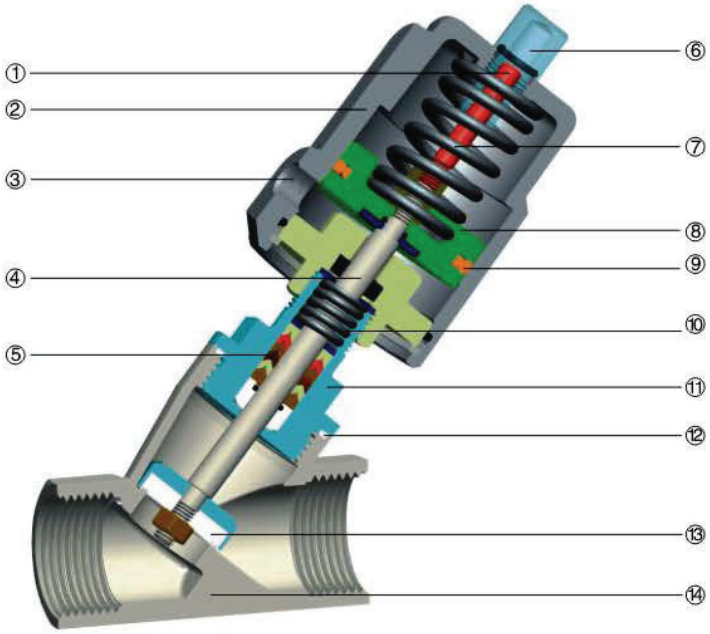
100 Series

100 Series Pneumatic Angle Seat Valve

ESG®
www.ESGvalves-USA.com

100 Series Pneumatic Angle Seat Valve

ESG®
www.ESGvalves-USA.com



1. Nylon Indication Rod
2. Actuator (CF8)
3. Pilot Port (1/8")
4. Stem (AISI-316)
5. Stem Seal (PTFE)
6. Cap (PC)
7. Spring (Steel 65Mn)
8. Piston (Alum.)
9. Piston Seal (Viton)
10. Seal Spring (AISI-304)
11. Connecting Piece(CF8M)
12. Body Seal (PTFE)
13. Seat (PTFE)
14. Body (CF8M)

Function Principle:

- **Single Action** Seat is held in closed position by spring force. Compressed air is applied to actuator to open.
- **Double Action** is opened and closed by compressed air.

Applications:

- Beverage Filling
- Textiles Printing & Dyeing
- Natural Gas
- Pharma. & Medical
- Chemical Equipment
- Disinfection
- Frothing
- Water/ Sewage Disposal
- Boilers

Advantages:

- Large flux, low resistance, water-hammer eliminating design
- Enlarged Y shaped flow section smooths flow and raises flux
- 316L Stainless components offer extreme long life and durability
- Self lubricating stainless actuator rotates 360°

Technical Data

Fluid Pressure	**Max 1.6MPa (232 psi)**
Control Pressure	0.3 - 0.8MPa (43.5 - 116psi)
Control Fluid	Neutral gas or air
Body Material	SS316 (CF8M) / SS304 (CF8)
Seal Material	PTFE
Actuator Material	SS304 (CF8)
Actuator Size	40mm, 50mm, 63mm, 90mm, 125mm
Applicable Fluids	Water, Alcohol , Oil, Steam ,Neutral gas, Organic solvent, Acid and Lye
Fluid Viscocity	Max 600mm2/s
Fluid Temperature	-10°C to +180°C, 25°C to 220°C
Ambient Temperature	-10°C to 80°C
Control Types	Normally closed, Normally open, Double acting
Connections	Threaded (NPT, BSP) Welded, Flanged, Tri-clamp

100 Series Pneumatic Angle Seat Valve

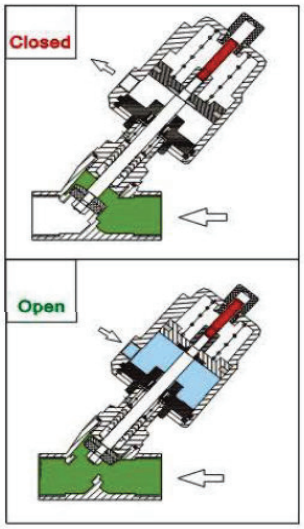
ESG®
www.ESGvalves-USA.com

△ Pressure Data Sheet

Single Acting, Normally Closed (NC) - Enter Above Seat

Suitable for condensable media, such as air, steam and low pressure liquid media.

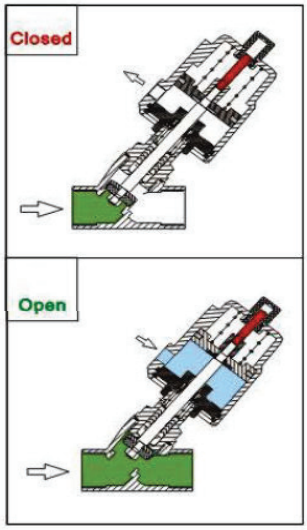
Size	Thread End	Orifice (mm)	Kv(m3/h)	Actuator (mm)	Pressure (psi)	Control Pressure (psi)
DN10	3/8"	13	3.8	40	232	43 - 65
				50	232	43 - 50
DN15	1/2"	13	4.7	40	232	43 - 65
				50	232	43 - 50
DN20	3/4"	18	9.5	50	232	43 - 58
DN25	1"	24	18.1	50	232	43 - 65
				63	232	43 - 50
DN32	1-1/4"	31	23.1	63	232	43 - 80
				90	232	36 - 50
DN40	1-1/2"	35	32.9	63	232	43 - 94
				90	232	36 - 58
DN50	2"	45	52.8	63	145	43 - 101
				90	232	36 - 65
DN65	2-1/2"	61	82.6	90	145	36 - 87
				125	232	43 - 58
DN80	3"	80	127	125	232	43 - 101



Single Acting, Normally Closed (NC) - Enter Below Seat (No Water-Hammer)

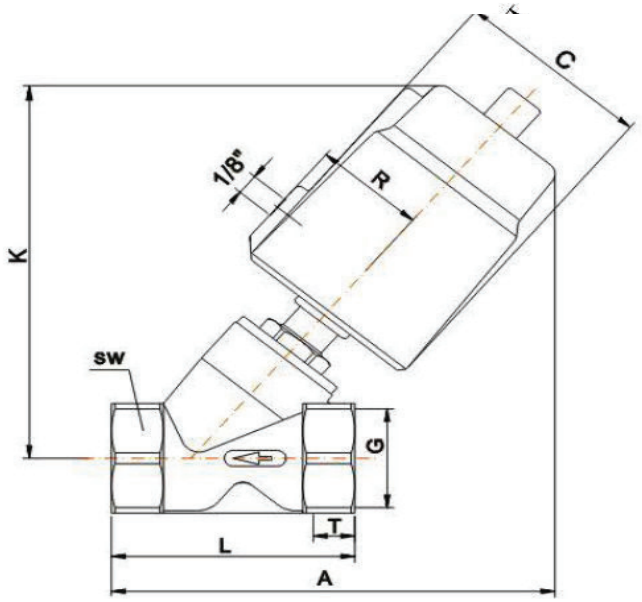
Flow comes from below the seat, cushions closing and eliminates water hammer.

Size	Thread End	Orifice (mm)	Kv(m3/h)	Actuator (mm)	Pressure (psi)	Control Pressure (psi)
DN10	3/8"	13	3.8	40	159	43
				50	203	43
DN15	1/2"	13	4.7	40	159	43
				50	203	43
DN20	3/4"	18	9.5	50	203	43
DN25	1"	24	18.1	50	58	43
				63	203	56
				90	232	72.5
DN32	1-1/4"	31	23.1	63	87	65
				90	232	72.5
DN40	1-1/2"	35	32.9	63	72	65
				90	232	72.5
DN50	2"	45	52.8	90	145	72.5
DN65	2-1/2"	61	82.6	90	101	72.5
				125	130	87
DN80	3"	80	127	125	87	87

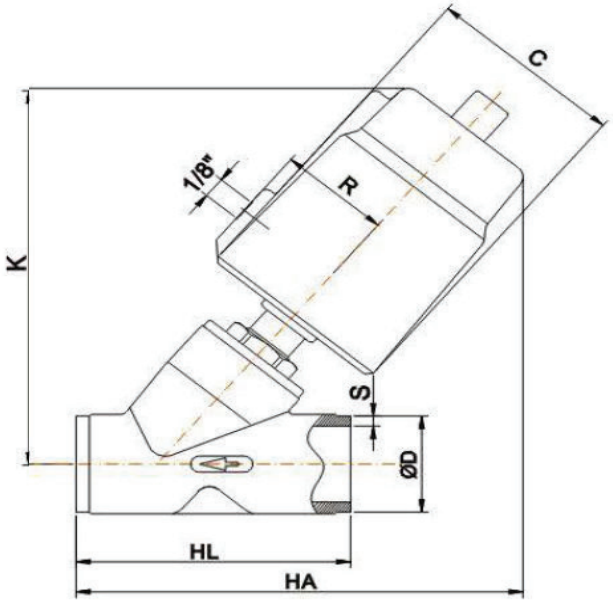


100 Series Pneumatic Angle Seat Valve

ESG®
www.ESGvalves-USA.com



Threaded Connection



Welded Connection

Dimensions

Size	Actuator (mm)	C	R	K	Threaded Connection					Welded Connection									
										DIN11850-2				DIN11850-3		SMS3008			
					G	T	A	L	SW	HA	HL	D	S	D	S	HA	HL	D	S
DN10	40	50.5	27	211	3/8"	12	119	68	27	–	–	–	–	–	–	–	–	–	–
	50	60	33	124			131			–	–	–	–	–	–	–	–	–	–
DN15	40	50.5	27	111	1/2"	15	119	68	27	118	70	19	1.5	20	2	127	75	18	1
	50	60	33	124			131			128						138			
DN20	50	60	33	128	3/4"	16	136	75	32	135	82	23	1.5	24	2	145	95	25	1.2
DN25	50	60	33	136	1"	17	145	90	40	150	100	29	1.5	30	2	165	130	32	1.2
	63	75	41	162			169			175						188			
	90AL	112	57	210			211			216						230			
	90	106	55	211			213			218						232			
DN32	63	75	41	174	1-1/4"	21	187	116	50	186	125	35	1.5	36	2	200	145	33.7	1.2
	90AL	112	57	220			229			230						242			
	90	106	55	223			231			232						245			
DN40	63	75	41	175	1-1/2"	21	187	116	56	190	130	41	1.5	42	2	210	160	38	1.2
	90AL	112	57	220			230			232						252			
	90	106	55	223			231			235						255			
DN50	63	75	41	183	2"	22	201	138	69	206	155	53	1.5	54	2	224	175	51	1.2
	90AL	112	57	232			244			247						263			
	90	106	55	232			247			250						265			
DN65	90AL	112	57	262	2-1/2"	26	282	178	85	–	–	–	–	–	–	–	–	–	–
	90	106	55	265			285			–	–	–	–	–	–	–	–	–	–
	125AL	148	74	302			320			–	–	–	–	–	–	–	–	–	–
DN80	125AL	148	74	313	3"	27	372	210	100	–	–	–	–	–	–	–	–	–	–