ESG®

Angle Seat Valve



ESG angle seat valve is made entirely of high-quality stainless steel, ensuring stable operation of the valve even in harsh conditions, with corrosion resistance and wear resistance. The valve is precisely designed and can be used in conjunction with the ESG positioner to achieve precise flow and pressure control, meeting needs of various industrial applications. The internal structure of the valve is optimized with sealing and wear-resistant materials, ensuring a long service life for the valve. Even under high-frequency switching conditions, it can maintain stable sealing performance and good operating performance. In terms of configuration options, it includes different materials, connection methods, actuators and accessories to meet the needs of different users and application scenarios. Whether it is in the fine chemical processes that

Applications

Eps Molding, Industrial Gas, Textile Dyeing, Ceramic, Casting, Fodder, Water Treatment, Environmental, Chemical, Pharmaceutical, Food &



Angle Seat Valve with Multiple Configurations Available

Control Accessory



Position Indicator



Intelligent Positioner



Two-pieceIntelligent Positioner



Solenoid Valve



Adjustable Seat



Proximity Switch

Actuator



Pneumatic Actuator



Manual Actuator

Valve Body



Two-Way Vavle



Manifold Vavle



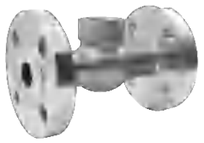
Modular Vavle



Three-Way Vavle



Three-Way Low Flow Resistance Vavle



Globe Valve



Shut Off Valve

ESG®

Y-type Angle Seat Valve

100 Series Threaded Angle Seat Valve

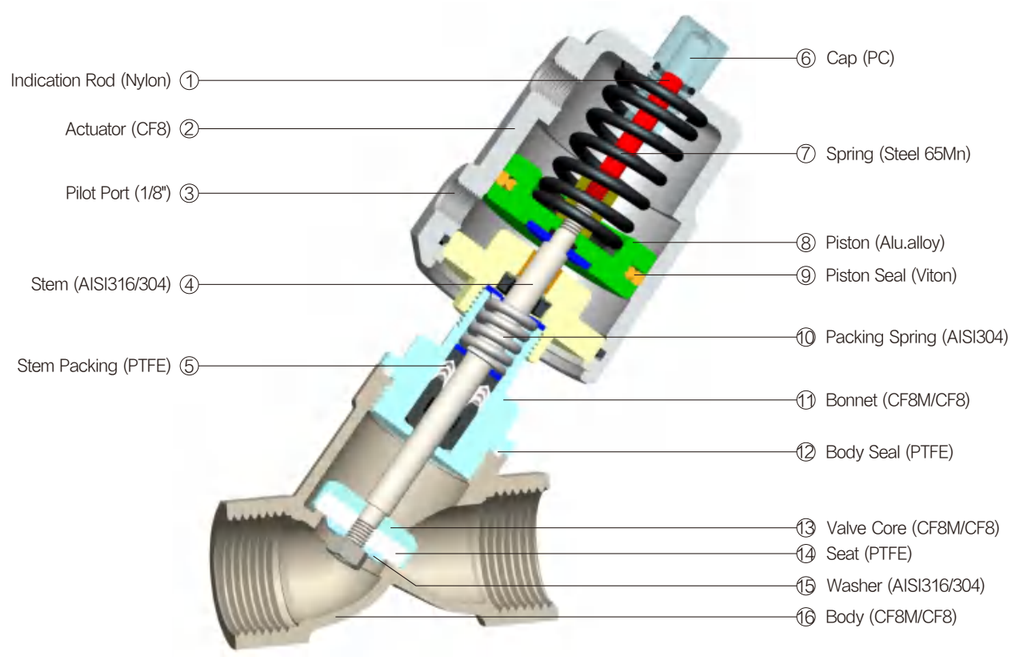


100 Series Welded Angle Seat Valve



100 Series Tri-clamp Angle Seat Valve





100 Series Flanged Angle Seat Valve with Round Bonnet



100 Series Flanged Angle Seat Valve with Square Bonnet



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: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Actuator material: CF8 (40mm–90mm Actuator)、
  AL (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℃
  −40℃ — +180℃
- +25℃ — +220℃
- Ambient temperature: −10℃ — +80℃
  Control type: Single acting normally closed,
  Single acting normally open,
  Double acting normally closed,
- Double acting without spring
- Connection type: Threaded, Welded, Flanged, Tri-clamp

Advantages

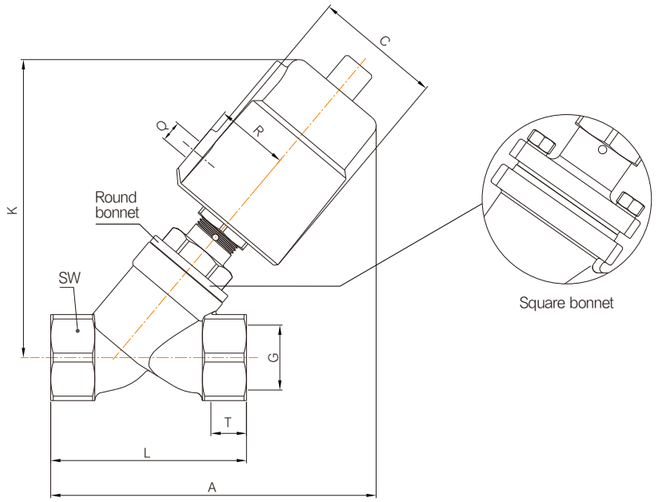
1. Large flux, low resistance, prevent water–hammer.
2. Y–type raises flux by 30% and make flow more smooth.
3. Long working life.
4. The stem adjusts and lubricates itself automatically, minimizing needs for maintaince.
5. The stainless steel actuator can be rotated 360° for flexiable

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

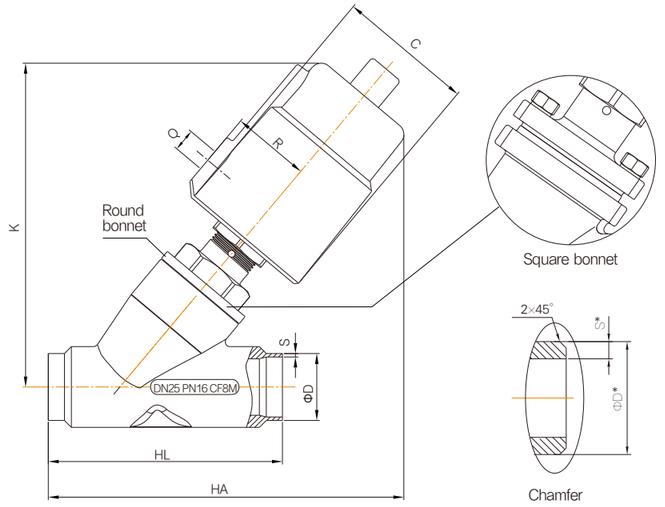
ESG®

Y-type Angle Seat Valve



Main Dimension (Threaded Connection)

Size	Actuator (mm)	Q	C	R	K	G	T	A	L	SW
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 Square bonnet	90	1/8"	106	55	280	2 1/2"	26	275	178	85
	125AL	1/4"	170	85	330			320		
DN80 Square bonnet	125AL	1/4"	170	85	355	3"	27	340	210	100



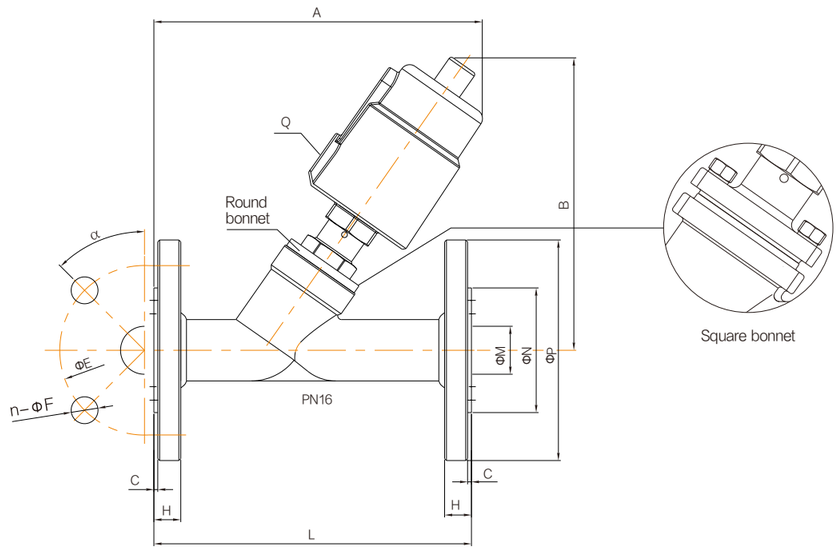
Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	C	R	K	HA	HL	Chamfer		DIN11850–2		DIN11850–3	
								ΦD*	S*	ΦD	S	ΦD	S
DN15	40	1/8"	50.5	27	112	118	70	22	3.5	19	1.5	20	2
	50	1/8"	60	33	125	128							
DN20	50	1/8"	60	33	132	135	82	29	5	23	1.5	24	2
DN25	50	1/8"	60	33	136	150	100	35	5	29	1.5	30	2
	63	1/8"	75	41	162	175							
DN32	63	1/8"	75	41	174	186	125	39	4	35	1.5	36	2
	90	1/8"	106	55	223	232							
DN40	63	1/8"	75	41	175	190	130	45	4.5	41	1.5	42	2
	90	1/8"	106	55	223	235							
DN50	63	1/8"	75	41	183	206	155	57	4	53	1.5	54	2
	90	1/8"	106	55	232	250							
	125AL	1/4"	170	85	300	307							
DN65 Square bonnet	90	1/8"	106	55	280	320	270	75	5	70	2	–	–
	125AL	1/4"	170	85	330	360						–	–
DN80 Square bonnet	125AL	1/4"	170	85	355	360	284	90	5.5	85	2	–	–

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

ESG®

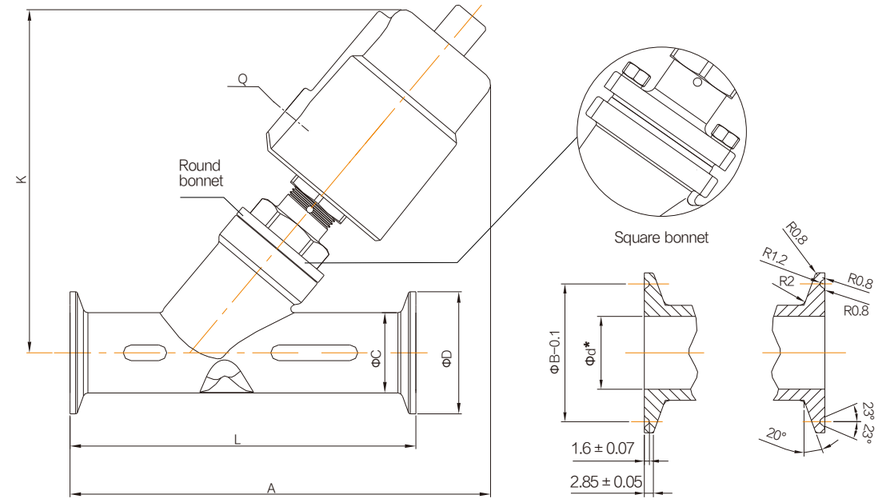
Y-type Angle Seat Valve



Flange specification: DIN2543/DIN2576/EN1092–1/HG20592; ISO/ANSI/DIN/JIS customization 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	54	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	71	120	185	45°
	125AL	1/4"	375	330									
DN80 Square bonnet	125AL	1/4"	380	355	310	3	20	160	8–18	84	135	200	22.5°
DN100 Square bonnet	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	20.5	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	34	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	65	91
	125AL	1/4"	360	330					
DN80 Square bonnet	125AL	1/4"	360	352	290	89.5	97	78.5	106

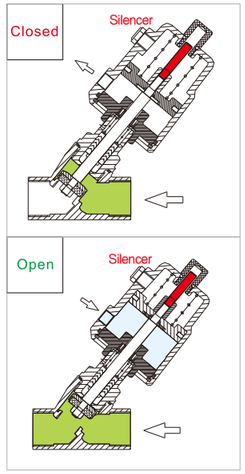
Note: * designates design dimension (the actual dimension may vary)

ESG®

Y-type Angle Seat Valve

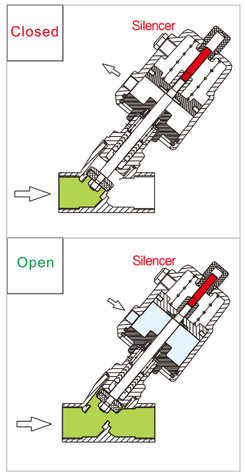
Single Acting, Normally Closed (NC)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	9.5	1.8	28	0–1.0	0.5–0.7
		13	2.2	40	0–1.6	0.4–0.45
				50	0–1.6	0.35–0.4
DN10	G3/8"	9.5	2.2	28	0–1.0	0.5–0.7
		13	3.9	40	0–1.6	0.4–0.45
				50	0–1.6	0.35–0.4
DN15	G1/2"	9.5	2.2	28	0–1.0	0.5–0.7
		13	4.3	40	0–1.6	0.4–0.45
				50	0–1.6	0.35–0.4
DN20	G3/4"	18	7.6	50	0–1.6	0.35–0.5
DN25	G1"	24	15.8	50	0–1.6	0.35–0.55
				63	0–1.6	0.3–0.4
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.55
				90	0–1.6	0.3–0.35
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.7
				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)

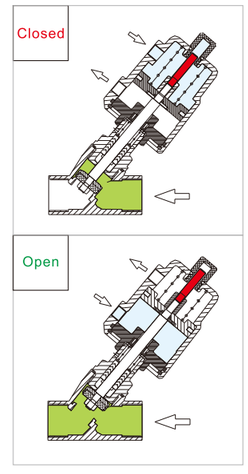
Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	9.5	1.8	28–A	0–1.0	⩾0.5
		13	2.2	40–A	0–1.3	⩾0.4
				50–A	0–1.4	⩾0.45
DN10	G3/8"	9.5	2.2	28–A	0–1.0	⩾0.5
		13	3.9	40–A	0–1.3	⩾0.4
				50–A	0–1.4	⩾0.45
DN15	G1/2"	9.5	2.2	28–A	0–1.0	⩾0.5
		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
				63–B	0–0.8	⩾0.3
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
DN100	G4"	90	132	125–C	0–0.2	⩾0.4
				125–A	0–0.25	⩾0.55



Note: In order to ensure product performance, it is recommended to select product according to the highest value in the <= 90% pressure range

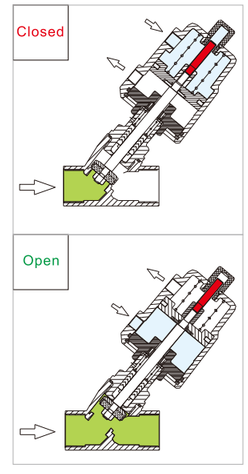
Double Acting, Normally Closed (NC)–Enter Above Seat

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	0.4–0.45
				50	0–1.6	0.35–0.4
DN10	G3/8"	13	3.9	40	0–1.6	0.4–0.45
				50	0–1.6	0.35–0.4
DN15	G1/2"	13	4.3	40	0–1.6	0.4–0.45
				50	0–1.6	0.35–0.4
DN20	G3/4"	18	7.6	50	0–1.6	0.35–0.5
DN25	G1"	24	15.8	50	0–1.6	0.35–0.55
				63	0–1.6	0.3–0.4
DN32	G1 1/4"	31	26.0	63	0–1.6	0.3–0.55
				90	0–1.6	0.3–0.35
DN40	G1 1/2"	35	32.0	63	0–1.6	0.3–0.7
				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



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	⩾0.4
				50	0–1.6	⩾0.35
DN10	G3/8"	13	3.9	40	0–1.6	⩾0.4
				50	0–1.6	⩾0.35
DN15	G1/2"	13	4.3	40	0–1.6	⩾0.4
				50	0–1.6	⩾0.35
DN20	G3/4"	18	7.6	50	0–1.6	⩾0.35
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	0.3–0.7
DN100	G4"	90	132	125	0–1.2	0.4–0.6



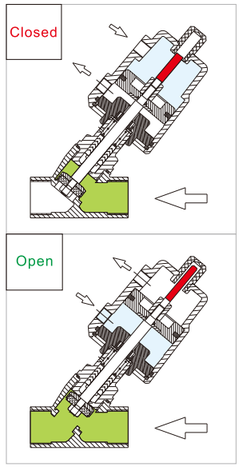
Note: In order to ensure product performance, it is recommended to select product according to the highest value in the <= 90% pressure range

ESG®

Y-type Angle Seat Valve

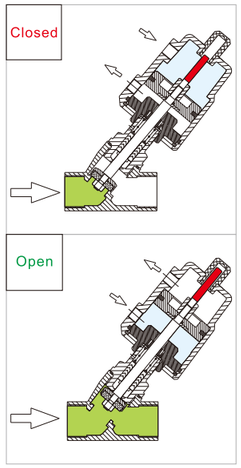
Double Acting Without Spring–Enter Above Seat

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)

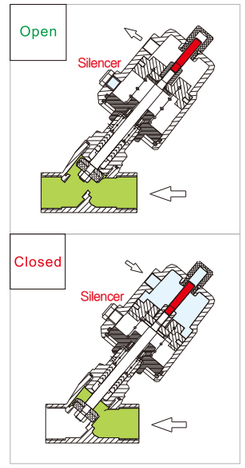
Size	Thread end	Orifice (mm)	Flow value Kv(m^3/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN10	G3/8"	13	3.9	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN15	G1/2"	13	4.3	40	0–1.6	0.3–0.4
				50	0–1.6	0.3–0.4
DN20	G3/4"	18	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



Note: In order to ensure product performance, it is recommended to select product according to the highest value in the <= 90% pressure range

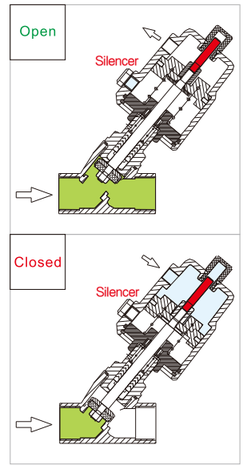
Normally Open(NO)–Enter Above Seat

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	0.3–0.45
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	0.3–0.6
				125	0–1.4	0.3–0.7
DN80	G3"	80	119	125	0–1.2	0.3–0.7



Note: In order to ensure product performance, it is recommended to select product according to the highest value in the <= 90% pressure range