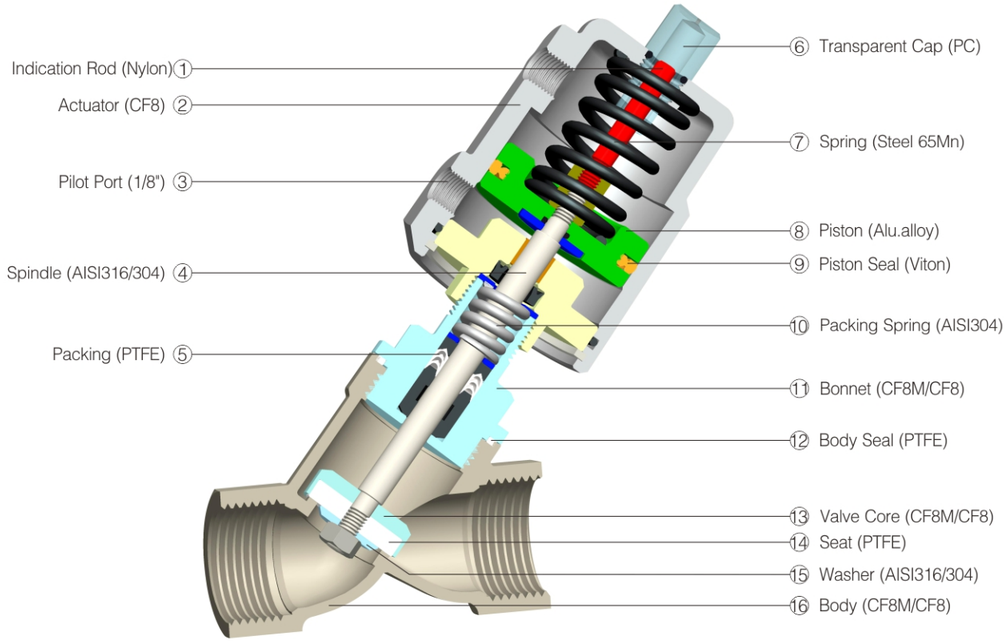
Y-type Angle Seat Valve

100 Series Threaded Angle Seat Valve

100 Series Welded Angle Seat Valve

100 Series Tri-clamp Angle Seat Valve



ESG®

100 Series Flanged Angle Seat Valve with Round Bonnet

100 Series Flanged Angle Seat Valve with Square Bonnet

Function Principle

Valve stays closed(open) by spring force in its normal state. When piston is actuated by compressed air, valve becomes opened (closed). For double acting type, valve is opened and closed by compressed air.

Applications

- Brewery
- Textile dyeing
- Air separation
- Pharmaceutical
- Filling operation
- Chemical
- Sterilization
- EPS molding
- Environmental
- Other

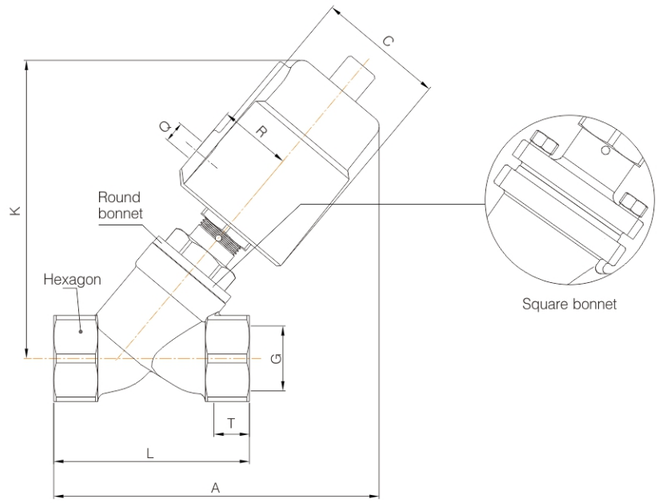
Advantages

1. Large flux, low resistance, no water–hammer
2. Y–type shape with enlarged flowing section raises flux by 30% and smoothens the flow.
3. Superb service life.
4. The stem adjusts and lubricates itself automatically, minimizing needs for maintaince.
5. The cylinder can rotate 360° unconstrained, and uses stainless steel material, which enables superior performance.

Technical Specification

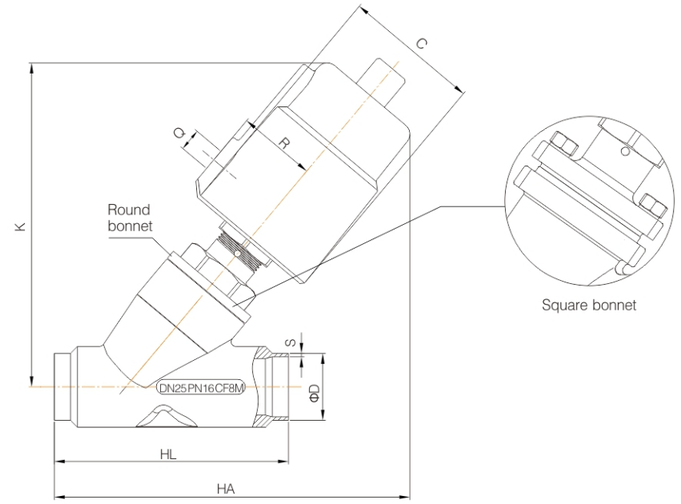
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Neutral gas, Air
- Body material: CF8M/CF8
- Seal material: PTFE
- Actuator material: CF8 (40mm–90mm Actuator)、AL (90mm–125mm Actuator)
- Actuator size: 40mm, 50mm, 63mm, 90mm, 125mm
- Applicable fluid: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid viscosity: Max 600mm^2/s
- Fluid temperature: –10℃ — +180℃ (PTFE normal temperature) +25℃ — +220℃ (PTFE high temperature)
- Ambient temperature: –10℃ — +80℃
- Control type: Normally closed, Normally open, Double acting
- Connection type: Threaded (BSP, BSPT, NPT), Welded, Flanged, Tri–clamp
- Leakage class: EN 12266 Class A

Y-type Angle Seat Valve



Main Dimension (Threaded Connection)

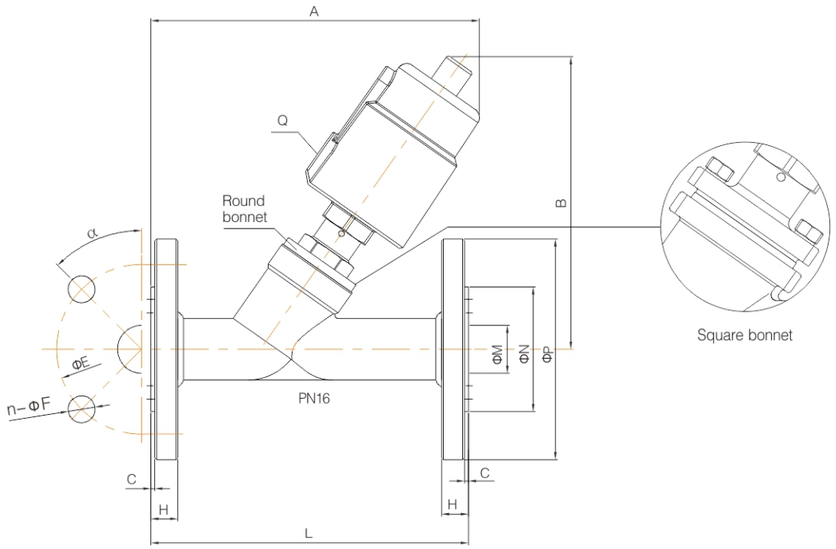
Size	Actuator (mm)	Q	C	R	K	G	T	A	L	Hexagon
DN8	40	1/8"	50.5	27	112	1/4"	12	124	68	27
	50	1/8"	60	33	125			135		
DN10	40	1/8"	50.5	27	112	3/8"	12	124	68	27
	50	1/8"	60	33	125			135		
DN15	40	1/8"	50.5	27	112	1/2"	15	124	68	27
	50	1/8"	60	33	125			135		
DN20	50	1/8"	60	33	132	3/4"	16	140	75	32
DN25	50	1/8"	60	33	136	1"	17	150	90	40
	63	1/8"	75	41	162			172		
DN32	63	1/8"	75	41	174	1 1/4"	21	190	116	50
	90	1/8"	106	55	223			235		
DN40	63	1/8"	75	41	175	1 1/2"	21	190	116	56
	90	1/8"	106	55	223			235		
DN50	63	1/8"	75	41	183	2"	22	205	138	69
	90	1/8"	106	55	232			250		
	125AL	1/4"	170	85	300			305		
DN65	90	1/8"	106	55	265	2 1/2"	26	285	178	85
	125AL	1/4"	170	85	315			327		
DN65 Square bonnet	90	1/8"	106	55	280			275		
	125AL	1/4"	170	85	330			320		
DN80	125AL	1/4"	170	85	327	3"	27	380	210	100
DN80 Square bonnet	125AL	1/4"	170	85	355			340		



Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	C	R	K	HA	HL	DIN11850–2		DIN11850–3	
								ΦD	S	ΦD	S
DN15	40	1/8"	50.5	27	112	118	70	19	1.5	20	2
	50	1/8"	60	33	125	128					
DN20	50	1/8"	60	33	132	135	82	23	1.5	24	2
DN25	50	1/8"	60	33	136	150	100	29	1.5	30	2
	63	1/8"	75	41	162	175					
DN32	63	1/8"	75	41	174	186					
	90	1/8"	106	55	223	232	125	35	1.5	36	2
DN40	63	1/8"	75	41	175	190	130	41	1.5	42	2
	90	1/8"	106	55	223	235					
DN50	63	1/8"	75	41	183	206					
	90	1/8"	106	55	232	250	155	53	1.5	54	2
	125AL	1/4"	170	85	300	307					
DN65 Square bonnet	90	1/8"	106	55	280	320	270	70	2	–	–
	125AL	1/4"	170	85	330	360				–	–
DN80 Square bonnet	125AL	1/4"	170	85	355	360	284	85	2	–	–

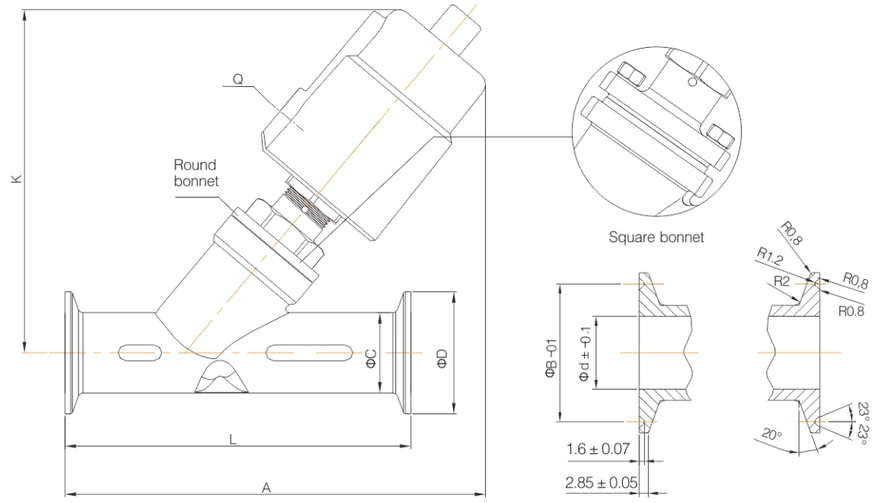
Y-type Angle Seat Valve



Flange specification: DIN2543; customization available, ISO/ANSI/DIN/JIS is also available

Main Dimension (Flange Connection)

Size	Actuator (mm)	Q	A	B	L	C	H	ΦE	n–ΦF	ΦM	ΦN	ΦP	α
DN15	40	1/8"	135	125	130	2	14	65	4–14	16	45	95	45°
	50		145	140									
DN20	50	1/8"	165	140	150	2	14	75	4–14	19	56	105	45°
DN25	50	1/8"	170	145	160	2	14	85	4–14	26	65	115	45°
	63		190	175									
DN32	63	1/8"	190	188	180	2	16	100	4–18	31	78	140	45°
	90		230	235									
DN40	63	1/8"	206	190	200	3	16	110	4–18	38	84	150	45°
	90		250	240									
DN50	63	1/8"	235	195	230	3	16	125	4–18	49	100	165	45°
	90		277	245									
	125AL	1/4"	330	310									
DN65 Square bonnet	90	1/8"	330	280	290	3	18	145	4–18	66	120	185	45°
	125AL	1/4"	375	330									
DN80 Square bonnet	125AL	1/4"	380	355	310	3	20	160	8–18	78	135	200	22.5°
DN100	125AL	1/4"	420	395	350	3	20	180	8–18	96	155	215	22.5°



Clamp Specification: ISO 2852; customization available.

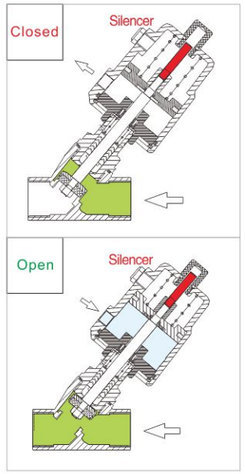
Main Dimension (Tri–clamp Connection)

Size	Actuator (mm)	Q	A	K	L	ΦC	ΦB	Φd	ΦD
DN15	40	1/8"	130	115	80	19	27.5	15	34
	50	1/8"	140	126					
DN20	50	1/8"	158	148	130	25	43.5	19	50.5
DN25	50	1/8"	165	140	130	32	43.5	27	50.5
	63	1/8"	188	166					
DN32	63	1/8"	200	174	146	37	43.5	31	50.5
	90	1/8"	245	223					
DN40	63	1/8"	210	175	160	40	56.5	33	64
	90	1/8"	255	223					
DN50	63	1/8"	221	185	175	53	56.5	45	64
	90	1/8"	265	235					
	125AL	1/4"	325	296					
DN65 Square bonnet	90	1/8"	325	280	278	75	83.5	66	91
	125AL	1/4"	360	330					
DN80 Square bonnet	125AL	1/4"	360	352	290	89	97	78	106

Y-type Angle Seat Valve

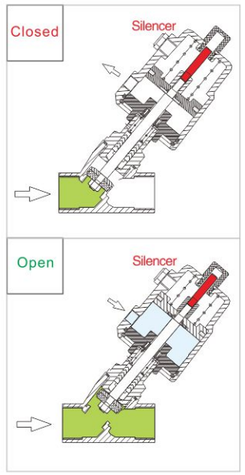
Single Acting, Normally Closed (NC)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN20	G3/4"	18	7.6	50	0–1.6	0.3–0.4
DN25	G1"	24	15.8	50	0–1.6	0.3–0.45
				63	0–1.6	0.3–0.35
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.55
				90	0–1.6	0.2–0.35
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.65
				90	0–1.6	0.3–0.4
DN50	G2"	45	52.0	63	0–0.9	0.3–0.7
				90	0–1.6	0.3–0.45
				125	0–1.6	0.3–0.4
DN65	G2 1/2"	61	83.2	90	0–1.0	0.3–0.6
				125	0–1.6	0.3–0.4
DN80	G3"	80	119	125	0–1.2	0.3–0.7



Single Acting, Normally Closed (NC)–Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40–A	0–1.3	⩾0.4
				50–A	0–1.4	⩾0.45
DN10	G3/8"	13	3.9	40–A	0–1.3	⩾0.4
				50–A	0–1.4	⩾0.45
DN15	G1/2"	13	4.3	40–A	0–1.3	⩾0.4
				50–A	0–1.4	⩾0.45
DN20	G3/4"	18	7.6	50–A	0–1.4	⩾0.45
DN25	G1"	24	15.8	50–A	0–0.8	⩾0.45
				63–A	0–1.3	⩾0.5
DN32	G1 1/4"	31	26.0	63–A	0–0.6	⩾0.5
				90–A	0–1.6	⩾0.6
				90–B	0–1.3	⩾0.45
DN40	G1 1/2"	35	32.0	63–A	0–0.5	⩾0.5
				90–A	0–1.6	⩾0.6
				90–B	0–1.1	⩾0.45
DN50	G2"	45	52.0	63–A	0–0.2	⩾0.5
				90–A	0–1.0	⩾0.6
				90–B	0–0.7	⩾0.45
				125–A	0–1.6	⩾0.55
				125–B	0–1.1	⩾0.45
DN65	G2 1/2"	61	83.2	90–A	0–0.5	⩾0.6
				90–B	0–0.2	⩾0.45
				125–A	0–0.9	⩾0.55
				125–B	0–0.6	⩾0.45
				125–D	0–0.5	⩾0.35
DN80	G3"	80	119	125–A	0–0.5	⩾0.55
				125–B	0–0.3	⩾0.45
				125–C	0–0.2	⩾0.35
DN100	G4"	90	132	125–A	0–0.25	⩾0.55



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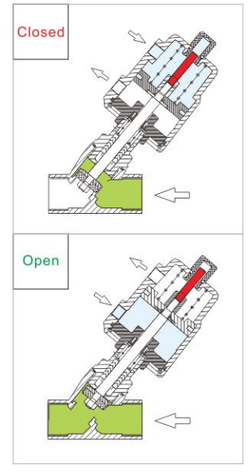
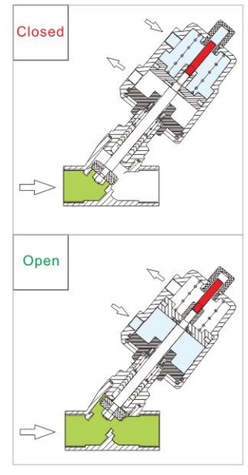
Double Acting, Normally Closed (NC)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN20	G3/4"	18	7.6	50	0–1.6	0.3–0.4
DN25	G1"	24	15.8	50	0–1.6	0.3–0.45
				63	0–1.6	0.3–0.35
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.55
				90	0–1.6	0.2–0.35
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.65
				90	0–1.6	0.2–0.4
DN50	G2"	45	52.0	63	0–0.9	0.3–0.7
				90	0–1.6	0.2–0.45
				125	0–1.6	0.2–0.3
DN65	G2 1/2"	61	83.2	90	0–1.0	0.2–0.6
				125	0–1.6	0.2–0.4
DN80	G3"	80	119	125	0–1.2	0.2–0.7



Double Acting, Normally Closed (NC)–Enter Below Seat (Minimize water-hammer)

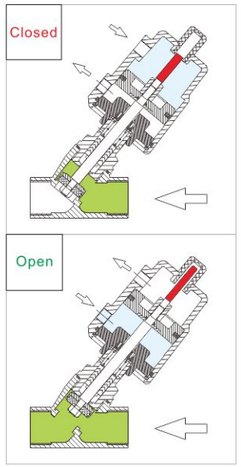
Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN10	G3/8"	13	3.9	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN15	G1/2"	13	4.3	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN20	G3/4"	18	7.6	50	0–1.6	⩾0.3
DN25	G1"	24	15.8	50	0–1.3	0.3–0.6
				63	0–1.6	0.3–0.4
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.6
				90	0–1.6	0.3–0.4
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.7
				90	0–1.6	0.3–0.5
DN50	G2"	45	52.0	63	0–0.8	0.3–0.75
				90	0–1.6	0.3–0.6
				125	0–1.6	0.3–0.4
DN65	G2 1/2"	61	83.2	90	0–1.1	0.3–0.7
				125	0–1.6	0.3–0.55
DN80	G3"	80	119	125	0–1.6	0.3–0.65
DN100	G4"	90	132	125	0–1.2	0.4–0.5



Y-type Angle Seat Valve

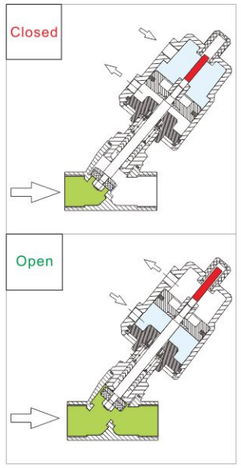
Double Acting Without Spring–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.45
				50	0–1.6	0.3–0.35
DN20	G3/4"	18	7.6	50	0–1.6	0.3–0.4
DN25	G1"	24	15.8	50	0–1.6	0.3–0.45
				63	0–1.6	0.3–0.35
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.55
				90	0–1.6	0.3–0.4
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.65
				90	0–1.6	0.3–0.4
DN50	G2"	45	52.0	63	0–1.0	0.3–0.7
				90	0–1.6	0.3–0.45
				125	0–1.6	0.3–0.4
DN65	G2 1/2"	61	83.2	90	0–1.0	0.3–0.6
				125	0–1.6	0.3–0.4
DN80	G3"	80	119	125	0–1.2	0.3–0.7



Double Acting Without Spring–Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN20	G3/4"	18	7.6	50	0–1.6	0.3–0.4
DN25	G1"	24	15.8	50	0–1.6	0.3–0.65
				63	0–1.6	0.3–0.55
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.7
				90	0–1.6	0.3–0.45
DN40	G1 1/2"	35	32.0	63	0–1.2	0.3–0.75
				90	0–1.6	0.3–0.5
DN50	G2"	45	52.0	63	0–0.4	0.3–0.75
				90	0–1.6	0.3–0.6
				125	0–1.6	0.3–0.4
DN65	G2 1/2"	61	83.2	90	0–1.0	0.3–0.75
				125	0–1.6	0.3–0.6
DN80	G3"	80	119	125	0–1.0	0.3–0.7
DN100	G4"	90	132	125	0–0.8	0.3–0.75



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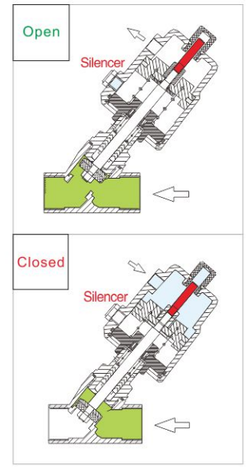
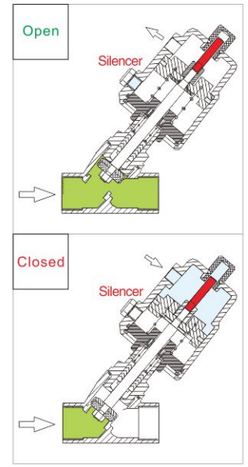
Normally Open(NO)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN10	G3/8"	13	3.9	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN15	G1/2"	13	4.3	40	0–1.6	⩾0.3
				50	0–1.6	⩾0.3
DN20	G3/4"	18	7.6	50	0–1.2	⩾0.3
DN25	G1"	24	15.8	50	0–0.3	⩾0.3
				63	0–1.6	⩾0.45
DN32	G1 1/4"	31	26.0	63	0–1.4	⩾0.45
DN40	G1 1/2"	35	32.0	63	0–1.4	⩾0.45
DN50	G2"	45	52.0	63	0–0.6	⩾0.45



Normally Open(NO)–Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.5
				50	0–1.6	0.3–0.4
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.5
				50	0–1.6	0.3–0.4
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.5
				50	0–1.6	0.3–0.4
DN20	G3/4"	18	7.6	50	0–1.6	0.3–0.6
DN25	G1"	24	15.8	50	0–1.3	0.3–0.6
				63	0–1.6	0.3–0.5
DN32	G1 1/4"	31	26.0	63	0–1.3	0.3–0.6
DN40	G1 1/2"	35	32.0	63	0–0.7	0.3–0.6
				90	0–1.6	0.3–0.35
DN50	G2"	45	52.0	63	0–0.5	0.3–0.6
				90	0–1.2	0.3–0.6
DN65	G2 1/2"	61	83.2	90	0–0.75	0.3–0.5
				125	0–1.4	0.3–0.7
DN80	G3"	80	119	125	0–1.2	0.3–0.7



Y-type Angle Seat Valve

Angle Seat Valve with Proximity Switch

Angle Seat Valve with Solenoid Valve

Proximity Switch

Proximity switch can be mounted on angle seat valves of all sizes to monitor and feedback open state of the valve.

Technical Specification

- Operating pressure: 10–30V DC
- Protection class: IP67
- Detection distance: 3mm ± 10% (Customization available)
- Temperature range: –25℃ — +70℃
- Enclosure material: brass nickel plating
- Probe material: ABS
- Leakage class: DIN EN 12266 Class A

Solenoid Valve

Apply to angle seat valve with any aperture size. Connect to 5/2 or 3/2 way solenoid valve.

Technical Specification

- Applicable Medium: Air (filtered by 40μm mesh)
- Protection level: IP65
- Connection type: G1/8"
- Power: 24V DC or 220V AC
- Air pressure: 1.5–8bar (22–116psi)
- Temperature range: –5℃ — +50℃
- Leakage class: DIN EN 12266 Class A

Angle Seat Valve with Manual Override

Angle Seat Valve with Position Indicator

Manual Override

Can adjust piston position, restrict travel, and regulate flow. Applicable to all types of angle seat valves. Can be used for emergency control, in case of lack of control fluids or electrical/ mechanical failure.

Technical Specification

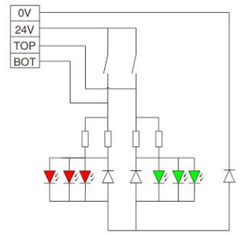
- Handwheel material: die–casted Aluminum
- Control type: Normally closed
- Leakage class: DIN EN 12266 Class A

Position Indicator

Position Indicator can be mounted on angle seat valves of all sizes to monitor and feedback both open and close states of the valve.

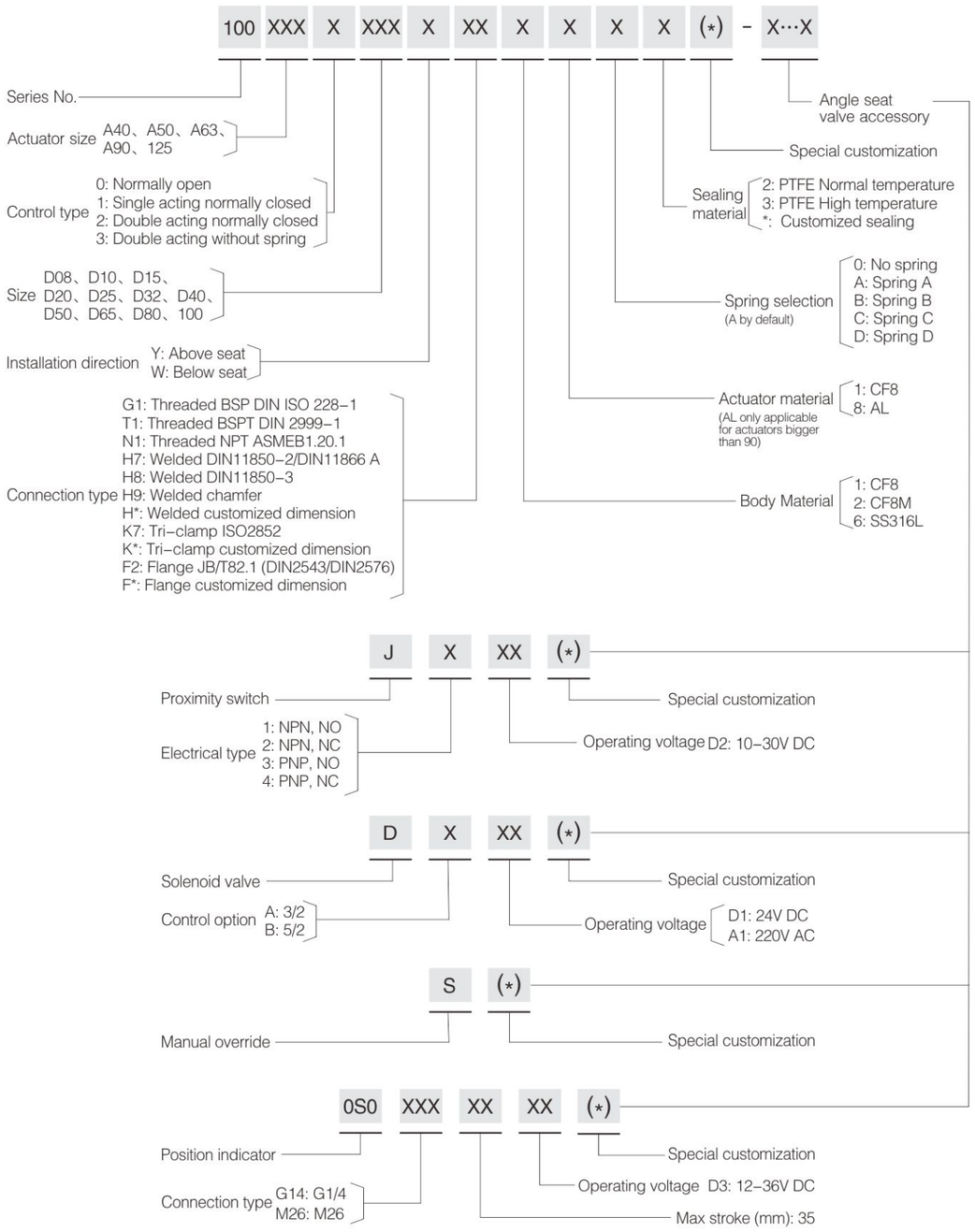
Technical Specification

- Operating pressure: 12V DC — 36V DC
- Current: 25mA/24V DC
- Indicator: visually signal valve open/close state
- Temperature range: –10℃ — +80℃
- Protection level: IP65
- Shell material: PA6+PC
- Wiring instruction: open clear lid, thread the cord through Opening and connect to desired ports.
- Leakage class: DIN EN 12266 Class A



Y-type Angle Seat Valve

Order Instruction



ESG®

101 Series
Economy Type Angle Seat Valve

Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Actuator material: AL
- Body material: CF8
- Seal material: PTFE
- Applicable fluid: Water, oil, gas, pulp and neutral liquild
- Fluid temperature: –10℃ — +80℃
- Ambient temperature: –10℃ — +80℃
- Control type: Double acting normally closed, Double acting without spring
- Connection type: Threaded connection, Welded connection
- Leakage class: DIN EN 12266 Class A

Advantages

Actuator has lightweight design, fine aesthetics, tight structure and excellent performance

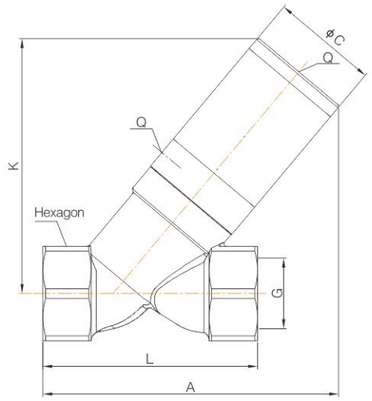
Double Acting, Normally Closed (NC) Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	1.8	32	0–1.0	0.3–0.6
DN10	G3/8"	13	3.2	32	0–1.0	0.3–0.6
DN15	G1/2"	13	3.5	32	0–1.0	0.3–0.6
DN20	G3/4"	18	6.2	32	0–1.0	0.3–0.6
DN25	G1"	24	9.9	40	0–1.0	0.3–0.6
DN32	G1 1/4"	31	17.9	50	0–1.0	0.3–0.6
DN40	G1 1/2"	35	22.7	50	0–1.0	0.3–0.7
DN50	G2"	45	47.2	63	0–1.0	0.3–0.7

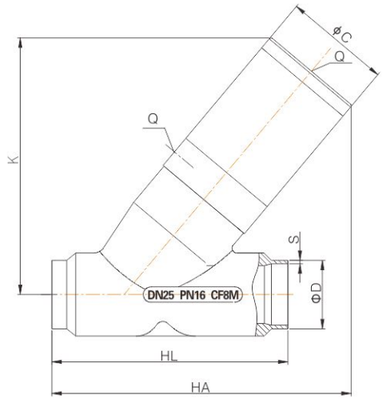
Double Acting, Normally Closed (NC) Enter Below Seat (No Water–hammer)

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	1.8	32	0–1.0	0.3–0.7
DN10	G3/8"	13	3.2	32	0–1.0	0.3–0.7
DN15	G1/2"	13	3.5	32	0–1.0	0.3–0.7
DN20	G3/4"	18	6.2	32	0–1.0	0.3–0.7
DN25	G1"	24	9.9	40	0–1.0	0.3–0.7
DN32	G1 1/4"	31	17.9	50	0–0.8	0.3–0.7
DN40	G1 1/2"	35	22.7	50	0–0.6	0.3–0.7
DN50	G2"	45	47.2	63	0–0.3	0.3–0.7

Y-type Angle Seat Valve



Threaded connection



Welded connection

Main Dimension

Size	Actuator	Q	ΦC	K	Threaded connection				Welded connection					
					G	A	L	Hexagon	HA	HL	DIN11850–2		DIN11850–3	
											ΦD	S	ΦD	S
DN8	32	1/8"	38	99	1/4	112	68	27	–	–	–	–	–	–
DN10	32	1/8"	38	99	3/8"	112	68	27	–	–	–	–	–	–
DN15	32	1/8"	38	99	1/2"	112	68	27	109	70	19	1.5	20	2
DN20	32	1/8"	38	105	3/4"	118	75	32	117	82	23	1.5	24	2
DN25	40	1/8"	45	110	1"	125	90	40	133	100	29	1.5	30	2
DN32	50	1/8"	55	135	1 1/4"	156	116	50	158	125	35	1.5	36	2
DN40	50	1/8"	55	138	1 1/2"	158	116	56	161	130	41	1.5	42	2
DN50	63	1/8"	69	160	2"	190	138	69	191	155	53	1.5	54	2

Note: * designates design dimension (the actual dimension may vary)

Order Instruction

101 X XXX X XX X (*)

- Series No.
- Control type: 2: Double acting normally closed; 3: Double acting without spring
- Size: D08、D10、D15、D20、D25、D32、D40、D50
- Installation direction: Y: Above seat; W: Below seat
- Connection type: G1: Threaded BSP DIN ISO 228–1; T1: Threaded BSPT DIN 2999–1; N1: Threaded NPT ASMEB1.20.1; H7: Welded DIN11850–2/DIN11866 A; H8: Welded DIN11850–3; H9: Welded Chamfer; H*: Welded customized dimension
- Body Material 1: CF8
- Special customization

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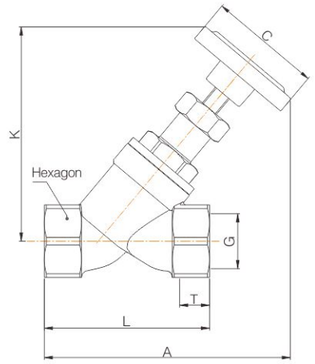
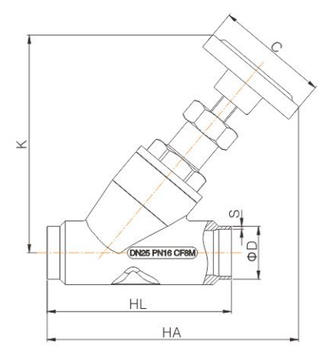
107 Series
Threaded Manual
Angle Seat Valve

107 Series
Welded Manual
Angle Seat Valve



Threaded connection



Welded connection

Main Dimension

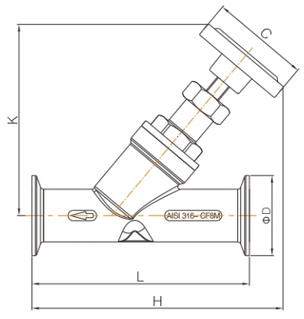
Size	C	K	Threaded connection					Welded connection					
			G	T	A	L	Hexagon	HA	HL	DIN11850–2		DIN11850–3	
										ΦD	S	ΦD	S
DN8	62	115	1/4"	12	128	68	27	–	–	–	–	–	–
DN10	62	115	3/8"	12	128	68	27	–	–	–	–	–	–
DN15	62	115	1/2"	15	128	68	27	120	70	19	1.5	20	2
DN20	62	120	3/4"	16	133	75	32	128	82	23	1.5	24	2
DN25	62	125	1"	17	142	90	40	144	100	29	1.5	30	2
DN32	62	146	1 1/4"	21	166	116	50	165	125	35	1.5	36	2
DN40	62	148	1 1/2"	21	168	116	56	168	130	41	1.5	42	2
DN50	62	155	2"	22	182	138	69	182	155	53	1.5	54	2
DN65	80	202	2 1/2"	26	233	178	85	–	–	–	–	–	–
DN65 Square bonnet	80	211	2 1/2"	26	226	178	85	270	270	70	2		

Note: * designates design dimension (the actual dimension may vary)

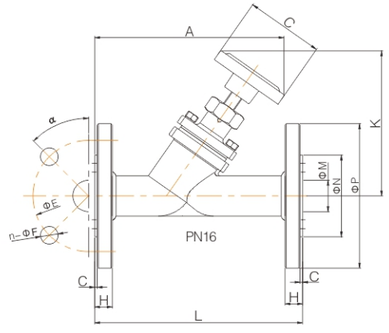
Y-type Angle Seat Valve

107 Series
Tri-clamp Manual
Angle Seat Valve

107 Series
Flanged Manual
Angle Seat Valve



Tri–clamp connection



Flange connection

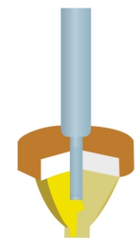
Main Dimension

Size	C	Tri–clamp connection				Flange connection										
		K	ΦD	L	H	K	A	L	C	H	ΦE	n–ΦF	ΦM	ΦN	ΦP	α
DN15	62	113	34	80	132	116	136	130	2	14	65	4–14	16	45	95	45°
DN20	62	122	50.5	130	147	122	157	150	2	14	75	4–14	19	56	105	45°
DN25	62	126	50.5	130	156	127	157	160	2	14	85	4–14	26	65	115	45°
DN32	62	142	50.5	146	174	147	162	180	2	16	100	4–18	31	78	140	45°
DN40	62	141	64	160	185	149	181	200	3	16	110	4–18	38	84	150	45°
DN50	62	152	64	175	195	156	210	230	3	16	125	4–18	54	100	165	45°
DN65 Square bonnet	80	200	91	178	266	201	272	290	3	18	145	4–18	71	120	185	45°

ESG®

Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Body material: CF8M/CF8
- Seal material: PTFE
- Applicable medium: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, organic solvent, weak acid or weak base solution
- Fluid temperature: –10℃ — +180℃ (PTFE Normal temperature)
  +25℃ — +220℃ (PTFE High temperature)
- Ambient temperature: –10℃ — +80℃
- Maximum fluid viscosity: 600m²/s
- Connection type: Threaded, Welded, Tri–clamp, flange
- Leakage class: Class A



Adjustable seat

Note: Adjustable seat can be installed to achieve manual flow adjustment.

Order Instruction

107 XXX X XX X X (*)

- Series No. 107
- Size XXX: D08、D10、D15、D20、D25、D32、D40、D50、D65
- Installation direction X: Y: Above seat; W: Below seat
- Connection type XX:
  - G1: Threaded BSP DIN ISO 228–1
  - T1: Threaded BSPT DIN 2999–1
  - N1: Threaded NPT ASMEB1.20.1
  - H7: Welded DIN11850–2/DIN11866 A
  - H8: Welded DIN11850–3
  - H9: Welded Chamfer
  - H*: Welded customized dimension
  - K7: Tri–clamp ISO2852
  - K*: Tri–clamp customized dimension
  - F2: Flange JB/T82.1 (DIN2543/DIN2576)
  - F*: Flange customized dimension
- Body Material X: 1: CF8; 2: CF8M
- Sealing material X: 2: PTFE Normal temperature; 3: PTFE High temperature; *: Customized sealing
- (*): Special customization

Y-type Angle Seat Valve

111 Series
Balance Type Pneumatic
Angle Seat Valve

Function Principle

This product uses a smaller cylinder, but can achieve higher sealing pressure. The principle is that the medium enters the sealing cavity between the valve seat and the connection through the small holes on valve seat, and applies secondary pressure on the valve seat, thereby increasing the valve sealing pressure. Since sealing force of the valve mainly comes from force of the medium, this is an ideal valve for controlling high pressure flow with low control pressure.

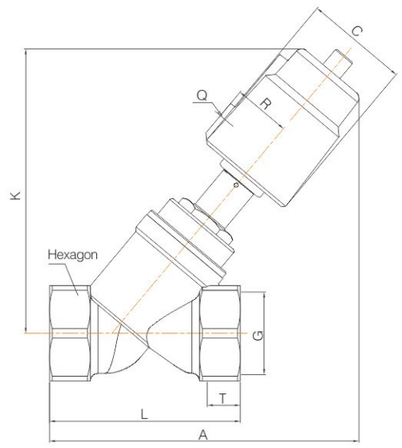
Advantages

1. Fitting big valve bodies with small actuators saves control air input.
2. Less control pressure required to operate the valve.
3. Ingenious use of the medium pressure to achieve self–sealing allows the medium pressure to be as high as valve nominal pressure.
4. Compact structure takes up less space and lowers material costs.

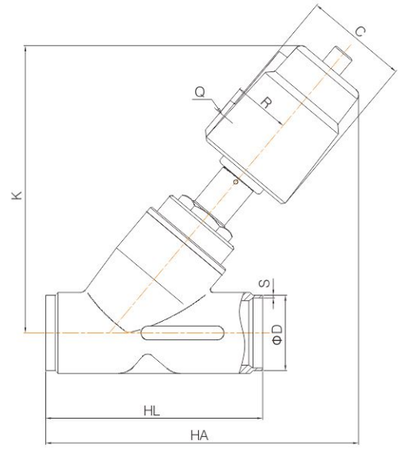
Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 4bar (58psi)
- Body material: CF8/CF8M
- Seal material: FPM, PTFE
- Medium temperature: –10℃ — +180 ℃
  (PTFE Normal temperature)
- Ambient temperature: –10℃ — +80℃
- Control type: Normally closed
- Control medium: Filtered compressed air or neutral gas
- Applicable medium: Non–viscous medium such as water, Alcohol, Oil, Gas or liquid, Organic solvent
- Leakage class: DIN EN 12266 Class A

ESG®



Threaded connection



Welded connection

Main Dimension

Size	Actuator (mm)	Q	C	R	K	Threaded connection					Welded connection					
						G	T	A	L	Hexagon	HA	HL	DIN11850–2		DIN11850–3	
													ΦD	S	ΦD	S
DN50	63	1/8"	75	41	210	2"	22	228	138	69	230	155	53	1.5	54	2
DN65 Square bonnet	63	1/8"	75	41	235	2 1/2"	26	235	178	85	280	270	70	2	—	—
DN80 Square bonnet	90	1/8"	106	55	340	3"	27	329	210	100	346	284	85	2	—	—

Note: * designates design dimension (the actual dimension may vary)

Order Instruction

111 X XXX X XX X X (*)

- 111 — Series No.
- X — Control type 1: Single acting normally closed
- XXX — Size D50、D65、D80
- X — Installation direction W: Below seat
- XX — Connection type
  - G1: Threaded BSP DIN ISO 228–1
  - T1: Threaded BSPT DIN 2999–1
  - N1: Threaded NPT ASMEB1.20.1
  - H7: Welded DIN11850–2/DIN11866 A
  - H8: Welded DIN11850–3
  - H9: Welded Chamfer
  - H*: Welded customized dimension
- X — Body material
  - 1: CF8
  - 2: CF8M
- X — Actuator material 1: CF8
- (*) — Special customization

Proportional Control Angle Seat Valve

104 Series
Two-piece Pneumatic
Proportional Control
Angle Seat Valve

105 Series
Pneumatic Proportional
Control Angle Seat Valve

Function Principle

Positioner receives 4–20mA electrical signals from control system and converts them into air signals to control the valve and make precise flow adjustment using the adjustable seat.

Attention

- If the valve body needs to be taken off during installation, please recalibrate the zero–point. Keep the positioner upright at all time.
- To ensure the exact adjustment, please install the valve in below seat direction.
- Please ensure water proof of the positioner.

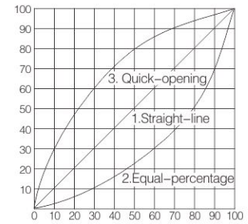
Single Acting, Normally Closed (NC) Pressure Data Sheet

Size	Orifice (mm)	Kv (m^3/h)	Actuator (mm)	Max.△P (MPa)	Max Control Pressure (MPa)
DN8	13	2.2	50A	1.6	0.45
			63A	1.6	0.50
DN10	13	3.2	50A	1.6	0.45
			63A	1.6	0.50
DN15	13	3.2	50A	1.6	0.45
			63A	1.6	0.50
DN20	18	6.6	50A	1.4	0.45
			63A	1.6	0.50
DN25	24	11.4	63A	1.3	0.50
DN32	31	18.3	63A	0.6	0.50
			90B	1.6	0.40
DN40	35	21.3	63A	0.5	0.50
			90A	1.6	0.60
			90B	1.1	0.40
DN50	45	40.4	90A	1.0	0.60
			90B	0.7	0.40
			125A	1.6	0.55
			125B	1.3	0.45
			125D	1.1	0.40
DN65	61	46.8	90A	0.5	0.60
			125A	0.9	0.55
			125B	0.6	0.45
DN80	80	84.0	125A	0.5	0.55

Advantages

1. Convenient to adjust and easy to operate.
2. Stable operation with vibration resistance.
3. The unique design of adjustable seat establishes a proportional linear relationship between open/close state of the valve with the flow rate, achieving precise flow adjustment.

Control Output Chart

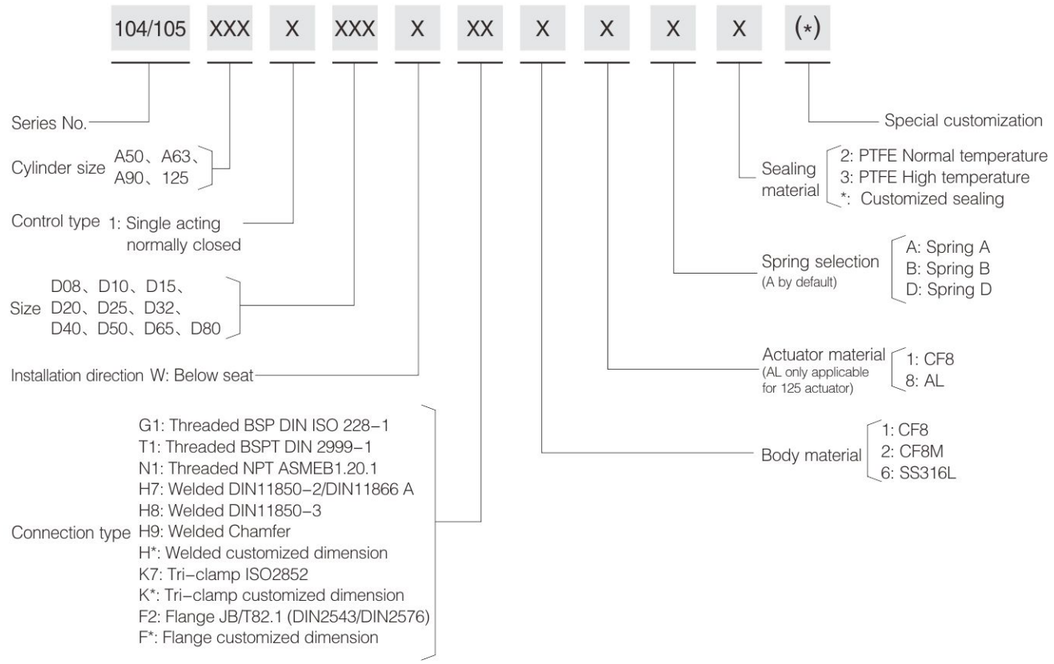


By selecting characteristic curve of the positioner, the controlled valve can output to straight–line, equal–percentage, quick–opening and other custom characteristics.

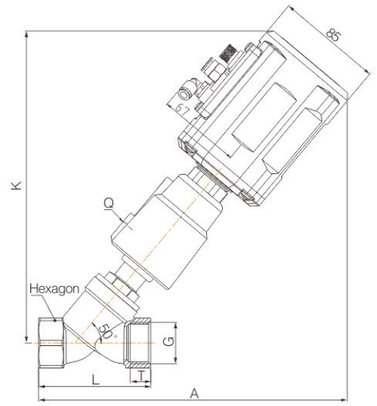
Technical Specification

- Connection type: Threaded, Welded, Tri–clamp, Flange
- Medium temperature: –10℃ — +180℃ (PTFE Normal temperature)
  +25℃ — +220℃ (PTFE High temperature)
- Medium temperature: 0 — +60℃
- Operating pressure: Refer to Angle Seat Valve Single–acting NC (enter below seat) data sheet.
- Control pressure: 4—7bar (58–102psi)
- Control power: 24VDC ± 10%
- Valve set signal: 0/4—20mA or 0—5/10V
- Power consumption: <5W
- Input Signal Impedance: 240Ω at 0/4—20mA,
  21KΩ under 0—5/10V
- Simulated Output signal: Max load is 560Ω at 0/4—20mA,
  Max current is 10mA under 0—5/10V
- Protection: IP65
- Leakage class: DIN EN 12266 Class A

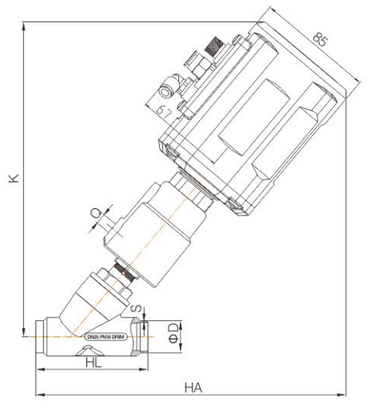
Order Instruction



Proportional Control Angle Seat Valve



Threaded connection



Welded connection

Main Dimension (Threaded connection)

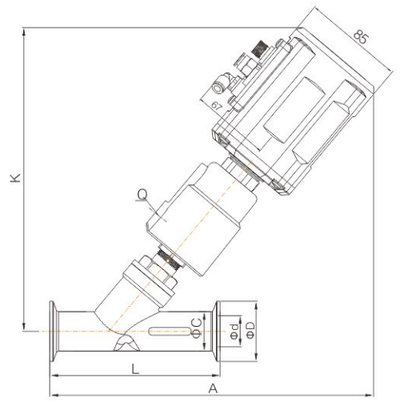
Size	Actuator (mm)	Q	K	A	L	G	Hexagon	T
DN8	50	1/8"	240	235	68	1/4"	27	12
	63	1/8"	253	247				
DN10	50	1/8"	240	235	68	3/8"	27	12
	63	1/8"	253	247				
DN15	50	1/8"	240	235	68	1/2"	27	15
	63	1/8"	253	247				
DN20	50	1/8"	247	240	75	3/4"	32	16
	63	1/8"	260	251				
DN25	50	1/8"	251	250	90	1"	40	17
	63	1/8"	273	267				
DN32	63	1/8"	285	285	116	1 1/4"	50	21
	90	1/8"	335	315				
DN40	90	1/8"	335	315	116	1 1/2"	56	21
DN50	90	1/8"	344	330	138	2"	69	22
	125AL	1/4"	402	373				
DN65 Square bonnet	125AL	1/4"	432	388	178	2 1/2"	85	26
DN80 Square bonnet	125AL	1/4"	457	408	210	3"	100	27

Main Dimension (Welded connection)

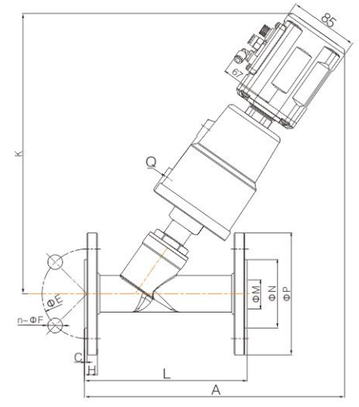
Size	Actuator (mm)	Q	K	HA	HL	DIN11850–2		DIN11850–3	
						ΦD	S	ΦD	S
DN15	50	1/8"	240	228	70	19	1.5	20	2
	63	1/8"	253	240					
DN20	50	1/8"	247	235	82	23	1.5	24	2
	63	1/8"	260	246					
DN25	50	1/8"	251	250	100	29	1.5	30	2
	63	1/8"	273	270					
DN32	63	1/8"	285	281	125	35	1.5	36	2
	90	1/8"	335	312					
DN40	90	1/8"	335	315	130	41	1.5	42	2
DN50	90	1/8"	334	330	155	53	1.5	54	2
	125AL	1/4"	402	375					
DN65 Square bonnet	125AL	1/4"	432	428	270	70	2	–	–
DN80 Square bonnet	125AL	1/4"	457	428	284	85	2	–	–

Note: * designates design dimension (the actual dimension may vary)

ESG®



Tri–clamp connection



Flange connection

Main Dimension (Tri-clamp connection)

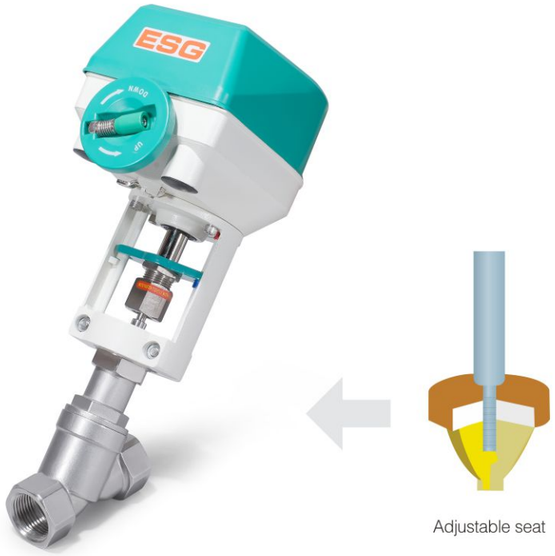
Size	Actuator (mm)	Q	K	A	L	ΦC	ΦD	Φd
DN15	50	1/8"	237	235	80	19	34	15
DN20	50	1/8"	259	253	130	25	50.5	19
	63	1/8"	274	270				
DN25	50	1/8"	255	265	130	32	50.5	27
	63	1/8"	277	283				
DN32	63	1/8"	285	295	146	37	50.5	31
	90	1/8"	335	325				
DN40	90	1/8"	335	335	160	40	64	33
DN50	90	1/8"	347	345	175	53	64	45
	125AL	1/4"	398	393				
DN65 Square bonnet	125AL	1/4"	432	428	278	75	91	66
DN80 Square bonnet	125AL	1/4"	454	428	290	89	106	78

Main Dimension (Flange connection)

Size	Actuator (mm)	Q	K	A	L	ΦP	ΦN	ΦM	H	C	ΦE	n–ΦF
DN15	50	1/8"	255	245	130	95	45	16	14	2	65	4–14
DN20	50	1/8"	255	265	150	105	56	19	14	2	75	4–14
DN25	50	1/8"	285	270	160	115	65	26	14	2	85	4–14
	63	1/8"	286	285								
DN32	63	1/8"	299	285	180	140	78	31	16	2	100	4–18
	90	1/8"	347	310								
DN40	90	1/8"	352	330	200	150	84	38	16	3	110	4–18
DN50	90	1/8"	357	357	230	165	100	49	16	3	125	4–18
	125AL	1/4"	412	398								
DN65 Square bonnet	125AL	1/4"	432	443	290	185	120	66	18	3	145	4–18
DN80 Square bonnet	125AL	1/4"	457	448	310	200	135	78	20	3	160	8–18

Proportional Control Angle Seat Valve

106 Series
Electrical Proportional
Control Angle Seat Valve



Adjustable seat

Pressure Data Sheet

Size	Orifice	Actuator	Pressure range (enter below seat) MPa	Pressure range (enter above seat) MPa
DN15	13	10P	0–1.6	0–1.6
DN20	18	10P	0–1.6	0–1.6
DN25	24	10P	0–1.2	0–1.6
		20P	0–1.6	0–1.6
DN32	31	10P	0–0.5	0–1.2
		20P	0–1.6	0–1.6
DN40	35	10P	0–0.3	0–0.9
		20P	0–1.4	0–1.6
		35P	0–1.6	0–1.6
DN50	45	10P	–	0–0.5
		20P	0–0.6	0–1.1
		35P	0–1.5	0–1.6
DN65	61	20P	–	0–0.6
		35P	0–0.7	0–1.1
DN80	80	20P	–	0–0.3
		35P	0–0.3	0–0.6
DN100	90	35P	–	0–0.4

ESG®

Function Principle

Electrical positioner controls the angle seat valve's open/close state through 4–20 mA or 0–10V DC signals. It achieves precise flow adjustment using the adjustable seat within the valve and may allow manual control.

Attention

- If the valve body needs to be taken off during installation, please recalibrate the zero–point. Keep the positioner upright at all time.
- To ensure accurate adjustment, please install the valve in below seat direction.
- Please ensure water proof of the positioner.

Advantages

1. Convenient and easy to use
2. Operates steadily under vibration to achieve precise flow control

Technical Specification

- Voltage: 220V AC or 24V AC
- Control Power: 4–20mA or 0–10V DC
- Medium Temperature: –15℃ — +50℃
- Connection type: Threaded, Welded, Flange, Tri–clamp
- Positioner: Electrical motor control
- Protection: IP54
- Leakage class: DIN EN 12266 Class A

Order Instruction

106 XXX XX XXX X XX X X (*)

- 106: Series No.
- XXX: Electrical positioner option — P10: 10P; P20: 20P; P35: 35P
- XX: Operating voltage — A1: 220V AC; A2: 24V AC
- XXX: Size — D15、D20、D25、D32、D40、D50、D65、D80、100
- X: Installation direction — Y: Above seat; W: Below seat
- XX: Connection type — G1: Threaded BSP DIN ISO 228–1; T1: Threaded BSPT DIN 2999–1; N1: Threaded NPT ASMEB1.20.1; H7: Welded DIN11850–2/DIN11866 A; H8: Welded DIN11850–3; H9: Welded Chamfer; H*: Welded customized dimension; K7: Tri–clamp ISO2852; K*: Tri–clamp customized dimension; F2: Flange JB/T82.1 (DIN2543/DIN2576); F*: Flange customized dimension
- X: Body material — 1: CF8; 2: CF8M; 6: SS316L
- X: Sealing material — 2: PTFE Normal temperature; 3: PTFE High temperature; *: Customized sealing
- (*): Special customization

Multi-channel Valve

103 Series
Threaded Pneumatic
Three-way Angle
Seat Valve

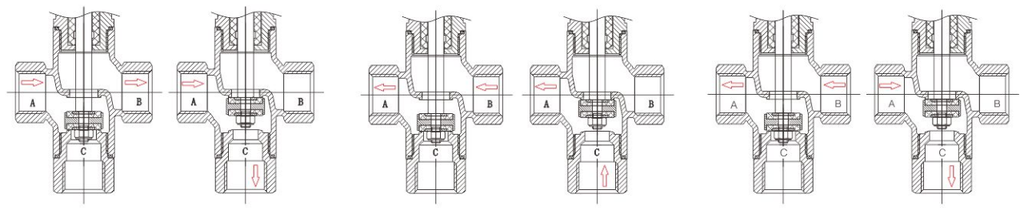
103 Series
Tri-clamp Pneumatic
Three-way Angle
Seat Valve

Function Principle

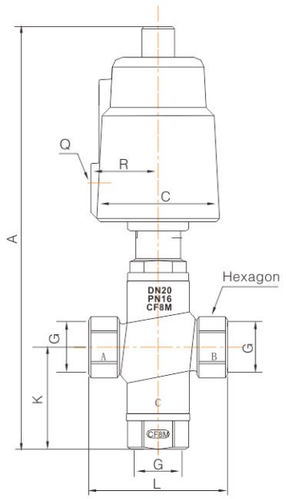
The valve has three ports that enable "split", "blend", and "reversal" functions. When the valve is in idle state, C port is closed due to spring force. When the actuator piston is compressed, C port is opened and B port is closed. When double acting, the valve opens and closes by compressed air.

Technical Specification

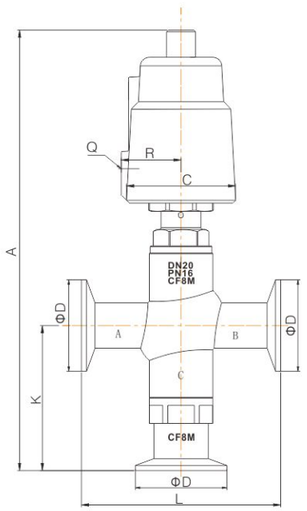
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8M
- Actuator material: CF8
- Seal material: PTFE
- Fluid temperature: –10℃ — +180℃ (PTFE Normal temperature)
- Ambient temperature: –10℃ — +80℃
- Control type: Normally closed, Double acting normally closed, Double acting without spring
- Connection type: Threaded connection, Tri–clamp
- Applicable medium: Water, Steam, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye
- Leakage class: DIN EN 12266 Class A



Split function | Blend function | Reversal function



Threaded connection



Tri–clamp connection

Main Dimension (Threaded connection)

Size	Actuator	Q	C	R	G	A	K	L	Hexagon	Weight (kg)
DN15	40	1/8"	50.5	27	1/2"	195	50	68	27	0.91
DN20	50	1/8"	60	33	3/4"	230	60	75	32	1.25
DN25	50	1/8"	60	33	1"	242	68	90	40	1.64
DN32	90	1/8"	106	55	11/4"	355	86	116	50	4.62
DN40	90	1/8"	106	55	11/2"	360	90	116	56	5.15
DN50	90	1/8"	106	55	2"	382	102	138	69	6.52

Main Dimension (Tri-clamp connection)

Size	Actuator	Q	C	R	ΦD	A	K	L	Weight (kg)
DN15	40	1/8"	50.5	27	34	223	80	90	0.99
DN20	50	1/8"	60	33	50.5	246	80	90	1.48
DN25	50	1/8"	60	33	50.5	262	90	100	1.78
DN32	90	1/8"	106	55	50.5	373	104	130	4.75
DN40	90	1/8"	106	55	64	381	111	150	5.45
DN50	90	1/8"	106	55	64	408	128	160	6.65

Multi-channel Valve

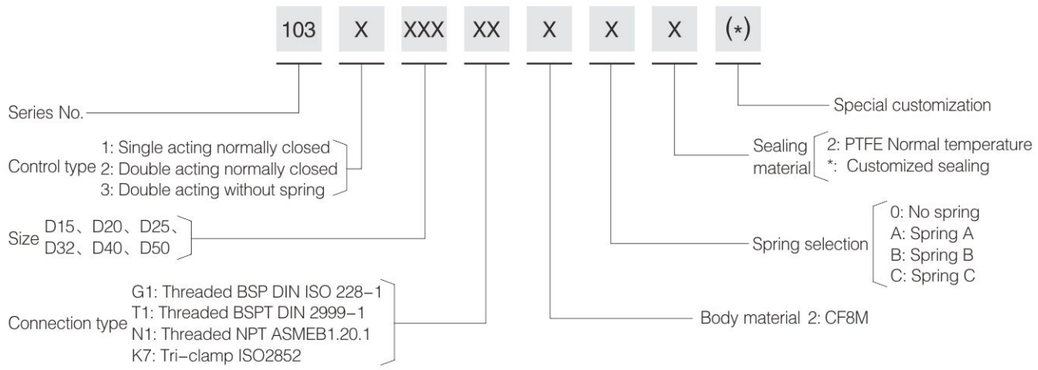
Single Acting, Normally Closed

Size	Actuator	Interface	Orifice	Flow value Kv(m^3/h)		Split function		Blend function		Reversal function	
				A–B	A–C	Differential pressure range(MPa)	Control pressure (Mpa)	Differential pressure range(MPa)	Control pressure (Mpa)	Differential pressure range(MPa)	Control pressure (Mpa)
DN15–A	40	1/2"	14	4.1	4.9	0–1.6	0.4–0.6	0–1.2	0.4–0.6	0–1.4	0.4–0.6
DN20–A	50	3/4"	18	5.8	6.5	0–1.6	0.45–0.65	0–1.4	0.45–0.65	0–1.6	0.45–0.7
DN20–B						0–1.6	0.3–0.55	0–0.8	0.3–0.55	0–1.6	0.3–0.7
DN25–A	50	1"	24	13.9	14.4	0–1.1	0.45–0.65	0–0.6	0.45–0.65	0–0.7	0.45–0.7
DN25–B						0–1.4	0.3–0.65	0–0.3	0.3–0.65	0–1.2	0.3–0.7
DN32–A	90	1 1/4"	31	20.9	22.8	0–0.55	0.6–0.7	0–1.6	0.6–0.7	0–1.0	0.6–0.7
DN32–B						0–1.4	0.45–0.7	0–1.2	0.45–0.7	0–1.6	0.45–0.7
DN32–C						0–1.6	0.3–0.45	0–0.2	0.3–0.45	0–1.6	0.3–0.5
DN40–A	90	1 1/2"	35	24.4	26.6	0–0.45	0.6–0.7	0–1.6	0.6–0.7	0–0.6	0.6–0.7
DN40–B						0–1.2	0.45–0.7	0–1.0	0.45–0.7	0–1.6	0.45–0.7
DN40–C						0–1.6	0.3–0.5	0–0.1	0.3–0.5	0–1.6	0.3–0.6
DN50–A	90	2"	45	29.3	31.9	0–0.25	0.6–0.7	0–0.9	0.6–0.7	0–0.3	0.6–0.7
DN50–B						0–0.9	0.45–0.7	0–0.5	0.45–0.7	0–0.8	0.45–0.7
DN50–C						0–1.6	0.3–0.6	—	—	0–1.6	0.3–0.7

Double Acting, Normally Closed

Size	Actuator	Interface	Orifice	Flow value Kv(m^3/h)		Split function		Blend function		Reversal function	
				A–B	A–C	Differential pressure range(MPa)	Control pressure (Mpa)	Differential pressure range(MPa)	Control pressure (Mpa)	Differential pressure range(MPa)	Control pressure (Mpa)
DN15–A	40	1/2"	14	4.1	4.9	0–1.6	0.4–0.6	0–1.6	0.4–0.6	0–1.4	0.4–0.6
DN20–B	50	3/4"	18	5.8	6.5	0–1.6	0.3–0.55	0–1.6	0.3–0.55	0–1.6	0.3–0.7
DN25–B	50	1"	24	13.9	14.4	0–1.4	0.3–0.65	0–1.4	0.3–0.65	0–1.2	0.3–0.7
DN32–C	90	1 1/4"	31	20.9	22.8	0–1.6	0.3–0.55	0–1.6	0.3–0.55	0–1.6	0.3–0.55
DN40–C	90	1 1/2"	35	24.4	26.6	0–1.6	0.3–0.6	0–1.6	0.3–0.6	0–1.6	0.3–0.6
DN50–C	90	2"	45	29.3	31.9	0–1.6	0.3–0.65	0–1.6	0.3–0.65	0–1.6	0.3–0.7

Order Instruction



ESG®

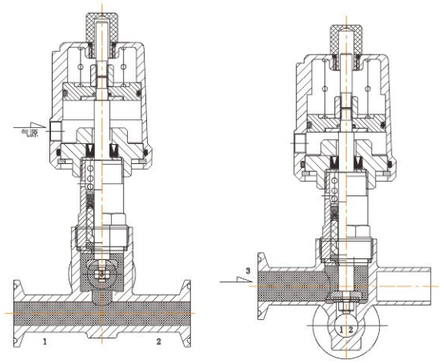
109 Series Pneumatic Modular Valve

Function Principle

When the valve is in idle state, due to the spring force the valve is Normally Closed (No.3 port), the bottom two ports are Normally Open(No.2 port); When the actuator piston is pressed by air, the valve opens, fluids from NO.3 port goes into No.1 and No.2 ports. When Double Acting, the valve opens/closes by compressed air.

Advantages

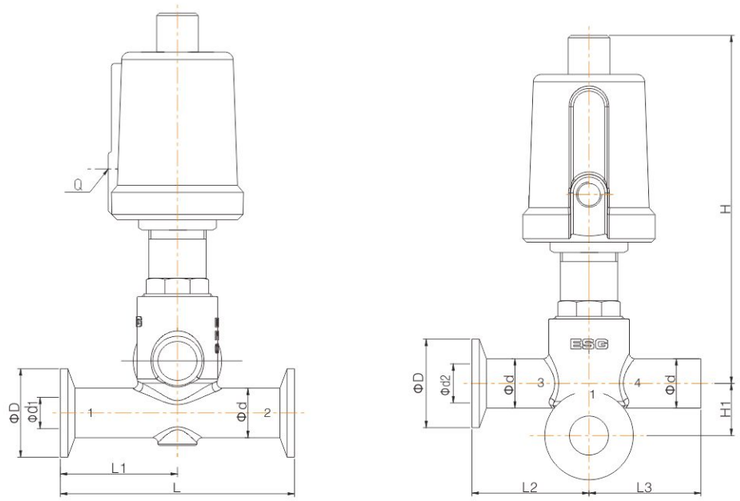
1. Easy to clean
   a. Seat is separate from the public ports. Well machined inner wall of the public ports ensures a smooth flow.
   b. The valve utilizes bottom seal and seal ring for connection to valve stem in order to avoid fluid residue and allow effortless cleaning.
2. The modular valve system is easy to install and assemble, allowing many different layouts. It is a good choice for mixing, distributing and collecting fluids.



Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control medium: Filtered compressed air or neutral gas
- Body material: CF8M
- Actuator material: CF8
- Seal material: PTFE
- Medium temperature: –10℃ — +180℃ (PTFE Normal temperature)
- Ambient temperature: –10℃ — +80℃
- Control type: Normally Closed, Double acting normally closed, Double acting without spring
- Connection type: Tri–clamp
- Applicable medium: Water, Steam, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye
- Leakage class: DIN EN 12266 Class A

Multi-channel Valve



Main Dimension

Size	Actuator	Q	ΦD	Φd	Φd1	Φd2	H	H1	L1	L2	L3	L
DN10	40	1/8"	34	19	12	15	134	20	45	45	43	90
DN20	50	1/8"	50.5	29.5	24	24	140	30	60	60	43	120

Order Instruction

109 X XXX XX X X (*)

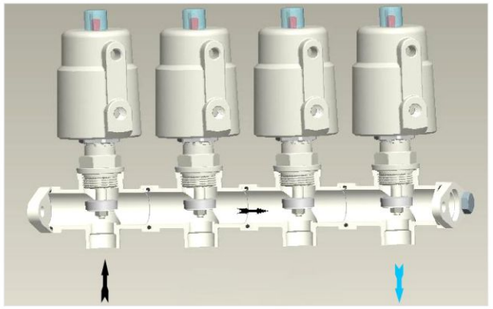
- 109 — Series No.
- X — Control type: 1: Single acting normally closed; 2: Double acting normally closed; 3: Double acting without spring
- XXX — Size D10、D20
- XX — Connection type K7: Tri-clamp ISO2852
- X — Body material 2: CF8M
- X — Sealing material: 2: PTFE Normal temperature; *: Customized sealing
- (*) — Special customization

ESG®

110 Series
Pneumatic
Manifold Valve

Technical Specification

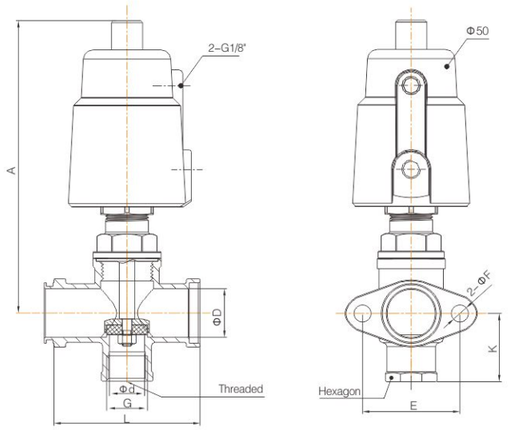
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control medium: Filtered compressed air or neutral gas
- Seal material: PTFE
- Body material: CF8/CF8M
- Applicable medium: Water, Oil, Ail and other liquid
- Medium temperature: –10℃ — +180℃ (PTFE Normal temperature)
  +25℃ — +220℃ (PTFE High temperature)
- Ambient temperature: –10℃ — +80℃
- Connection type: Welded, Threaded, Diamond flange
- Control type: Normally closed, Double acting normally closed, Double acting without spring
- Leakage class: DIN EN 12266 Class A



Advantages

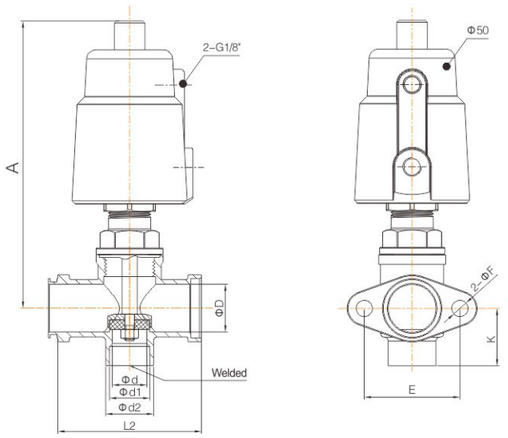
Manifold valve adopts three–way connection design for optimal pipeline layout. It has aesthetic appearance, compact structure, and superb performance. A great choice for material blending.

Multi-channel Valve



Main Dimension (Threaded connection)

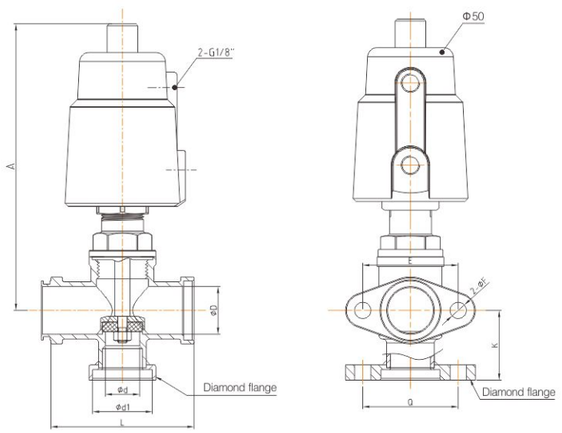
Size	A	K	L	ΦD	Φd	G	Hexagon	ΦE	2-ΦF	Flow value Kv(m^3/h)	Weight (kg)
DN15	153	35	76	25	18	1/2"	27	50	8.5	8.1	1.2
DN25	153	46	90	32	24	1"	39	57	8.5	14.8	1.6



Main Dimension (Welded connection)

Size	A	K	L	ΦD	Φd	Φd1	Φd2	ΦE	2-ΦF	Flow value Kv(m^3/h)	Weight (kg)
DN20	153	30	76	25	18	21	25	50	8.5	8.1	1.2
DN25	153	36	90	32	24	27	32	57	8.5	14.8	1.6

ESG®



Main Dimension (Diamond flange connection)

Size	A	K	L	ΦD	Φd	Φd1	Φd2	ΦE	2-ΦF	Flow value Kv(m^3/h)	Weight (kg)
DN20	153	36.5	76	25	18	31.3	50	50	8.5	8.1	1.2
DN25	153	43	90	32	24	40	57	57	8.5	14.8	1.6

Order Instruction

110 X XXX XX X X (*)

- 110 — Series No.
- X — Control type: 1: Single acting normally closed; 2: Double acting normally closed; 3: Double acting without spring
- XXX — Size D15、D20、D25
- XX — Bottom connection: G1: Threaded BSP DIN ISO 228-1(DN15, DN 25); HA: Welded Manifold dimension A(DN20, DN25); F1: Diamond flange(DN20, DN 25)
- X — Body material: 1: CF8; 2: CF8M
- X — Sealing material: 2: PTFE Normal temperature; 3: PTFE High temperature; *: Customized sealing
- (*) — Special customization

Filling Valve

1AA Series
Pipe-less Filling Valve

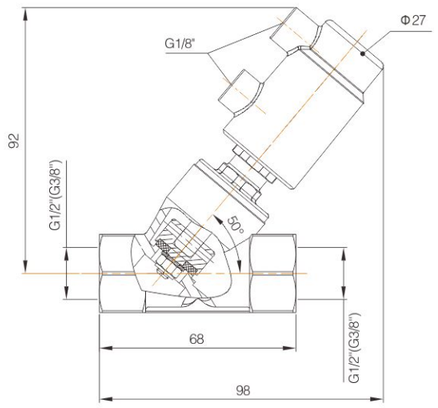
1AB Series
Pipe-less Filling Valve

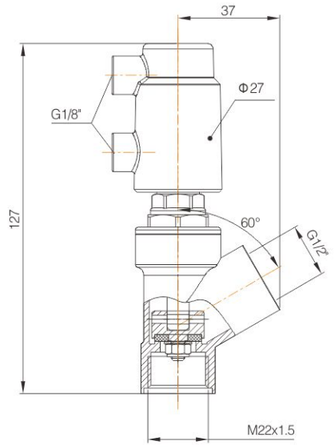
Advantages

Valve adopts compact and aesthetic design and is made of stainless steel material. Flexible valve seat design automatically adjusts to tilted surface and thereby improves sealing performance.

Technical Specification

- Control type: Double acting normally closed,
  Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control medium: Filtered compressed air or neutral gas
- Control pressure: 3–3.5bar (44–51psi)
- Body material: CF8 or CF8M
- Seal material: PTFE
- Medium temperature: –10℃ — +120℃
- Ambient temperature: –10℃ — +80℃
- Connection type: Threaded connection (BSP, BSPT, NPT)

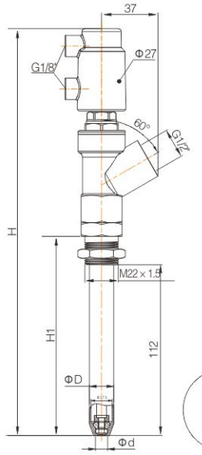




ESG®

1AC/1AF Series
Filling Valve with
Internal Sealing

1AP Series
Filling Valve with Internal
Sealing and Suction



1AC Filling Valve
with Internal Sealing

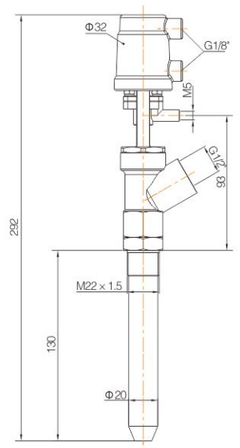
1AF Filling Valve
with Internal Sealing

Advantages

1. It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
2. Fast, accurate and stable filling.
3. Delicate and compact, easy to arrange pipeline layout.
4. Special nozzle structure and sealing design ensure no dripping leakage.
5. Bottom chamfer structure of the filling nozzle self–locates and enables submerged filling.
6. Internal suction pipe effectively recovers dripping liquid.

Technical Specification

- Control type: Double acting normally closed,
  Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: 3–4.5bar (44–65psi)
- Body material: CF8M
- Seal material: PTFE
- Medium temperature: –10℃ — +120℃
- Ambient temperature: –10℃ — +80℃



1AP Filling Valve with Internal
Sealing and Suction

1AC/1AF Main Dimension

Size	ΦD	Φd	H	H1
1AC	20	10	267	130
1AC	18	9	267	130
1AF	20	10	267	130
1AF	16	8	267	130

Filling Valve

1AL/1AM Series
Filling Valve with
Internal Sealing

1AD Series
Filling Valve with
External Sealing

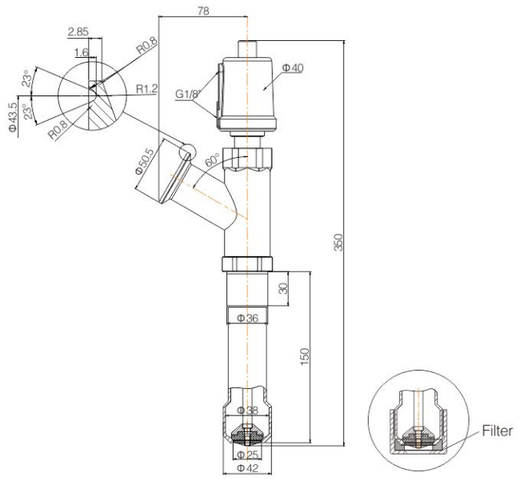
*** Accessory can be installed on top of actuator**

Advantages

1. It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
2. Fast, accurate and stable filling.
3. Delicate and compact, easy to arrange pipeline layout.
4. Special nozzle structure and sealing design ensure no dripping leakage.
5. Bottom chamfer structure of the filling nozzle self–locates and enables submerged filling.
6. The head gourd shape design of the filling tube reduces weight and cost without sacrificing flow rate.

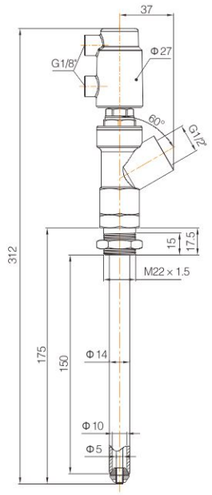
Technical Specification

- Control type: Double acting normally closed,
  Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: 3.5–4.5bar (44–65psi)
- Body material: CF8M
- Seal material: PTFE
- Medium temperature: –10℃ — +120℃
- Ambient temperature: –10℃ — +80℃



1AL Filling valve with
Internal sealing

1AM Filling valve with
internal sealing and filter

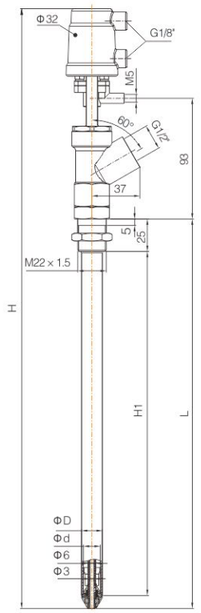


1AD Filling valve with
external sealing

ESG®

1AJ/1AE/1AK Series
Filling Valve with External
Sealing and Suction

1AG/1AI/1AH Series
Filling Valve with External
Sealing and Suction



Advantages

1. It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
2. Fast, accurate and stable filling.
3. Delicate and compact, easy to arrange pipeline layout.
4. Special nozzle structure and sealing design ensure no dripping leakage.
5. Bottom chamfer structure of the filling nozzle self–locates and enables submerged filling.
6. Internal suction structure recovers dripping liquid along the pipe wall.

Technical Specification

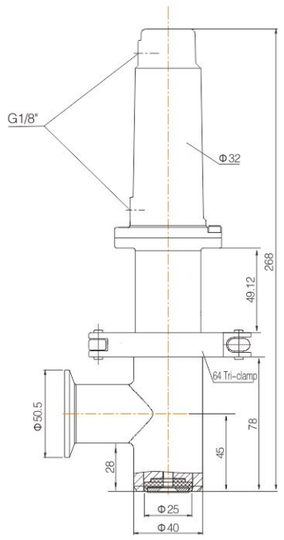
- Control type: Double acting normally closed,
  Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: 3–3.5bar (44–51psi)
- Body material: CF8M
- Seal material: PTFE
- Medium temperature: –10℃ — +120℃
- Ambient temperature: –10℃ — +80℃

Main Dimension

Size	ΦD	Φd	L	H	H1
1AJ	20	17	300	462	265
1AG	20	17	130	292	95
1AE	16	13	300	462	265
	16	13	220	382	185
1AI	16	13	130	292	95
1AK	12	10	300	462	265
1AH	12	10	130	292	95

Filling Valve

1A1 Series
Sauce Filling Valve
with Internal Sealing



Advantages

1. Widely used in filling machinery. Suitable for viscous, granular sauce filling. Such as beef sauce, chili sauce, bean paste, etc.;
2. Fast, accurate and stable filling;
3. The internal structure adopts plunger design, resulting in easy cleaning and minimal residue;
4. The filling body and the connection are connected by tri–clamp, so that they can be installed, uninstalled, and adjusted easily
5. Long valve stroke enables large–capacity filling;
6. Accessories, such as proximity switch and position indicator, can be installed on top of actuator to enable feedback of valve open/close state.

Technical Specification

- Control type: Double acting
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: ⩾3bar (44psi)
- Control medium: CF8M
- Seal material: PTFE
- Medium temperature: –10℃ — +120℃

Order Instruction

1AX	XXX	X	XXX	XX	XXX	X	X	XX	X	X	(*)
Series	Actuator	Control type	Inlet size	Pipe outer diameter (mm)	Pipe length (mm)	Sealing structure	Suction	Connection type	Valve securement	Body Material	Special custom–ization
		2:Double acting normally closed				I: Internal sealing	0: Without suction	G1: Threaded BSP DIN ISO 228–1	0: No securement	1: CF8	
		3:Double acting without spring				E: External sealing	1: With suction	T1: Threaded BSPT DIN 2999–1	M: Thread securement	2: CF8M	
								N1: Threaded NPT ASMEB1.20.1	D: Pipe securement		
								K7: Tri–clamp ISO2852			

1AA	A27	2/3	D10/D15	00	000	I	0	G1/T1/N1	0	1/2	
1AB	A27	2/3	D15	00	000	I	0	G1/T1/N1	0	1/2	
1AC	A27	2/3	D15	20	130	I	0	G1/T1/N1	M/D	2	
1AC	A27	2/3	D15	18	130	I	0	G1/T1/N1	M/D	2	
1AF	A27	2/3	D15	16	130	I	0	G1/T1/N1	M/D	2	
1AF	A27	2/3	D15	20	130	I	0	G1/T1/N1	M/D	2	
1AP	A32	2/3	D15	20	130	I	1	G1/T1/N1	M/D	2	
1AD	A27	2/3	D15	14	175	E	0	G1/T1/N1	M/D	2	
1AJ	A32	2/3	D15	20	300	E	1	G1/T1/N1	M/D	2	
1AG	A32	2/3	D15	20	130	E	1	G1/T1/N1	M/D	2	
1AE	A32	2/3	D15	16	300	E	1	G1/T1/N1	M/D	2	
1AE	A32	2/3	D15	16	220	E	1	G1/T1/N1	M/D	2	
1AI	A32	2/3	D15	16	130	E	1	G1/T1/N1	M/D	2	
1AK	A32	2/3	D15	12	300	E	1	G1/T1/N1	M/D	2	
1AH	A32	2/3	D15	12	130	E	1	G1/T1/N1	M/D	2	
1AL	A40	2/3	D25	42	150	I	0	K7	D	2	
1AM	A40	2/3	D25	50	150	I	0	K7	D	2	
1A1	A32	3	D25	40	010	I	0	K7	D	2	