unit for spring return actuators.

Coreline

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