

Perfect Valves For The World !

ESG[®]

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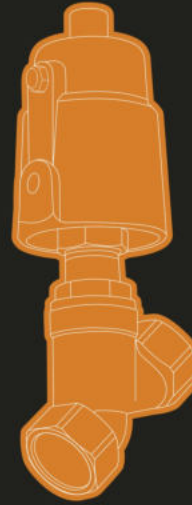
ESG Corporate Website



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2024 English edition

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QINGDAO ELITE MACHINERY MANUFACTURE CO., LTD.

INDUSTRIAL FLOW CONTROL EXPERT



Elite | Service | Global

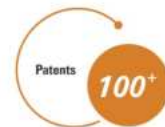


Perfect Valves For The World !

Be the industry benchmark and create a century-old enterprise

Qingdao Elite Machinery Manufacture Co.,Ltd. (hereinafter referred to as "ESG") is a high-tech enterprise integrating R&D, production and sales of valves. The company pays close attention to customer needs and is committed to becoming a leader in fluid process control system solutions.

Since its establishment in 2001, ESG has obtained more than 100 patents, including 10 invention patents. The company focuses on building an HCPS intelligent manufacturing factory to improve production efficiency. The main products cover industrial-grade valves, sanitary valves and related control components. More than 30 mainstream valve series products such as angle seat valves, shuttle valves, diaphragm valves, butterfly valves and ball valves are widely accepted by customers. ESG products are exported to 82 countries, covering 19 key industries such as nuclear industry, new energy, biomedical, rubber tires, food and beverage, and we have 9 Fortune 500 companies partners.





Provide System Solutions

Create More Value For Users In Various Industries

EPS Molding, Industrial Gas, Textile Dyeing, Ceramic, Casting, Fodder, Water Treatment, Environmental, Chemical, Electricity, Papermaking, Metallurgy, Automobile, Pharmaceutical, Food & Beverage, New Energy, Solar Energy, Semiconductor, Rubber



Our Customers



Product Catalog



Y-type Angle Seat Valve

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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 require precise adjustment or the automated production lines that require quick response, ESG angle seat valve can provide reliable solutions.

Applications

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



Angle Seat Valve with Multiple Configurations Available

Control Accessory



Position Indicator



Intelligent Positioner



Two-piece Intelligent Positioner



Solenoid Valve



Adjustable Seat



Proximity Switch

Actuator



Pneumatic Actuator



Manual Actuator

Valve Body



Two-Way Valve



Manifold Valve



Modular Valve



Three-Way Valve



Three-Way Low Flow Resistance Valve



Globe Valve



Shut Off Valve

ESG

Y-type Angle Seat Valve

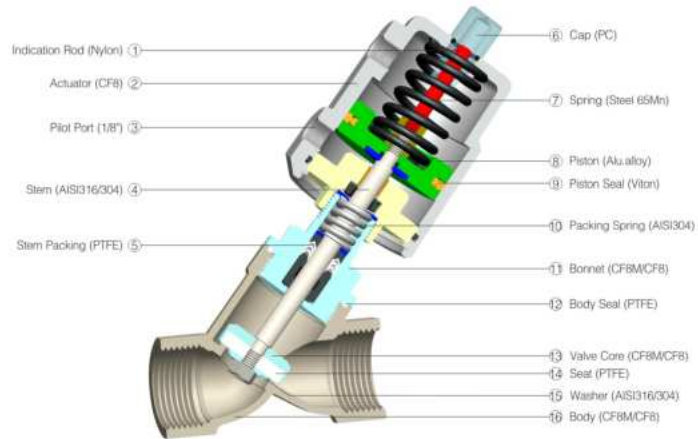
100 Series Threaded Angle Seat Valve



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 600mm²/s
- Fluid temperature: -10°C — +180°C
 +25°C — +220°C
- Ambient temperature: -10°C — +80°C
- 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
- Leakage class: DIN EN 12266 Class A

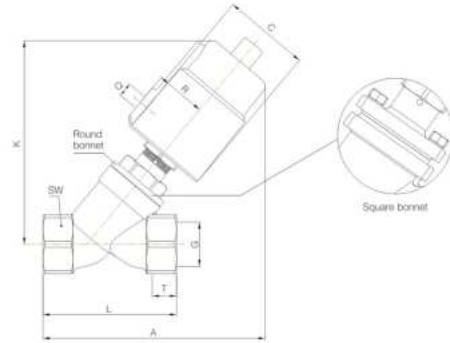
Advantages

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 maintenance.
5. The stainless steel actuator can be rotated 360° for flexiuable uses.

Function Principle

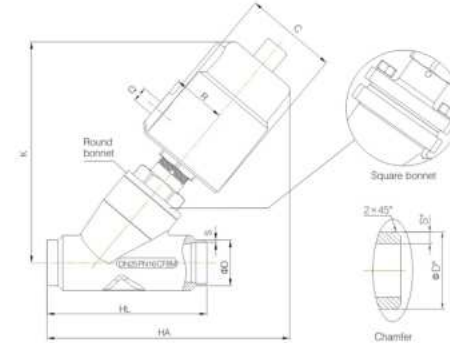
Valve stays closed/open by spring force in its normal state. When piston is actuated by compressed air, valve becomes opened (closed). For double acting type, valve is opened and closed by compressed air.

Y-type Angle Seat Valve



Main Dimension (Threaded Connection)

Size	Actuator (mm)	G	C	R	K	G	T	A	L	SW	Chamfer	
											Ø D*	S*
DN8	40	1/8"	50.5	27	112	1/4"	12	124	68	27	19	1.5
	50	1/8"	60	33	125			128				
DN10	40	1/8"	50.5	27	112	3/8"	12	124	68	27	23	1.5
	50	1/8"	60	33	125			135				
DN15	40	1/8"	50.5	27	112	1/2"	15	124	68	27	29	1.5
	50	1/8"	60	33	125			135				
DN20	40	1/8"	50.5	27	112	3/4"	16	140	75	32	35	1.5
	50	1/8"	60	33	132			140				
DN25	40	1/8"	50.5	27	112	1"	17	150	90	40	41	1.5
	50	1/8"	60	33	136			150				
DN32	63	1/8"	75	41	162	1 1/4"	21	172	116	50	49	1.5
	90	1/8"	106	55	223			190				
DN40	63	1/8"	75	41	175	1 1/2"	21	190	116	56	53	1.5
	90	1/8"	106	55	223			205				
DN50	63	1/8"	75	41	183	2"	22	205	138	69	57	1.5
	90	1/8"	106	55	232			235				
DN65 Square bonnet	125AL	1/4"	170	85	300	2 1/2"	26	275	178	85	65	2
	90	1/8"	106	55	280			300				
DN80 Square bonnet	125AL	1/4"	170	85	355	3"	27	340	210	100	70	2



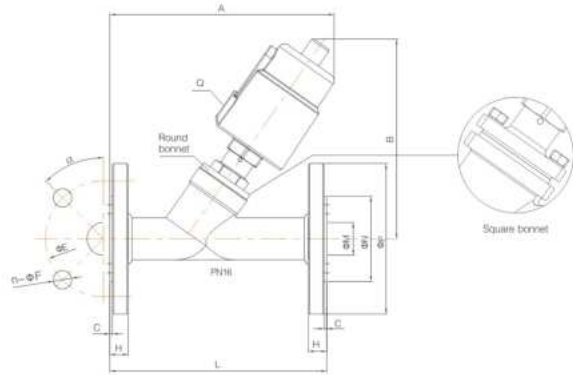
Main Dimension (Welded Connection)

Size	Actuator (mm)	G	C	R	K	HA	HL	Chamfer		DIN11850-2		DIN11850-3	
								Ø D*	S*	Ø D	S	Ø D	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	40	1/8"	50.5	27	112	124	82	29	5	23	1.5	24	2
	50	1/8"	60	33	132	135							
DN25	40	1/8"	50.5	27	112	124	100	35	5	29	1.5	30	2
	50	1/8"	60	33	136	150							
DN32	63	1/8"	75	41	162	175	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							
DN65 Square bonnet	125AL	1/4"	170	85	300	307	270	75	5	70	2	-	-
	90	1/8"	106	55	280	320							
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)



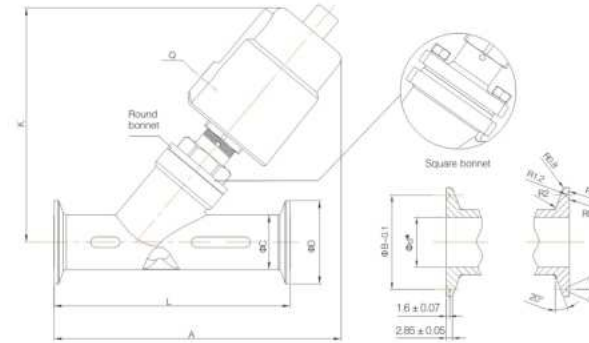
Y-type Angle Seat Valve



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°
	63		170	145									
DN25	63	1/8"	190	175	160	2	14	85	4-14	26	65	115	45°
	90		190	188									
DN32	90	1/8"	230	235	180	2	16	100	4-18	31	78	140	45°
	125		230	190									
DN40	125	1/8"	250	240	200	3	16	110	4-18	38	84	150	45°
	150		235	195									
DN50	150	1/8"	277	245	230	3	16	125	4-18	54	100	165	45°
	175		330	310									
DN65 Square bonnet	175	1/8"	330	280	290	3	18	145	4-18	71	120	185	45°
	200		375	330									
DN80 Square bonnet	200	1/4"	380	355	310	3	20	160	8-18	84	135	200	22.5°
	225		420	395									
DN100 Square bonnet	225	1/4"	420	395	350	3	20	180	8-18	96	155	215	22.5°
	250		420	395									



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		140	126					
DN20	50	1/8"	158	148	130	25	43.5	19	50.5
	63		165	140					
DN25	63	1/8"	188	166	130	32	43.5	27	50.5
	90		190	174					
DN32	90	1/8"	245	223	146	37	43.5	31	50.5
	125		210	175					
DN40	125	1/8"	255	223	160	40	56.5	34	64
	150		221	185					
DN50	150	1/8"	265	235	175	53	56.5	45	64
	175		325	290					
DN65 Square bonnet	175	1/8"	325	280	175	53	56.5	45	64
	200		360	330					
DN80 Square bonnet	200	1/4"	360	330	278	75	83.5	65	91
	225		360	352					
DN100 Square bonnet	225	1/4"	360	352	290	89.5	97	78.5	100
	250		360	352					

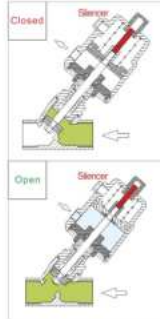
Note: * designates design dimension (the actual dimension may vary)



Y-type Angle Seat Valve

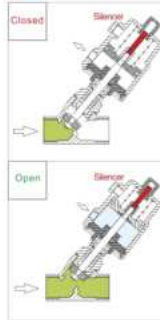
Single Acting, Normally Closed (NC)-Enter Above Seat

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"	50	0-1.6	0.35-0.5		
		63	0-1.6	0.3-0.4		
		63	0-1.6	0.3-0.55		
DN32	G1 1/4"	90	0-1.6	0.3-0.35		
		63	0-1.6	0.3-0.7		
		90	0-1.6	0.3-0.4		
DN40	G1 1/2"	63	0-0.9	0.3-0.7		
		90	0-1.6	0.3-0.4		
		125	0-1.6	0.3-0.4		
DN50	G2"	90	0-1.0	0.3-0.6		
		125	0-1.6	0.3-0.4		
		90	0-1.0	0.3-0.6		
DN65	G2 1/2"	125	0-1.6	0.3-0.4		
		125	0-1.6	0.3-0.4		
		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)

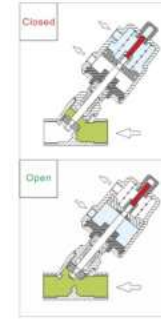
Size	Thread end	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	9.5	1.8	28-A	0-1.0	≥0.5
		13	2.2	40-A	0-1.3	≥0.4
		50-A	0-1.4	≥0.45		
DN10	G3/8"	9.5	2.2	28-A	0-1.0	≥0.5
		13	3.9	40-A	0-1.3	≥0.4
		50-A	0-1.4	≥0.45		
DN15	G1/2"	9.5	2.2	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"	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"	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"	63-A	0-0.5	≥0.5		
		90-A	0-1.6	≥0.6		
		90-B	0-1.1	≥0.45		
DN50	G2"	63-A	0-0.2	≥0.5		
		90-A	0-1.0	≥0.6		
		90-B	0-0.7	≥0.45		
DN65	G2 1/2"	125-A	0-1.6	≥0.55		
		125-B	0-1.1	≥0.45		
		90-A	0-0.5	≥0.6		
DN80	G3"	90-B	0-0.2	≥0.45		
		125-A	0-0.9	≥0.55		
		125-B	0-0.6	≥0.45		
DN100	G4"	125-D	0-0.5	≥0.35		
		125-A	0-0.5	≥0.55		
		125-B	0-0.3	≥0.45		
				125-C	0-0.2	≥0.3
				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

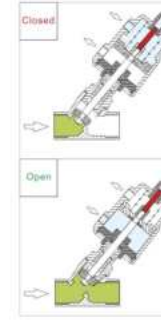
Double Acting, Normally Closed (NC)-Enter Above Seat

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		
		40	0-1.6	0.4-0.45		
DN10	G3/8"	13	3.9	40	0-1.6	0.4-0.45
		50	0-1.6	0.35-0.4		
		40	0-1.6	0.4-0.45		
DN15	G1/2"	13	4.3	40	0-1.6	0.4-0.45
		50	0-1.6	0.35-0.4		
		50	0-1.6	0.35-0.5		
DN20	G3/4"	18	7.6	50	0-1.6	0.35-0.5
		50	0-1.6	0.35-0.55		
		63	0-1.6	0.3-0.4		
DN25	G1"	24	15.8	63	0-1.6	0.3-0.55
		63	0-1.6	0.3-0.55		
		90	0-1.6	0.3-0.35		
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.7
		90	0-1.6	0.3-0.35		
		83	0-1.6	0.3-0.7		
DN40	G1 1/2"	36	32.0	90	0-1.6	0.3-0.4
		63	0-0.9	0.3-0.7		
		90	0-1.6	0.3-0.45		
DN50	G2"	45	52.0	125	0-1.6	0.3-0.4
		90	0-1.0	0.3-0.6		
		125	0-1.6	0.3-0.4		
DN65	G2 1/2"	61	83.2	90	0-1.0	0.3-0.6
		125	0-1.6	0.3-0.4		
		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		
		40	0-1.6	≥0.4		
DN10	G3/8"	13	3.9	40	0-1.6	≥0.35
		50	0-1.6	≥0.4		
		40	0-1.6	≥0.4		
DN15	G1/2"	13	4.3	40	0-1.6	≥0.4
		50	0-1.6	≥0.35		
		40	0-1.6	≥0.4		
DN20	G3/4"	18	7.6	50	0-1.6	≥0.35
		50	0-1.3	0.3-0.6		
		63	0-1.6	0.3-0.4		
DN25	G1"	24	15.8	63	0-1.6	0.3-0.6
		63	0-1.6	0.3-0.6		
		90	0-1.6	0.3-0.4		
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.7
		90	0-1.6	0.3-0.4		
		63	0-1.6	0.3-0.7		
DN40	G1 1/2"	36	32.0	90	0-1.6	0.3-0.5
		63	0-0.8	0.3-0.75		
		90	0-1.6	0.3-0.6		
DN50	G2"	45	52.0	125	0-1.6	0.3-0.4
		90	0-1.1	0.3-0.7		
		125	0-1.6	0.3-0.55		
DN65	G2 1/2"	61	83.2	90	0-1.1	0.3-0.7
		125	0-1.6	0.3-0.55		
		125	0-1.6	0.3-0.7		
DN80	G3"	80	119	125	0-1.6	0.3-0.7
DN100	G4"	90	132	125	0-1.2	0.4-0.6

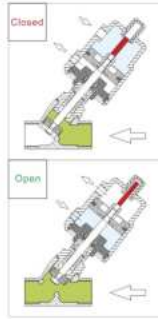


Note: In order to ensure product performance, it is recommended to select product according to the highest value in the <= 90% pressure range

Y-type Angle Seat Valve

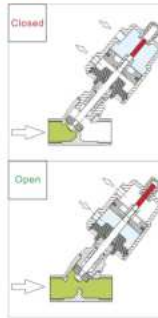
Double Acting Without Spring-Enter Above Seat

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
				50	0-1.6	0.3-0.45
DN25	G1"	24	15.8	63	0-1.6	0.3-0.35
				63	0-1.6	0.3-0.55
DN32	G1 1/4"	31	26.0	90	0-1.6	0.3-0.4
				63	0-1.6	0.3-0.65
DN40	G1 1/2"	35	32.0	90	0-1.6	0.3-0.4
				63	0-1.0	0.3-0.7
DN50	G2"	45	52.0	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)

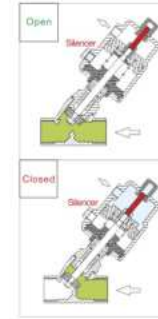
Size	Thread end	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN10	G3/8"	13	3.9	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN15	G1/2"	13	4.3	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN20	G3/4"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

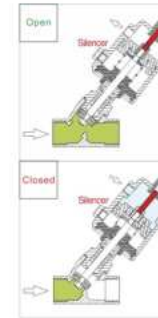
Normally Open(NO)-Enter Above Seat

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
				50	0-0.3	≥0.3
DN25	G1"	24	15.8	63	0-1.6	≥0.45
				63	0-1.4	≥0.45
DN32	G1 1/4"	31	26.0	63	0-1.4	≥0.45
				63	0-1.4	≥0.45
DN40	G1 1/2"	35	32.0	63	0-1.4	≥0.45
				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
				50	0-1.3	0.3-0.6
DN25	G1"	24	15.8	63	0-1.6	0.3-0.5
				63	0-1.3	0.3-0.6
DN32	G1 1/4"	31	26.0	63	0-1.3	0.3-0.6
				63	0-0.7	0.3-0.6
DN40	G1 1/2"	35	32.0	90	0-1.6	0.3-0.45
				63	0-0.5	0.3-0.6
DN50	G2"	45	52.0	90	0-1.2	0.3-0.6
				90	0-0.75	0.3-0.6
DN65	G2 1/2"	61	83.2	125	0-1.4	0.3-0.7
				125	0-1.2	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

ESG

Y-type Angle Seat Valve

Angle Seat Valve with Proximity Switch



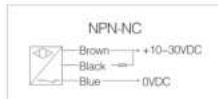
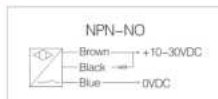
Proximity Switch

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°C — +70°C
- Enclosure material: brass nickel plating
- Probe material: ABS
- Leakage class: DIN EN 12266 Class A

Output signal



Angle Seat Valve with Solenoid Valve



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°C — +60°C
- Leakage class: DIN EN 12266 Class A

Angle Seat Valve with Manual Override



Manual Override

It can adjust piston position, restrict travel, and regulate flow. Applicable to all types of angle seat valves. It 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: Single acting normally closed
- Leakage class: DIN EN 12266 Class A
- Suitable for 40/50/63/90mm actuator

Angle Seat Valve with Position Indicator



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.

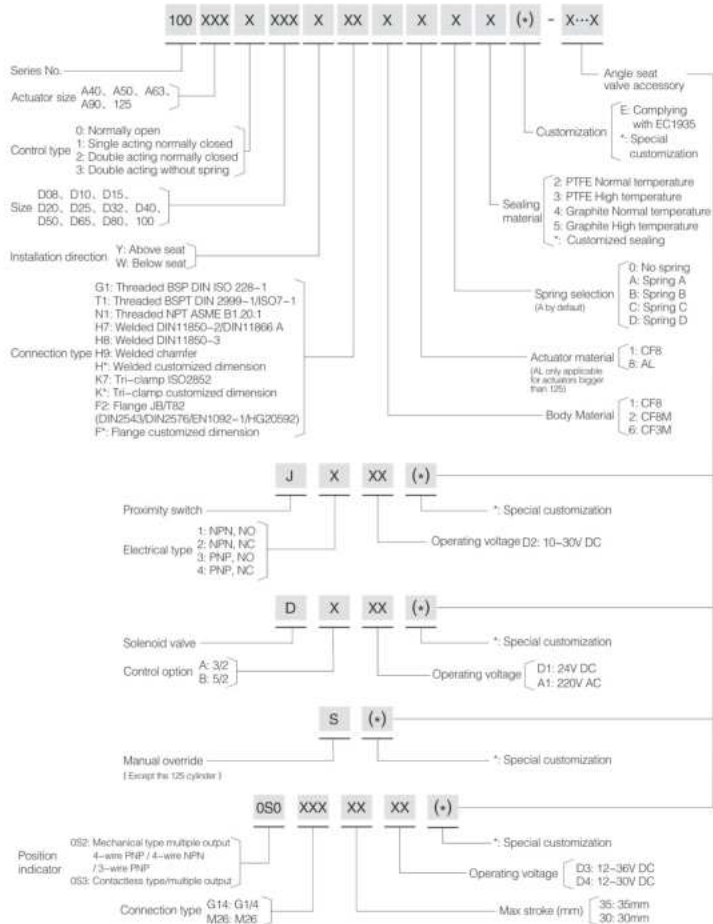
Technical Specification

- Operating Voltage: DC12V–DC36V (mechanical type)/DC12V–DC30V(contactless type)
- Operating Current: MAX.300mA(mechanical type)/MAX.100mA(contactless type)
- Indicator Light: Visually feedbacks the valve's open/close status
- Temperature Range: –10°C — +70°C
- Environment humidity: ≤90%RH
- Protection Level: IP65
- Explosion-Proof: Ex nA IIC T4
- Shell Material: PA6–GF30+PC
- On–Off Mode: mechanical type/contactless type
- Output Mode: 0/2– 4–wire PNP/4–wire NPN/3–wire PNP/0/3– Multiple output/contactless
- Electrical Principle: refer the position indicator
- Wiring Method: Unscrew the transparent cover, thread the cable through the cable opening and connect it to the required terminal.
- Leakage Class: DIN EN 12266 Class A



Y-type Angle Seat Valve

Order Instruction



101 Series
Pneumatic Angle
Seat Valve



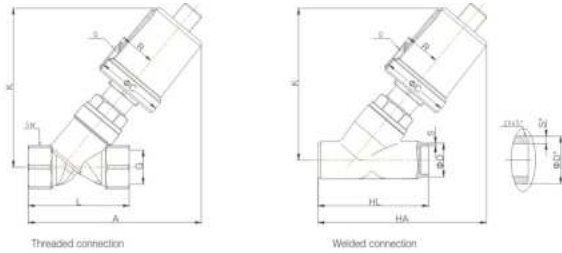
Technical Specification

- Operating pressure: 0-10bar (0-145psi)
- Control pressure: 3-8bar (43.5-116psi)
- Control fluid: Filtered compressed air or neutral gas
- Cylinder material: CF8
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Applicable medium: Water, Oil, Air, Liquid, Organic solvent, Acid and lye
- Medium temperature: -10°C -- +180°C
- Ambient temperature: -10°C -- +80°C
- Control type: Single acting normally closed, Double acting normally closed, Double acting without spring
- Connection type: Threaded, Welded, Tri-clamp, Flanged
- Leakage class: DIN EN 12266 Class A

Advantages

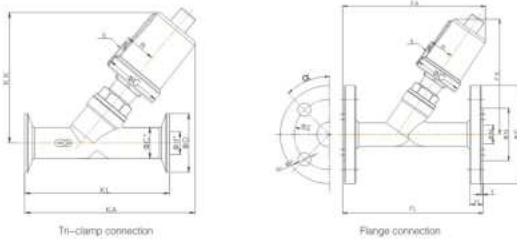
1. Lightweight appearance, compact structure, and excellent performance.
2. Y-shaped structure design of the valve body features high flow rate, low flow resistance, and rapid action response.
3. Stainless steel actuator, better performance for harsh environments and can rotate 360°.

Y-type Angle Seat Valve



Main Dimension

Size	Actuator (mm)	Q	φC	R	K	Threaded connection				Welded connection									
						G	A	L	SW	HA	HL	Chamber		DIN11850-2		DIN11850-3			
												φD*	S*	φD	S	φD	S		
DN8	28	1/8"	42	21	105	1/4"	115	68	27	-	-	-	-	-	-	-	-	-	-
DN10	28	1/8"	42	21	105	3/8"	115	68	27	-	-	-	-	-	-	-	-	-	-
DN15	28	1/8"	42	21	105	1/2"	115	68	27	105	70	22	3.5	19	1.5	20	2	-	-
DN20	40	1/8"	50.5	27	130	3/4"	135	75	32	135	82	29	5	23	1.5	24	2	-	-
DN25	40	1/8"	50.5	27	135	1"	145	90	40	145	100	35	5	29	1.5	30	2	-	-
DN32	50	1/8"	60	33	165	1 1/4"	180	116	50	175	125	39	4	35	1.5	36	2	-	-
DN40	50	1/8"	60	33	170	1 1/2"	180	116	56	180	130	45	4.5	41	1.5	42	2	-	-
DN50	60	1/8"	60	33	175	2"	195	138	69	195	155	57	4	53	1.5	54	2	-	-



Main Dimension

Size	Tri-clamp connection (Chuck standard ISO 2852)						Flange connection (Flange standard JB/T 82.1)											
	KK	KA	KL	φC*	φd*	D	FK	FA	FL	f	H	E	N-F	M	N	P	α	
DN15	105	120	80	20.5	15	34	110	130	130	2	14	65	4-14	16	45	95	45°	
DN20	135	145	130	25	19	50.5	135	155	150	2	14	75	4-14	19	56	105	45°	
DN25	135	155	130	33	27	50.5	140	160	160	2	14	85	4-14	26	65	115	45°	
DN32	160	185	146	37	31	50.5	175	180	180	2	16	100	4-18	31	78	140	45°	
DN40	165	200	160	40	34	64	180	200	200	3	16	110	4-18	38	84	150	45°	
DN50	180	210	175	53	45	64	185	230	230	3	16	125	4-18	54	100	165	45°	

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

101 Series Pressure Parameter

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

Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	0.5-0.7
DN10	G3/8"	13	3.6	28	0-1.0	0.5-0.7
DN15	G1/2"	13	4.1	28	0-1.0	0.5-0.7
DN20	G3/4"	18	7.1	40	0-1.0	0.4-0.6
DN25	G1"	24	11.9	40	0-1.0	0.4-0.65
DN32	G1 1/4"	31	24.8	50	0-1.0	0.35-0.7
DN40	G1 1/2"	35	28.7	50	0-0.7	0.35-0.7
DN50	G2"	45	44.3	50	0-0.45	0.35-0.7

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

Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	≥0.5
DN10	G3/8"	13	3.6	28	0-1.0	≥0.5
DN15	G1/2"	13	4.1	28	0-1.0	≥0.5
DN20	G3/4"	18	7.1	40	0-0.8	≥0.4
DN25	G1"	24	11.9	40	0-0.3	≥0.4
DN32	G1 1/4"	31	24.8	50	0-0.5	≥0.5
DN40	G1 1/2"	35	28.7	50	0-0.4	≥0.5
DN50	G2"	45	44.3	50	0-0.15	≥0.5

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

Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	0.5-0.7
DN10	G3/8"	13	3.6	28	0-1.0	0.5-0.7
DN15	G1/2"	13	4.1	28	0-1.0	0.5-0.7
DN20	G3/4"	18	7.1	40	0-1.0	0.4-0.6
DN25	G1"	24	11.9	40	0-1.0	0.4-0.65
DN32	G1 1/4"	31	24.8	50	0-1.0	0.35-0.7
DN40	G1 1/2"	35	28.7	50	0-0.7	0.35-0.7
DN50	G2"	45	44.3	50	0-0.45	0.35-0.7

Double Acting, Normally Closed (NC)
-Enter Below Seat

Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	0.5-0.7
DN10	G3/8"	13	3.6	28	0-1.0	0.5-0.7
DN15	G1/2"	13	4.1	28	0-1.0	0.5-0.7
DN20	G3/4"	18	7.1	40	0-1.0	0.4-0.5
DN25	G1"	24	11.9	40	0-1.0	0.4-0.5
DN32	G1 1/4"	31	24.8	50	0-1.0	0.35-0.6
DN40	G1 1/2"	35	28.7	50	0-1.0	0.35-0.6
DN50	G2"	45	44.3	50	0-0.45	0.35-0.7

Double Acting Without Spring
-Enter Above Seat

Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	0.3-0.6
DN10	G3/8"	13	3.6	28	0-1.0	0.3-0.6
DN15	G1/2"	13	4.1	28	0-1.0	0.3-0.6
DN20	G3/4"	18	7.1	40	0-1.0	0.3-0.4
DN25	G1"	24	11.9	40	0-1.0	0.3-0.5
DN32	G1 1/4"	31	24.8	50	0-1.0	0.3-0.5
DN40	G1 1/2"	35	28.7	50	0-1.0	0.3-0.6
DN50	G2"	45	44.3	50	0-0.65	0.3-0.7

Double Acting Without Spring
-Enter Below Seat

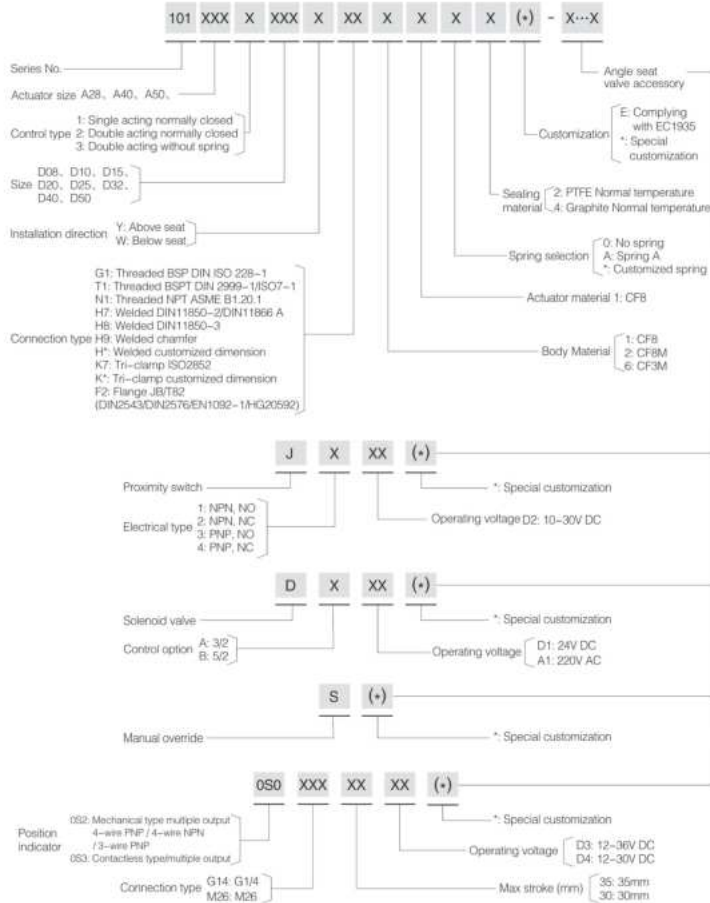
Size	Thread end	Orifice (mm)	Flow valve Kv(m ³ /h)	Actuator (mm)	Differential pressure range MPa	Control pressure (MPa)
DN8	G1/4"	13	1.7	28	0-1.0	0.3-0.6
DN10	G3/8"	13	3.6	28	0-1.0	0.3-0.6
DN15	G1/2"	13	4.1	28	0-1.0	0.3-0.6
DN20	G3/4"	18	7.1	40	0-1.0	0.3-0.5
DN25	G1"	24	11.9	40	0-1.0	0.3-0.7
DN32	G1 1/4"	31	24.8	50	0-1.0	0.3-0.6
DN40	G1 1/2"	35	28.7	50	0-1.0	0.3-0.7
DN50	G2"	45	44.3	50	0-0.35	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



Y-type Angle Seat Valve

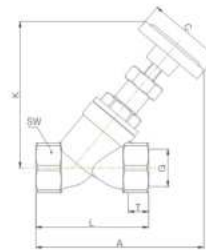
Order Instruction



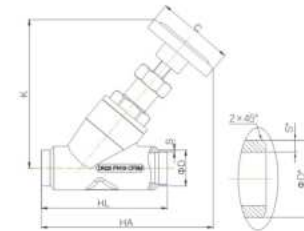
107 Series Threaded Manual Angle Seat Valve



107 Series Welded Manual Angle Seat Valve



Threaded connection



Welded connection

Chamfer

Main Dimension

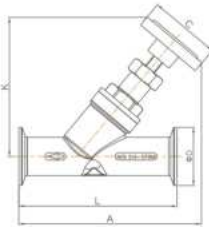
Size	C	K	Threaded connection						Welded connection						
			G	T	A	L	SW	HA	HL	Chamfer		DIN11850-2	DIN11850-3		
										øD*	S*	øD	S	øD	S
DN8	62	115	1/4"	12	129	68	27	-	-	-	-	-	-	-	-
DN10	62	115	3/8"	12	129	68	27	-	-	-	-	-	-	-	-
DN15	62	115	1/2"	15	129	68	27	120	70	22	3.5	19	1.5	20	2
DN20	62	120	3/4"	16	133	75	32	125	82	29	5	23	1.5	24	2
DN25	62	125	1"	17	142	90	40	144	100	35	5	29	1.5	30	2
DN32	62	146	1 1/4"	21	166	116	50	165	125	39	4	35	1.5	36	2
DN40	62	148	1 1/2"	21	168	116	56	168	130	45	4.5	41	1.5	42	2
DN50	62	155	2"	22	182	138	69	182	155	57	4	53	1.5	54	2
DN65 Sub-size	80	211	2 1/2"	26	226	178	85	270	270	75	5	70	2	-	-

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



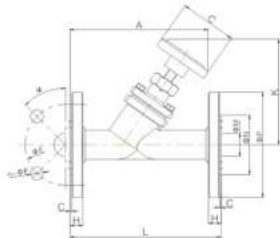
Y-type Angle Seat Valve

107 Series
Tri-clamp Manual
Angle Seat Valve



Tri-clamp connection

107 Series
Flanged Manual
Angle Seat Valve



Flange connection

Main Dimension

Size	C	Tri-clamp connection					Flange connection									
		K	φD	L	A	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	190	2	16	100	4-18	31	78	140	45
DN40	62	141	64	160	165	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 flange	80	200	91	278	266	201	272	290	3	18	145	4-18	71	120	185	45

Technical Specification

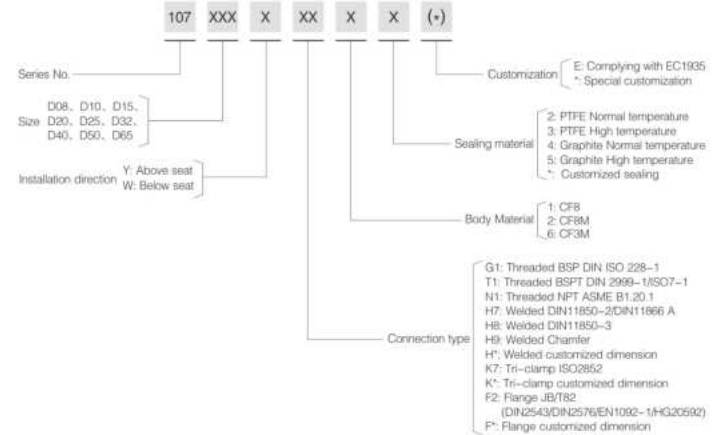
- Operating pressure: 0–16bar (0–232psi)
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Applicable medium: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, organic solvent, weak acid or weak base solution
- Fluid temperature: -10°C — +180°C
+25°C — +220°C
- Ambient temperature: -10°C — +80°C
- Maximum fluid viscosity: 600mPa/s
- Connection type: Threaded, Welded, Tri-clamp, Flange
- Leakage class: DIN EN 12266 Class A



Adjustable seat

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

Order Instruction





Y-type Angle Seat Valve

120 Series
Threaded Pneumatic
Angle Seat Valve

120 Series
Welded Pneumatic
Angle Seat Valve

120 Series
Tri-clamp Pneumatic
Angle Seat Valve

120 Series
Flanged Pneumatic
Angle Seat Valve



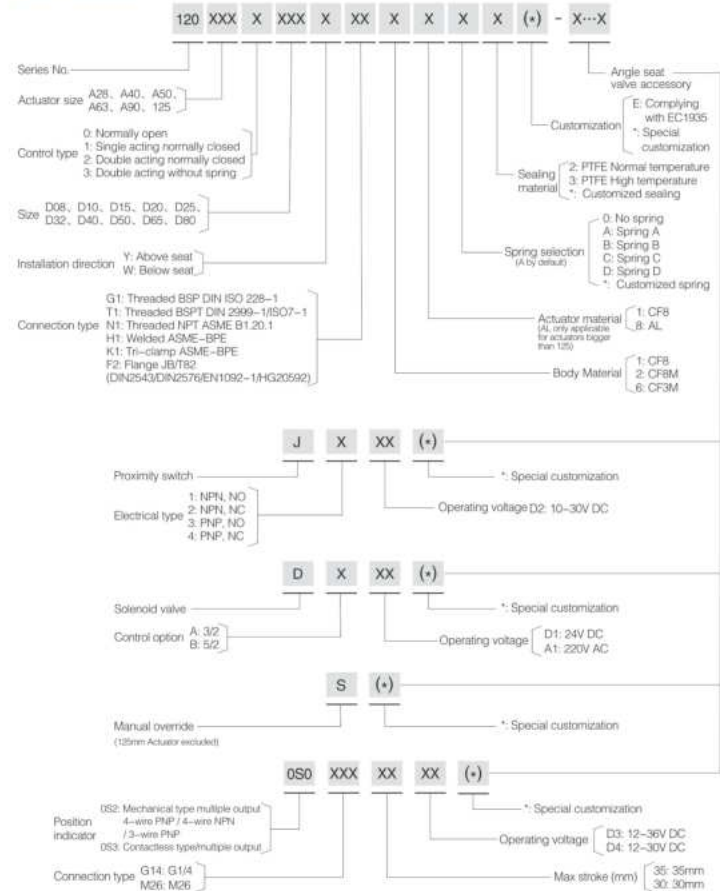
Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Actuator material: CF8 (28mm–90mm Actuator), AL (125mm Actuator)
- Actuator size: 28mm, 40mm, 50mm, 63mm, 90mm, 125mm
- Applicable fluid: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid viscosity: Max 600mm²/s
- Fluid temperature: –10°C – +180°C, +25°C – +220°C
- Ambient temperature: –10°C – +80°C
- Control type: Single acting normally closed, Single acting normally open, Double acting normally closed, Double acting without spring
- Connection type: Threaded (BSP, BSPT, NPT), Welded, Tri-clamp, Flanged
- Leakage class: EN 12266 Class A

Advantages

- New sealing structure can reduce residues and be easy to clean.
- High flow rate, low flow resistance, and no water hammer.
- Y-shaped valve body design, increasing flow by 30%.
- Ultra long service life.
- Valve rod auto-correction and self-lubricating.
- Stainless steel actuator, better performance in harsh environment and can rotate 360°.

Order Instruction



All the actuators except 28mm can be customized with accessory.



Y-type Angle Seat Valve



Threaded Connection



Welded Connection

Main Dimension (Threaded Connection)

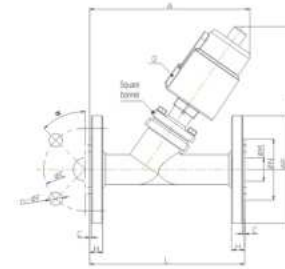
Size	Actuator (mm)	Q	φC	R	K	A	Kv (m ³ /h)	G	T	L	SW
DN8	28	1/8"	42	21	110	117	1.8	1/4"	12	65	27
	40	1/8"	50.5	27	125	131	2.2				
	50	1/8"	60	33	139	143	2.2				
DN10	28	1/8"	42	20	110	117	2	3/8"	14	65	27
	40	1/8"	50.5	27	125	131	3.9				
	50	1/8"	60	33	139	143	2.2				
DN15	28	1/8"	42	20	110	117	2.2	1/2"	16	65	27
	40	1/8"	50.5	27	125	131	4.3				
	50	1/8"	60	33	139	143	4.3				
DN20	50	1/8"	60	33	141	146	7.6	3/4"	18	75	32
	50	1/8"	60	33	145	155	15.8				
	63	1/8"	75	41	167	177	15.8				
DN25	63	1/8"	75	41	190	193	26.0	1"	20	90	40
	63	1/8"	75	41	190	193	26.0				
	90	1/8"	106	55	227	235	26.0				
DN32	63	1/8"	75	41	180	197	32.0	1 1/4"	24	110	50
	90	1/8"	106	55	227	235	32.0				
	90	1/8"	106	55	228	238	32.0				
DN40	63	1/8"	75	41	187	215	52.0	2"	26	150	69
	90	1/8"	106	55	235	258	52.0				
	125AL	1/4"	170	85	300	312	52.0				

Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	φC	R	K	A	Kv (m ³ /h)	L	H	ASME BPE	
										φD	S
DN15	28	1/8"	42	21	112	143	1.3	135	30	12.7	1.65
	40	1/8"	50.5	27	127	155	1.7				
	50	1/8"	60	33	140	166	1.7				
DN20	50	1/8"	60	33	138	173	5.8	145	30	19.05	1.65
	50	1/8"	60	33	146	178	5.8				
	63	1/8"	75	41	168	200	11.8				
DN25	63	1/8"	75	41	177	216	20.6	182	30	38.1	1.65
	63	1/8"	75	41	187	228	20.6				
	90	1/8"	106	55	225	258	20.6				
DN32	63	1/8"	75	41	187	228	55.7	210	30	50.8	1.65
	90	1/8"	106	55	235	270	55.7				
	125AL	1/4"	170	85	300	325	55.7				
DN40	90	1/8"	106	55	286	297	71.6	230	26	63.5	1.65
	90	1/8"	106	55	286	297	71.6				
	125AL	1/4"	170	85	338	337	71.6				
DN50	90	1/8"	106	55	286	297	105.2	310	26	76.2	1.65
	90	1/8"	106	55	286	297	105.2				
	125AL	1/4"	170	85	355	360	105.2				



Tri-clamp Connection



Flange connection

Main Dimension (Tri-clamp Connection)

Size	Actuator (mm)	Q	φC	R	K	A	Kv (m ³ /h)	L	ASME BPE			
									φD	φB	φd	H
DN15	28	1/8"	42	21	112	145	1.3	130	25	12.7	9.4	30
	40	1/8"	50.5	27	127	158	1.7					
	50	1/8"	60	33	140	169	1.7					
DN20	50	1/8"	60	33	138	172	5.8	150	25	19.05	15.75	30
	50	1/8"	60	33	146	180	5.8					
	63	1/8"	75	41	169	205	11.8					
DN25	63	1/8"	75	41	177	225	20.6	200	50.5	38.1	34.8	30
	63	1/8"	75	41	187	238	20.6					
	90	1/8"	106	55	225	267	20.6					
DN32	63	1/8"	75	41	187	238	55.7	230	64	50.8	47.5	30
	90	1/8"	106	55	235	280	55.7					
	125AL	1/4"	170	85	300	335	55.7					
DN40	90	1/8"	106	55	286	327	71.6	290	77.4	63.5	60.2	26
	125AL	1/4"	170	85	337	368	71.6					
	125AL	1/4"	170	85	349	383	105.2					

Main Dimension (Flange Connection)

Size	Actuator (mm)	Q	A	B	Kv (m ³ /h)	L	C	H	φE	n-φF	φM	φN	φP	α
DN20	50	145	140	7.6	150	2	14	75	4-14	19	56	105	45°	
	50	165	140	15.8	160	2	14	85	4-14	26	65	115	45°	
DN25	63	190	145	26.0	180	2	16	100	4-18	31	78	140	45°	
	63	206	145	32.0	200	3	16	110	4-18	38	84	150	45°	
DN32	90	235	195	52.0	230	3	16	125	4-18	54	100	165	45°	
	90	277	245	71.6	230	3	16	125	4-18	54	100	165	45°	

Flange specification: JIS B2101/DIN2543/DIN2576/EN1092-1HG20582; SO/INJIS customization available

ESG

Y-type Angle Seat Valve

121 Series
Angle Diaphragm Valve



Technical Specification

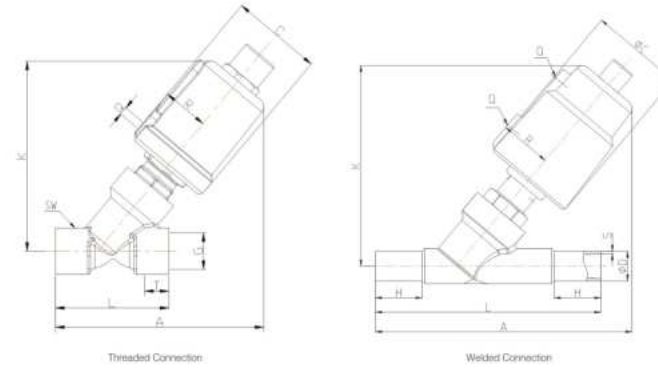
- Operating pressure: 0–10bar (0–145psi)
- Control pressure: 4–8bar (58–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CFB/CF8M/CF3M and other special materials
- Seal material: PTFE
- Actuator material: CFB
- Actuator size: 40mm, 50mm, 63mm, 90mm
- Applicable fluid: Water, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid temperature: -10°C → +150°C
- Ambient temperature: -10°C → +80°C
- Control type: Single acting normally closed, Double acting normally closed
- Connection type: Threaded, Welded, Tri-clamp
- Leakage class: EN 12266 Class A

Advantages

1. Diaphragm is used to isolate the medium, avoiding valve stem from seizing due to medium crystallization or being viscous with particles.
2. Stainless steel actuator, better performance for harsh environments and can rotate 360°.

Function Principle

Diaphragm is arranged between the valve body and the bonnet to isolate the medium in place of the stem packing. Valve stays closed(open) by spring force in its normal state. When piston is actuated by compressed air, valve becomes opened (close). For double acting type, valve is opened and closed by compressed air.



Main Dimension (Threaded Connection)

Size	Actuator (mm)	Q	C	R	K	A	G	T	L	SW
DN15	40	1/8"	50.5	27	115	125	1/2"	16	65	27
DN20	50	1/8"	60	33	130	140	3/4"	16	75	32
DN25	50	1/8"	60	33	140	150	1"	20	90	40
	63	1/8"	75	41	155	165				
DN32	63	1/8"	75	41	170	185	1 1/4"	22	110	50
	90	1/8"	106	55	215	225				
DN40	63	1/8"	75	41	180	195	1 1/2"	24	120	56
	90	1/8"	106	55	220	230				
DN50	63	1/8"	75	41	180	210	2"	26	150	69
	90	1/8"	106	55	230	255				

Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	C	R	K	A	L	H	ASME BPE	
									ΦD	S
DN15	40	1/8"	50.5	27	115	150	135	30	12.7	1.65
DN20	50	1/8"	60	33	130	165	145	30	19.05	1.65
	50	1/8"	60	33	140	175	152	30	25.4	1.65
DN25	63	1/8"	75	41	155	190				
DN40	63	1/8"	75	41	175	215	182	30	38.1	1.65
	90	1/8"	106	55	215	250				
DN50	63	1/8"	75	41	180	225	210	30	50.8	1.65
	90	1/8"	106	55	225	265				

Y-type Angle Seat Valve



Tri-clamp Connection

Main Dimension (Tri-clamp Connection)

Size	Actuator (mm)	Q	C	R	K	A	L	ASME BPE			
								ΦD	ΦB	Φd	H
DN15	40	1.8"	50.5	27	115	150	130	25	12.7	9.4	30
DN20	50	1.8"	60	33	125	165	150	25	19.05	15.75	30
DN25	50	1.8"	60	33	140	175	160	50.5	25.4	22.1	30
	63	1.8"	75	41	155	195					
DN40	63	1.8"	75	41	175	225	200	50.5	38.1	34.8	30
	90	1.8"	106	55	215	230					
DN50	63	1.8"	75	41	180	230	230	64	50.8	47.5	30
	90	1.8"	106	55	225	275					

Single Acting, Normally Closed (NC)

-Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow valve Kv(m³/h)	Actuator (mm)	Differential pressure MPa	Control pressure (MPa)
DN15	1/2"	13	3	40	0-1.0	≥0.5
DN20	3/4"	16	5.8	50	0-1.0	≥0.5
DN25	1"	24	11.6	50	0-0.7	≥5.5
				63	0-1.0	≥0.6
DN32	1 1/4"	31	17.3	63	0-0.6	≥0.6
				90	0-1.0	≥0.5
DN40	1 1/2"	35	22.7	63	0-0.5	≥0.55
				90	0-1.0	≥0.75
DN50	2"	45	35.6	63	0-0.2	≥0.6
				90	0-1.0	≥0.75

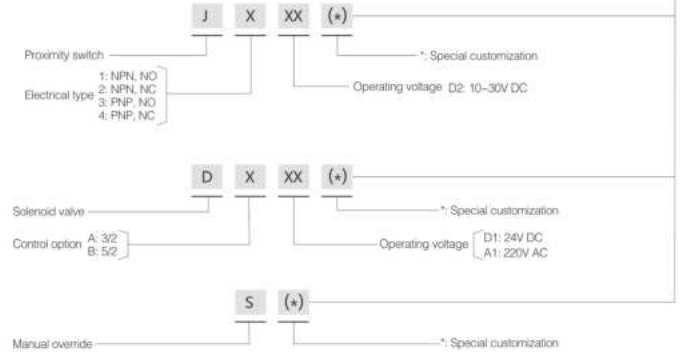
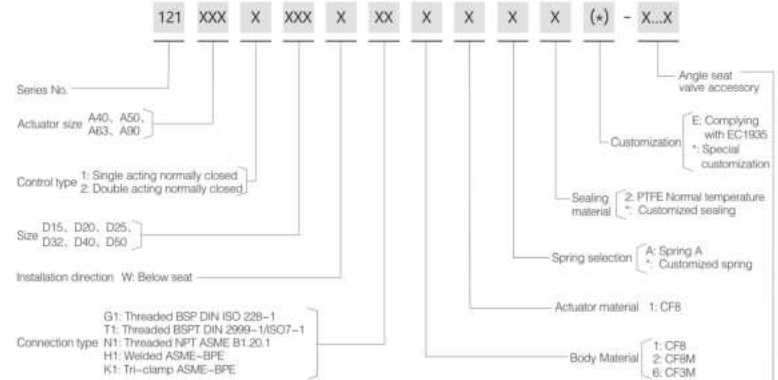
Double Acting, Normally Closed (NC)

-Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow valve Kv(m³/h)	Actuator (mm)	Differential pressure MPa	Control pressure (MPa)
DN15	1/2"	13	3	40	0-1.0	≥0.5
DN20	3/4"	16	5.8	50	0-1.0	≥0.45
DN25	1"	24	11.6	50	0-1.0	≥0.45
				63	0-1.0	≥0.4
DN32	1 1/4"	31	17.3	63	0-1.0	≥0.4
				90	0-1.0	≥0.35
DN40	1 1/2"	35	22.7	63	0-1.0	0.4-0.5
				90	0-1.0	0.3-0.4
DN50	2"	45	35.6	63	0-1.0	0.4-0.7
				90	0-1.0	0.3-0.4

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

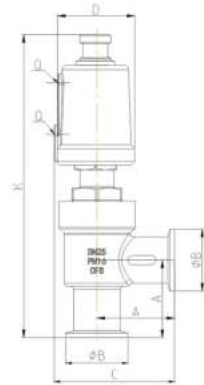
Order Instruction





Y-type Angle Seat Valve

122 Series
Pneumatic Angle
Stop Valve



Technical Specification

- Operating pressure: 0–10bar (0–145psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Actuator material: CF8 (40mm–90mm Actuator), AL (125mm Actuator)
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: EPDM/FFM
- Applicable fluid: Vacuum and Inert gas, Dusty gas, Water, Oil, Steam, Liquid, Organic solvent, Acid and lye
- Fluid temperature: –10°C → +150°C
- Ambient temperature: –10°C → +80°C
- Control type: Single acting normally closed, Double acting normally closed, Double acting without spring
- Connection type: KF
- Valve seat leakage Pa · m³/s (Hz): below 1.3 × 10⁻⁷
- External leakage Pa · m³/s (Hz): below 1.3 × 10⁻⁷

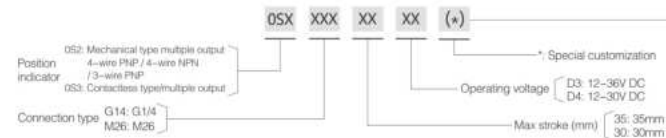
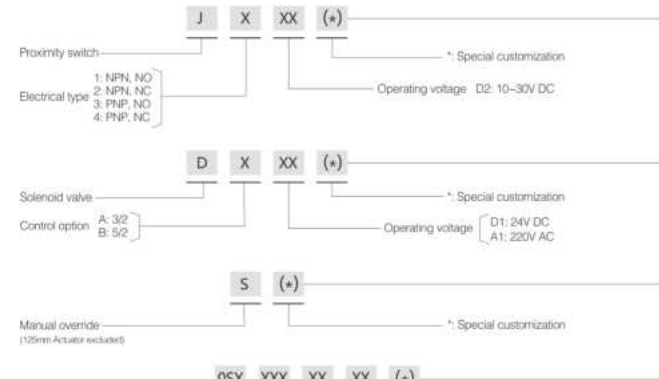
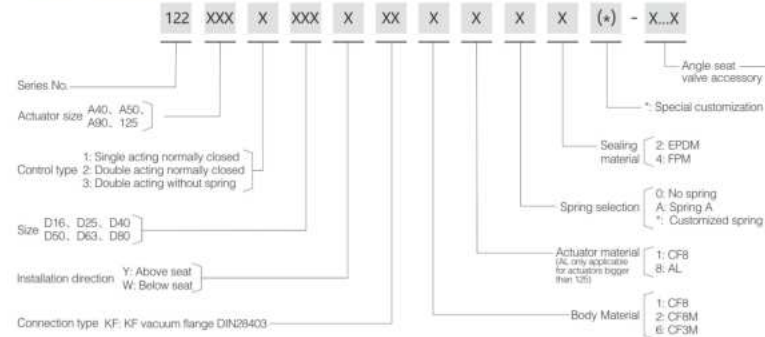
Main Dimension (KF)

Size	Actuator (mm)	Q	D	K	C	A	ΦB
DN16	40	1/8"	50.5	182	67	40	30
DN25	40	1/8"	50.5	194	77	50	40
DN40	50	1/8"	60	245	100	65	55
DN50	50	1/8"	60	255	105	70	75
DN63	90	1/8"	106	375	145	88	87
DN80	125	1/4"	170	440	175	90	114

Advantages

1. Lightweight appearance, compact structure, and excellent performance.
2. Stainless steel actuator, better performance for harsh environments and can rotate 360°.
3. Unique sealing structure design, applicable to dusty conditions, and ultra long service life.

Order Instruction



ESG

Y-type Angle Seat Valve

127 Series
Threaded Manual
Angle Seat Valve



127 Series
Welded Manual
Angle Seat Valve

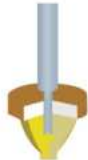


Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Applicable fluid: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid temperature: –10°C — +180°C
+25°C — +220°C
- Ambient temperature: –10°C — +80°C
- Fluid viscosity: Max 600mm²/s
- Connection type: Threaded, Welded ASME–BPE, Tri-clamp ASME–BPE, Flange
- Leakage class: EN 12266 Class A

Advantages

1. New body seal design can reduce residue and easy to clean.
2. Large flux, low resistance, no water–hammer.
3. Y type raises flux by 30% and make smooth flow.
4. The adjustable seat is optional to realize the adjustable flow by hand.



Adjustable seat

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

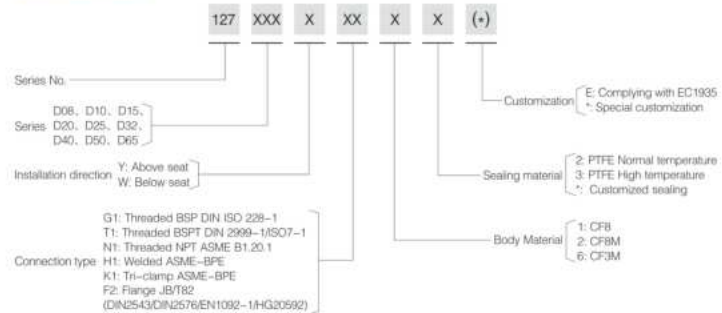
127 Series
Tri-clamp Manual
Angle Seat Valve



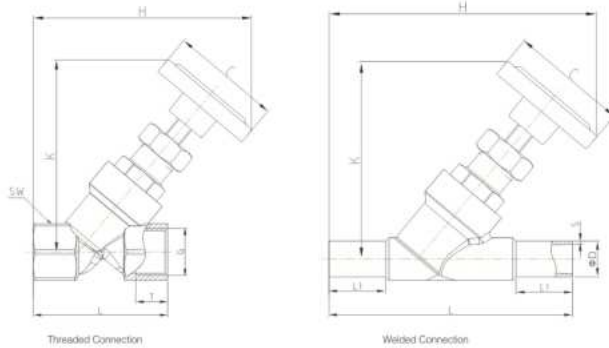
127 Series
Flanged Manual
Angle Seat Valve



Order Instruction



Y-type Angle Seat Valve

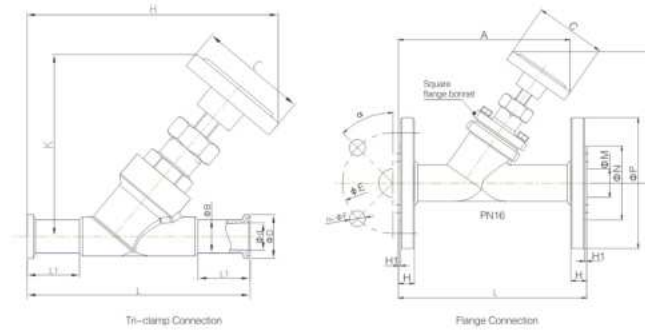


Main Dimension (Threaded Connection)

Size	C	H	K	G	T	L	SW
DN8	62	150	117	1/4	12	65	27
DN10	62	150	117	3/8	14	65	27
DN15	62	150	117	1/2	16	65	27
DN20	62	153	119	3/4	18	75	32
DN25	62	141	125	1	20	90	40
DN32	62	162	143	1 1/4	22	110	50
DN40	62	167	143	1 1/2	24	120	56
DN50	62	185	160	2	26	150	69

Main Dimension (Welded Connection)

Size	C	H	K	L1	L	ASME BPE	
						Ø D	S
DN15	62	153	119	30	135	12.7	1.65
DN20	62	157	116	30	145	19.05	1.65
DN25	62	163	125	30	152	25.4	1.65
DN40	62	186	140	30	182	38.1	1.65
DN50	62	198	150	30	210	50.8	1.65
DN60 Square Bonnet	80	235	200	26	230	63.5	1.65



Main Dimension (Tri-clamp Connection)

Size	C	H	K	L1	L	ASME BPE		
						Ø D	Ø B	Ø d
DN15	62	156	119	30	130	25	12.7	9.4
DN20	62	159	116	30	150	25	19.05	15.75
DN25	62	167	125	30	160	50.5	25.4	22.1
DN40	62	195	140	30	200	50.5	38.1	34.8
DN50	62	208	150	30	230	64	50.8	47.5
DN60 Square Bonnet	80	265	200	26	290	77.4	63.5	60.2

Main Dimension (Flanged Connection)

Size	C	K	A	L	H1	H	Ø E	n-Ø F	Ø M	Ø N	Ø P	α
DN15 Square Bonnet	62	116	136	130	2	14	65	4-14	16	45	95	45°
DN20 Square Bonnet	62	122	157	150	2	14	75	4-14	19	56	105	45°
DN25 Square Bonnet	62	127	157	160	2	14	85	4-14	26	65	115	45°
DN40 Square Bonnet	62	147	160	180	2	16	100	4-18	31	78	140	45°
DN50 Square Bonnet	62	149	181	200	3	16	110	4-18	38	84	150	45°
DN60 Square Bonnet	62	156	210	230	3	16	125	4-18	54	100	165	45°



Proportional Control Angle Seat Valve

104 Series
Two-piece Pneumatic
Proportional Control
Angle Seat Valve



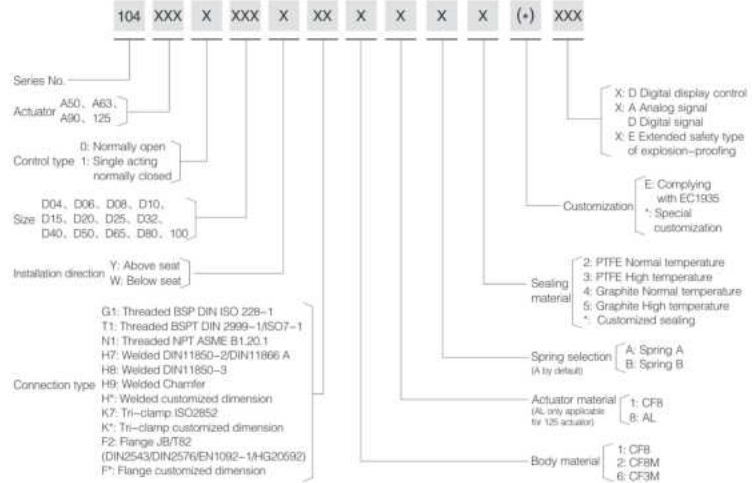
Technical Specification

- Connection type: Threaded, Welded, Tri-clamp, Flange
- Medium temperature: -10°C — $+180^{\circ}\text{C}$
 $+25^{\circ}\text{C}$ — $+220^{\circ}\text{C}$
- Medium temperature: 0 — $+60^{\circ}\text{C}$
- Operating pressure: Refer to the selection table of proportional adjustment angle seat valve
- Control pressure: 4 — 7bar (58 — 102psi)
- Control power: $24\text{VDC} \pm 10\%$
- Valve set signal: $0/4$ — 20mA or 0 — $5/10\text{V}$
- Power consumption: $<4\text{W}$
- Input Signal Impedance: 120Ω at $0/4$ — 20mA ,
 $40\text{k}\Omega$ under 0 — $5/10\text{V}$
- Simulated Output signal: Max load is 750Ω at $0/4$ — 20mA ,
Max current is 20mA under 0 — $5/10\text{V}$
- Maximum current of digital signal output: 100mA
- Protection: IP65
- Explosion-proof: II 3G Ex ec IIC T4 Gc
- Leakage class: DIN EN 12266 Class A

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.
4. For 104 and 124 series, the intelligent positioner and the valve are separate and can be installed at a distance, making it more suitable for high temperature and humidity environment.
5. No air consumption when in steady state.
6. Can be expanded to digital control or process control functions.

Order Instruction



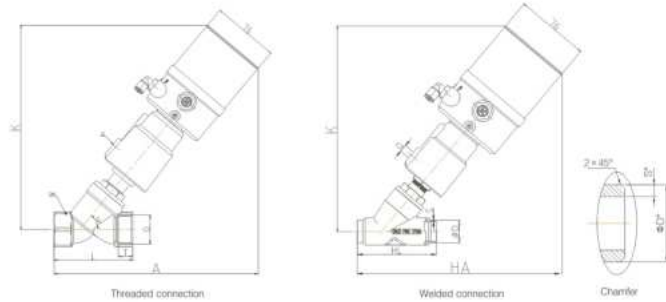
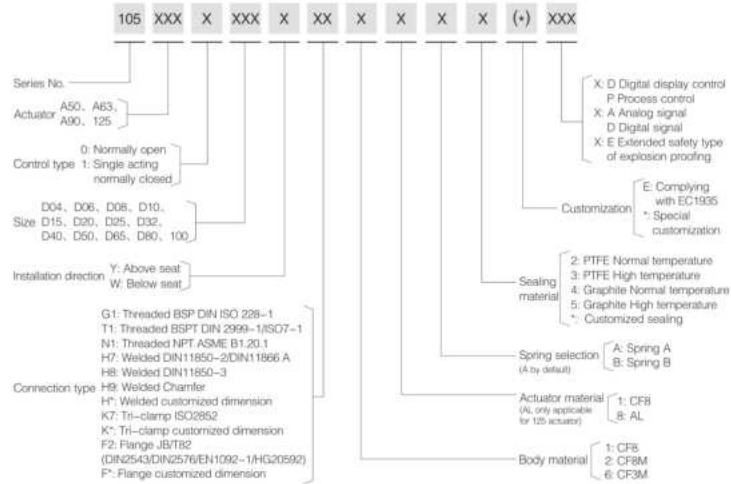


Proportional Control Angle Seat Valve

105 Series
Pneumatic Proportional
Control Angle Seat Valve



Order Instruction



105 Series Main Dimension (Threaded Connection)

Size	Actuator (mm)	Q	K	A	L	G	SW	T
DN4	50	1/8"	224	221	68	1/2"	3/8"	27
	63	1/8"	224	221	68	1/2"	3/8"	27
DN6	50	1/8"	224	221	68	1/2"	3/8"	27
	63	1/8"	237	233	68	1/4"	27	12
DN10	50	1/8"	224	221	68	3/8"	27	12
	63	1/8"	237	233	68	1/2"	27	15
DN15	50	1/8"	224	221	68	1/2"	27	15
	63	1/8"	237	233	68	1/2"	27	15
DN20	50	1/8"	231	226	75	3/4"	32	16
	63	1/8"	244	237	75	3/4"	32	16
DN25	50	1/8"	235	236	90	1"	40	17
	63	1/8"	257	253	90	1"	40	17
DN32	50	1/8"	269	271	116	1 1/4"	50	21
	63	1/8"	319	301	116	1 1/2"	56	21
DN40	50	1/8"	319	301	116	1 1/2"	56	21
	63	1/8"	319	301	116	1 1/2"	56	21
DN50	50	1/8"	328	316	138	2"	69	22
	63	1/8"	366	359	138	2"	69	22
DN65	125AL	1/4"	416	374	178	2 1/2"	85	26
	245S Squish Bonnet	1/4"	441	394	210	3"	100	27

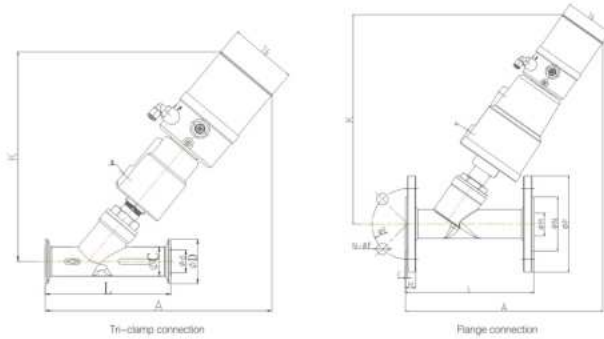
105 Series Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	K	HA	HL	Chamfer		DIN11850-2		DIN11850-3	
						φD*	S*	φD	S	φD	S
DN15	50	1/8"	224	214	70	22	3.5	19	1.5	20	2
	63	1/8"	237	226							
DN20	50	1/8"	231	221	82	29	5	23	1.5	24	2
	63	1/8"	244	232							
DN25	50	1/8"	235	236	100	35	5	29	1.5	30	2
	63	1/8"	257	256							
DN32	50	1/8"	269	267	125	39	4	35	1.5	36	2
	63	1/8"	269	267							
DN40	50	1/8"	319	301	130	45	4.5	41	1.5	42	2
	63	1/8"	319	301							
DN50	50	1/8"	318	316	155	57	4	53	1.5	54	2
	63	1/8"	318	316							
DN65	125AL	1/4"	416	414	270	75	5	70	2	—	—
	245S Squish Bonnet	1/4"	441	414							

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

ESG®

Proportional Control Angle Seat Valve



105 Series Main Dimension (Tri-clamp Connection)

Size	Actuator (mm)	Q	K	A	L	ØC	ØD	Ød
DN15	50	1/8"	221	221	80	20.5	34	15
	50	1/8"	243	239	130	25	50.5	19
DN20	63	1/8"	258	256				
DN25	50	1/8"	239	251	130	33	50.5	27
	DN32	63	1/8"	261				
DN32	90	1/8"	319	311	146	37	50.5	31
	DN40	90	1/8"	319				
DN50	90	1/8"	331	331	175	53	64	45
	DN65 Square connet	125AL	1/4"	382				
DN80 Square connet	125AL	1/4"	416	414	278	75	91	65
DN100 Square connet	125AL	1/4"	438	414	290	89.5	106	78.5

105 Series Main Dimension (Flange Connection)

Size	Actuator (mm)	Q	K	A	L	ØP	ØN	ØM	H	C	ØE	n-ØF
DN15	50	1/8"	237	232	130	95	45	16	14	2	65	4-14
DN20	50	1/8"	237	252	150	105	56	19	14	2	75	4-14
	50	1/8"	267	257	160	115	65	26	14	2	85	4-14
DN25	63	1/8"	268	272								
DN32	63	1/8"	281	272	160	140	78	31	16	2	100	4-18
	DN40	90	1/8"	329								
DN40	90	1/8"	334	317	200	150	84	38	16	3	110	4-18
	DN50	90	1/8"	339								
DN50	125AL	1/4"	394	385	230	165	100	54	16	3	125	4-18
DN65 Square connet	125AL	1/4"	414	430	290	185	120	71	18	3	145	4-18
DN80 Square connet	125AL	1/4"	439	435	310	200	135	64	20	3	160	8-18
DN100 Square connet	125AL	1/4"	467	462	350	215	155	96	20	3	180	8-18

105 Series
Electrical Proportional
Control Angle Seat Valve

Technical Specification

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

Advantages

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

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.



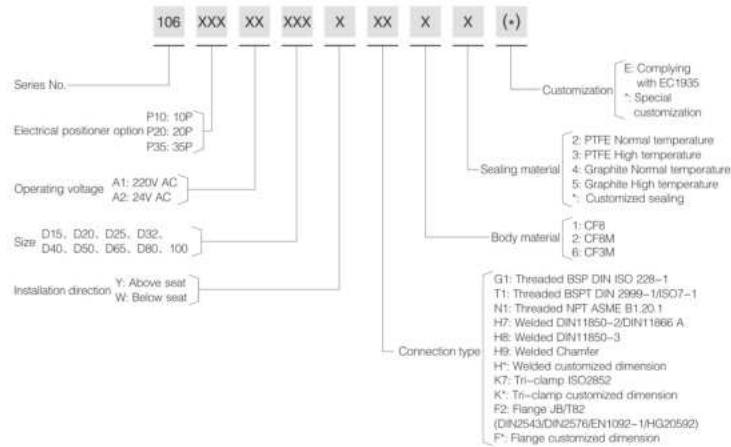
Proportional Control Angle Seat Valve

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
		10P	0-0.3	0-0.9
DN40	35	20P	0-1.4	0-1.6
		35P	0-1.6	0-1.6
		10P	-	0-0.5
DN50	45	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

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

Order Instruction



124 Series
Two-piece Pneumatic
Proportional Control
Angle Seat Valve



Function Principle

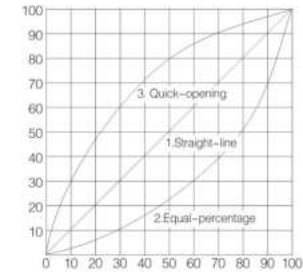
Positioner receives 0/4-20mA(0-5/10V) electrical signals from control system and converts them into air signals to control the valve and make precise flow adjustment using the adjustable seat.

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.

Attention

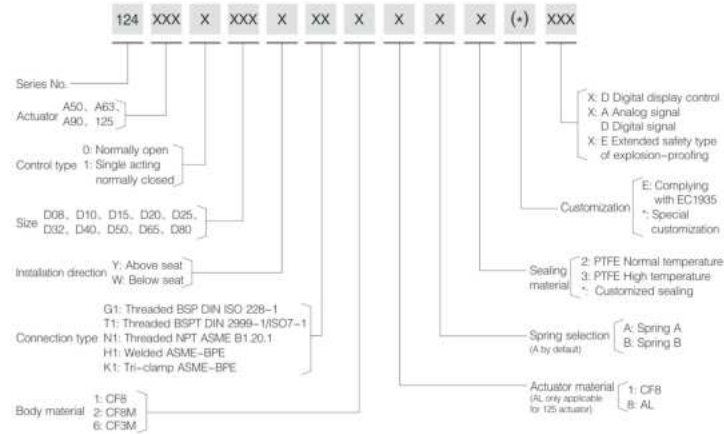
- Ensure that the inlet pressure of P port is sufficient and has been opened.
- Ensure that there is no leakage in the air supply pipeline, especially when there are changes in the air supply.
- Ensure that the power supply wiring is correct.
- Ensure that the signal source input mode matches and there is no interference.
- Ensure that the control valve takes protective measures to avoid water droplets and causing disfunction in operation panel.
- While installation, if the valve body needs to be removed, please adjust to the zero point again after installation.
- It is recommended that the signal to be 4-20mA to reduce the interference when signal value is low.
- It is recommended to use shielding wire for the signal line.
- Make sure the positioner is waterproof.





Proportional Control Angle Seat Valve

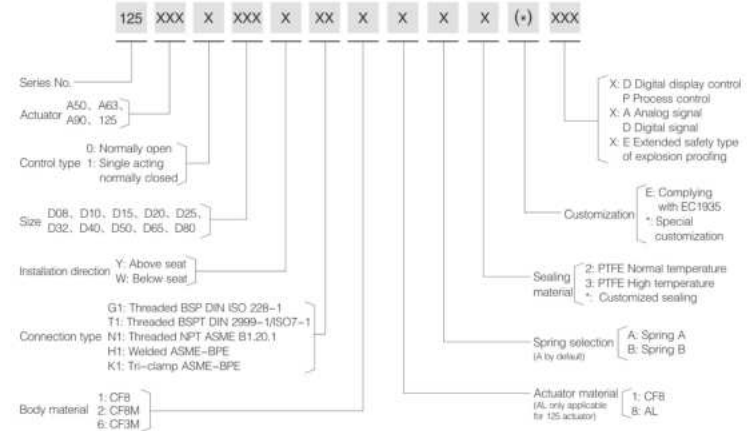
Order Instruction



125 Series
Pneumatic Proportional
Control Angle Seat Valve

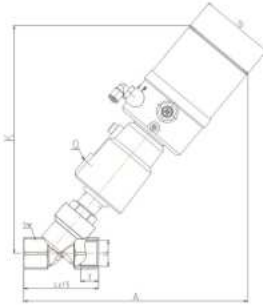


Order Instruction

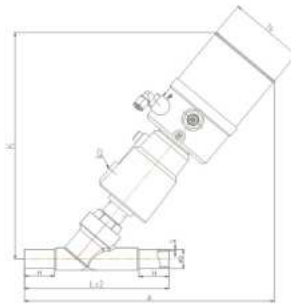




Proportional Control Angle Seat Valve



125 Series Threaded connection



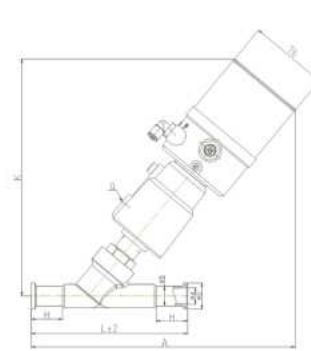
125 Series Welded connection

125 Series Main Dimension (Threaded connection)

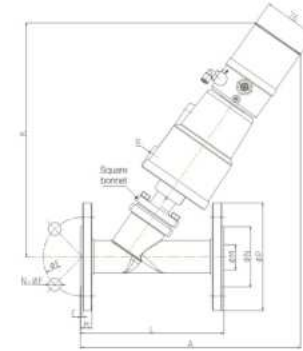
Size	Actuator (mm)	Q	K	A	L	G	SW	T
DN8	50	1/8"	229	224	65	1/4"	27	12
	63	1/8"	244	236				
DN10	50	1/8"	229	224	65	3/8"	27	14
	63	1/8"	244	236				
DN15	50	1/8"	229	224	65	1/2"	27	16
	63	1/8"	244	236				
DN20	50	1/8"	232	229	75	3/4"	32	18
	63	1/8"	246	239				
DN25	50	1/8"	235	235	90	1"	40	20
	63	1/8"	259	254				
DN32	63	1/8"	270	271	110	1 1/4"	50	22
	90	1/8"	312	304				
DN40	90	1/8"	312	308	120	1 1/2"	56	24
	90	1/8"	319	326				
DN50	90	1/8"	319	326	150	2"	69	26
	125AL	1/4"	374	372				

125 Series Main Dimension (Welded connection)

Size	Actuator (mm)	Q	K	A	L	H	ASME BPE	
							ØD	S
DN15	50	1/8"	230	247	135	30	12.7	1.65
	63	1/8"	246	259				
DN20	50	1/8"	229	251	145	30	19.05	1.65
	63	1/8"	242	264				
DN25	50	1/8"	236	256	152	30	25.4	1.65
	63	1/8"	259	276				
DN40	90	1/8"	309	329	182	30	38.1	1.65
	90	1/8"	319	339				
DN50	90	1/8"	319	339	210	30	50.8	1.65
	125AL	1/4"	374	386				
DN65 Square Bonnet	125AL	1/4"	417	386	230	26	63.5	1.65
DN80 Square Bonnet	125AL	1/4"	436	436	310	26	76.2	1.65



125 Series Tri-clamp connection



125 Series Flanged connection

125 Series Main Dimension (Tri-clamp connection)

Size	Actuator (mm)	Q	K	A	L	ASME BPE			
						D	B	d	H
DN15	50	1/8"	230	251	130	25	12.7	9.4	30
	63	1/8"	246	262					
DN20	50	1/8"	229	254	150	25	19.05	15.75	30
	63	1/8"	244	263					
DN25	50	1/8"	236	261	160	50.5	25.4	22.1	30
	63	1/8"	259	281					
DN40	90	1/8"	309	336	200	50.5	38.1	34.6	30
	90	1/8"	319	351					
DN50	90	1/8"	319	351	230	64	50.8	47.5	30
	125AL	1/4"	374	396					
DN65 Square Bonnet	125AL	1/4"	417	416	290	77.4	63.5	60.2	26
DN80 Square Bonnet	125AL	1/4"	439	437	315	91	76.2	72.9	26

125 Series Main Dimension (Flanged connection)

Size	Actuator (mm)	Q	K	A	L	ØP	ØN	ØM	H	C	ØE	n-ØF
DN20	50	1/8"	237	252	150	105	56	19	14	2	75	4-14
DN25	50	1/8"	267	257	160	115	65	26	14	2	85	4-14
	63	1/8"	268	272								
DN32	63	1/8"	281	272	180	140	78	31	16	2	100	4-18
	90	1/8"	329	297								
DN40	90	1/8"	327	307	200	150	84	38	16	3	110	4-18
	90	1/8"	334	326								
DN50	90	1/8"	334	326	230	165	100	54	16	3	125	4-18
	125AL	1/4"	394	385								

Proportional Control Angle Seat Valve

Single Acting, Normally closed (NC) -Enter Below Seat

Size	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range (MPa)	Control Pressure (MPa)
DN4	4	0.52	50A	0-1.6	≥0.45
DN6	6	1.1	50A	0-1.6	≥0.45
DN8	8	2.2	50A	0-1.4	≥0.45
			63A	0-1.6	≥0.50
			63B	0-1.6	≥0.30
DN10	10	3.3	50A	0-1.4	≥0.45
			63A	0-1.6	≥0.50
			63B	0-1.6	≥0.30
DN15	15	3.3	50A	0-1.4	≥0.45
			63A	0-1.6	≥0.50
			63B	0-1.6	≥0.30
DN20	20	6.7	50A	0-1.4	≥0.45
			63A	0-1.6	≥0.50
			63B	0-1.6	≥0.30
DN25	25	11.4	50A	0-0.8	≥0.45
			63A	0-1.3	≥0.50
			63B	0-0.7	≥0.30
DN32	32	18.3	63A	0-0.6	≥0.50
			90B	0-1.3	≥0.45
			63A	0-0.5	≥0.50
DN40	40	24.5	90A	0-1.6	≥0.60
			90B	0-1.1	≥0.45
			90A	0-1.0	≥0.60
DN50	50	40.4	90B	0-0.7	≥0.45
			125A	0-1.6	≥0.55
			125B	0-1.1	≥0.45
DN65	65	46.8	90A	0-0.5	≥0.60
			125A	0-0.9	≥0.55
			125B	0-0.6	≥0.45
DN80	80	84.0	125A	0-0.5	≥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

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

(Please pay attention to the selection of spring, 6325, 6332 and 6340 need a customized positioner.)

Size	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range (MPa)	Control Pressure (MPa)
DN15	15	3.3	50A	0-1.6	≥0.45
			63B	0-1.6	≥0.30
DN20	20	6.7	50A	0-1.6	0.45-0.55
			63B	0-1.6	0.30-0.40
DN25	25	11.4	63B	0-1.6	0.30-0.45
			63B	0-1.6	0.30-0.60
DN32	32	18.3	90B	0-1.6	≥0.45
			63B	0-1.6	0.30-0.70
DN40	40	24.5	90B	0-1.6	0.45-0.50
			90B	0-1.6	0.45-0.70
			125A	0-1.6	0.30-0.35
DN50	50	40.4	90B	0-0.9	0.45-0.70
			125A	0-1.6	0.30-0.55
DN65	65	46.8	125A	0-1.6	0.30-0.70
			125A	0-1.0	0.30-0.70

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

Single Acting, Normally Open(NO)-Enter below Seat

Size	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range (MPa)	Control Pressure (MPa)
DN15	13	3.3	50K	0-1.6	0.30-0.40
DN20	18	6.7	50K	0-1.6	0.30-0.50
			50K	0-1.3	0.30-0.60
DN25	24	11.4	63K	0-1.6	0.30-0.50
			63K	0-1.3	0.30-0.60
DN32	31	18.3	63K	0-1.6	0.30-0.40
DN40	35	21.3	90K	0-1.6	0.30-0.55
DN50	45	40.4	90K	0-1.0	0.30-0.70
			125K	0-1.6	0.30-0.65
DN65	61	46.8	125K	0-1.0	0.30-0.70

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

Opening (%) - Kv value (m³/h) chart of proportional angle seat valve

Size	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
DN4	0.02	0.04	0.07	0.11	0.14	0.19	0.26	0.35	0.43	0.52
DN6	0.04	0.08	0.14	0.22	0.33	0.43	0.57	0.75	0.93	1.1
DN8	0.53	0.83	1.14	1.53	1.91	2.2	2.2	2.2	2.2	2.2
DN10	0.53	0.83	1.14	1.53	1.91	2.26	2.58	2.84	3.05	3.3
DN15	0.53	0.83	1.14	1.53	1.91	2.26	2.58	2.84	3.05	3.3
DN20	1.48	2	2.57	3.27	4.16	5.06	5.65	6.06	6.43	6.7
DN25	1.37	2.98	4.39	5.94	7.14	8.27	9.03	9.98	10.82	11.4
DN32	3.79	6.74	9.07	11.17	12.12	13.36	15.35	16.37	17.63	18.3
DN40	3.78	6.85	9.39	12.44	15.4	17.46	20.55	22.02	23.54	24.5
DN50	8.64	15.49	21.67	27.02	29.98	32.93	35.45	37.36	39.52	40.4
DN65	7.53	11.34	15.31	17.83	19.4	21.84	27.3	33.4	40.54	46.6
DN80	9.84	11.18	16.53	22.66	29.82	35.73	48.37	60.21	70.69	84
DN100	12.54	14.56	25.32	36.75	45.6	54.38	63.5	72.8	84.23	95

Proportional Control Angle Seat Valve

135 Series
Micro Flow Control Valve



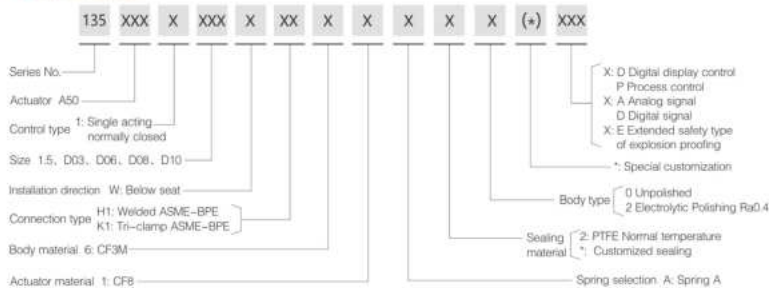
Technical Specification

- Operating pressure: 0–10bar (0–145psi)
- Control pressure: 4–7bar (58–116psi)
- Seal material: PTFE
- Applicable fluid: Water, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid temperature: -10°C — +150°C
- Ambient temperature: -10°C — +60°C
- Control type: Single acting normally closed
- Connection type: Tri-clamp, Welded

Advantages

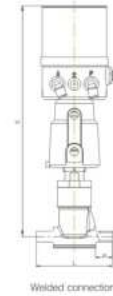
Bellows are used to isolate the medium and meet the requirements of harsh working conditions.

Order Instruction

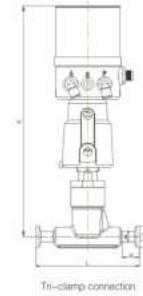


Function Principle

Positioner receives 0/4–20mA(0–5/10V) electrical signals from control system and converts them into air signals to control the valve and make precise low adjustment using the below adjustable seat. Diaphragm is arranged between the valve body and the bonnet to isolate the medium in place of the stem packing. Valve stays closed(open) by spring force in its normal state. When piston is actuated by compressed air, valve becomes opened (Closed).



Welded connection



Tri-clamp connection

135 Series Main Dimension (Welded connection)

Size	Actuator (mm)	K	L	H	ASME BPE	
					D	S
DN1.5/3/6	50	275	90	16	12.7	1.65
DN8/10	50	275	90	16	19.05	1.65

135 Series Main Dimension (Tri-clamp connection)

Size	Actuator (mm)	K	L	ASME BPE			
				D	B	d	H
DN1.5/3/6	50	275	122	25	12.7	9.4	20
DN8/10	50	275	122	25	19.05	15.75	20

Single Acting, Normally Closed (NC)-Enter Below Seat Pressure Selection Table

Size	Orifice (mm)	Flow value Kv(m ³ /h)	Actuator (mm)	Differential pressure range (MPa)	Control Pressure (MPa)
BPE-DN1.5	1.5	0.09	50A	0–1.0	≥0.45
BPE-DN3	3	0.26	50A	0–1.0	≥0.45
BPE-DN6	6	0.8	50A	0–1.0	≥0.45
BPE-DN8	8	1.43	90A	0–1.0	≥0.45
BPE-DN10	10	2.16	50A	0–1.0	≥0.45

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

Opening (%) - Kv value (m³/h) chart of proportional angle seat valve

Size	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
BPE-DN1.5	0.011	0.021	0.032	0.043	0.054	0.064	0.073	0.082	0.095	0.09
BPE-DN3	0.025	0.059	0.1	0.13	0.16	0.19	0.21	0.23	0.24	0.26
BPE-DN6	0.03	0.075	0.156	0.247	0.332	0.442	0.53	0.63	0.726	0.8
BPE-DN8	0.05	0.15	0.26	0.39	0.53	0.73	0.96	1.27	1.42	1.43
BPE-DN10	0.1	0.26	0.42	0.61	0.82	1.08	1.45	1.9	2.03	2.16



Multi-channel Valve

103 Series
Threaded Pneumatic
Three-way Angle
Seat Valve



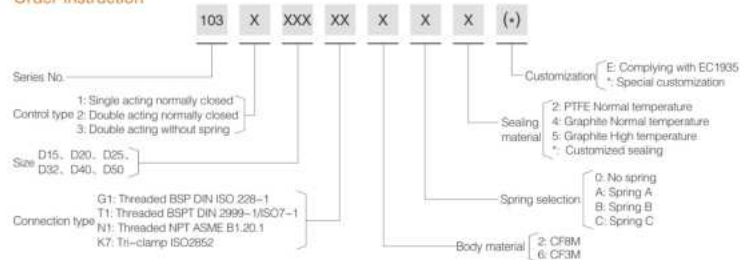
103 Series
Tri-clamp Pneumatic
Three-way Angle
Seat Valve



Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8M/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Fluid temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting 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

Order Instruction

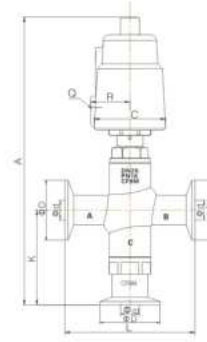


Function Principle

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.



Threaded connection



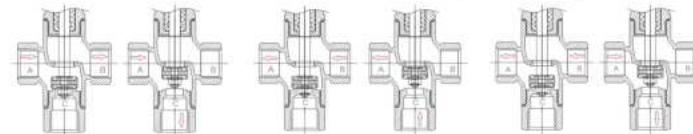
Tri-clamp connection

Main Dimension (Threaded connection)

Size	Actuator	Q	C	R	G	A	K	L	SW	Weight (kg)
DN15	40	1/8"	50.5	27	1.0"	195	50	69	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	1.54
DN32	63	1/8"	75	41	1 1/4"	301	86	116	50	3.30
	90	1/8"	106	55	1 1/4"	365	86	116	50	4.62
DN40	63	1/8"	75	41	1 1/2"	306	90	116	56	3.79
	90	1/8"	106	55	1 1/2"	363	90	116	56	5.15
DN50	90	1/8"	106	55	2"	362	102	138	69	6.52

Main Dimension (Tri-clamp connection)

Size	Actuator	Q	C	R	øD	ød	ød1	A	K	L	Weight (kg)
DN15	40	1/8"	50.5	27	34	16	16	223	80	90	0.99
DN20	50	1/8"	60	33	50.5	19	19	246	80	90	1.48
DN25	50	1/8"	60	33	50.5	26	26	262	90	100	1.78
DN32	63	1/8"	75	41	50.5	31	29	319	104	130	3.39
	90	1/8"	106	55	50.5	31	29	373	104	130	4.75
DN40	63	1/8"	75	41	64	36	33	327	111	150	4.09
	90	1/8"	106	55	64	36	33	381	111	150	5.45
DN50	90	1/8"	106	55	64	43	43	408	128	160	6.65



Split function

Blend function

Reversal function

Multi-channel Valve

Single Acting, Normally Closed

Size	Actuator	Interface	Orifice	Flow value Kv(m³/h)		Split function		Blend function		Reversal function	
				A-B	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
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	0-0.8	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					

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

Size	Actuator	Interface	Orifice	Flow value Kv(m³/h)		Split function		Blend function		Reversal function	
				A-B	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
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	63	1 1/4"	31	20.9	22.8	0-1.3	0.35-0.7	0-1.3	0.35-0.7	0-1.3	0.35-0.7
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-D	63	1 1/2"	35	24.4	26.6	0-1.0	0.35-0.7	0-1.0	0.35-0.7	0-1.0	0.35-0.7
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

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 Without Spring

Size	Actuator	Interface	Orifice	Flow value Kv(m³/h)		Split function		Blend function		Reversal function	
				A-B	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
DN15	40	1/2"	14	4.1	4.9	0-1.6	0.3-0.5	0-1.6	0.3-0.5	0-1.6	0.3-0.5
DN20	50	3/4"	18	5.8	6.5	0-1.6	0.3-0.5	0-1.6	0.3-0.5	0-1.6	0.3-0.5
DN25	50	1"	24	13.9	14.4	0-1.6	0.3-0.55	0-1.6	0.3-0.6	0-1.6	0.3-0.55
DN32	63	1 1/4"	31	20.9	22.8	0-1.6	0.3-0.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6
	90	1 1/4"	31	20.9	22.8	0-1.6	0.3-0.4	0-1.6	0.3-0.45	0-1.6	0.3-0.4
DN40	63	1 1/2"	35	24.4	26.6	0-1.5	0.3-0.7	0-1.4	0.3-0.65	0-1.5	0.3-0.7
	90	1 1/2"	35	24.4	26.6	0-1.6	0.3-0.45	0-1.6	0.3-0.5	0-1.6	0.3-0.45
DN50	90	2"	45	29.3	31.9	0-1.6	0.3-0.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6

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

103 Series
Low-Flow-Resistance
3-Way Angle Seat Valve



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/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Medium temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting 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

Function Principle

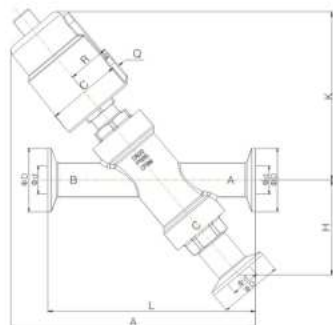
We can achieve flow reversing, diverting and mixing functions with this valve. To a certain extent, this 3-way angle seat valve can replace two 2-way valves. At non-operating state, port C is closed, while port A and port B are interlinked. When give control air to actuator, port C and port A is interlinked, but channel between port A and port B is closed. If choose double acting control type, air control to open and close the valve.

Advantages

- Low-residue design, easy to clean
- Large flux, low resistance, flow resistance can be reduced by 50%, flow rate can be increased by 40%.
- Stainless steel actuator suitable for harsh working conditions and can be rotated 360°.



Multi-channel Valve



Main Dimension (Tri-clamp connection)

Size	Actuator	Q	C	R	D	d	A	K	H	L	Weight (kg)
DN20	50	1/8"	50.5	27	50.5	22.5	200	140	76	165	1.96

Single Acting Control

Size	Actuator	Orifice	Flow value Kv(m ³ /h)			A→B&A→C		B→A&C→A		B→A&A→C	
			A-B	B-A	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
DN20-A	50	24	9.5	11.9	9.8	0-1.0	0.5-0.7	0-0.6	0.5-0.65	0-1.0	0.5-0.7
DN20-B						0-1.6	0.35-0.7	0-0.3	0.35-0.45	0-1.6	0.35-0.7

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

Double Acting Normally Closed Control

Size	Actuator	Orifice	Flow value Kv(m ³ /h)			A→B&A→C		B→A&C→A		B→A&A→C	
			A-B	B-A	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
DN20-B	50	24	9.5	11.9	9.8	0-1.6	0.35-0.7	0-1.6	0.35-0.7	0-1.6	0.35-0.7

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

Double Acting Without Spring Control

Size	Actuator	Orifice	Flow value Kv(m ³ /h)			A→B&A→C		B→A&C→A		B→A&A→C	
			A-B	B-A	A-C	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)	Differential pressure range(bar)	Control pressure (bar)
DN20	50	24	9.5	11.9	9.8	0-1.6	0.3-0.6	0-1.6	0.3-0.7	0-1.6	0.3-0.6

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

109 Series
Pneumatic
Modular Valve



Technical Specification

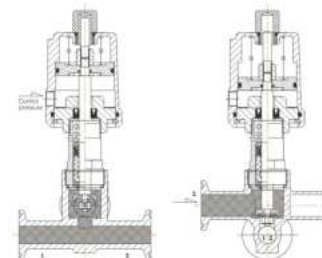
- Operating pressure: 0-16bar (0-232psi)
- Control pressure: 3-8bar (43.5-116psi)
- Control medium: Filtered compressed air or neutral gas
- Body material: CF8M/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Medium temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting 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

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.

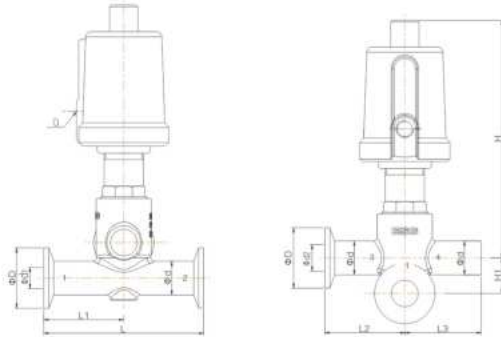
Advantages

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.



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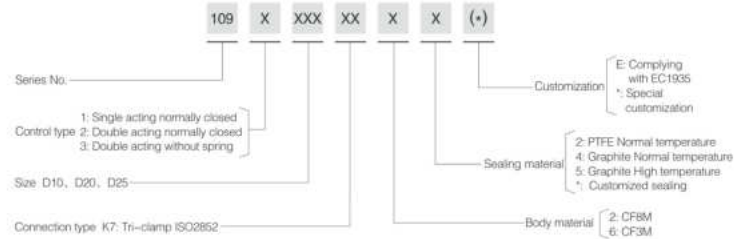
Multi-channel Valve



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	122
DN25	63	1/8"	50.5	34	29.5	29.5	165	39	65	63.5	55	130

Order Instruction



110 Series
Pneumatic
Manifold Valve



Technical Specification

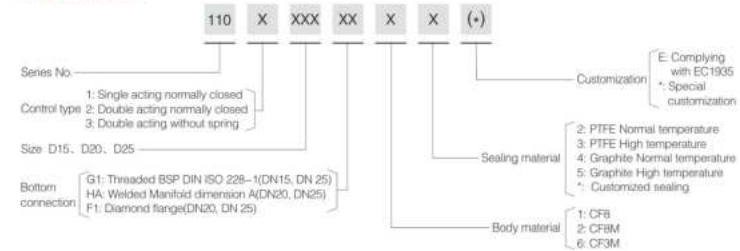
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control medium: Filtered compressed air or neutral gas
- Seal material: PTFE
- Body material: CF8/CF8M/CF3M and other special materials
- Applicable medium: Water, Oil, Air and other liquid
- Medium temperature: -10°C — +180°C, +25°C — +220°C
- Ambient temperature: -10°C — +80°C
- Connection type: Welded, Threaded, Diamond flange
- Control type: Single acting 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.

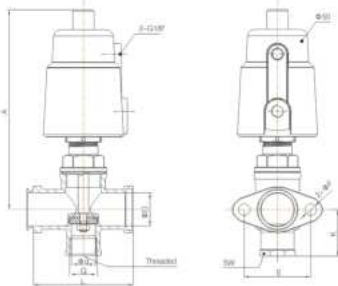


Order Instruction



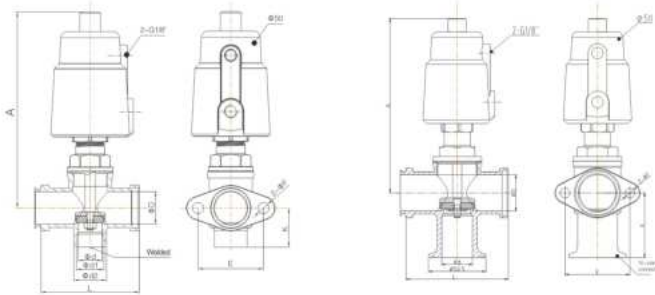


Multi-channel Valve



Main Dimension (Threaded connection)

Size	A	K	L	∅D	∅d	G	SW	∅E	2-∅F	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	1.35

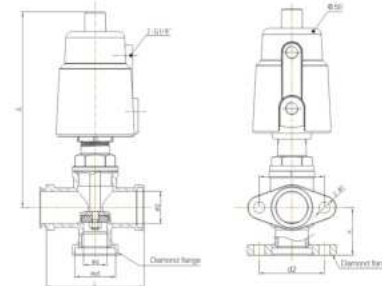


Main Dimension (Welded connection)

Size	A	K	L	∅D	∅d	∅d1	∅d2	∅E	2-∅F	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	1.3

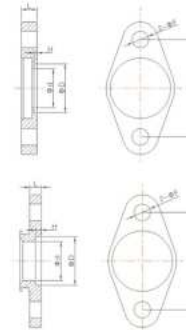
Main Dimension (Tri-clamp connection)

Size	A	K	L	∅D	∅d	∅E	2-∅F	Flow value Kv(m ³ /h)	Weight (kg)
DN20	153	50.5	76	25	21	50	8.5	8.1	1.3
DN25	153	57	90	32	27	57	8.5	14.8	1.4



Main Dimension (Diamond flange connection)

Size	A	K	L	∅D	∅d	∅d1	d2	E	2-∅F	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	1.4



Name	Size	D	d	H	L	E	F	Remark
Flange cover 1	DN15/DN20	/	/	/	8	50	8.5	Seat hole through cover
	DN25	/	/	/	8.5	57	8.5	Seat hole through cover
Flange cover 2	DN15/DN20	25.1/25.6	20	1.5	8	60	8.5	Through hole through cover
	DN25	32.5	28	1.5	8.5	57	8.5	Through hole through cover

Name	Size	D	d	H	L	E	F	Remark
Flange cover 3	DN15/DN20	/	/	/	6	50	8.5	Seat hole through cover
	DN25	/	/	/	6	57	8.5	Seat hole through cover
Flange cover 4	DN15/DN20	25.6	30	3	6	50	8.5	Through hole through cover
	DN25	32.5	29	1.5	6	57	8.5	Through hole through cover

Pressure Data Sheet

	Size	Actuator	Single acting valve operating pressure (MPa)			Double acting valve operating pressure (MPa)		
			Enter above seat P. (MPa)	Enter below seat P. (MPa)	Control pressure (MPa)	Enter above seat P. (MPa)	Enter below seat P. (MPa)	Control pressure (MPa)
Config. A	DN15	50	0-1.6	0-0.7	0.3-0.5	0-1.6	0-1.6	0.3-0.5
	DN20	50	0-1.6	0-0.7	0.3-0.5	0-1.6	0-1.6	0.3-0.5
	DN25	50	0-1.6	0-0.4	0.3-0.65	0-1.6	0-1.6	0.3-0.65
Config. B	DN15	50	0-1.6	0-1.4	0.45-0.6	0-1.6	0-1.6	0.45-0.6
	DN20	50	0-1.6	0-1.4	0.45-0.6	0-1.6	0-1.6	0.45-0.6
	DN25	50	0-1.4	0-0.8	0.45-0.7	0-1.4	0-1.6	0.45-0.7

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

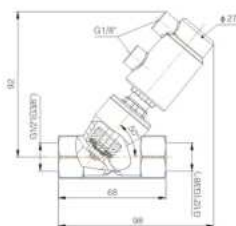
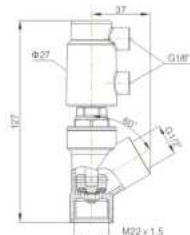
ESG®

Filling Valve

1AA Series
27mm Actuator
Pipe-less Filling Valve1AB Series
Pipe-less Filling Valve

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: 3-4.5bar (44-65psi)
- Body material: CF8/CF8M/CF3M and other special materials
- Seal material: PTFE
- Medium temperature: -10°C — +120°C
- Ambient temperature: -10°C — +80°C
- Connection type: Threaded connection (BSP, BSPT, NPT)

1AA Series 27mm Actuator
Pipe-less Filling Valve1AB Series
Pipe-less Filling Valve

Advantages

- The filling valves is widely used in filling machinery, suitable for viscous, pasty and even foamy fluids with accurate and stable filling.
- 1AA series with 27mm actuator and 1AS series, the valve core made a flexible seat, it can be the self-adjustable with good sealing performance.

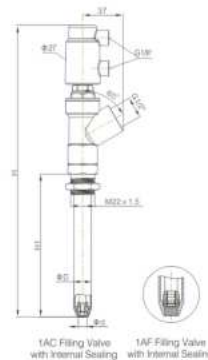
1AC/1AF Series
Filling Valve with
Internal Sealing1AP Series
Filling Valve with Internal
Sealing and Suction

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/CF3M and other special materials
- Seal material: PTFE
- Medium temperature: -10°C — +120°C
- Ambient temperature: -10°C — +80°C

Advantages

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

1AC Filling Valve
with Internal Sealing1AF Filling Valve
with Internal Sealing1AP Filling Valve with Internal
Sealing and Suction

1AC/1AF Main Dimension

Size	∅ D	∅ d	H	H1
1AC	20	10	267	130
1AC	16	9	267	130
1AF	16	8	267	130

ESG

Filling Valve

1AJ/1AM Series Filling Valve with Internal Sealing



1AJ/1AM Series Filling Valve with Internal Sealing and Suction



1AD Series Filling Valve with External Sealing



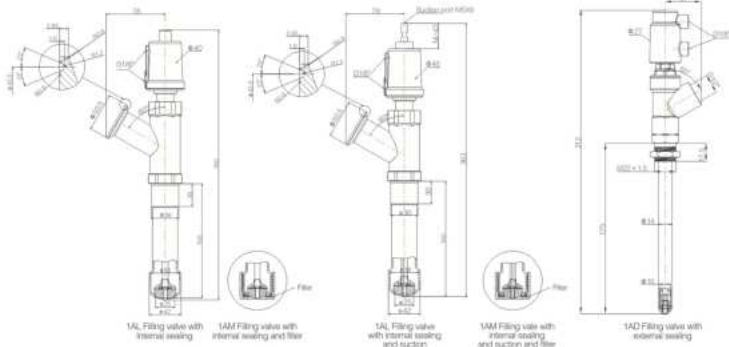
* Accessory can be installed on top of actuator

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°C — +120°C
- Ambient temperature: -10°C — +80°C

Advantages

- It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
- Fast, accurate and stable filling.
- Delicate and compact, easy to arrange pipeline layout.
- Special nozzle structure and sealing design ensure no dripping leakage.
- Bottom chamfer structure of the filling nozzle self-locates and enables submerged filling.
- The head gourd shape design of the filling tube reduces weight and cost without sacrificing flow rate.
- With super strong suction function, it can timely recover the liquid sliding down the pipe wall without dripping.



1AJ Filling valve with internal sealing

1AM Filling valve with internal sealing and filter

1AL Filling valve with internal sealing and suction

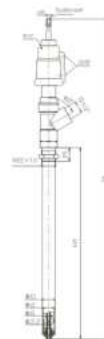
1AK Filling valve with internal sealing and suction and filter

1AD Filling valve with external sealing

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



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



1AJ/1AG/1AE/1AI/1AK/1AH Series

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/CF3M and other special materials
- Seal material: PTFE
- Medium temperature: -10°C — +120°C
- Ambient temperature: -10°C — +80°C

Advantages

- Superior performance in easy foaming fluids filling.
- Delicate and compact structure easy for pipeline layout.
- Fast and stable filling.
- Special suction design ensure no dripping leakage.
- Special tip seal structure enables convenient maintenance and replacements.

Main Dimension

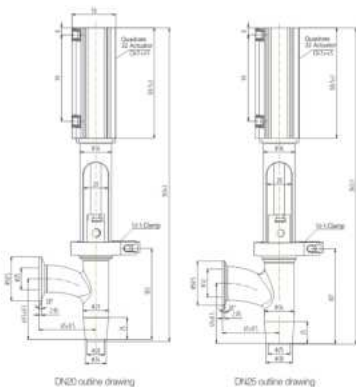
Size	Ø D	Ø d	H1	H
1AJ	20	17	300	502
1AG	20	17	130	332
1AE	16	13	300	502
1AI	16	13	130	332
1AK	12	9	300	502
1AH	12	9	130	332

ESG**Filling Valve**1A1 Series
Sauce Filling Valve
with Internal Sealing**Technical Specification**

- Control type: Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: 4–7bar (58–102psi)
- Control medium: CF8M/CF3M and other special materials
- Seal material: UPE
- Medium temperature: –10°C — +110°C
- Ambient temperature: –10°C — +60°C

Advantages

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

1A2 Series
Filling Valve with
Internal Sealing

* Customization available

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/CF3M and other special materials
- Seal material: PTFE
- Medium temperature: –10°C — +120°C
- Ambient temperature: –10°C — +80°C

Advantages

- It is widely used in filling machinery, especially for applications with viscous, pasty and even foamy fluids.
- Fast, accurate and stable filling.
- Delicate and compact, easy to arrange pipeline layout.
- Special nozzle structure and sealing design ensure no dripping leakage.
- Bottom chamfer structure of the filling nozzle self-locates and enables submerged filling.
- The valve utilizes bottom seal and seal ring for connection to valve stem in order to avoid fluid residue and allow effortless cleaning.
- Internal suction structure recovers dripping liquid along the pipe wall.

ESG**Shuttle Valve**200 Series
Pneumatic
Shuttle Valve**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/CF8
- Seal material: EPDM/FFM
- Applicable medium: FKM–Suitable for most fluid, except for steam.
EPDM–Suitable for steam and hot water, unsuitable for oils, greases, fuels etc.
- Medium temperature: –20°C → +150°C (FFM),
–20°C → +130°C (EPDM)
- Ambient temperature: –20°C → +80°C
- Control type: Single acting normally closed,
Single acting normally open,
Double acting normally closed,
Double acting without spring
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Leakage class: DIN EN 12266 Class A

Function Principle

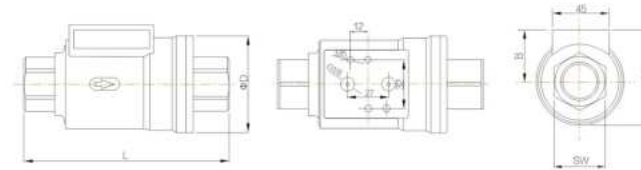
This valve opens and closes through piston motion forced by compressed air. As fluid pressure acts onto valve seat, the piston experiences little resistance and thereby enables the valve to quickly open/close. The latest design improvement results in more efficient fluid dynamics and less pressure loss.

200 Series
Tri-clamp Pneumatic
Shuttle Valve**Advantages**

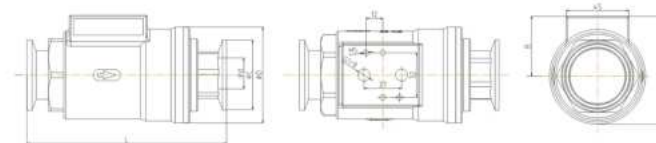
1. Compact and aesthetic design. Stainless steel body ensures superb durability.
2. Easy to use with many possible mounting positions. Valve operates efficiently with minimum pressure loss.
3. Excellent sealing, works well with relative vacuum.

Applications

- Food & Beverage
- Air Separation
- Filling Operation
- Ceramic Molding
- Semi-conductor Cleaning
- Automobile
- Others

**Main Dimension (Threaded connection)**

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Thread end	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A (mm)	56	56	61	72	78	94	104	116
ØD (mm)	46	46	52	64	69	86	96	108
SW (mm)	22	22	26.5	32	41	50	56	70
B (mm)	33	33	35	40	43	51	56	62
L (mm)	98	98	112	135	143	165	180	207
Weight (Kg)	0.78	0.76	1.06	1.54	1.92	3.15	3.92	6.0

**Main Dimension (Tri-clamp connection)**

Size	d	A	B	C	D	L
DN15	15	61	35	34	52	112.5
DN20	20	72	40	50.5	64	136
DN25	25	77.5	43	50.5	69	143.5
DN32	32	94	51	64	86	168
DN40	40	104	56	64	86	180.5
DN50	50	116	62	77.5	108	207

Shuttle Valve

200 Series Pressure Data Sheet

Single Acting, Normally Closed-Above Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.3-0.5
DN10	G3/8"	10	3.2	0-1.6	0.3-0.5
DN15	G1/2"	15	6.4	0-1.6	0.4-0.5
DN20	G3/4"	20	8.9	0-1.6	0.4-0.5
DN25	G1"	25	13.7	0-1.6	0.3-0.5
DN32	G1 1/4"	32	21.6	0-1.6	0.3-0.5
DN40	G1 1/2"	40	36.5	0-1.6	0.3-0.5
DN50	G2"	50	55.0	0-1.6	0.5-0.6

Double Acting, Normally Closed-Above Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.3-0.5
DN10	G3/8"	10	3.2	0-1.6	0.3-0.5
DN15	G1/2"	15	6.4	0-1.6	0.4-0.5
DN20	G3/4"	20	8.9	0-1.6	0.4-0.5
DN25	G1"	25	13.7	0-1.6	0.3-0.7
DN32	G1 1/4"	32	21.6	0-1.6	0.3-0.7
DN40	G1 1/2"	40	36.5	0-1.6	0.3-0.7
DN50	G2"	50	55.0	0-1.6	0.5-0.7

Normally Open-Above Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.5
DN10	G3/8"	10	3.2	0-1.6	0.5
DN15	G1/2"	15	6.4	0-1.6	0.5
DN20	G3/4"	20	8.9	0-1.6	0.5
DN25	G1"	25	13.7	0-1.6	0.5
DN32	G1 1/4"	32	21.6	0-1.6	0.5
DN40	G1 1/2"	40	36.5	0-1.6	0.5
DN50	G2"	50	55.0	0-1.6	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

Single Acting, Normally Closed-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.3
DN10	G3/8"	10	3.2	0-1.6	0.3
DN15	G1/2"	15	6.4	0-1.6	0.4
DN20	G3/4"	20	8.9	0-1.6	0.4
DN25	G1"	25	13.7	0-1.0	0.3
DN32	G1 1/4"	32	21.6	0-1.4	0.3
DN40	G1 1/2"	40	36.5	0-1.2	0.3
DN50	G2"	50	55.0	0-0.8	0.5

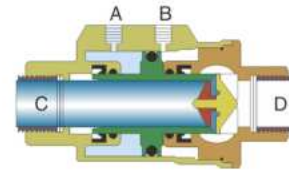
Double Acting, Normally Closed-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.3-0.5
DN10	G3/8"	10	3.2	0-1.6	0.3-0.5
DN15	G1/2"	15	6.4	0-1.6	0.4-0.5
DN20	G3/4"	20	8.9	0-1.6	0.4-0.5
DN25	G1"	25	13.7	0-1.6	0.3-0.7
DN32	G1 1/4"	32	21.6	0-1.6	0.3-0.7
DN40	G1 1/2"	40	36.5	0-1.6	0.3-0.7
DN50	G2"	50	55.0	0-1.6	0.5-0.7

Normally Open-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure MPa
DN8	G1/4"	10	2.2	0-1.6	0.5
DN10	G3/8"	10	3.2	0-1.6	0.5
DN15	G1/2"	15	6.4	0-1.6	0.5
DN20	G3/4"	20	8.9	0-1.6	0.5
DN25	G1"	25	13.7	0-1.6	0.7
DN32	G1 1/4"	32	21.6	0-1.6	0.7
DN40	G1 1/2"	40	36.5	0-1.6	0.7
DN50	G2"	50	55.0	0-1.6	0.7

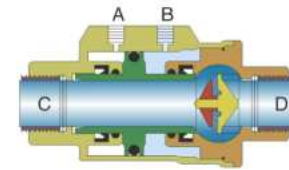
Open/Close



Closing

When hole "A" is supplied with air (hole "B" must be discharging), the piston moves towards and eventually presses onto the seat, thereby closing the valve.

For a single acting N.C. shuttle valve, a spring is installed in "A" chamber, pressing the piston against seat seal and allowing the valve to remain closed in its idle state.

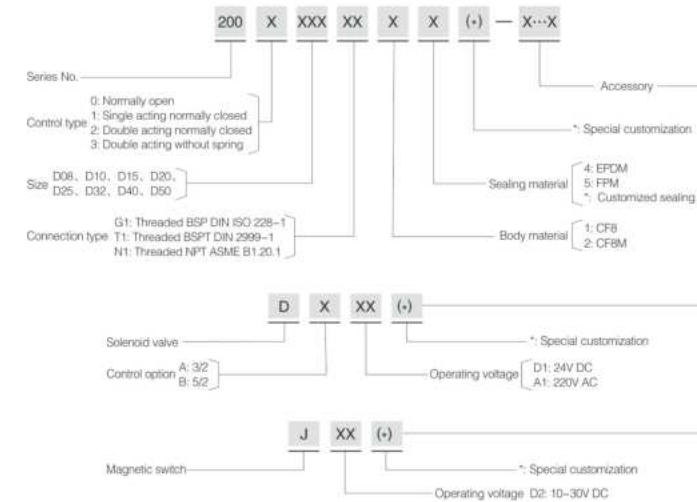


Opening

When hole "B" is supplied with air (hole "A" must be discharging), the piston moves towards "C" and away from seat seal, thereby opening the valve.

For a single acting N.O. shuttle valve, a spring is installed in "B" chamber, forcing the piston away from seat seal and allowing the valve to remain open in its idle state.

Order Instruction



ESG®

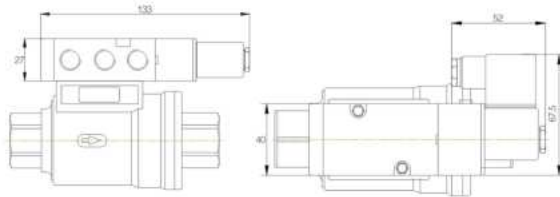
Shuttle Valve

Shuttle Valve
with Solenoid Valve



Solenoid Valve

Available accessories: 3/2 way and 5/2 way solenoid valve (NAMUR interface)



Technical Specification

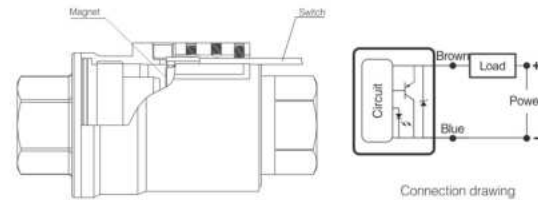
- Connection type: G1/4"
- Air pressure: 3–8bar (43.5–116psi)
- Power: 220V AC, 24V DC
- Voltage range: ± 10%
- Power consumption: AC 4.5W, DC 3W
- Ambient temperature: –5°C — +50°C
- Max. frequency: 3 times/second
- Protection level: IP65
- Leakage class: DIN EN 12266 Class A

Shuttle Valve with
Magnetic Switch



Magnetic Switch

Magnetic switch mounted on 200 series shuttle valve can indicate the valve operating state and feedback open/close status signal.



Connection drawing

Technical Specification

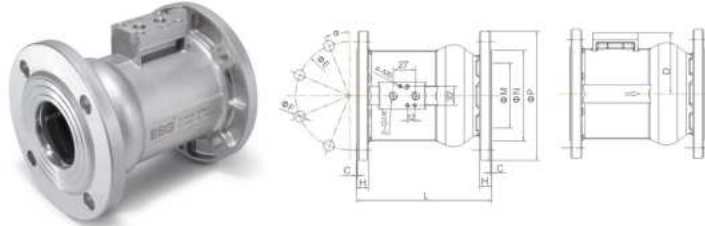
- Size: DN8–DN50
- Indication: Red LED
- Power: 10–30V DC
- Max. current: 100mA
- Cable: 2PVC cables
- Working temperature: –10°C — +70°C
- Protection: IP67
- Leakage class: DIN EN 12266 Class A

Note: Since the magnets must be assembled inside the valve, the limit switches must be requested when ordering the valve.

ESG®

Shuttle Valve

204 Series
Flanged Shuttle Valve



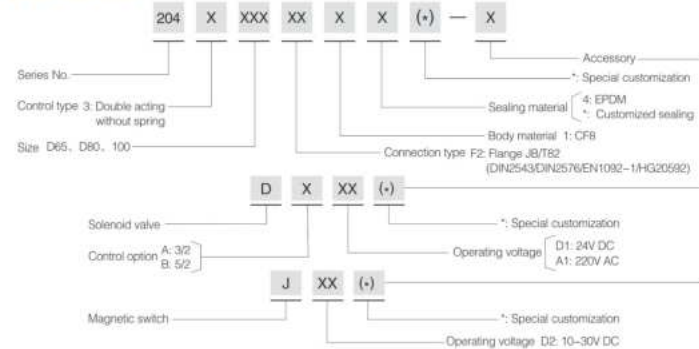
Technical Specification

- Operating pressure: Above seat 0–16bar (0–232psi)
Below seat 0–12bar (0–174psi)
- Control pressure: 3–5bar (43.5–72.5psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CFB
- Seal material: EPDM(FKM can be customized)
- Applicable medium: EPDM-Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
FKM-Suitable for most fluid, except for steam.
- Fluid temperature: -20°C — +80°C (EPDM)
- Ambient temperature: -20°C — +80°C
- Control type: Double acting without spring
- Connection type: Flange
DIN2543/DIN2576/EN1092-1/HG20592
- Leakage class: DIN EN 12266 Class A

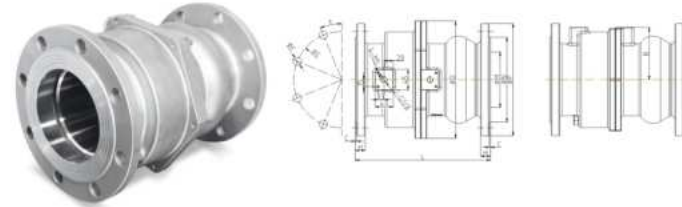
Main Dimension

Size	D	L	ΦE	ΦF	H	C	ΦM	ΦN	ΦP	α	Flow value Kv/m³/h	Weight (kg)
DN65	85	192	145	4-Φ18	20	2	66	120	180	45°	139.3	10.0
DN80	92	212	160	6-Φ18	22	2	75	135	195	22.5°	202.6	13.32
DN100	102	227	180	8-Φ18	22	2	94	155	215	22.5°	288	16.30

Order Instruction



204 Series
Large-diameter
Shuttle Valve



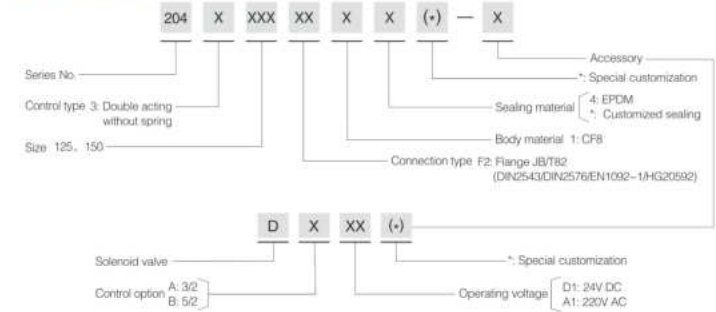
Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–5bar (43.5–72.5psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CFB
- Seal material: EPDM(FKM can be customized)
- Applicable medium: EPDM-Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
FKM-Suitable for most fluid, except for steam.
- Fluid temperature: -20°C — +80°C (EPDM)
- Ambient temperature: -20°C — +80°C
- Control type: Double acting without spring
- Connection type: Flange
DIN2543/DIN2576/EN1092-1/HG20592
- Leakage class: DIN EN 12266 Class A

Main Dimension

Size	D	B	L	ΦE	ΦF	H	C	ΦM	ΦN	ΦP	α	Weight (kg)
DN125	256	114	295	210	8-Φ18	22	3	121	185	245	22.5°	36
DN150	281	127	356	240	8-Φ23	22	3	150	210	280	22.5°	45.8

Order Instruction





205 Series
Pneumatic High-pressure
Shuttle Valve



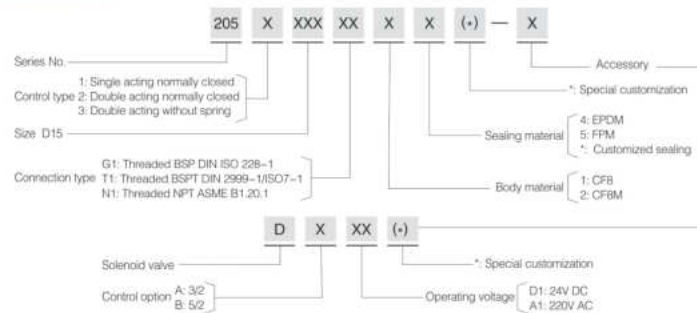
Technical Specification

- Operating pressure: 0–100bar (0–1450psi)
- Control pressure: 3–8bar(43.5–116psi)
- Control medium: Filtered compressed air or neutral gas
- Flow Kv: 5(m³/h)
- Body material: CF8M/CF8
- Seal material: EPDM/FFM (customized)
- Applicable medium: EPDM—Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
FFM—Suitable for most fluid, except for steam.
- Medium temperature: –20°C—+150°C (FFM), –20°C—+130°C (EPDM)
- Ambient temperature: –20°C—+30°C
- Control type: Single acting Normally closed, Double acting normally closed, Double acting without spring
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Leakage class: DIN EN 12266 Class A

Advantages

1. Small volume, beautiful appearance and long service life
Stainless steel body, high-graded appearance and corrosion resistant. The piston and the seal are combined into one, simple and reliable, with an ultra-long service life, and can be installed in any direction.
2. High speed and low pressure loss.
Better medium flow state within the body. Since the medium pressure acts on the valve seat, the piston is hardly disturbed by resistance. Therefore, the switch speed is high and the pressure loss is low.
3. High pressure resistant.
Excellent sealing performance, and applicable in high-pressure pipelines.

Order Instruction



Pneumatic Butterfly Valve

300 Series
Pneumatic
Butterfly Valve

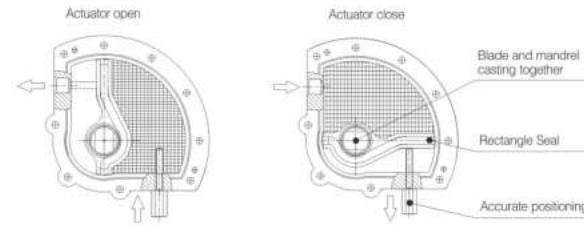


Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Applicable medium: EPDM—Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
FFM—Suitable for most fluid, except for steam.
- Medium temperature: –10°C—+130°C
- Body material: HT200
- Seal material: EPDM
- Disc material: CF8
- Control type: Double acting, Double acting without spring.

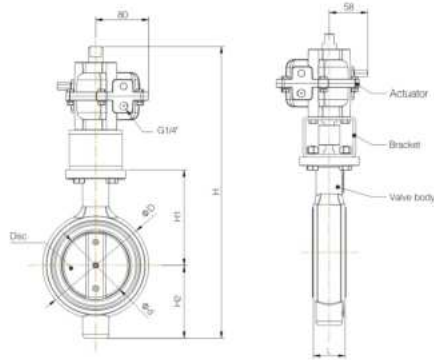
Function Principle

Compressed air rotates the blade, thereby opening and closing the valve. Unique valve design ensures low power loss, high efficiency, long maintenance-free life, and stable operation



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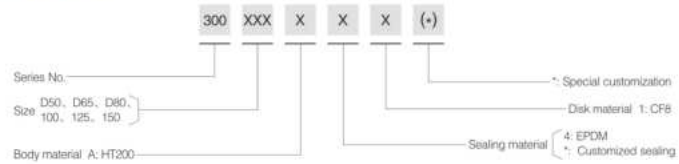
Pneumatic Butterfly Valve



Main Dimension

Size	Operating pressure (Mpa)	Control Pressure (Mpa)	L (mm)	H (mm)	H1 (mm)	H2 (mm)	Φd (mm)	ΦD (mm)	Weight (kg)
DN50	0-1.6	0.3-0.8	38	372	110	75	52	102	4.7
DN65	0-1.6	0.3-0.8	38	380	117	76	66.5	110	4.8
DN80	0-1.6	0.3-0.8	42	395	120	89	76.5	128	5.3
DN100	0-1.6	0.3-0.8	48	442	144	110	100.5	160	7.7
DN125	0-1.6	0.3-0.8	48	468	156	124	125	185	8.1
DN150	0-1.6	0.5-0.8	52	488	156	124	152.5	218	10.8

Order Instruction

303 Series
Inclined Plate
Butterfly Valve

Technical Specification

- Product specification: DN50
- Operating pressure: 0-10bar
- Medium temperature: -10°C~+150°C
- Body material: CF8/CF8M/CF3M and other materials
- Seal material: FPM
- Connection type: Tri-clamp
- Application range: Industrial grade/hygienic grade industries, media such as water/steam/powder

Advantages

- Patented inclined plate structural design. When the valve is opened, the butterfly plate is completely disengaged from the valve seat, resulting in little wear on the butterfly plate seal.
- Vulcanized sealing to prevent tearing and scraping.
- Progressive sealing structure and streamlined design of the valve body's sealing surface.
- The plate - rod is designed without a pin connection, making valve maintenance more convenient.
- The streamlined design of the valve body enables internal polishing with no residue.

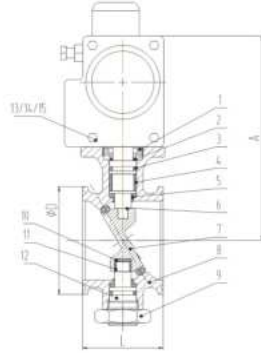
Main Dimension

Size	ΦD	L	Selection of double acting actuator	A Equipped with double acting actuator	Selection of single acting actuator	A Equipped with single acting actuator
DN50	Φ64	48	AT40	122	AT52	128

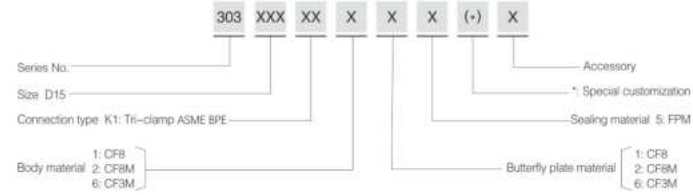
ESG®

Pneumatic Butterfly Valve

303 Series
Inclined Plate
Butterfly Valve



Order Instruction



Manual Ball Valve

412 Series
1-PC Flanged Ball Valve
with Mounting Post



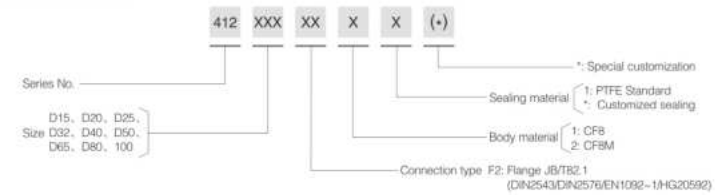
Technical Specification

- Nominal pressure: PN40 (1/2"~2")
(Gas medium≤PN20);
PN16 (2~1/2"~4")
- Medium temperature: -10°C~+120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Applicable medium: Water, Oil, Gas
- Connection type: Flange DIN2501

Main Dimension

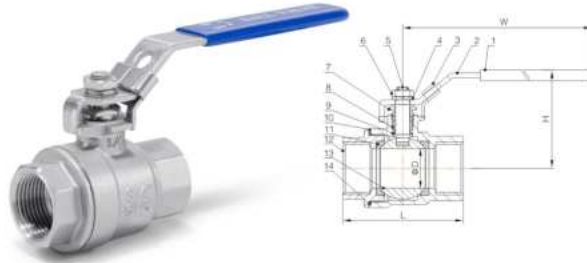
Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
d	15	20	25	32	38	50	64	76	96
D1	88	98	105	130	148	165	185	200	220
D2	65	75	85	100	110	125	145	160	180
D3	45	58	68	78	88	102	122	136	158
N-M	4-M12	4-M12	4-M12	4-M16	4-M16	4-M16	4-M16	8-M16	8-M16
L	37	40	44	52	64	83	107	120	145
W	140	140	165	165	195	195	260	260	300
H	80	85	93	104	115	125	145	152	180
S	9	9	11	11	14	14	17	17	17
SO211	F03/F04	F03/F04	F04/F05	F04/F05	F05/F07	F05/F07	F07/F10	F07/F10	F10
W1	36	36	42	42	50	50	70	70	\
W2	42	42	50	50	70	70	102	102	102
K1	6	6	6	6	7	7	9	9	\
K2	6	6	7	7	9	9	11	11	11
N·m	8	10	12	15	19	25	40	50	65

Order Instruction



ESG®

Manual Ball Valve

421 Series
2-PC Ball Valve
(F/F)

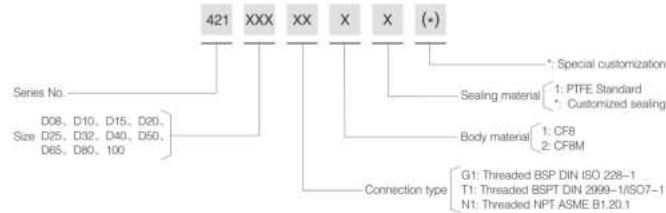
Technical Specification

- Nominal pressure: PN63 (Gas medium \leq PN20)
- Medium temperature: -10°C — $+120^{\circ}\text{C}$
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP, BSPT, NPT)

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Φ D	11	12	15	20	25	38	38	50	65	76	96
L	48.1	48.1	58	65.3	76.4	97	98	119	144.5	166	210
H	47.5	47.5	53.2	60	63.7	83.3	77.5	92.5	118	127	171
W	106.5	106.5	106.5	126.5	126.5	155.5	140	162	230	230	320

Order Instruction

422 Series
2-PC Ball Valve
(F/M)

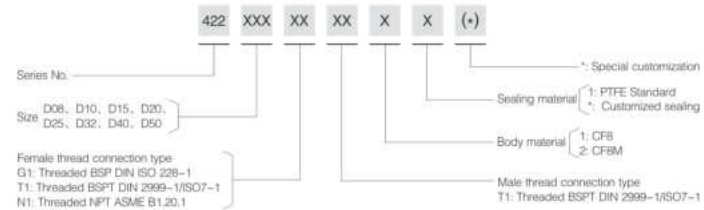
Technical Specification

- Nominal pressure: PN63 (1/4"-2") (Gas medium \leq PN20); PN55 (2-1/2"-4") (Gas medium \leq PN20)
- Medium temperature: -10°C — $+120^{\circ}\text{C}$
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Female thread (BSP, BSPT, NPT); Male thread (BSPT)

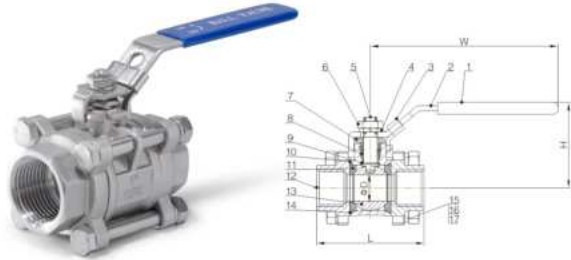
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Φ D	11.6	12.5	15	20	25	32	38	50	64	76	96
L	59	59.5	71	80.5	95	107.5	116.5	144	171.5	196	255
H	48	48	52.5	59	62.5	74	77.5	92.5	118	127	171
W	91.5	91.5	103	112.5	112.5	140	140	162	230	230	320

Order Instruction



Manual Ball Valve

431 Series
3-PC Threaded
Ball Valve

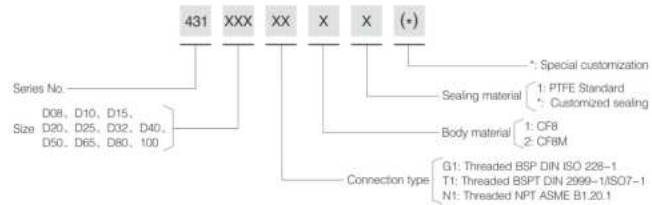
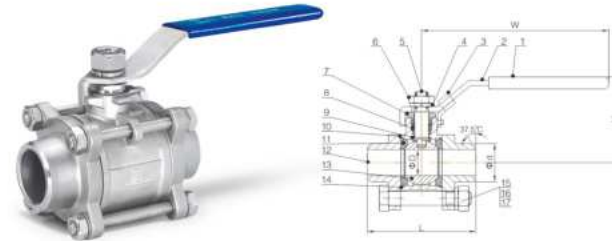
Technical Specification

- Nominal pressure: PN63 (Gas medium \leq PN20)
- Medium temperature: -10°C — $+120^{\circ}\text{C}$
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP, BSPT, NPT)

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Φ D	12.5	12.5	15	20	25	32	38	50	64	76	100
L	50.5	50.5	61.5	70	80.5	93	103	125	162	175	216
H	48	48	52	61	65	79	83	97	121.5	132	175
W	100	100	100	127	127	154	154	192	230	230	320

Order Instruction

432 Series
3-PC Butt Weld
Ball Valve

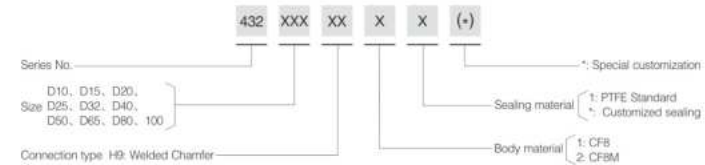
Technical Specification

- Nominal pressure: PN63 (Gas medium \leq PN20)
- Medium temperature: -10°C — $+120^{\circ}\text{C}$
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Welded connection

Main Dimension

Size	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
Φ D	12.5	15	20	25	32	38	50	64	76	96
L	52.4	62.4	72.2	81.6	95	106	127.2	156	175	218
H	48	52	61	65	79	83	97	129.5	138.5	176
W	100	100	127	127	154	154	192	247	247	320

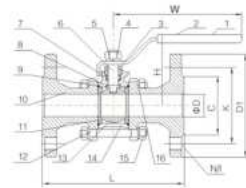
Order Instruction



ESG®

Manual Ball Valve

433 Series
3-PC Flanged
Ball Valve



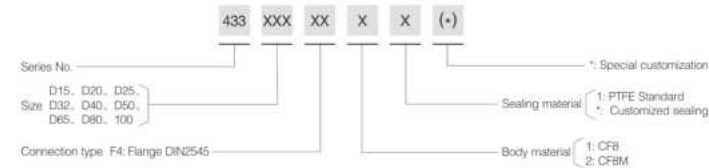
Technical Specification

- Nominal pressure: PN40 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Flange (DIN2545)

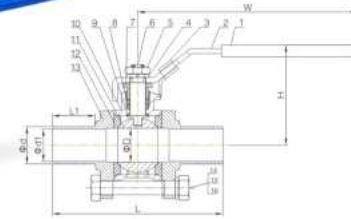
Main Dimension

Size	φD	D1	K	C	L	H	W	N/I
DN15	15	95	65	45	130	77	129	4-14
DN20	20	105	75	58	150	80	129	4-14
DN25	25	115	85	68	160	90	143	4-14
DN32	32	140	100	78	180	98	143	4-16
DN40	38	150	110	88	200	109	170	4-16
DN50	50	165	125	102	230	120	170	4-16
DN65	64	185	145	122	290	142	254	6-16
DN80	76	200	160	138	310	152	254	8-16
DN100	100	235	190	162	350	178	320	8-22

Order Instruction



434 Series
3-PC Extended Butt
Weld Ball Valve



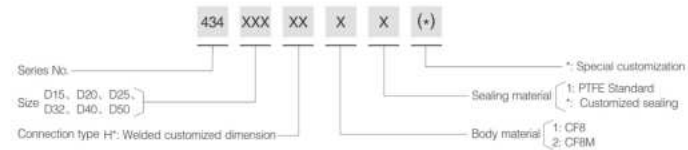
Technical Specification

- Nominal pressure: PN16 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Extended butt weld

Main Dimension

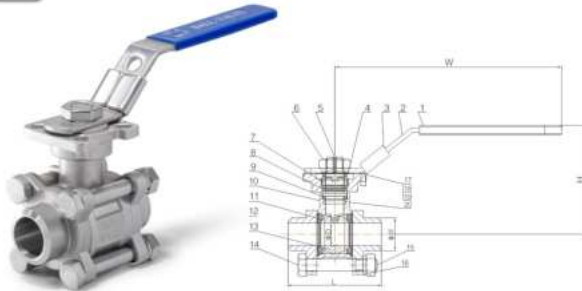
Size	φD	φd	φd1	L	L1	H	W
DN15	15	16	15	93.5	25	52	100
DN20	20	22	19	100	25	61	127
		25.4	22.4				
		26	25				
DN25	25	21	18	107.5	25	65	127
		25.4	20.4				
		26	25				
DN32	32	31.8	28.8	118	25	79	154
		34	31				
		36.1	36.1				
DN40	38	40	37	127	25	83	154
		38	36				
		40	37				
DN50	50	57	54	127	18	97	192

Order Instruction



Manual Ball Valve

441 series
3-PC Butt Weld Ball Valve
with Mounting Pad



Technical Specification

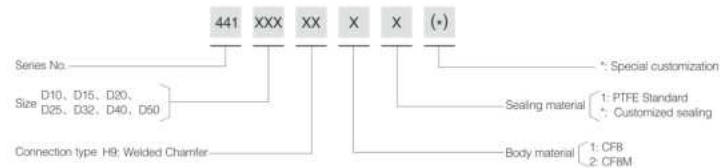
- Nominal pressure: PN63 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Welded connection

Main Dimension

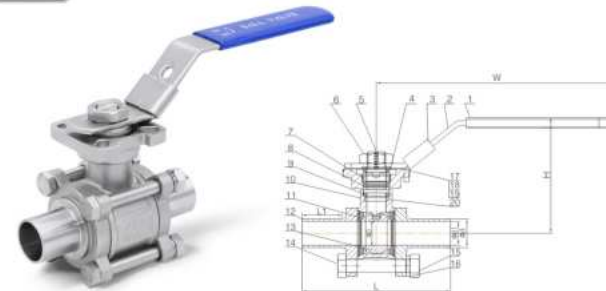
Size	DN10	DN15	DN20	DN25	DN32	DN40	DN50
ΦD	12.5	15	20	25	32	38	50
Φd	16	22	27.5	33.5	44	50	61.6
L	52.4	62.4	72.2	81.6	95	106	127.2
H	72	75	81	88	94	106	121
W	140	140	140	160	160	185	185
N · m	5	5	5	9.5	20.5	23	31

Note: Torques are reference values and may vary.

Order Instruction



442 Series
3-PC Extended Butt Weld Ball
Valve with Mounting Pad



Technical Specification

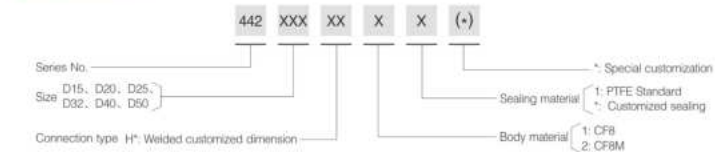
- Nominal pressure: PN63 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Extended butt weld

Main Dimension

Size	ΦD	Φd	Φd1	L	L1	H	W	N · m		
DN15	15	16	15	93.5	25	75	140	5		
DN20	20	22	19	100	25	81	140	5		
									25.4	22.4
									26	25
DN25	25	28	25	107.5	25	88	160	9.5		
									31.8	28.8
									34	31
									31.8	28.8
DN32	32	38.1	35.1	118	25	94	160	20.5		
									40	37
									38	35
DN40	38	40	37	127	25	106	185	23		
									50	57

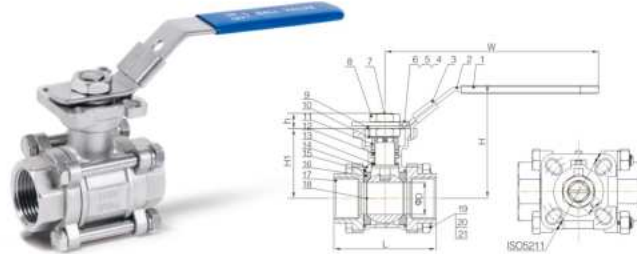
Note: Torques are reference values and may vary.

Order Instruction



Manual Ball Valve

443 Series
3-PC Threaded Ball Valve
with Mounting Pad



Technical Specification

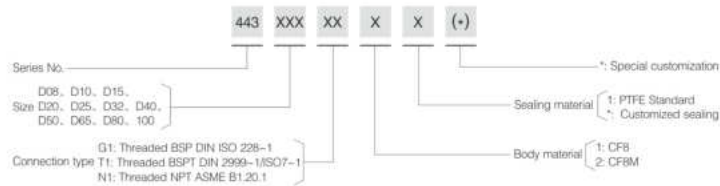
- Nominal pressure: PN63 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP, BSPT, NPT)

Main Dimension

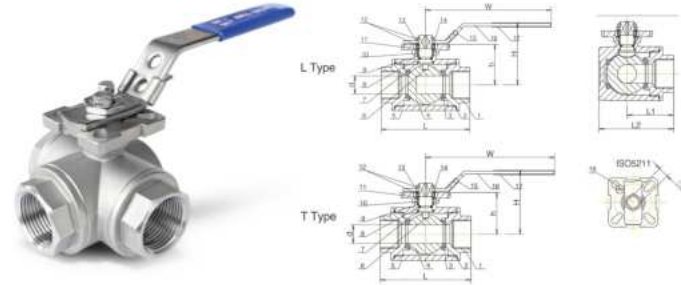
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
ΦD	11.5	12.5	15	20	25	32	38	50	64	76	96
L	64	64	66	70.6	82	97	109.6	124.5	170	186	226
H	75	75	75	81	83	98	109	124	151	160	172
W	141	141	141	141	162	162	188	188	233	233	330
H1	42	42	42	48	55	60	70	85	105	114	128
h	9	9	9	9	11	11	15	15	18.5	18.5	18.5
E	9	9	9	9	11	11	14	14	17	17	17
ISO5211	F03	F03	F03	F03	F04	F04	F05	F05	F07	F07	F07
	F04	F04	F04	F04	F05	F05	F07	F07	F10	F10	F10
N·m	3	3	5	9	12	14	18	25	35	48	62

Note: Torques are reference values and may vary.

Order Instruction



445 Series
3-Way Ball Valve
with Mounting Pad



Technical Specification

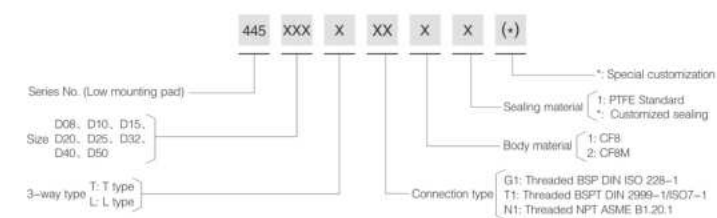
- Nominal pressure: PN63 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP, BSPT, NPT)

Main Dimension

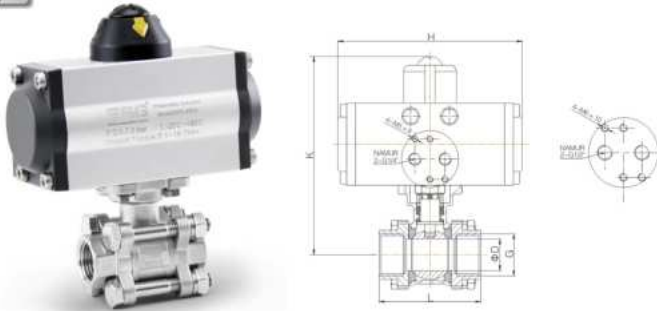
Size	d	L	H	W	h	L1	□J	ISO5211	L2	N·m
DN8	9.5	79	75	141	42	40	9	F03F04	64	7
DN10	11.5	79	75	141	42	40	9	F03F04	64	8
DN15	12.5	79	75	141	42	40	9	F03F04	64	10
DN20	16	83	82	141	49.5	42	9	F03F04	68	15
DN25	20	104	97	162	59	52.5	11	F04F05	82	21
DN32	25	111	100	162	63	55.5	11	F04F05	90	25
DN40	32	126	113	188	73.5	64.5	14	F05F07	106	30
DN50	38	147	122	188	83	73.5	14	F05F07	123	60

Note: Torques are reference values and may vary.

Order Instruction



Pneumatic Ball Valve

451 Series
Pneumatic
Ball Valve Type A

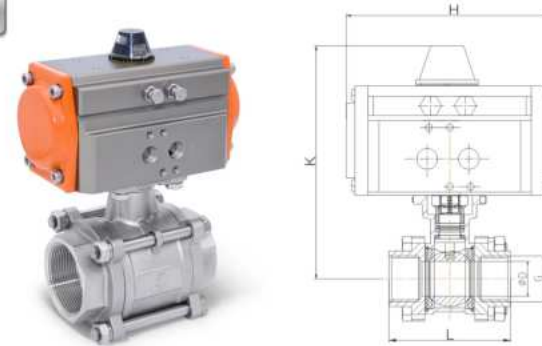
Technical Specification

- Nominal pressure: PN63 (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8, CF8M
- Ball material: CF8(304), CF8M(316)
- Seal ring and Packing: PTFE
- Control Pressure: 5bar
- Control type: Double acting
(Single-acting option is available upon request.)

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	12.5	12.5	15	20	25	32	38	50
L	50.5	50.5	61.5	70	80.5	93	103	125
H	123	123	123	123	145	169	169	201
K	124	124	127	134	147	169	179	205
N * m	5	5	5	5	9.5	20.5	23	31

Note: Actuator selection is based on control pressure 5 bar; Torques are reference values, so selection may be different.

451 Series
Pneumatic
Ball Valve Type D

Technical Specification

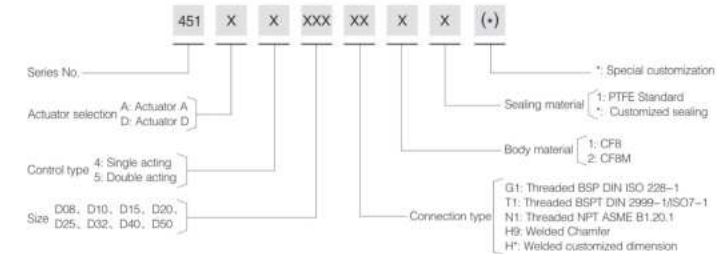
- Nominal pressure: PN63(1000Psi) (Gas medium ≤ PN20)
- Medium temperature: -10°C — +120°C
- Body and bonnet material: CF8, CF8M
- Ball material: CF8(304), CF8M(316)
- Seal ring and Packing: PTFE
- Control Pressure: 5bar
- Control type: Double acting
(Single-acting option is available.)

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	12.5	12.5	15	20	25	32	38	50
L	50.5	50.5	61.5	70	80.5	93	103	125
H	110	110	110	110	157	169	169	192
K	107	107	109	117	150	172	182	208
N * m	5	5	5	5	9.5	20.5	23	31

Note: Actuator selection is based on control pressure 5 bar;
Torques are reference values, so selection may be different.

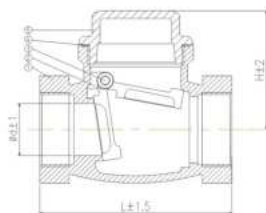
Order Instruction





Check Valve

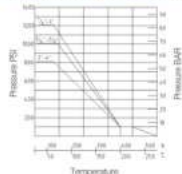
502 Series
Swing Check Valve



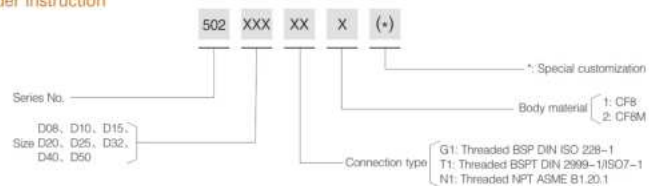
Technical Specification

- Nominal pressure: PN16
- Medium temperature: -20°C — +180°C
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Body material: CF8/CF8M
- Seal material: Metal-to-metal seal

Pressure-temperature Rating



Order Instruction



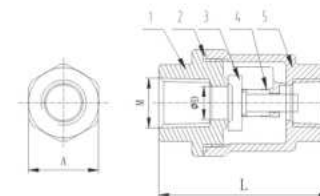
Part List

No.	Part	Material
1	Body	CF8/CF8M
2	Disc	CF8/CF8M
3	Hanger PIN	304/316
4	Gasket	PTFE
5	Bonnet	CF8/CF8M

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
d	12	13	15	20	24.5	31	38	47
L	64	64	64	78	87	100.5	115.5	135.5
H	39.5	41.5	40.5	47	52	58	63	71
Weight(kg)	0.25	0.24	0.24	0.35	0.58	0.81	1.15	1.67

503 Series
2-PC Spring Vertical
Check Valve



Technical Specification

- Nominal pressure: DN8-DN65 PN63
DN80-DN100 PN65
- Medium temperature: -25°C — +180°C
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Body material: CF8/CF8M
- Seal material: Metal-to-metal seal
- Minimum open pressure: 24-50mbar

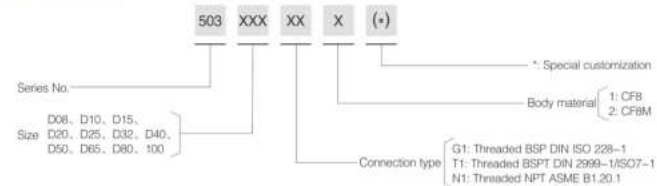
Part List

No.	Part	Material	No.	Part	Material
1	Bonnet	CF8/CF8M	4	Body	CF8/CF8M
2	Gasket	PTFE	5	Spring	316
3	Disc	CF8/CF8M			

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
M	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
ΦD	10	11	15	20	25	32	40	50	65	80	100
A	21	21	25	30.5	37	45.5	52.5	65	81.5	97	124
L	51.3	51.3	57	63.6	76.6	88.5	101.8	114.3	143.2	170.2	166.1

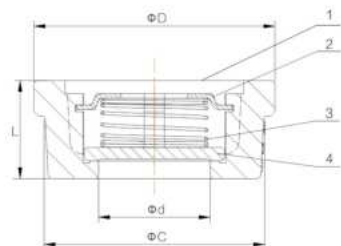
Order Instruction





Check Valve

508 Series
Wafer Type Disc
Check Valve



Technical Specification

- Nominal pressure: PN40
- Size: DN15–DN100
- Medium temperature: -20°C — $+300^{\circ}\text{C}$
- Connection type: Flange
- Body material: CF8/CF8M
- Seal material: Metal-to-metal seal
- Flange standards: DIN PN16, 25, 40
ANSI 150/300 Lbs
- Structure length: DIN3202 – K4
- Minimum open pressure: 35mbar

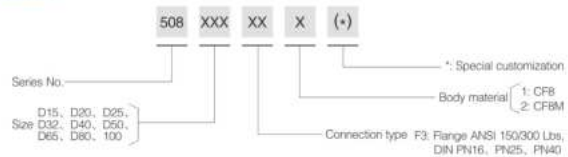
Part List

No.	Part	Material	No.	Part	Material
1	Body	CF8/CF8M	3	Spring	304/316
2	Bonnet	316	4	Disc	CF8/CF8M

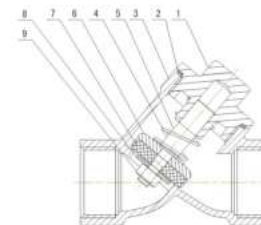
Main Dimension

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
ϕD	39	46	54	70	80	94	112	132	150
ϕd	15	20	25	32	40	46	62	75	86
ϕC	34	40	50	62	70	85	100	120	140
L	16	19	22	28	32	40	46	50	60

Order Instruction



509 Series
Y-Spring Check Valve



Technical Specification

- Nominal pressure: PN16
- Size: DN8–DN50
- Medium temperature: -10°C — $+180^{\circ}\text{C}$
- Connection type: Threaded, Welded, Tri-clamp, Flanged
- Minimum open pressure: 30–40mbar

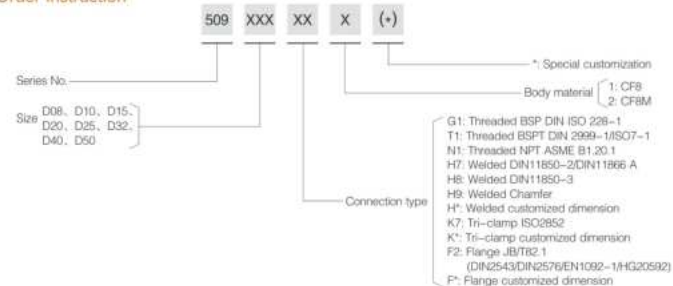
Function Principle

Medium enters valve body through inlet opening, pushes the valve stem and valve core upward, and thereby opens the valve. When the medium starts to flow back from the outlet, the spring force and pressure applied by the medium itself push the valve stem and valve core down, and thereby close the valve.

Part List

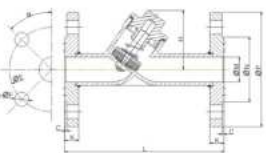
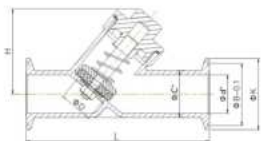
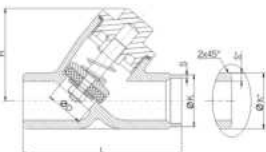
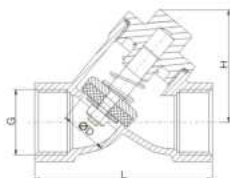
No.	Part	Material	No.	Part	Material
1	Bonnet	CF8/CF8M	6	Core	CF8/CF8M
2	Body seat	PTFE	7	Seal	PTFE
3	Body	CF8/CF8M	8	Core gasket	CF8/CF8M
4	Spring	304	9	Self-locking nut	304
5	Stem	304/316			

Order Instruction





Check Valve



Main Dimension (Threaded connection)

Size	DN08	DN10	DN15	DN20	DN25	DN32	DN40	DN50
L	68	68	68	75	90	116	116	138
H	43	43	43	48.5	57	72	77	89
ΦD	13	13	13	18	24	31	35	45
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"

Main Dimension (Welded connection)

Size	DN15	DN20	DN25	DN32	DN40	DN50
L	70	80	100	125	130	155
H	42	49	58	70	77	87
ΦD	13	18	24	31	35	45
Chamfer	ΦK*	22	29	35	39	45
	S*	3.5	5	5	4	4.5
DIN11850-2	ΦK	19	23	29	35	41
	S	1.5	1.5	1.5	1.5	1.5
DIN11850-3	ΦH	20	24	30	36	42
	S	2	2	2	2	2

Note: The marked dimensions are design dimensions of casting parts (actual dimensions may vary and are for reference only)

Main Dimension (Tri-clamp connection)

Size	DN15	DN20	DN25	DN32	DN40	DN50
L	80	130	130	146	160	175
H	44	51	56	66	75	89
ΦD	13	18	24	31	35	45
ΦC*	20.5	25	33	37	40	53
ΦB	27.5	43.5	43.5	43.5	56.5	56.5
Φd*	15	19	27	31	34	45
ΦK	34	50.5	50.5	50.5	64	64

Note: The marked dimensions are design dimensions of casting parts (actual dimensions may vary and are for reference only)

Main Dimension (Flanged connection)

Size	DN15	DN20	DN25	DN32	DN40	DN50
L	130	150	160	180	200	230
H	44	51	60	73	80	91
ΦD	13	18	24	31	35	45
C	2	2	2	2	3	3
K	14	14	14	16	16	16
ΦE	65	75	85	100	110	125
n-ΦF	4-14	4-14	4-14	4-18	4-18	4-18
ΦM	16	19	26	31	38	54
ΦN	45	56	65	78	84	100
ΦP	95	105	115	140	150	165
α	45°	45°	45°	45°	45°	45°

Strainer

601 Series
Single Cap Strainer



Technical Specification

- Nominal pressure: PN55(DN8-DN50)
PN10(DN65-DN80)
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Body material: CFB/CFBM
- Medium Temperature: -10°C → +180°C

Part List

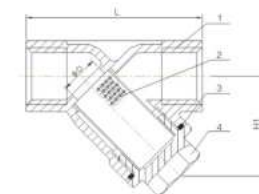
No.	Part	Material
1	Body	CFB/CFBM
2	Filter	304
3	Gasket	PTFE
4	Cover	CFB/CFBM

Main Dimension

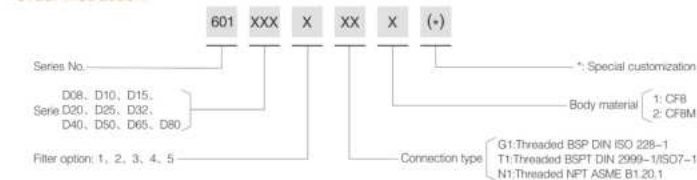
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
ΦD	14	14	14	20	25	32	40	50	60	80
H1	37	37	37	45	54	59	66	77	93	118
L	65	65	65	80	90	105	120	138	170	210

Filter Option

Filter Option	DN8/DN10	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1: 20 mesh perforated fibre	√	√	√	√	√	√	√	√
2: 30 mesh wire mesh filter	√	√	√	√	√	√	√	√
3: 30 mesh + frame	√	√	√	√	√	√	√	√
4: 80 mesh + frame	√	√	√	√	√	√	√	√
5: 100 mesh + frame	√	√	√	√	√	√	√	√



Order Instruction



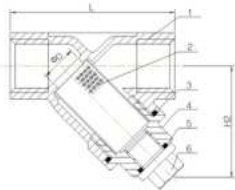
Strainer

602 Series
Double Cap Strainer



Technical Specification

- Nominal pressure: PN16(DN8–DN50)
PN16(DN65–DN80)
- Connection type: Threaded connection
(BSP, BSPT, NPT)
- Body material: CF8/CF8M
- Medium Temperature: -10°C — +180°C



Part List

No.	Part	Material
1	Body	CF8/CF8M
2	Filter	304
3	Gasket	PTFE
4	Cover	CF8/CF8M
5	Bolt seal	PTFE
6	Threaded plug	CF8/CF8M

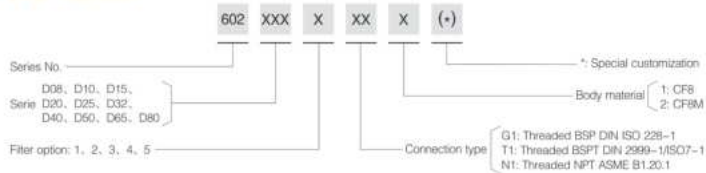
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
ΦD	14	14	14	20	25	32	40	50	60	80
H ₂	44	44	44	52	63	67	74	86	104	128
L	65	65	65	80	90	105	120	136	178	210

Filter Option

Filter Option	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1 20 mesh perforated filter	√	√	√	√	√	√	√	√	√	√
2 30 mesh woven filter	√	√	√	√	√	√	√	√	√	√
3 30 mesh + frame	√	√	√	√	√	√	√	√	√	√
4 80 mesh + frame	√	√	√	√	√	√	√	√	√	√
5 100 mesh + frame	√	√	√	√	√	√	√	√	√	√

Order Instruction

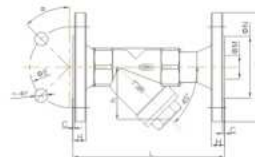


603 Series
Flanged Strainer



Technical Specification

- Nominal pressure: PN16
- Connection type: Flanged connection
- Body material: CF8/CF8M
- Medium Temperature: -10°C — +180°C
- Flange standards: JB/T82.1–1994; ISO/DIN/JIS is also available



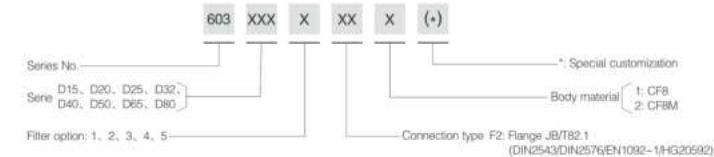
Main Dimension

Size	L	C	H	h	ΦE	n-ΦF	ΦM	ΦN	ΦP	α
DN15	145	2	14	37	65	4-14	16	45	95	45°
DN20	155	2	14	45	75	4-14	20	56	105	45°
DN25	165	2	14	54	85	4-14	25	65	115	45°
DN32	185	2	16	59	100	4-18	32	78	140	45°
DN40	200	3	16	66	110	4-18	36	84	150	45°
DN50	215	3	16	77	125	4-18	49	100	165	45°
DN65	290	3	18	93	145	4-18	66	120	185	45°
DN80	315	3	20	118	160	8-18	78	135	200	22.5°

Filter Option

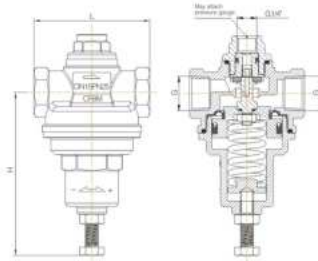
Filter Option	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1 20 mesh perforated filter	√	√	√	√	√	√	√	√	√	√
2 30 mesh woven filter	√	√	√	√	√	√	√	√	√	√
3 30 mesh + frame	√	√	√	√	√	√	√	√	√	√
4 80 mesh + frame	√	√	√	√	√	√	√	√	√	√
5 100 mesh + frame	√	√	√	√	√	√	√	√	√	√

Order Instruction



ESG

Pressure Reducing Valve

700 Series
Pressure Reducing Valve* Product does not include pressure gauge,
which can be ordered separately

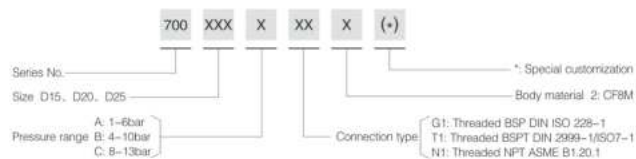
Technical Specification

- Nominal pressure: PN25
- Pressure range: 1–6bar (15–87psi), 4–10bar (58–145psi), 8–13bar (116–189psi), 3 options available
- Medium Temperature: –15°C — +100°C
- Seal material: FPM
- Control type: Normally open
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Body material: CF8M

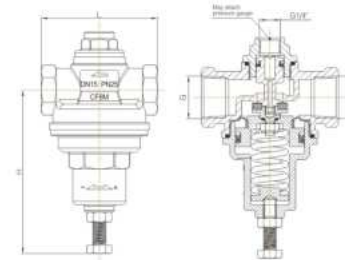
Function Principle

Pressure reducing valve is a N.O. valve that controls incoming fluid pressure to a desired range at outlet, by adjusting spring force and balancing it with the pressure applied by the passing medium. It also serves to stabilize the flow in a pipeline after the valve.

Order Instruction



Overflow Valve

701 Series
Overflow Valve* Product does not include pressure gauge,
which can be ordered separately

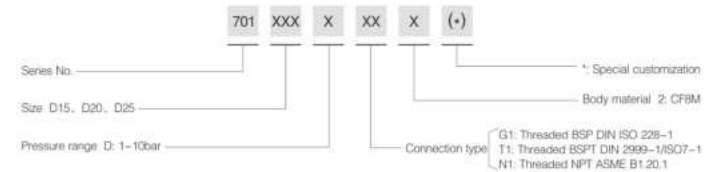
Technical Specification

- Nominal Pressure: PN25
- Pressure Range: 1–10bar (15–145psi)
- Medium Temperature: –15°C — +100°C
- Seal Material: FPM
- Connection type: Threaded connection (BSP, BSPT, NPT)
- Body material: CF8M

Function Principle

Overflow valve is a N.C valve that limits fluid pressure under a desired threshold, by adjusting the spring force and balancing it with the pressure applied by medium at the inlet. It ensures stabilized fluid pressure in a pipeline before the valve.

Order Instruction



Advantages

1. All valve parts are made of stainless steel CF8M, suitable for water, weak acid and weak base, etc.
2. The valve combines the structure design of a piston type valve and a diaphragm type valve to achieve better service life.
3. Simple structure, fast reaction and accurate pressure adjustment.

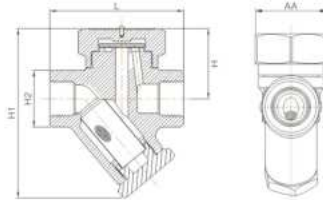
Main Dimension

Size	G	H	L	Flow value Kv(m ³ /h)
DN15	1/2"	110	70	2.1
DN20	3/4"	110	85	3.4
DN25	1"	115	92	5.5

ESG®

Thermodynamic Steam Trap

800 Series
Thermodynamic
Steam Trap



* Flange connection is available upon request

Technical Specification

- Operating Pressure: 0.5–42bar (7–603psi)
- Max. Operating Temp: 400°C

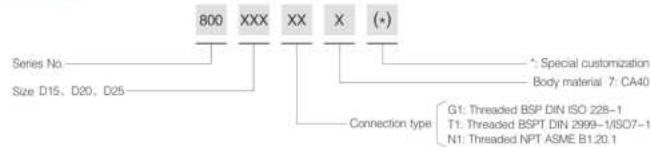
Advantages

1. Compact structure.
 2. High durability due to stainless steel inner components and valve body.
 3. Long service life.
 4. Easy to service and repair.
- Application: Steam pipelines, iron machines, drying units, etc.

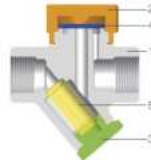
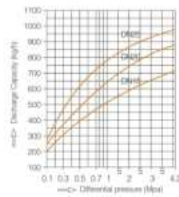
Part List

No.	Part	Material
1	Body	ASTM CA40
2	Cover	CF8
3	Threaded plug	CF8
4	Disc	2Cr13
5	Filter	304 (30 mesh by default)

Order Instruction



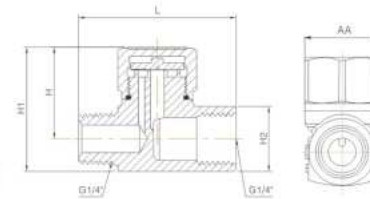
Discharge Capacity



Main Dimension

Size	Thread end	Dimension (mm)					Weight (kg)
		L	H	H1	H2	AA	
DN15	1/2"	78	41	99.6	33	44	0.9
DN20	3/4"	90	49.2	109.2	39	48	1.2
DN25	1"	95	57.5	121.6	45	56	1.7

901 Series
Thermodynamic
Steam Trap



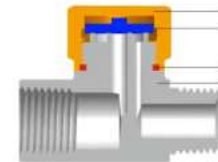
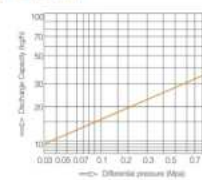
Technical Specification

- Operating Pressure: 0.3–10bar (4–145psi)
- Max. Operating Temp: 200°C

Advantages

1. Small and compact, highly efficient.
 2. Superb energy efficiency.
 3. Easy to install and operate, Significant energy saving, energy consumption reduced by 40%.
- Application: Drip legs, steam tracing, laundry equipment.

Discharge Capacity



Main Dimension

Size	Threa end	Dimension (mm)					Weight (kg)
		L	H	H1	H2	AA	
DN8	1/4"	40	23	31	16.5	18	0.07

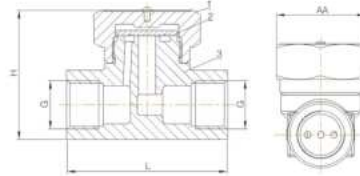
Part List

No.	Part	Material
1	Cover	CF8
2	Disc	2Cr13
3	O-ring	Silicone rubber
4	Body	CF8

ESG®

Thermodynamic Steam Trap

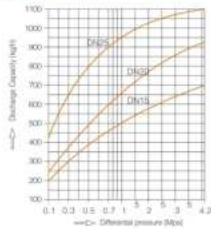
801 Series
Thermodynamic
Steam Trap



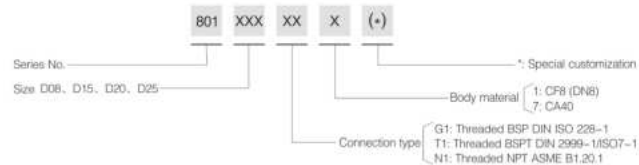
Advantages

1. Compact structure.
 2. High durability due to stainless steel inner components and valve body.
 3. Long service life.
 4. Easy to service and repair.
- Application: Steam pipelines, Iron machines, drying units, etc.

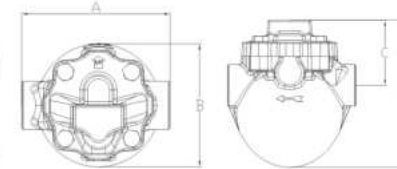
Discharge Capacity



Order Instruction



802 Series
Ball Float Steam Trap



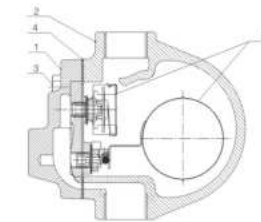
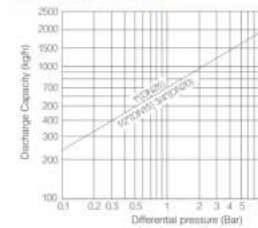
Technical Specification

- Nominal pressure: PN16
- Max allowable pressure PMA: 16bar (232psi)
- Max allowable temperature TMA : 250°C
- Max differential pressure: 8bar (116psi)
- Connection type: Threaded connection (BSP , BSPT , NPT)

Advantages

1. Application for both horizontal and vertical installation.
2. Stainless steel material with excellent corrosion resistance and durability.
3. Continuous discharge, with no impact from temperature, pressure and flow. Prevent water hammer due to steam condensation.
4. No steam leakage, minimal heat loss.
5. Automatically discharge non-condensing gas to avoid air resistance.
6. Large discharge capacity improves work efficiency.
7. Compact structure and reliable performance.

Discharge Capacity



Main Dimension

Size	A	B	C	D
DN15	145	120	74	169
DN20	145	120	74	169
DN25	145	120	74	169

Part List

No.	Part	Material
1	Cover	CF8/CF8M
2	Body	CF8/CF8M
3	Steam	304
4	Gasket	Soft graphite
5	Internal component	Stainless steel

ESG®

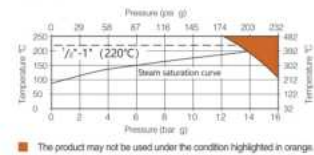
Thermodynamic Steam Trap

Special Note

Please keep valve in opposite direction of gravity.
(As shown in the figure below).

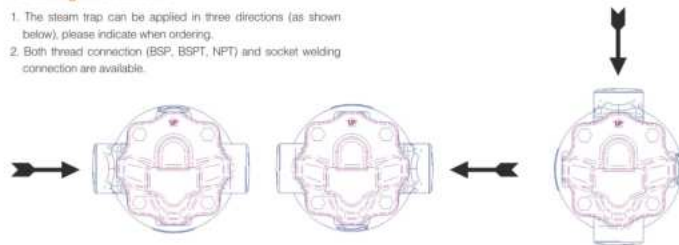


Operating Condition

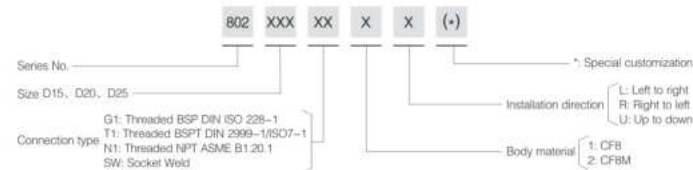


Ordering Instructions

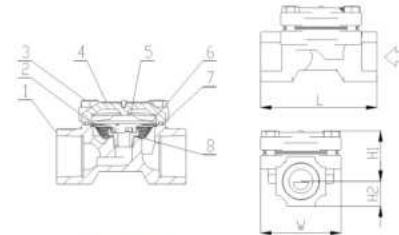
- The steam trap can be applied in three directions (as shown below), please indicate when ordering.
- Both thread connection (BSP, BSPT, NPT) and socket welding connection are available.



Order Instruction



803 Series Thermostatic Steam Trap

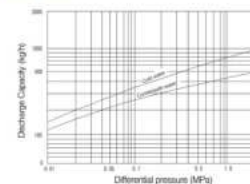


Technical Specification

- Nominal pressure: 2.5MPa
- Connection: thread
- Max working pressure P_{MO}: 2.1MPa
- Max working pressure difference ΔP_{MX} : 2.1MPa
- Max operating temperature T_{MO}: 220°C
- Four types of below:

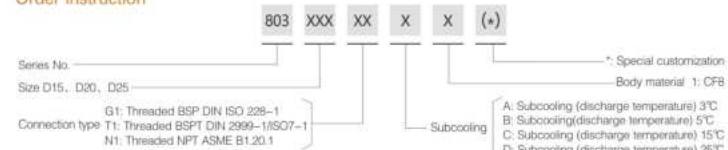
A-Discharge condensate below saturation temperature of 3°C.
B-Discharge condensate below saturation temperature of 5°C.
C-Discharge condensate below saturation temperature of 15°C.
D-Discharge condensate below saturation temperature of 20°C.
Attention: To avoid abnormal operation, accidents, or personal injury, please do not use this product beyond the specification range.
If the technical standards or regulations of a country or region have special provisions for the above specifications, the product should be used in accordance with local regulations.

Output Chart



1. Pressure difference refers to the pressure difference between the inlet and outlet of the steam trap.
 2. Recommended safety factor not less than 2.
- Attention: Do not use the steam trap under conditions exceeding the maximum pressure difference, otherwise condensation water may accumulate.

Order Instruction



Advantages

The stainless steel thermostatic steam trap is widely applicable in various fields, including steam main pipes, heat tracing equipment dryers, and heat exchange equipment.

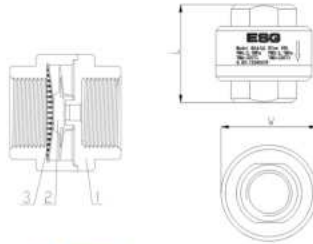
1. Featuring a 'fault normally open' feature to ensure no condensate accumulation in the steam space;
2. The structure is sturdy and lightweight, capable of withstanding superheated steam and water hammer;
3. Automatic regulation of head undercooling throughout the entire pressure range;
4. Excellent air emission performance;
5. Can be installed horizontally or vertically;
6. The filter screen with a large flow area and a compact structure has a large drainage capacity;
7. Easy to maintain and clean.

Main Dimension

Size	L	W	H1	H2	Weight (kg)
DN15	77	53	33	17	0.59
DN20	77	53	33	17	0.54
DN25	80	53	33	21	0.63

Part List

No.	Part	Material
1	Body	CF8
2	gasket	copper
3	bolt	304
4	cover	CF8
5	diaphragm box	stainless steel
6	60 mesh filter	304
7	gasket	PTFE
8	seat	stainless steel

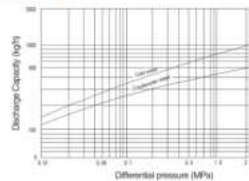
ESG**Thermostatic Steam Trap**804 Series
Thermostatic
Steam Trap**Technical Specification**

- Nominal pressure: 3.2MPa
- Connection: thread
- Max working pressure P_{MO}: 2.1MPa
- Max working pressure difference ΔP_{MX}: 2.1MPa
- Max operating temperature T_{MO}: 220°C

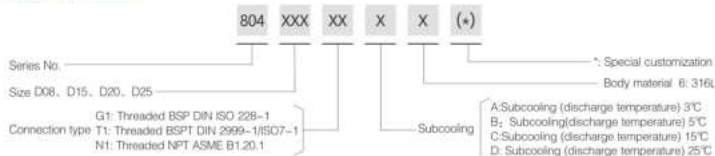
• Four types of below:

- A-Discharge condensate below saturation temperature of 3°C
- B-Discharge condensate below saturation temperature of 5°C
- C-Discharge condensate below saturation temperature of 15°C
- D-Discharge condensate below saturation temperature of 25°C

Attention: To avoid abnormal operation, accidents, or personal injury, please do not use this product beyond the specification range.
If the technical standards or regulations of a country or region have special provisions for the above specifications, the product should be used in accordance with local regulations.

Output Chart

1. Pressure difference refers to the pressure difference between the inlet and outlet of the steam trap.
 2. Recommended safety factor not less than 2.
- Attention: Do not use the steam trap under conditions exceeding the maximum pressure difference, otherwise condensation water may accumulate.

Order Instruction**Advantages**

The all stainless steel thermal static steam trap is suitable for heat transfer in tracing pipelines with relatively small condensate flow rates and small heat exchange equipment. It is recommended to install it vertically.

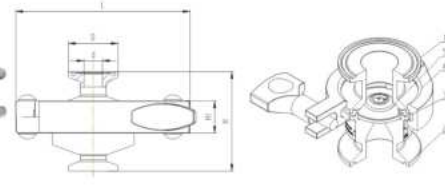
1. Fault Normally Open* feature.
2. The structure is sturdy and lightweight, capable of withstanding superheated steam and water hammer.
3. Automatically adjust the valve opening temperature with a fixed undercooling within the entire working pressure range.
4. Excellent air exhaust performance.
5. Compact structure with large displacement.
6. Maintenance, tenacious and simple.
7. Built-in filter screen with large circulation area.

Main Dimension

Size	L	W	Weight (kg)
DN8	45	44	0.19
DN15	45	44	0.25
DN20	51	44	0.28
DN25	57	44	0.32

Part List

No.	Part	Material
1	Body	316L
2	Diaphragm box	SS
3	Filter screen	304

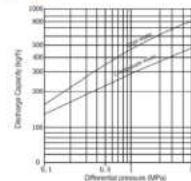
805 Series
Thermostatic
Steam Trap**Technical Specification**

- Nominal pressure: 1.0MPa
- Max allowable pressure P_{MA}: 1.0MPa
- Max allowable temperature T_{MA}: 200°C
- Max working pressure P_{MO}: 0.6MPa
- Max operating temperature T_{MO}: 165°C

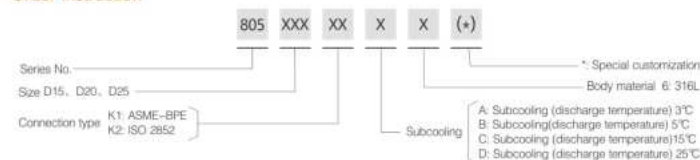
• Four types of below:

- A-Discharge condensate below saturation temperature of 3°C
- B-Discharge condensate below saturation temperature of 5°C
- C-Discharge condensate below saturation temperature of 15°C
- D-Discharge condensate below saturation temperature of 25°C

Attention: To avoid abnormal operation, accidents, or personal injury, please do not use this product beyond the specification range.
If the technical standards or regulations of a country or region have special provisions for the above specifications, the product should be used in accordance with local regulations.

Output Chart

1. Pressure difference refers to the pressure difference between the inlet and outlet of the steam trap.
 2. Recommended safety factor not less than 2.
- Attention: Do not use the steam trap under conditions exceeding the maximum pressure difference, otherwise condensation water may accumulate.

Order Instruction**Advantages**

The stainless steel thermostatic steam trap is widely applicable in various fields, including steam main pipes, heat tracing equipment dryers, and heat exchange equipment.

1. Free flow of cold water and seamless design in the true sense, maximum inhibition of bacterial aggregation.
2. The feature of 'fault normally open' minimizes the possibility of shutdown under critical operating conditions.
3. The valve nozzle design with a large opening can quickly discharge a large amount of air, ensuring fast start, preventing blockage, and ensuring continuous operation.
4. Tight structure, easy installation and maintenance.
5. Internal polishing to prevent bacterial growth.

Main Dimension

Size	H	d	D	L	H1	Weight (kg)
1/2"	51	9.4	25	R2	16	0.47
3/4"	51	15.75	25	R2	16	0.51
1"	66	22.6	50.5	28	16	0.65

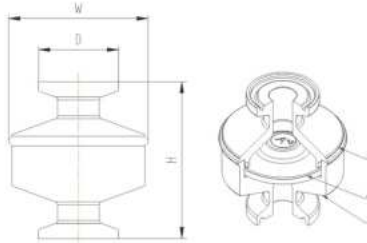
Part List

No.	Part	Material
1	Top body	SS 316L
2	Low body	SS 316L
3	Sealing gasket	Silicon rubber VMQ
4	Clamp	SS 316L
5	Diaphragm	SS 316L

ESG®

Thermostatic Steam Trap

806 Series
Thermostatic
Steam Trap



Technical Specification

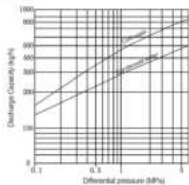
- Nominal pressure: 1.0MPa
- Max allowable pressure PMA: 1.0MPa
- Max allowable temperature TMA: 220°C
- Max working pressure PMO: 0.9MPa
- Max working temperature TMO: 176°C
- Four types of below:

- A- Discharge condensate below saturation temperature of 3°C
- B- Discharge condensate below saturation temperature of 5°C
- C- Discharge condensate below saturation temperature of 15°C
- D- Discharge condensate below saturation temperature of 25°C

Attention: To avoid abnormal operation, accidents, or personal injury, please do not use this product beyond the specification range.

If the technical standards or regulations of a country or region have special provisions for the above specifications, the product should be used in accordance with local regulations.

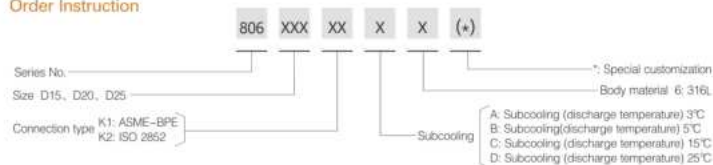
Output Chart



1. Pressure difference refers to the pressure difference between the inlet and outlet of the steam trap.
2. Recommended safety factor: not less than 2.

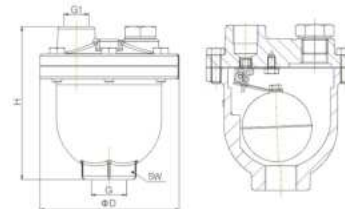
Attention: Do not use the steam trap under conditions exceeding the maximum pressure difference, otherwise condensation water may accumulate.

Order Instruction



Other Valves

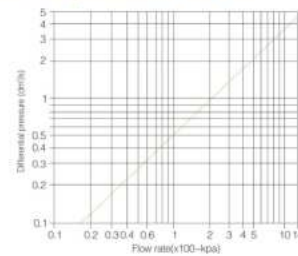
901 Series
Float Type
Air Eliminator



Technical Specification

- Nominal pressure: PN16
- Ball material: CF8M
- Seal material: FPM
- Control type: Automatic
- Medium temperature: -20°C → +200°C
- Applicable medium: Can be used for hot and cold water systems as well as other types of liquid medium

Differential pressure/flow rate chart



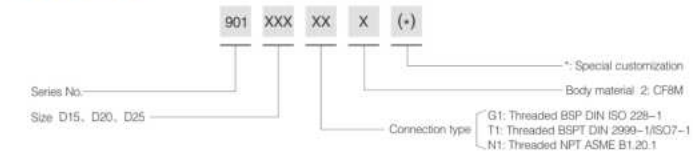
Function Principle

The valve operates automatically due to density difference between gas and liquid. When a mixture of gas and liquid enters from bottom of the valve, gas exits through the outlet at the top, while liquid pushes the float ball up and blocks the gas outlet. This valve could be easily dismantled for maintenance, usually without disturbing pipe connections.

Main Dimension

Size	G	G1	ØD	H	SW
DN15	1/2"	1/2"	122	134	47.5
DN20	3/4"	1/2"	122	134	47.5
DN25	1"	1/2"	122	134	47.5

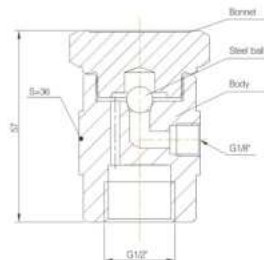
Order Instruction





Other Valves

902 Series Vacuum Breaker



Technical Specification

- Size: DN15
- Nominal pressure: PN25
- Valve material: 304
- Applicable medium: Mainly used for steam or liquid system

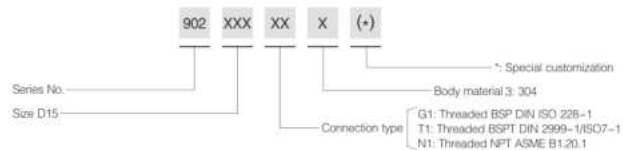
Attention

Valve must be installed in vertical position. The system connection port is located at the bottom of the valve. If used for steam system, it must be installed at the top of the system to prevent the valve from being immersed in condensation.

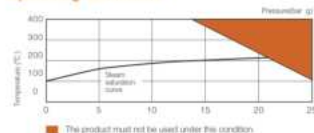
Function Principle

Under normal condition, a steel ball inside the valve blocks connection to atmosphere due to gravity and pressure from pipeline. When vacuum occurs inside pipeline, the steel ball gets pushed out by atmospheric pressure, allowing air into the pipeline and breaking vacuum inside the pipeline.

Order Instruction



Operating Condition



- PMA Max.Allowable Pressure: 25bar, 120°C
- TMA Max.Allowable Temperature: 400°C, 13bar
- FMO Max.Operating Pressure for saturated steam service: 21bar
- TMO Max.Operating Temperature: 400°C, 13bar
- Min.Operating Temperature: 0°C

908 Series Threaded Drain Valve



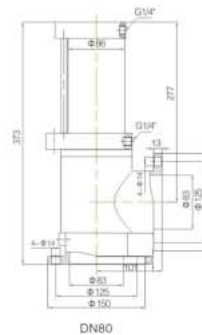
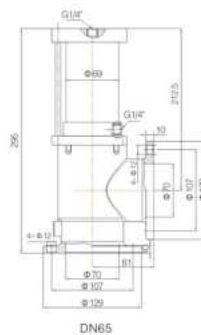
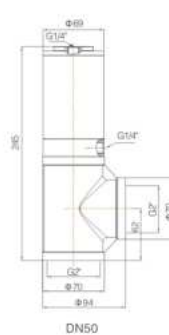
906 Series Flanged Drain Valve



Technical Specification

- Size: DN50 (Threaded connection), DN65, DN80 (Flange connection)
- Operating pressure: 0-8bar(0-5bar(0-5bar
- Control pressure: 3-8bar (43.5-116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8
- Seal material: PTFE

- Applicable fluid: Water, Air, Paper pulp, etc.
- Actuator size: 63mm, 80mm
- Medium temperature: -10°C — +120°C
- Ambient temperature: -10°C — +80°C
- Control type: Double acting without spring



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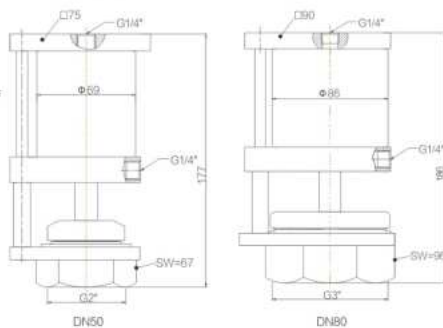
Other Valves

909 Series
Exhaust Valve

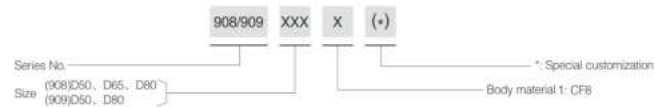


Technical Specification

- Size: DN50/DN80 (Threaded connection)
- Operating pressure: 0–8bar/0–5bar
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CFB
- Seal material: PTFE
- Applicable fluid: Gas
- Actuator size: 63mm/90mm
- Medium temperature: –10°C — +120°C
- Ambient temperature: –10°C — +80°C
- Control type: Double acting without spring



Order Instruction



Shut Off Valve

Z10 Series
Pneumatic Two-way Medium
Pressure Shut Off Valve



Technical Specification

- Operating pressure: 0–30bar (0–435bar)
- Control pressure: 3–8bar (43.5–58psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CFB/CFBM
- Seal material: PTFE
- Actuator material: CFB/AL
- Actuator size: 90mm/125mm(AL)
- Applicable fluid: Water, Nitrogen, Steam, etc
- Medium temperature: –10°C — +220°C
- Ambient temperature: –10°C — +80°C
- Control type: Single acting normally closed
- Connection type: Flange JIS 20K
(ASME CLASS300, DIN PN40, GB PN40 Customization available)

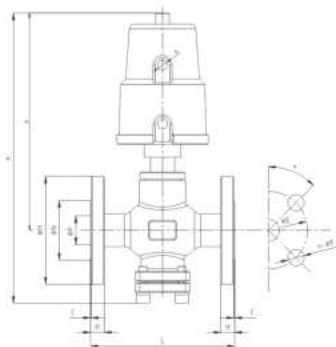
Advantages

1. Applicable to steam, compressed air, nitrogen, superheated water, etc.
2. High-quality PTFE sealing materials are adopted to ensure reliable sealing.
3. It can be widely used in rubber tire vulcanization, steam vulcanization or other harsh industrial application environments.

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Shut Off Valve

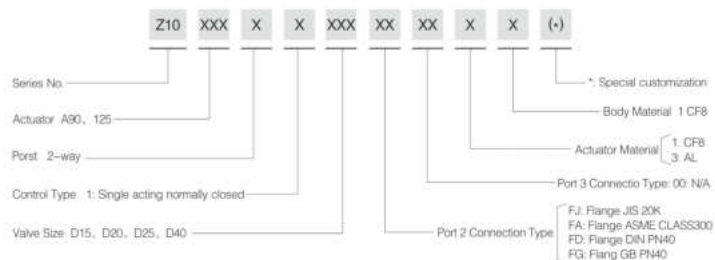
Z10 Series
Pneumatic Two-way Medium
Pressure Shut Off Valve



Dimension

Size	Actuator (mm)	G	A	K	L	C	H	E	n-F	M	N	P	α
DN15	90	18"	240	305	146	1	14	70	4-15	95	51	15	45°
DN20	90	18"	240	305	146	1	16	75	4-15	100	56	20	45°
DN25	90	18"	255	340	167	1	16	80	4-19	125	67	25	45°
DN40	125	14"	320	430	190	2	16	105	4-19	140	81	40	45°

Order Instruction



Z11 Series
Pneumatic Two-way Medium
Pressure Shut Off Valve



Technical Specification

- Operating pressure: 0-32bar (0-464bar)
- Operating temperature: -30°C—+220°C
- Control pressure: 2.5-3.5bar (36.25-50.75psi)
- Body material: CF8
- Channel type: Two-way, Three-way
- Seal material: PTFE
- Applicable fluid: High - temperature steam, Superheated water, Nitrogen
- Control type: Single acting normally closed, Single acting normally open
- Connection type: Flange JIS 20K (ASME CLASS300, DIN PN40, GB PN40 Customization available)

Product Application Industries and Features

1. Applicable to steam, compressed air, nitrogen, superheated water, etc.
2. High-quality PTFE (polytetrafluoroethylene) sealing materials and special geometric shapes are adopted to ensure reliable sealing and stable flow.
3. The packing consists of 4 sets of special V-shaped reinforced PTFE and springs, which are wear-resistant and have an automatic compensation function.
4. The special surface treatment of the valve stem ensures low friction between the stem and the packing as well as rotatable sealing.
5. It is widely used in the automatic control of the internal and external temperature processes during the vulcanization of rubber products, tires, etc.

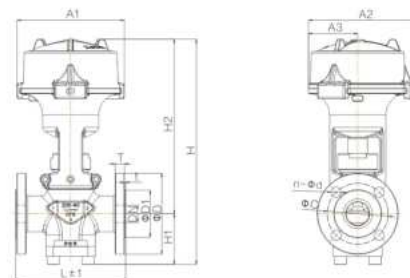
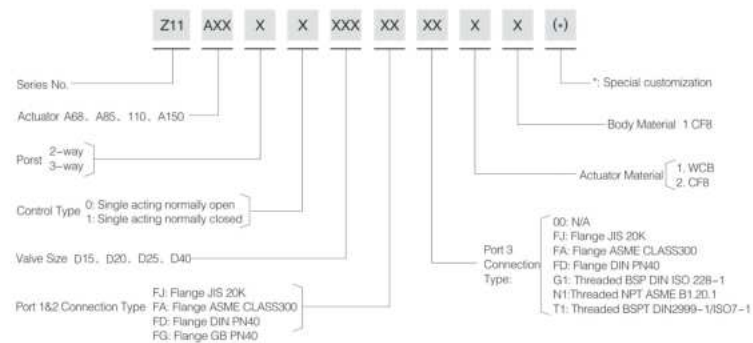
ESG®

Shut Off Valve

Z11 Series
Pneumatic Three-way Medium
Pressure Shut Off Valve



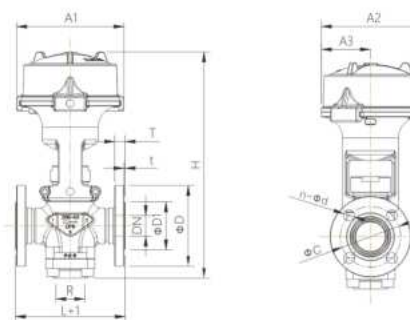
Order Instruction



Single Acting Normally Close, 2-way, Flange JIS20K

Dimension

Size	L	H1	H2	H	D	D1	C	T	t	n-Ød	A1	A2	A3
DN15 1/2"	146	44	164	208	95	51	70	14	1	4-15	106	100	42
DN20 3/4"	146	54	193	247	100	56	75	16	1	4-15	122	118	50
DN25 1"	167	67	233	300	125	67	90	16	1	4-19	152	147	64
DN40 1 1/2"	190	89	302	391	140	81	105	18	2	4-19	192	191	85



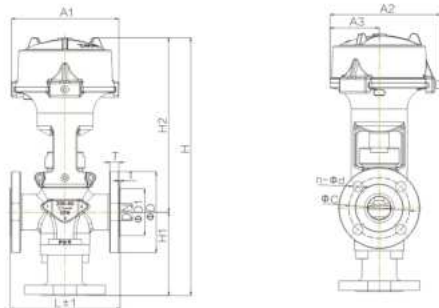
Single Acting Normally Close, 3-way, Flange JIS20K

Dimension

Size	L	H1	H2	H	D	D1	C	T	t	n-Ød	A1	A2	A3	R
DN15 1/2"	146	48	164	212	95	51	70	14	1	4-15	106	100	42	Re1/2"
DN20 3/4"	146	66	193	259	100	56	75	16	1	4-15	122	118	50	Re3/4"
DN25 1"	167	70	233	300	125	67	90	16	1	4-19	152	147	64	Re1"
DN40 1 1/2"	190	92	302	394	140	81	105	18	2	4-19	192	191	85	Re1 1/2"

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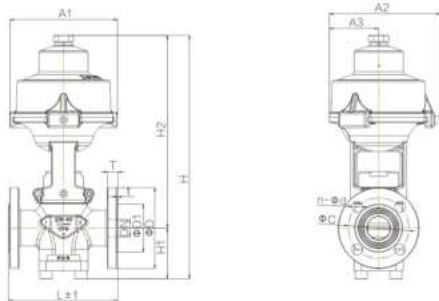
Shut Off Valve



Single Acting Normally Close, Three-way, Three-end Flange connection

Dimension

Size	L	H1	H2	H	D	D1	C	T	t	n-Φd	A1	A2	A3	
DN15	127	146	85	164	249	95	51	70	14	1	4-15	106	100	42
DN20	3/4"	146	100	190	293	100	56	75	16	1	4-15	122	118	50
DN25	1"	167	115	233	348	125	67	90	16	1	4-19	152	147	64
DN40	1 1/2"	190	145	302	447	140	81	105	18	2	4-19	192	191	85



Single Acting Normally Open, Two-way, Flange connection

Dimension

Size	L	H1	H2	H	D	D1	C	T	t	n-Φd	A1	A2	A3	
DN20	3/4"	146	84	223	277	100	56	75	16	1	4-15	122	118	50
DN25	1"	167	67	250	317	125	67	90	16	1	4-19	152	147	64
DN40	1 1/2"	190	89	300	422	140	81	105	18	2	4-19	192	191	85

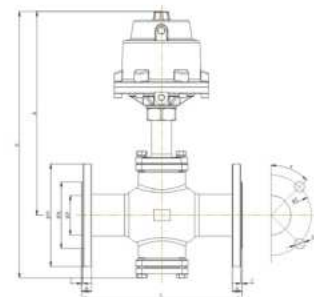
Z12 Series
Pneumatic Two-way
Low Pressure Shut Off Valve

Technical Specification

- Operating pressure: 0-12bar (0-174bar)
- Control pressure: 3-8bar (43.5-116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8/CF8M
- Seal material: PTFE
- Actuator material: CF8
- Actuator size: 125mm(AL)
- Applicable fluid: Water, Nitrogen, Steam
- Medium temperature: -10°C — +220°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting normally closed,
Double acting normally closed
- Connection type: Flange

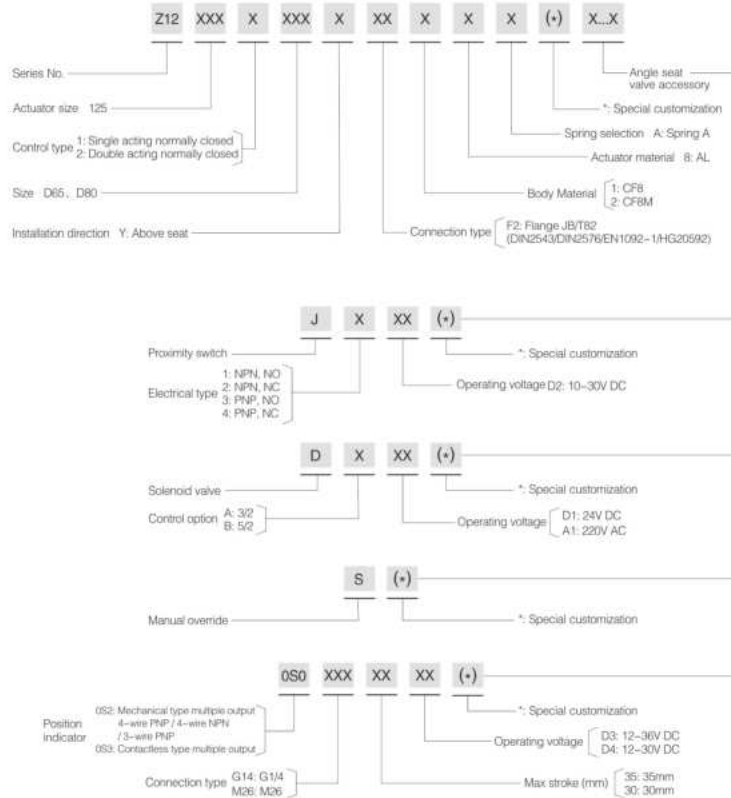
Advantages

1. Add a bearing guide at the valve cover to avoid the offset of the valve core caused by the impact of steam and to improve the service life.
2. High-quality PTFE sealing materials to ensure reliable sealing.
3. It can be widely used in the foam plastic industry or other harsh industrial environments.



Dimension

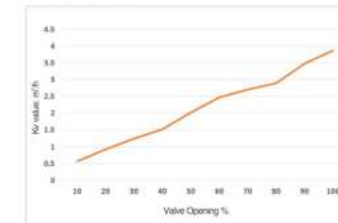
Size	Actuator (mm)	Q	A	K	L	C	H	E	n-ΦF	M	N	P	α
DN15	125	1/4"	365	485	200	3	18	145	4-18	71	120	185	45°
DN40	125	1/4"	395	545	310	3	20	180	6-18	84	135	200	22.5°

ESG**Shut Off Valve****Regulating Valve**ZVP series
Pneumatic
Regulating Valve**Technical Specification**

- Operating Pressure: 0-17bar (0-246.5psi)
- Fluid Temperature: Max. 210°C
- Control Pressure: 0.2-1bar (2.9-14.5psi)
- Body material: CFB
- Applicable Fluid: High-temperature steam, Superheated water, Nitrogen, Compressed air
- Connection Type: Flange JIS 20K (ASME CLASS300, DIN PN40, GB PN40 Customization available)

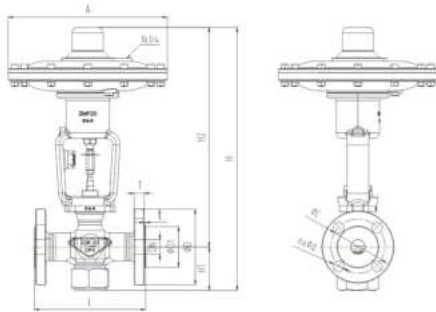
Description

This is a regulating valve with diaphragm design. It has excellent control performance and can guarantee accurate flow control. It's widely used in the production for shaping process.

Flow Curve Chart

ESG®

Regulating Valve

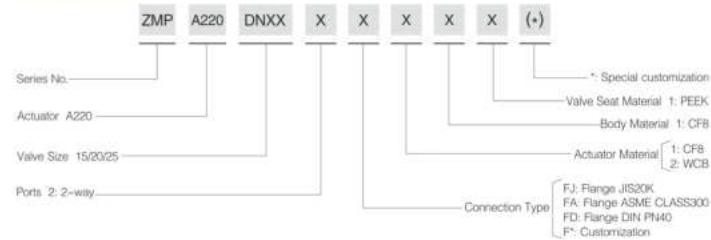


Dimension

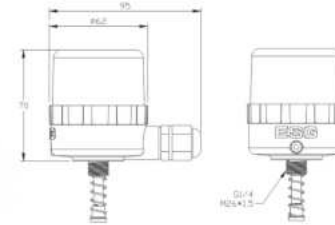
Normally Close, 2-way, Flange JIS 20K

SIZE	L	H1	H2	H	D	D1	C	T	t	n-Φd	A	
DN15	1/2"	154	60	306	358.5	96	51	70	14	1	4-15	220
DN20	3/4"	154	60	306	358.5	100	56	75	16	1	4-15	220
DN25	1"	164	65	310	358.5	125	67	90	16	1	4-19	220

Order Instruction



Control Accessory

OS2 Series
Position Indicator

Technical Specification

- Stroke range: 5-35mm (Mechanical type)
5-30mm (Contactless type)
- Voltage: 12V DC-30V DC (Mechanical type)
12V DC-30V DC (Contactless type)
- Current: MAX.200mA (Mechanical type)
MAX.100mA (Contactless type)
- Indication Light: Visually feedbacks the valve's open/close status
- Temperature range: -20°C ~ +70°C
- Storage temperature: -30°C ~ +80°C
- Ambient humidity: ≤90%RH
- Protection level: IP65
- Explosion-proof: II 3G Ex ec IIC T4 Gc
- Enclosure material: PA6-GF30+PC
- Main dimension: Φ62x70
- Installation interface: G1/4, M26x1.5
- Wiring method: Unscrew the transparent cover, thread the cable through the cable opening and connect it to the required terminal.

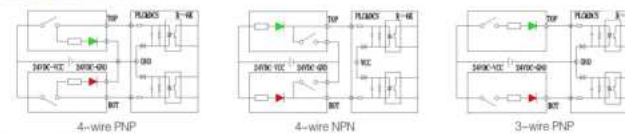
Advantages

- Compact size to save space.
- Reliable performance and sensitive reaction.
- Spring-loaded and threaded connection are easily interchangeable.
- Quick installation and allows 360° rotation adjustment.
- Unique slider adjustment, convenient adjustment and precise position.
- Screw-free terminal block makes wiring more convenient.
- Waterproof cable lock ensures internal dustproof and moisture proof.
- A variety of input/output modes can be realized through simple adjustments.
- Using magnetic switch to achieve contactless feedback, prolonging the service life.

Function Principle

It is used to detect and feedback both open and closed states of the connected valve.

Electrical Schematic



Order Instruction

