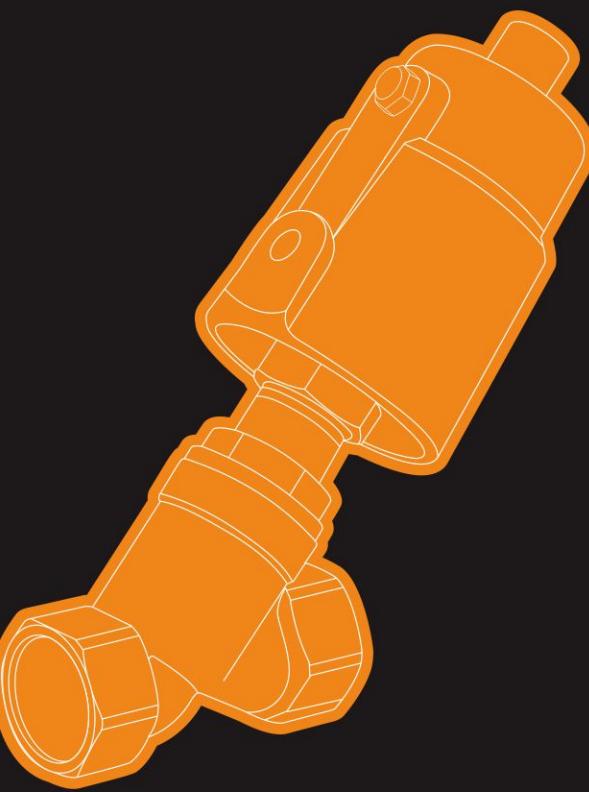


Perfect Valves For The World!



ESG[®]

Qingdao Elite Machinery Manufacture Co.,Ltd.

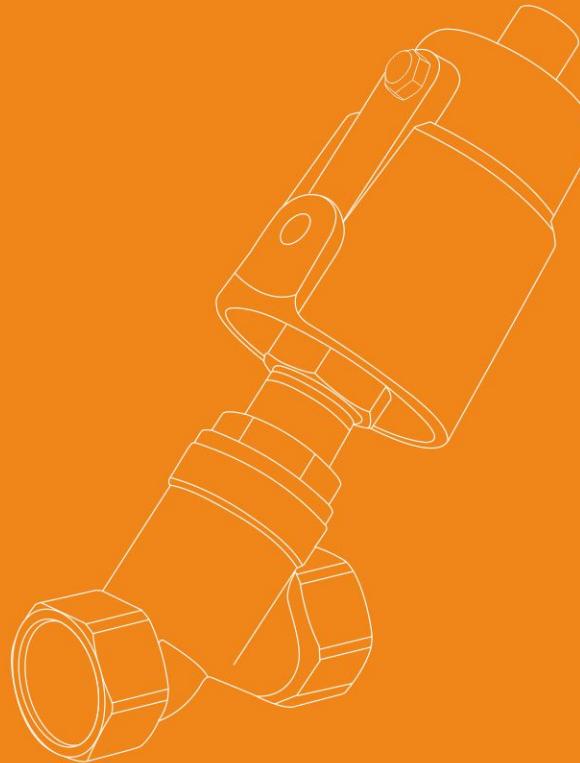
Add: Tongji Industry Zone, Jimo, Qingdao, China, 266228
Tel: 0532-82515988 0532-82515555
Fax: 0532-82515983
Web: www.esgvalve.com
Email: info@esgvalve.com

2019 English edition

**QINGDAO ELITE
MACHINERY MANUFACTURE
CO.,LTD.**

Elite | **S**ervice | **G**lobal

INDUSTRIAL FLOW CONTROL EXPERT



ESG Official Wechat



ESG Corporate Website

With more than 20 years of dedication in valve industry, ESG has been recognized as a leading brand for angle seat valve.

Company Profile

■ Vision:
Become top benchmark of valve industry and build time-honored enterprise

■ Mission Statement:
Continuously contribute to industrial evolution, while nurturing financial well-being and promoting personal fulfillment for each and every member of ESG family.

■ Core Value:
Align with Inner Conscience
Build Reliable products
Grow as a Trustworthy Company

■ Action Motto:
Prepare methodically
Execute effectively
Improve continuously

■ Management Ideation:
People-centered and Virtue-oriented
Take skill as pride and quality as priority

■ Enterprise Spirit:
Effective, pragmatic,
rigorous and innovative



Qingdao Elite Machinery Manufacture Co., Ltd. (ESG) is located in 15 Jinshajiang 1st Road, Tongji Industrial Park, Qingdao and adjacent to the Qingdao Port. The company seamlessly integrates technology into the design, manufacture and sales of pneumatic valves.

The company has been dedicated to designing and manufacturing high-end stainless-steel pneumatic valves, including angle seat valves, shuttle valves, diaphragm valves, butterfly valves, ball valves, pressure reducing valves, steam traps, check valves, and strainers, which are widely used in various industries, such as textile dyeing, EPS molding, air separation, chemical, food, and pharmaceutical. Our products are sold to 66 countries around the world and have maintained long-standing cooperation with many Fortune 500 companies, including GM, Emerson, Xylem, and Samsung. The excellence in product quality as well as after-sales service has allowed us to earn the trust and praise of our clients.

ESG is equipped with advanced stainless-steel precision casting lines, CNC production lines, and valve assembly & test lines. The company uses world class inspection equipment, including Spectromax meter, Brown & Sharp CMM inspection machine, optical measuring machine, surface roughness tester, and hardness tester, and has obtained multiple international certifications, such as ISO9001, CE, CU-TR, FDA, USP, and ATEX. Since its establishment in 2001, the company has obtained 35 patents, including 5 invention patents, 23 utility patents, and 7 design patents. After implementation of our branding strategy, "ESG" trademark has been registered in more than 20 countries, including the United States, Germany, France, Japan, Russia, Portugal, and Australia. In the past 20 years, we've had the opportunity to supply to more than 2,000 customers around the globe and earned their trust in ESG.

With the devotion and dedication to build "Perfect Valves For The World", ESG will strive to become the leader of valve industry and express our most sincere respect to our customers by continuously providing Elite-level quality and service!





Talent is not only the core foundation of ESG's long-term growth and development, but also the source of continuous business success.

ESG culture, centered on great love, aims to promote harmonious society and happy lives, by upholding Chinese traditional culture and gradually influencing ESG family, surrounding residents and the whole society to become more aware of the goals and meanings of life, take responsibility, and work hard, in order to pursue their dreams, establish a happy family, and together create a harmonious society.



Excellent people
is what sets ESG apart from competition

ESG People

ESG is cultivating and nurturing top professionals in all fields. ESG has always followed the human resource management philosophy of "center on people, respect personality, strive collectively".

ESG believes that a successful team is much more than simple collective efforts, or prominent performance of any single person or department. The success of ESG is the relentless pursuit of common cause by all employees and the accumulation of collective strength and wisdom of the team.





Pursuit of excellence in quality

The culture of quality has penetrated into every detail of R&D, production, sales, and service, becoming a habit for everyone at the company. Quality management system has been fully integrated with international market standard. While helping the company obtain many honors, it allows ESG to continuously bring excellent product experience to users.



With strong sense of responsibility and advanced production equipment, ESG makes every effort to earn your trust through every product we build.

Casting

ESG precision casting lines are equipped with state-of-the-art precision equipment and are capable of producing components weighing between 1g to 15kg, with precision level ranging from CT6 to CT3, at max annual capacity of 400 tons. SS304 and SS316 have been most commonly used, but other materials are also available upon request.



Strict end-to-end production process control ensures uncompromised product quality

Machining, Assembly, and Warehousing



Top-notch machining equipment produces products with excellent quality. ESG spares no expense to invest in first-class production equipment, build modern workshops, and standardize production procedures so that every employee can follow the same highly efficient production process.



Advanced automated production equipment and sophisticated assembly line operation represent first-class quality. Technical experts directly participate in production to ensure the stability and reliability of the product. The company aims to build on its advantages by continuously improving product quality, technical expertise and after-sale service, to keep on providing users with high-quality products and excellent services and thereby make our contribution to the society.



Product quality represents our quality as a person.
Each valve goes through 100% professional inspection before leaving the factory,
which has been an unwavering bottom line of ESG for 20 years.

Quality Control

End-to-end production process control is the foundation of product quality. To prevent quality problems from damaging its brand, ESG has established a comprehensive and structured quality management system to never allow an unqualified product to leave the factory. ESG believes that this is not only responsible for the customer, but also for ESG's own conscience.



- 1 Three-coordinate measuring machine
- 2 Optical measuring machine
- 3 Roughness tester

- 4 Valve flow laboratory
- 5 Valve life laboratory
- 6 7 8 Valve seal test station
- 9 Diaphragm valve high-temp steam life test station
- 10 Spectrum analyzer
- 11 Filling valve life test station

ESG never stops improving and growing,
in order to gradually build trust in ESG brand at every corner of the world

Qualification

To inherit the spirits of the craftsman, ESG is rigorous and dedicated in pursuing perfection in every product, carefully aligning with industrial standards and customer requirements, and providing customers with products and services that are of superb value.

ESG earns respect with quality and service, not only as a proud Chinese blacksmith, but also a spokesman for Made-in-China.

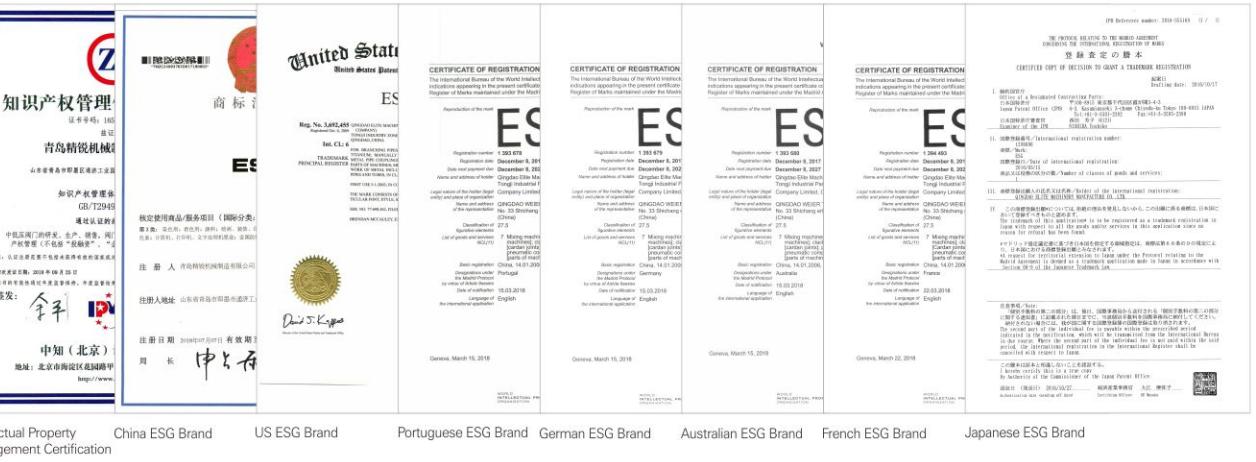
High-Tech Enterprise / Enterprise Technology Center / Specialized Product Development / Expert Workstation/ AAA Credit Rating / Safe Production Certificate



ISO9001 Quality Management System Certification, EU CE Certification, Russian CU-TR Certification, US FDA, USP, and many other international qualifications



Brand certificate from 26 countries



Intellectual Property Certificate

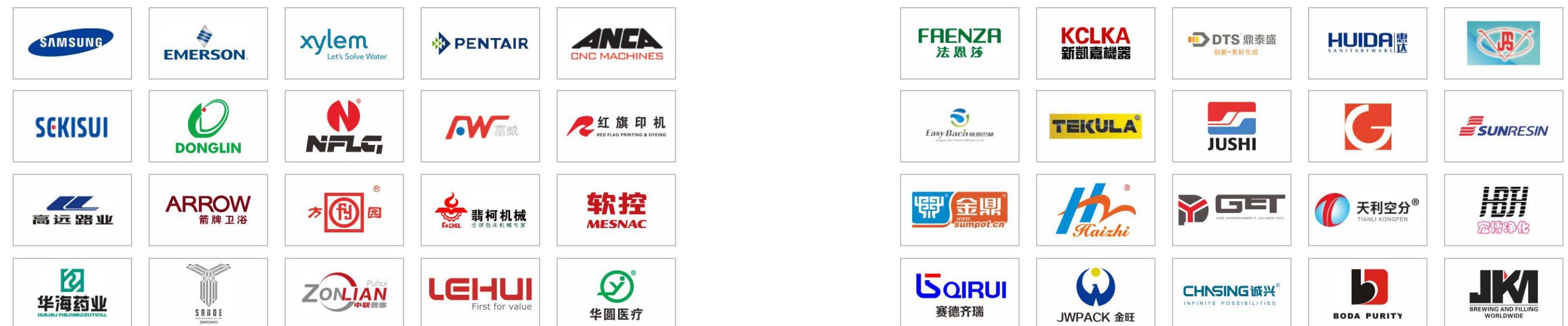


ESG works with customers around the globe
to develop innovative technology and provide optimal solution

Our Client



ESG's excellent products and services are provided to **66** countries around the world and are trusted and supported by more than **2,000** customers.



ESG serves as your industrial automation partner, offering a large selection of reliable and innovative products.

Product Catalog

ESG offers valve-based fluid control solutions to a wide range of industries including the following key industries:

- EPS molding
- Textile dyeing
- Food & beverage
- Industrial laundry
- Environmental
- Air Separation
- Filling operation
- Pneumatic conveying
- Pharmaceutical
- Bio-fermentation
- Sterilization
- Chemical processing
- Rubber processing
- Automobile
- Ultrasonic cleansing

INDUSTRIAL VALVE

SANITARY VALVE

CONTROL ACCESSORY

Shuttle Valve	Butterfly Valve	Ball Valve	Check Valve	Strainer
<ul style="list-style-type: none"> • 200 Series Pneumatic Shuttle Valve • 201 Series Pneumatic Shuttle Valve • 202 Series Two-way Solenoid Coaxial Valve • 203 Series Three-way Solenoid Coaxial Valve • 204 Series Flanged Shuttle Valve 	<ul style="list-style-type: none"> • 300 Series Pneumatic Butterfly Valve 	<ul style="list-style-type: none"> • 4XX Series Manual Ball Valve • 451 Series Pneumatic Ball Valve 	<ul style="list-style-type: none"> • 501 Series Y-Spring Check Valve • 502 Series Swing Check Valve • 503 Series 2-PC Spring Vertical Check Valve • 504 Series 3-PC Spring Vertical Check Valve • 508 Series Wafer Type Disc Check Valve • 509 Series Y-Spring Check Valve 	<ul style="list-style-type: none"> • 601 Series Single Cap Strainer • 602 Series Double Cap Strainer • 603 Series Flanged Strainer • 604 Series Filter Discharge Valve
58-67	68-69	70-83	84-89	90-93

Y-type Angle Seat Valve

Proportional Control Angle Seat Valve

Multi-channel Valve

Filling Valve



18-37

38-43

44-51

52-57

Pressure Reducing Valve

Steam Trap

Other Valves

Diaphragm Valve

Control Accessory



94-95

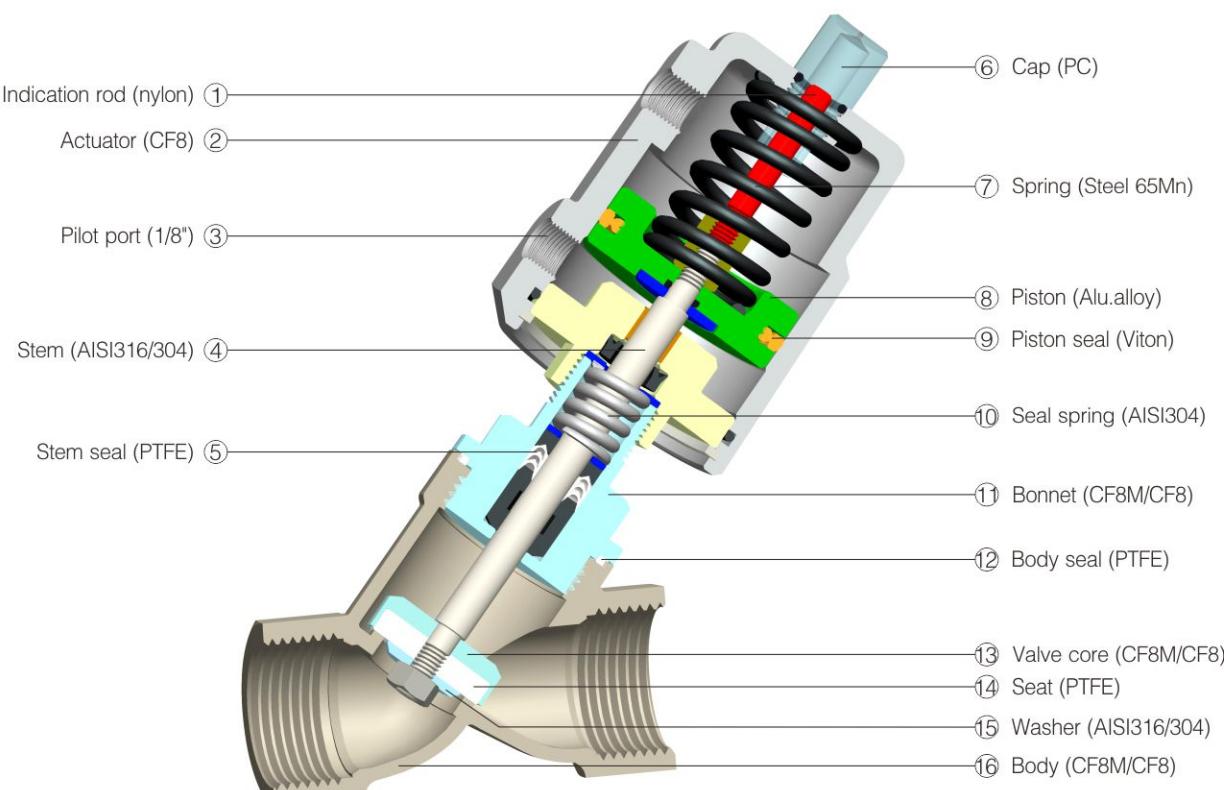
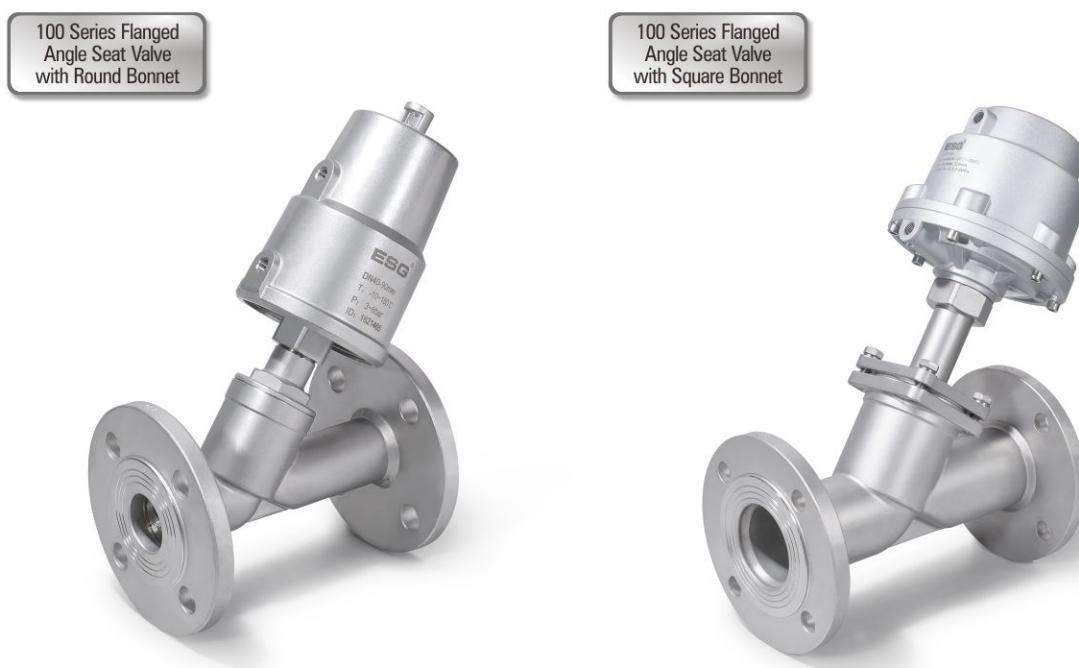
96-100

101-105

106-115

116-118

Y-type Angle Seat Valve



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.

Advantages

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

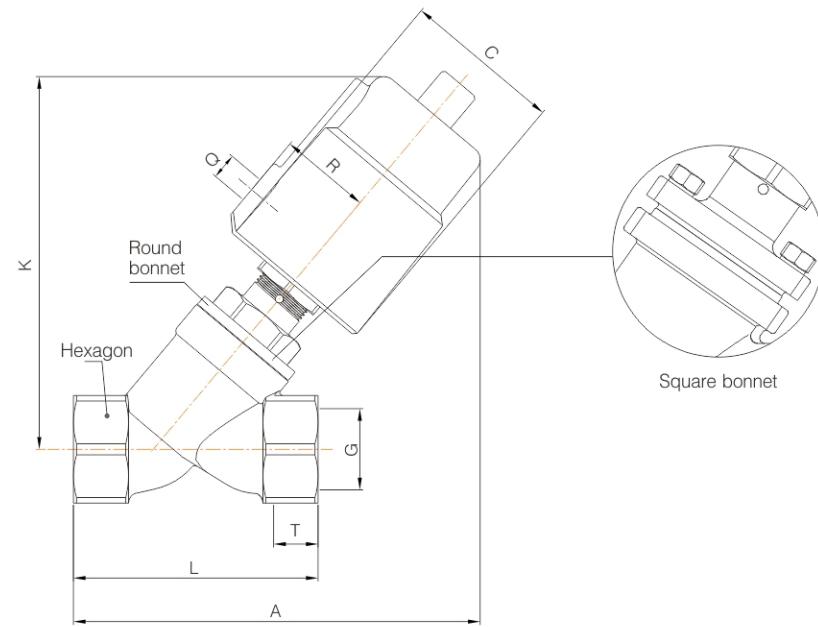
Applications

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

Technical Specification

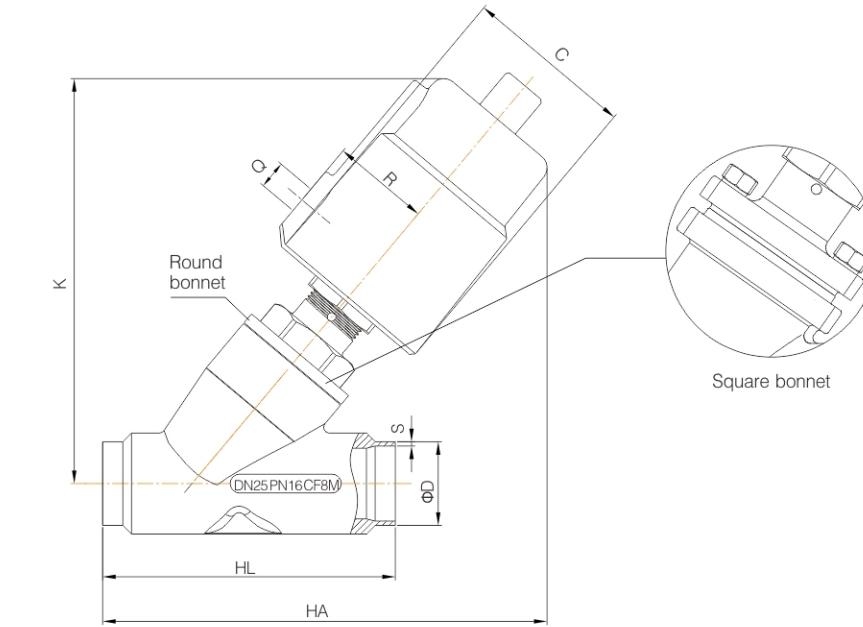
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Neutral gas, Air
- Body material: CF8M/CF8
- Seal material: PTFE
- Actuator material: CF8 (40mm–90mm Actuator), AL (90mm–125mm Actuator)
- Actuator size: 40mm, 50mm, 63mm, 90mm, 125mm
- Applicable fluid: Water, Alcohol, Oil, Fuel, Steam, Neutral gas or Liquid, Organic solvent, Acid and lye
- Fluid viscosity: Max 600mm²/s
- Fluid temperature: -10°C — +180°C (PTFE normal temperature)
+25°C — +220°C (PTFE high temperature)
- Ambient temperature: -10°C — +80°C
- Control type: Normally closed, Normally open, Double acting
- Connection type: Threaded (BSP, BSPT, NPT),
Welded, Flanged, Tri-clamp
- Leakage class: EN 12266 Class A

Y-type Angle Seat Valve



Main Dimension (Threaded Connection)

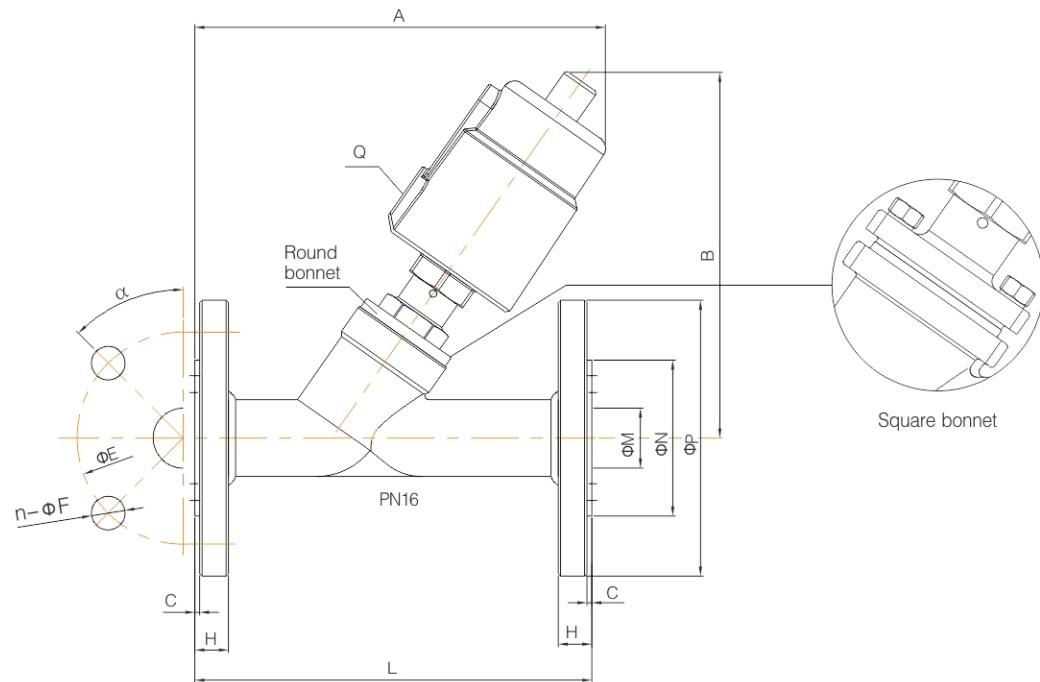
Size	Actuator (mm)	Q	C	R	K	G	T	A	L	Hexagon
DN8	40	1/8"	50.5	27	112	1/4"	12	124	68	27
	50	1/8"	60	33	125			135		
DN10	40	1/8"	50.5	27	112	3/8"	12	124	68	27
	50	1/8"	60	33	125			135		
DN15	40	1/8"	50.5	27	112	1/2"	15	124	68	27
	50	1/8"	60	33	125			135		
DN20	50	1/8"	60	33	132	3/4"	16	140	75	32
DN25	50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



Main Dimension (Welded Connection)

Size	Actuator (mm)	Q	C	R	K	HA	HL	DIN11850-2		DIN11850-3	
								ΦD	S	ΦD	S
DN15	40	1/8"	50.5	27	112	118	70	19	1.5	20	2
	50	1/8"	60	33	125	128					
DN20	50	1/8"	60	33	132	135	82	23	1.5	24	2
	50	1/8"	60	33	136	150					
DN25	63	1/8"	75	41	162	175	100	29	1.5	30	2
	63	1/8"	75	41	174	186					
DN32	90	1/8"	106	55	223	232	125	35	1.5	36	2
	63	1/8"	75	41	183	206					
DN40	63	1/8"	75	41	175	190	130	41	1.5	42	2
	90	1/8"	106	55	223	235					
DN50	63	1/8"	75	41	183	206	155	53	1.5	54	2
	90	1/8"	106	55	232	250					
DN65	125AL	1/4"	170	85	300	307	270	70	2	-	-
	90	1/8"	106	55	280	320				-	-
DN65 Square bonnet	125AL	1/4"	170	85	330	360	270	70	2	-	-
	125AL	1/4"	170	85	355	360				-	-
DN80	125AL	1/4"	170	85	327	380	284	85	2	-	-
	DN80 Square bonnet	1/4"	170	85	355	340				-	-

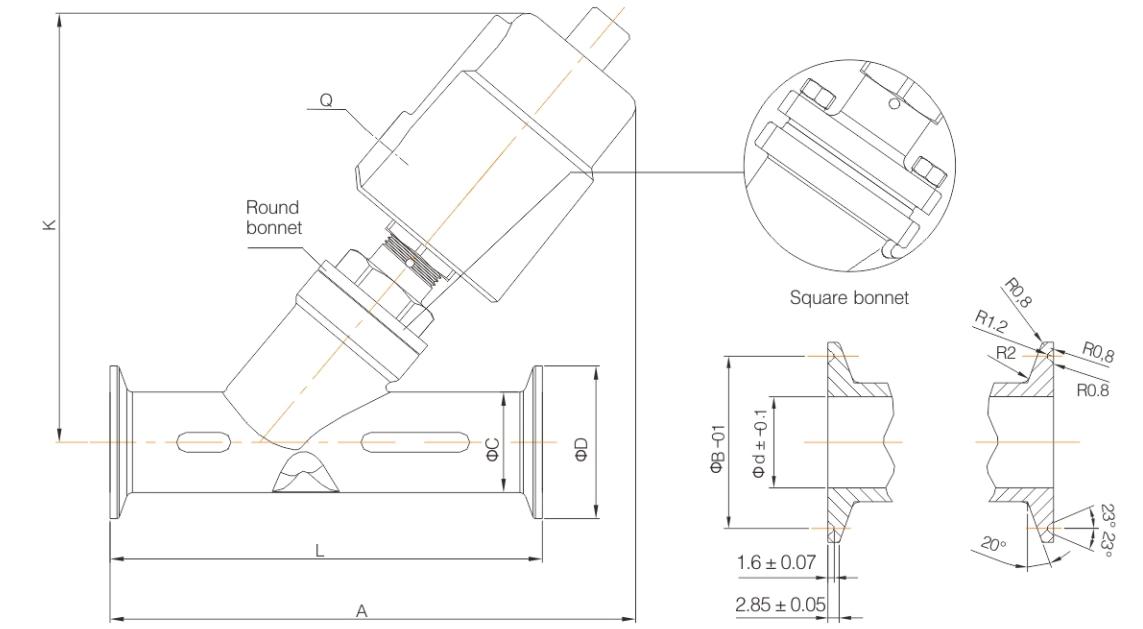
Y-type Angle Seat Valve



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

Main Dimension (Flange Connection)

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



Clamp Specification: ISO 2852; customization available.

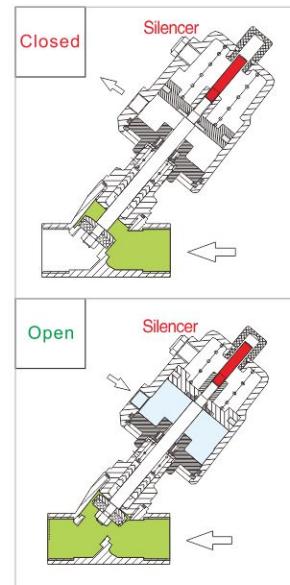
Main Dimension (Tri-clamp Connection)

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

Y-type Angle Seat Valve

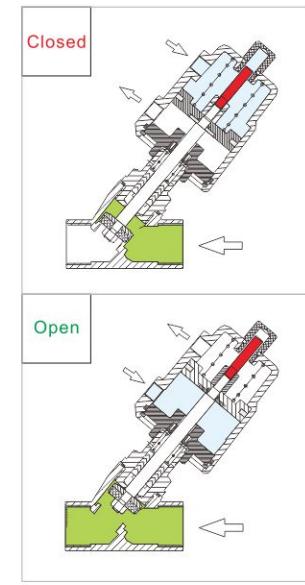
Single Acting, Normally Closed (NC)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m³/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
				63	0-1.6	0.3-0.45
DN25	G1"	24	15.8	50	0-1.6	0.3-0.45
				63	0-1.6	0.3-0.35
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.55
				90	0-1.6	0.2-0.35
DN40	G1 1/2"	35	32.0	63	0-1.6	0.3-0.65
				90	0-1.6	0.3-0.4
DN50	G2"	45	52.0	63	0-0.9	0.3-0.7
				90	0-1.6	0.3-0.45
DN65	G2 1/2"	61	83.2	90	0-1.0	0.3-0.6
				125	0-1.6	0.3-0.4
DN80	G3"	80	119	125	0-1.2	0.3-0.7



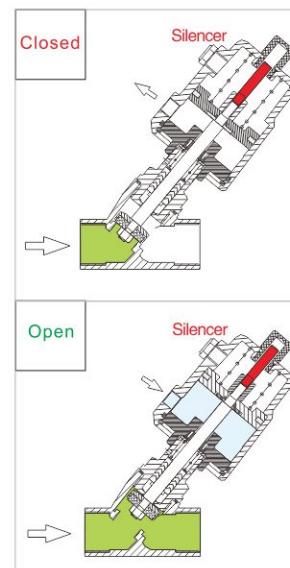
Double Acting, Normally Closed (NC)–Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m³/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
				63	0-1.6	0.3-0.45
DN25	G1"	24	15.8	50	0-1.6	0.3-0.45
				63	0-1.6	0.3-0.35
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.55
				90	0-1.6	0.2-0.35
DN40	G1 1/2"	35	32.0	63	0-1.6	0.3-0.65
				90	0-1.6	0.2-0.4
DN50	G2"	45	52.0	63	0-0.9	0.3-0.7
				90	0-1.6	0.2-0.45
DN65	G2 1/2"	61	83.2	90	0-1.0	0.2-0.6
				125	0-1.6	0.2-0.4
DN80	G3"	80	119	125	0-1.2	0.2-0.7



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

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40-A	0-1.3	≥0.4
				50-A	0-1.4	≥0.45
DN10	G3/8"	13	3.9	40-A	0-1.3	≥0.4
				50-A	0-1.4	≥0.45
DN15	G1/2"	13	4.3	40-A	0-1.3	≥0.4
				50-A	0-1.4	≥0.45
DN20	G3/4"	18	7.6	50-A	0-1.4	≥0.45
				63-A	0-0.8	≥0.45
DN25	G1"	24	15.8	63-A	0-1.3	≥0.5
				63-A	0-0.6	≥0.5
DN32	G1 1/4"	31	26.0	90-A	0-1.6	≥0.6
				90-B	0-1.3	≥0.45
DN40	G1 1/2"	35	32.0	63-A	0-0.5	≥0.5
				90-A	0-1.6	≥0.6
DN50	G2"	45	52.0	63-A	0-0.2	≥0.5
				90-A	0-1.0	≥0.6
DN65	G2 1/2"	61	83.2	90-B	0-0.7	≥0.45
				125-A	0-1.6	≥0.55
DN80	G3"	80	119	90-A	0-0.5	≥0.45
				125-B	0-0.2	≥0.45
DN100	G4"	90	132	125-C	0-0.9	≥0.55
				125-D	0-0.5	≥0.35



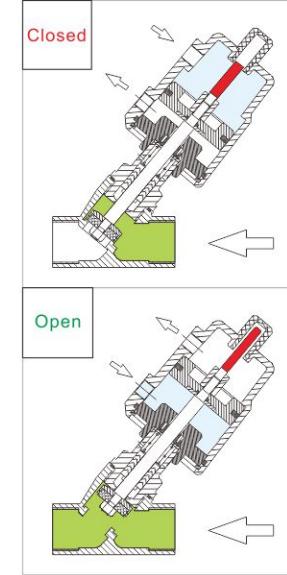
Double Acting, Normally Closed (NC)–Enter Below Seat (Minimize water-hammer)

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN10	G3/8"	13	3.9	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN15	G1/2"	13	4.3	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN20	G3/4"	18	7.6	50	0-1.6	≥0.3

Y-type Angle Seat Valve

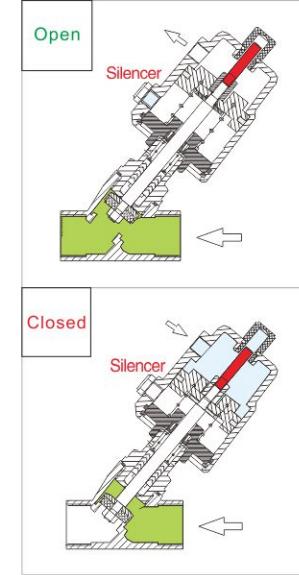
Double Acting Without Spring—Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN10	G3/8"	13	3.9	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN15	G1/2"	13	4.3	40	0-1.6	0.3-0.45
				50	0-1.6	0.3-0.35
DN20	G3/4"	18	7.6	50	0-1.6	0.3-0.4
DN25	G1"	24	15.8	50	0-1.6	0.3-0.45
				63	0-1.6	0.3-0.35
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.55
				90	0-1.6	0.3-0.4
DN40	G1 1/2"	35	32.0	63	0-1.6	0.3-0.65
				90	0-1.6	0.3-0.4
DN50	G2"	45	52.0	63	0-1.0	0.3-0.7
				90	0-1.6	0.3-0.45
				125	0-1.6	0.3-0.4
DN65	G2 1/2"	61	83.2	90	0-1.0	0.3-0.6
				125	0-1.6	0.3-0.4
DN80	G3"	80	119	125	0-1.2	0.3-0.7



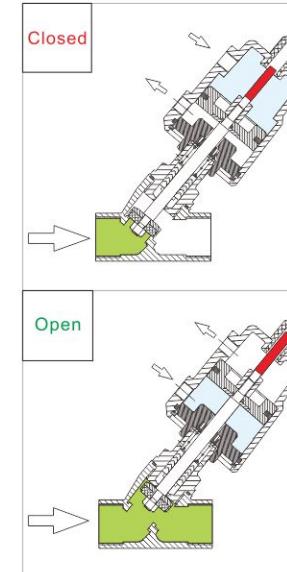
Normally Open(NO)—Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN10	G3/8"	13	3.9	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN15	G1/2"	13	4.3	40	0-1.6	≥0.3
				50	0-1.6	≥0.3
DN20	G3/4"	18	7.6	50	0-1.2	≥0.3
DN25	G1"	24	15.8	50	0-0.3	≥0.3
				63	0-1.6	≥0.45
DN32	G1 1/4"	31	26.0	63	0-1.4	≥0.45
DN40	G1 1/2"	35	32.0	63	0-1.4	≥0.45
				90	0-0.6	≥0.45
DN50	G2"	45	52.0	63	0-0.6	≥0.45
				90	0-1.2	≥0.45



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

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN10	G3/8"	13	3.9	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN15	G1/2"	13	4.3	40	0-1.6	0.3-0.4
				50	0-1.6	0.3-0.4
DN20	G3/4"	18	7.6	50	0-1.6	0.3-0.4
DN25	G1"	24	15.8	50	0-1.6	0.3-0.65
				63	0-1.6	0.3-0.55
DN32	G1 1/4"	31	26.0	63	0-1.6	0.3-0.7
				90	0-1.6	0.3-0.45
DN40	G1 1/2"	35	32.0	63	0-1.2	0.3-0.75
				90	0-1.6	0.3-0.5
DN50	G2"	45	52.0	63	0-0.4	0.3-0.75
				90	0-1.6	0.3-0.6
				125	0-1.6	0.3-0.4
DN65	G2 1/2"	61	83.2	90	0-1.0	0.3-0.75
				125	0-1.6	0.3-0.6
DN80	G3"	80	119	125	0-1.0	0.3-0.7
DN100	G4"	90	132	125	0-0.8	0.3-0.75



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

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	2.2	40	0-1.6	0.3-0.5
				50	0-1.6	0.3-0.4
DN10	G3/8"	13	3.9	40	0-1.6	0.3-0.5
				50	0-1.6	0.3-0.4
DN15	G1/2"	13	4.3	40	0-1.6	0.3-0.5
				50	0-1.6	0.3-0.4
DN20	G3/4"	18	7.6	50	0-1.6	0.3-0.6
DN25	G1"	24	15.8	50	0-1.3	0.3-0.6
				63	0-1.6	0.3-0.5
DN32	G1 1/4"	31	26.0	63	0-1.3	0.3-0.6
				63	0-0.7	0.3-0.6
DN40	G1 1/2"	35	32.0	63	0-1.6	0.3-0.35
				90	0-0.5	0.3-0.6
DN50	G2"	45	52.0	63	0-1.2	0.3-0.6
				90	0-0.75	0.3-0.5
DN65	G2 1/2"	61	83.2	90	0-1.4	0.3-0.7

Y-type Angle Seat Valve



Angle Seat Valve with Proximity Switch

Angle Seat Valve with Solenoid Valve



Angle Seat Valve with Manual Override

Angle Seat Valve with Position Indicator

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

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 — +50°C
- Leakage class: DIN EN 12266 Class A

Manual Override

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

Technical Specification

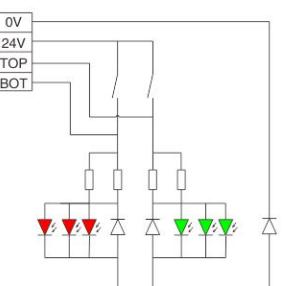
- Handwheel material: die-casted Aluminum
- Control type: Normally closed
- Leakage class: DIN EN 12266 Class A

Position Indicator

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

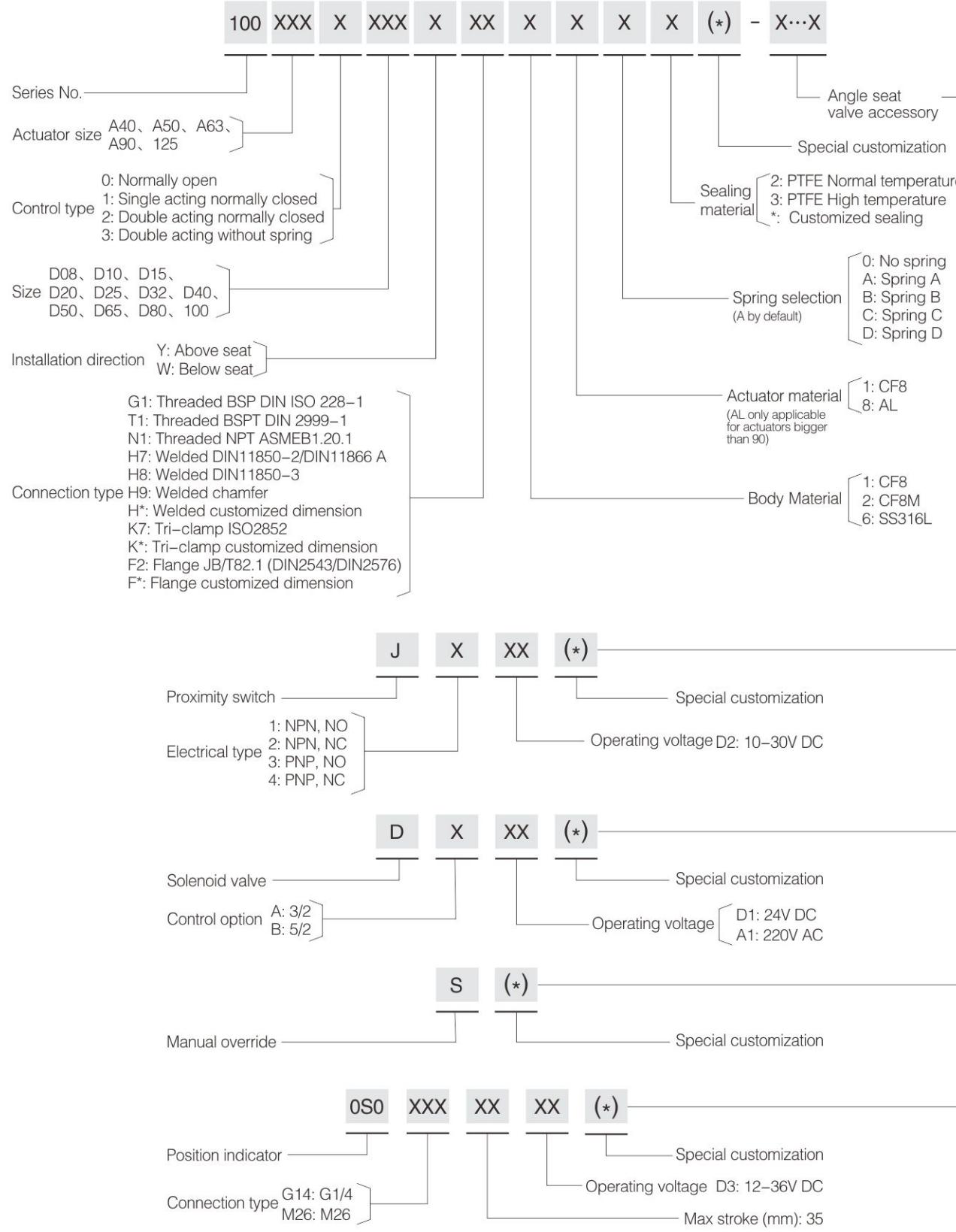
Technical Specification

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



Y-type Angle Seat Valve

Order Instruction



101 Series
Economy Type Angle
Seat Valve



Technical Specification

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

Advantages

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

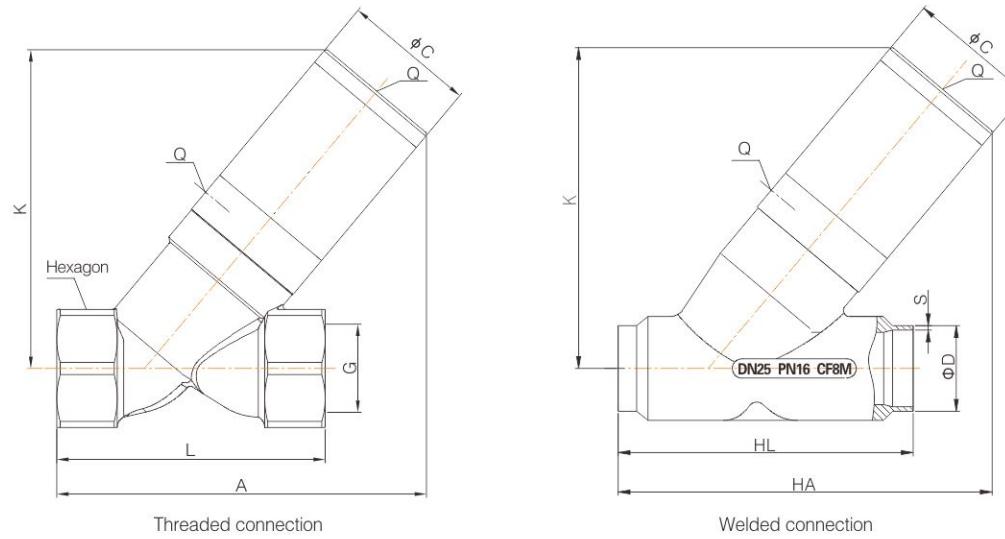
Double Acting, Normally Closed (NC) Enter Above Seat

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	1.8	32	0-1.0	0.3-0.6
DN10	G3/8"	13	3.2	32	0-1.0	0.3-0.6
DN15	G1/2"	13	3.5	32	0-1.0	0.3-0.6
DN20	G3/4"	18	6.2	32	0-1.0	0.3-0.6
DN25	G1"	24	9.9	40	0-1.0	0.3-0.6
DN32	G1 1/4"	31	17.9	50	0-1.0	0.3-0.6
DN40	G1 1/2"	35	22.7	50	0-1.0	0.3-0.7
DN50	G2"	45	47.2	63	0-1.0	0.3-0.7

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

Size	Thread end	Orifice (mm)	Flow value Kv(m³/h)	Actuator (mm)	Differential pressure range P(MPa)	Control pressure (MPa)
DN8	G1/4"	13	1.8	32	0-1.0	0.3-0.7
DN10	G3/8"	13	3.2	32	0-1.0	0.3-0.7
DN15	G1/2"	13	3.5	32	0-1.0	0.3-0.7
DN20	G3/4"	18	6.2	32	0-1.0	0.3-0.7
DN25	G1"	24	9.9	40	0-1.0	0.3-0.7
DN32	G1 1/4"	31	17.9	50	0-0.8	0.3-0.7
DN40	G1 1/2"	35	22.7	50	0-0.6	0.3-0.7
DN50	G2"	45	47.2	63	0-0.3	0.3-0.7

Y-type Angle Seat Valve



107 Series
Threaded Manual
Angle Seat Valve



107 Series
Welded Manual
Angle Seat Valve

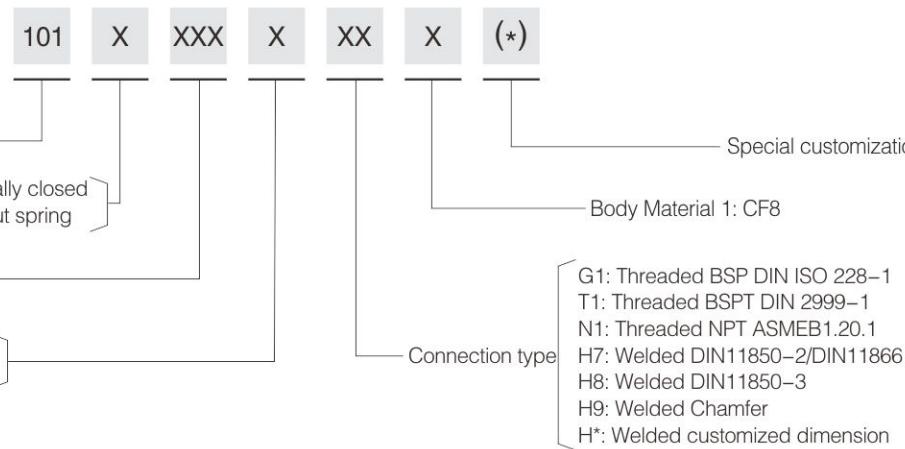


Main Dimension

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

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

Order Instruction

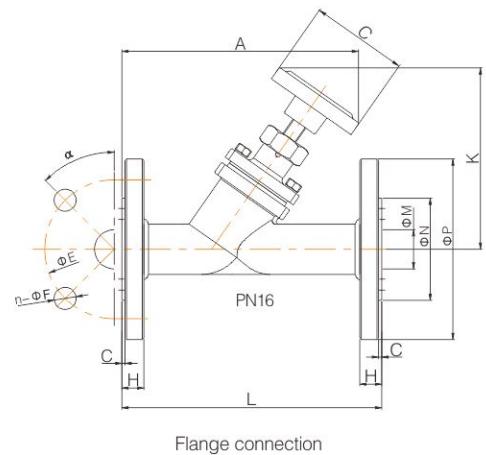
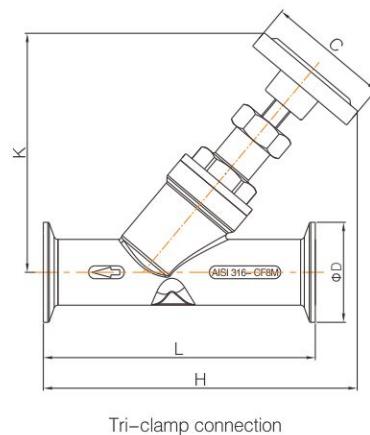


Main Dimension

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

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

Y-type Angle Seat Valve

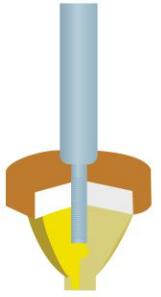


Main Dimension

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

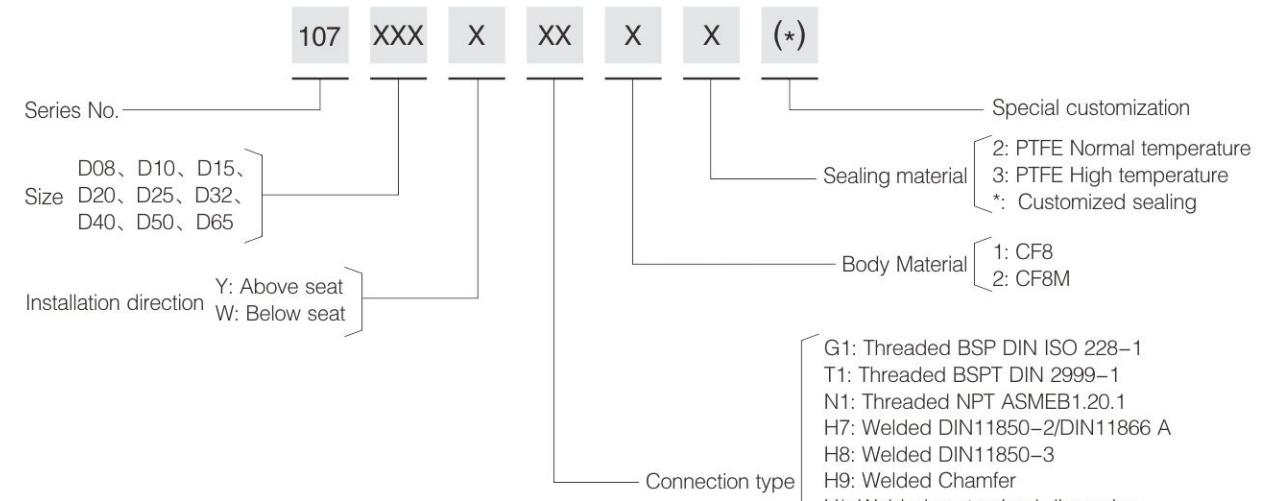
Technical Specification

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



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

Order Instruction



G1: Threaded BSP DIN ISO 228-1
T1: Threaded BSPT DIN 2999-1
N1: Threaded NPT ASMEB1.20.1
H7: Welded DIN11850-2/DIN11866 A
H8: Welded DIN11850-3
H9: Welded Chamfer
H*: Welded customized dimension
K7: Tri-clamp ISO2852
K*: Tri-clamp customized dimension
F2: Flange JB/T82.1 (DIN2543/DIN2576)
F*: Flange customized dimension

Y-type Angle Seat Valve

111 Series
Balance Type Pneumatic
Angle Seat Valve



Function Principle

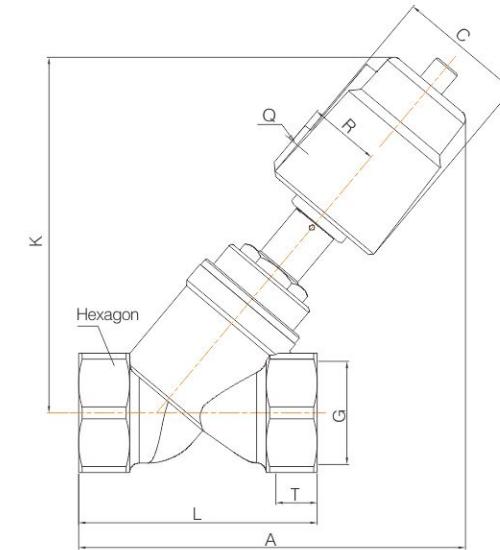
This product uses a smaller cylinder, but can achieve higher sealing pressure. The principle is that the medium enters the sealing cavity between the valve seat and the connection through the small holes on valve seat, and applies secondary pressure on the valve seat, thereby increasing the valve sealing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

Advantages

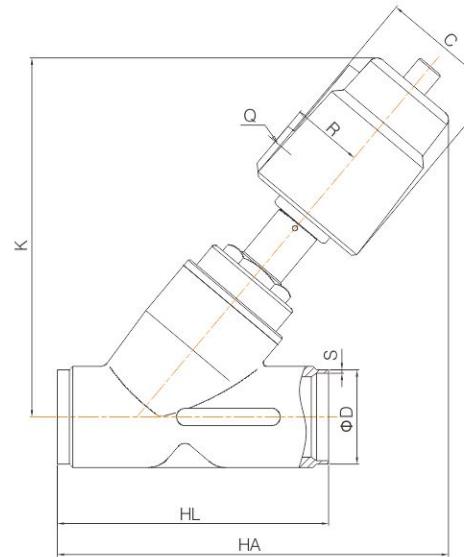
1. Fitting big valve bodies with small actuators saves control air input.
2. Less control pressure required to operate the valve.
3. Ingenious use of the medium pressure to achieve self-sealing allows the medium pressure to be as high as valve nominal pressure.
4. Compact structure takes up less space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

Technical Specification

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



Threaded connection



Welded connection

Main Dimension

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

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

Order Instruction

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

Proportional Control Angle Seat Valve



Function Principle

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

Attention

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

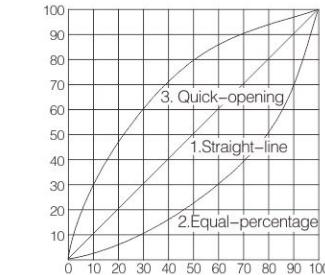
Single Acting, Normally Closed (NC) Pressure Data Sheet

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

Advantages

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

Control Output Chart

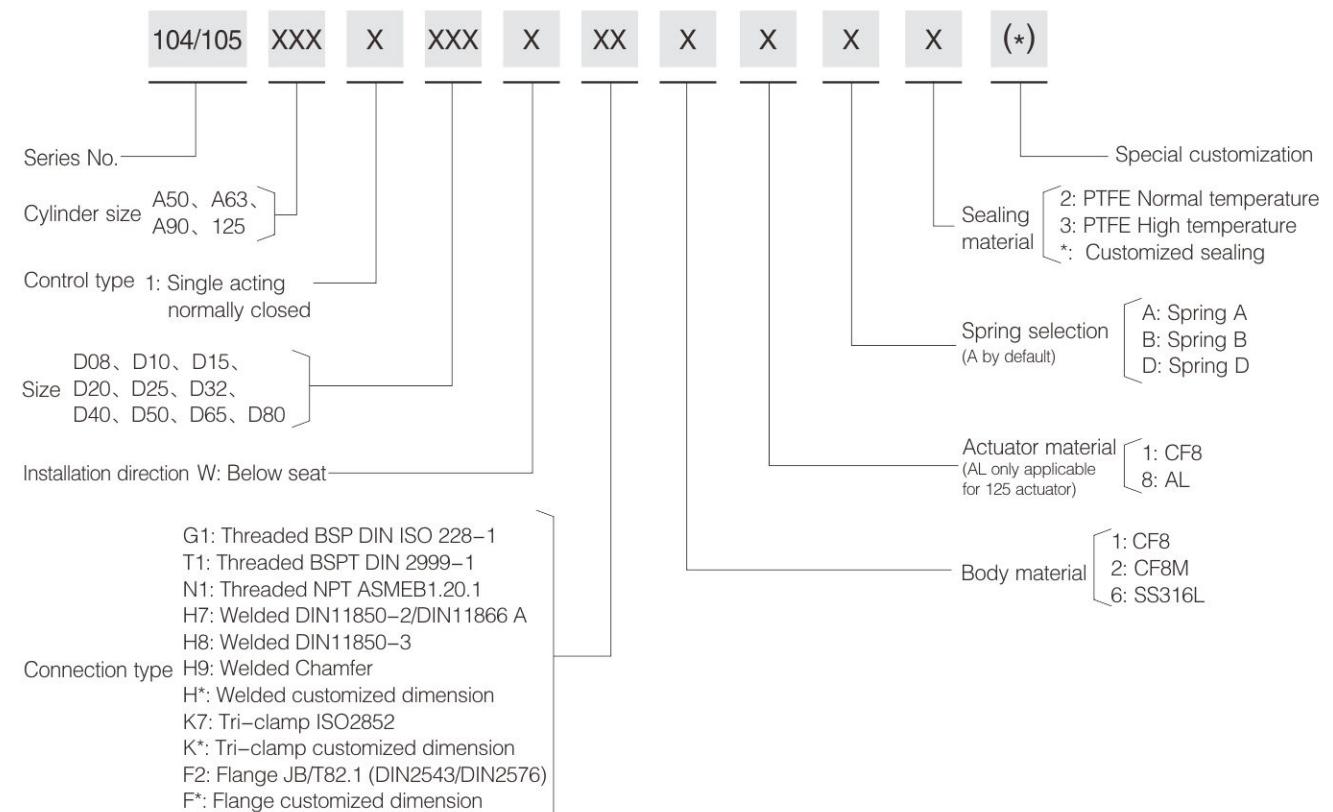


By selecting characteristic curve of the positioner, the controlled valve can output to straight-line, equal-percentage, quick-opening and other custom characteristics.

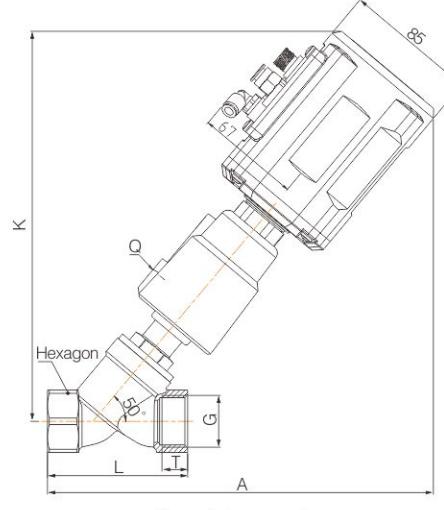
Technical Specification

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

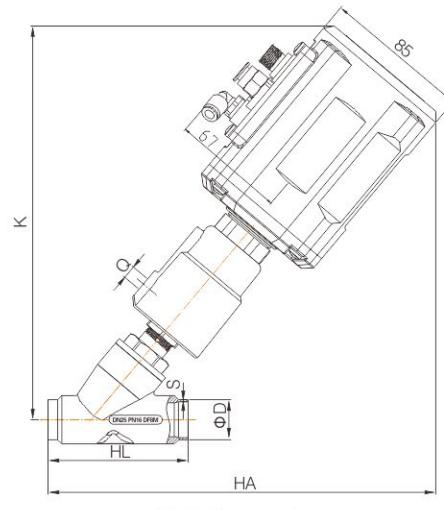
Order Instruction



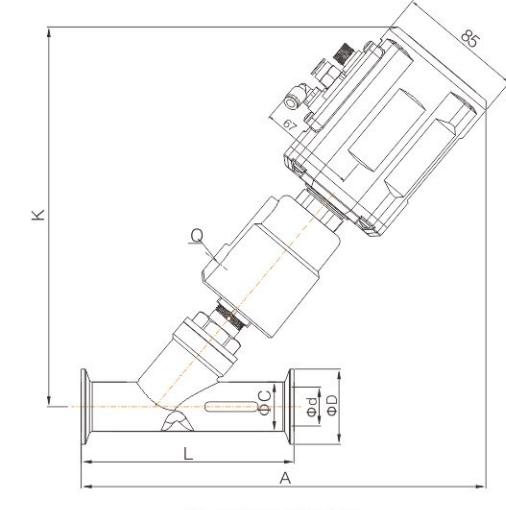
Proportional Control Angle Seat Valve



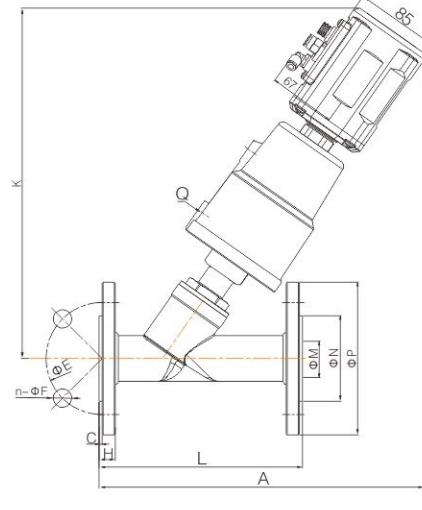
Threaded connection



Welded connection



Tri-clamp connection



Flange connection

Main Dimension (Threaded connection)

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

Main Dimension (Welded connection)

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

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

Main Dimension (Tri-clamp connection)

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

Main Dimension (Flange connection)

Size	Actuator (mm)	Q	K	A	L	ΦP	ΦN	ΦM	H	C	ΦE	n-ΦF
DN15	50	1/8"	255	245	130	95	45	16	14	2	65	4-14
	63	1/8"	255	265								
DN20	50	1/8"	285	270	160	115	65	26	14	2	85	4-14
	63	1/8"	286	285								
DN25	63	1/8"	299	285	180	140	78	31	16	2	100	4-18
	90	1/8"	347	310								
DN32	90	1/8"	352	330	200	150	84	38	16	3	110	4-18
	125AL	1/4"	412	398								
DN40	90	1/8"	357	357	230	165	100	49				

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
DN40	35	10P	0-0.3	0-0.9
		20P	0-1.4	0-1.6
		35P	0-1.6	0-1.6
DN50	45	10P	-	0-0.5
		20P	0-0.6	0-1.1
		35P	0-1.5	0-1.6
DN65	61	20P	-	0-0.6
		35P	0-0.7	0-1.1
DN80	80	20P	-	0-0.3
		35P	0-0.3	0-0.6
DN100	90	35P	-	0-0.4

Function Principle

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

Attention

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

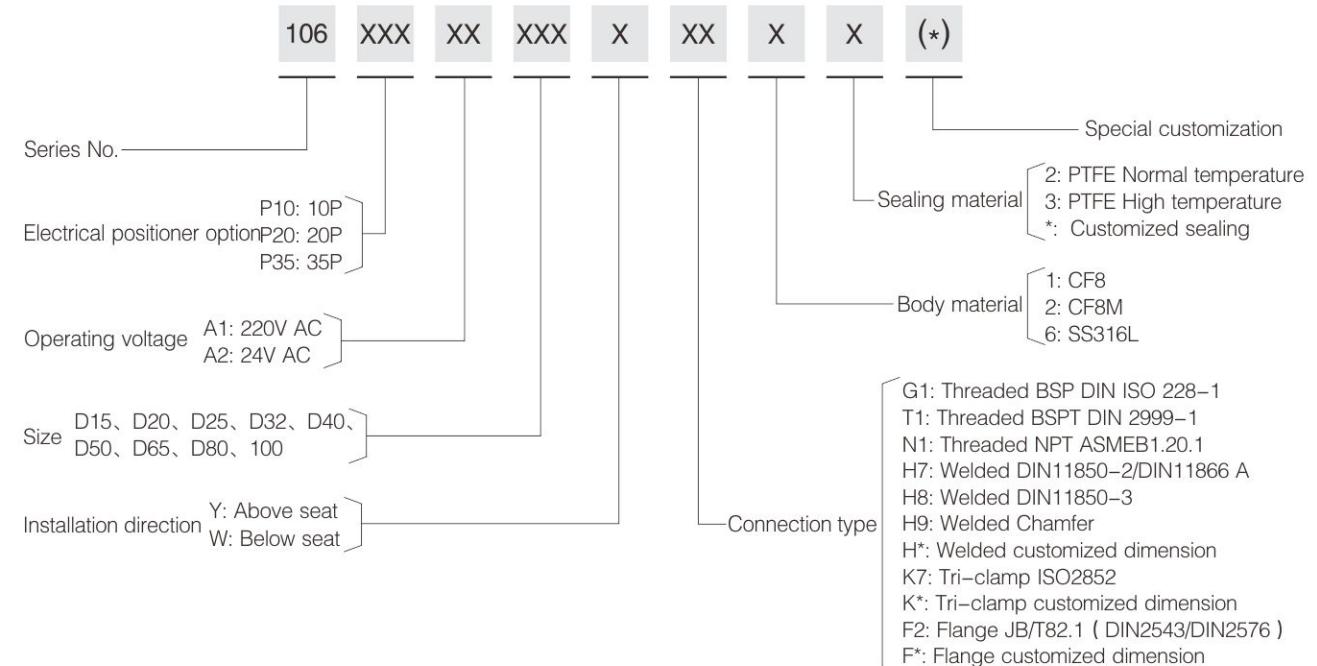
Advantages

- Convenient and easy to use
- Operates steadily under vibration to achieve precise flow control

Technical Specification

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

Order Instruction

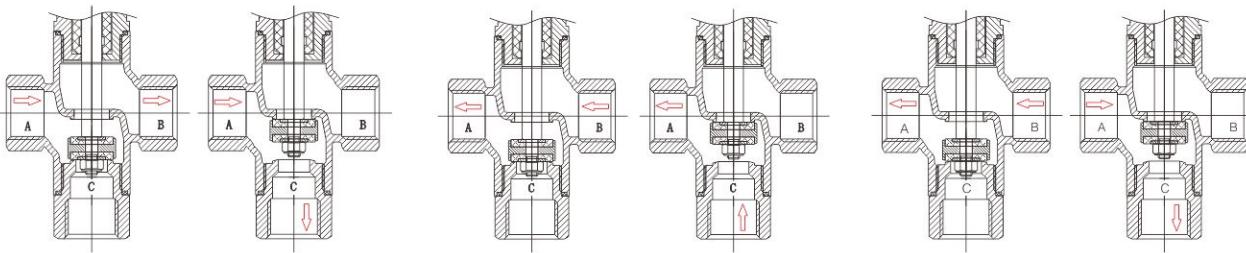


Multi-channel Valve



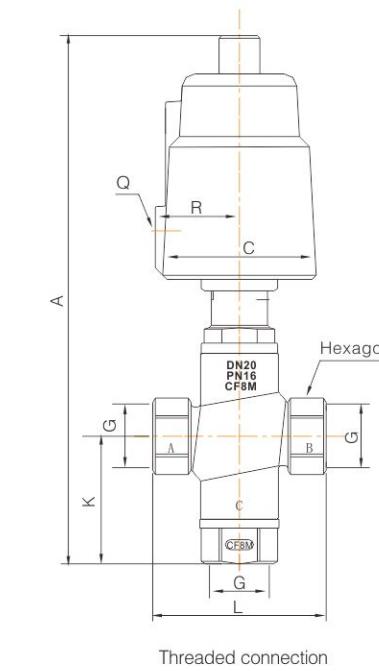
Function Principle

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

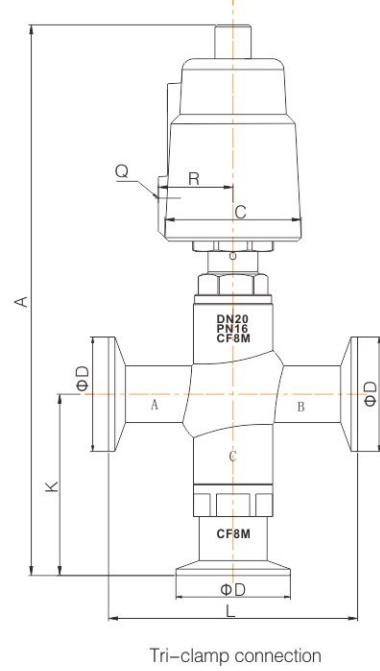


Technical Specification

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



Threaded connection



Tri-clamp connection

Main Dimension (Threaded connection)

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

Main Dimension (Tri-clamp connection)

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

Multi-channel Valve

Single Acting, Normally Closed

Size	Actuator	Interface	Orifice	Flow value Kv(m³/h)	Split function		Blend function		Reversal function		
					A-B	A-C	Differential pressure range(MPa)	Control pressure (MPa)	Differential pressure range(MPa)	Control pressure (MPa)	
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						0-1.6	0.45-0.65	0-1.4	0.45-0.65	0-1.6	0.45-0.7
DN20-B	50	3/4"	18	5.8	6.5	0-1.6	0.3-0.55	0-0.8	0.3-0.55	0-1.6	0.3-0.7
DN25-A						0-1.1	0.45-0.65	0-0.6	0.45-0.65	0-0.7	0.45-0.7
DN25-B	50	1"	24	13.9	14.4	0-1.4	0.3-0.65	0-0.3	0.3-0.65	0-1.2	0.3-0.7
DN32-A						0-0.55	0.6-0.7	0-1.6	0.6-0.7	0-1.0	0.6-0.7
DN32-B	90	1 1/4"	31	20.9	22.8	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						0-0.45	0.6-0.7	0-1.6	0.6-0.7	0-0.6	0.6-0.7
DN40-B	90	1 1/2"	35	24.4	26.6	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						0-0.25	0.6-0.7	0-0.9	0.6-0.7	0-0.3	0.6-0.7
DN50-B	90	2"	45	29.3	31.9	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

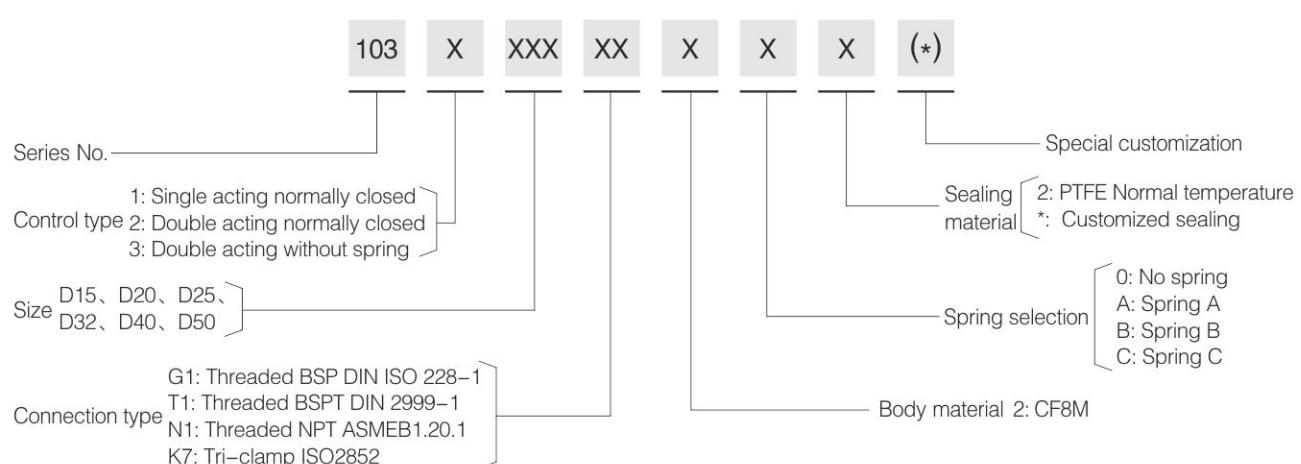
109 Series
Pneumatic
Modular Valve



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(MPa)	Control pressure (MPa)	Differential pressure range(MPa)	Control pressure (MPa)	
DN15-A	40	1/2"	14	4.1	4.9	0-1.6	0.4-0.6	0-1.6	0.4-0.6	0-1.4	0.4-0.6
DN20-B	50	3/4"	18	5.8	6.5	0-1.6	0.3-0.55	0-1.6	0.3-0.55	0-1.6	0.3-0.7
DN25-B	50	1"	24	13.9	14.4	0-1.4	0.3-0.65	0-1.4	0.3-0.65	0-1.2	0.3-0.7
DN32-C	90	1 1/4"	31	20.9	22.8	0-1.6	0.3-0.55	0-1.6	0.3-0.55	0-1.6	0.3-0.55
DN40-C	90	1 1/2"	35	24.4	26.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6
DN50-C	90	2"	45	29.3	31.9	0-1.6	0.3-0.65	0-1.6	0.3-0.65	0-1.6	0.3-0.7

Order Instruction

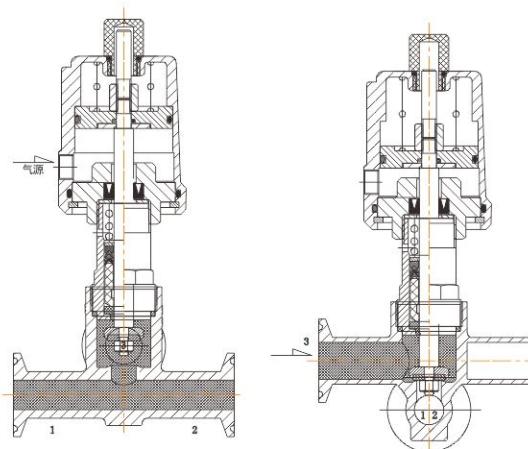


Function Principle

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

Advantages

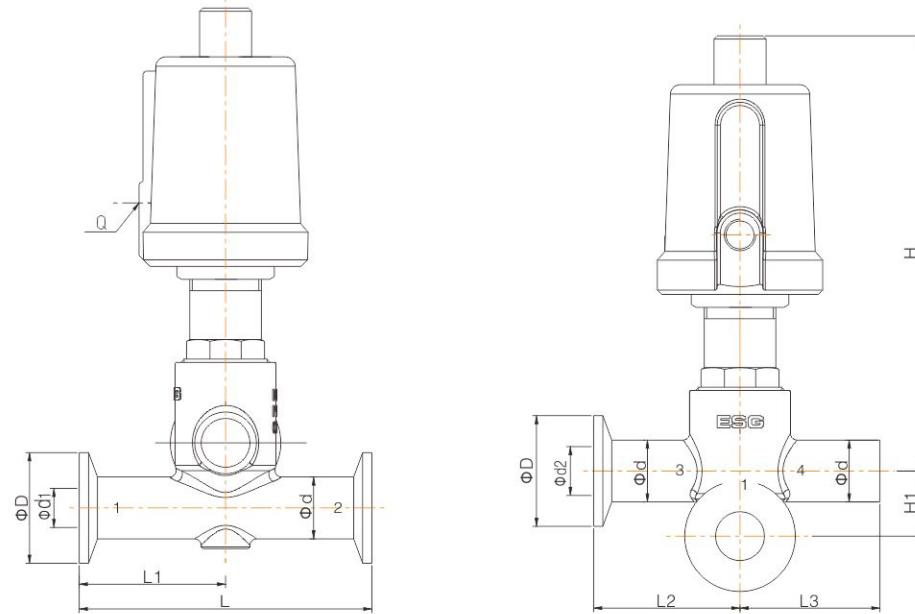
1. Easy to clean
 - a. Seat is separate from the public ports. Well machined inner wall of the public ports ensures a smooth flow.
 - b. The valve utilizes bottom seal and seal ring for connection to valve stem in order to avoid fluid residue and allow effortless cleaning.
2. The modular valve system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



Technical Specification

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

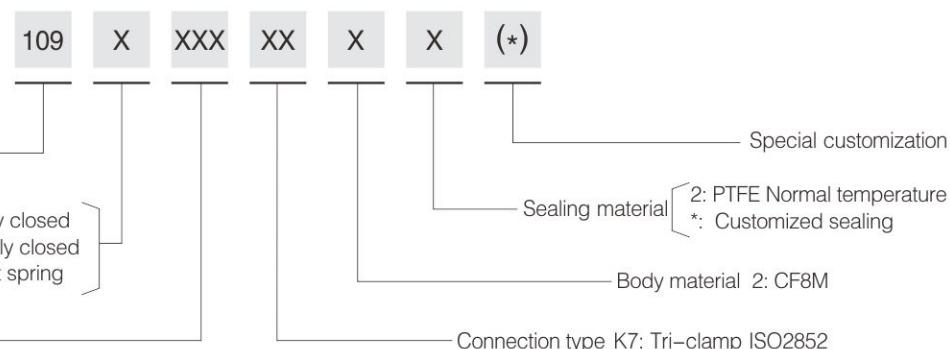
Multi-channel Valve



Main Dimension

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

Order Instruction

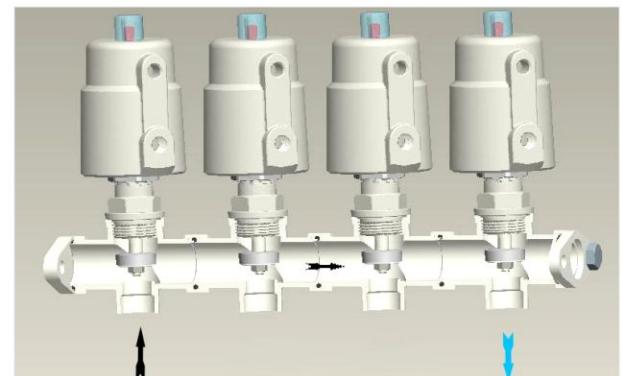


110 Series
Pneumatic
Manifold Valve



Technical Specification

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

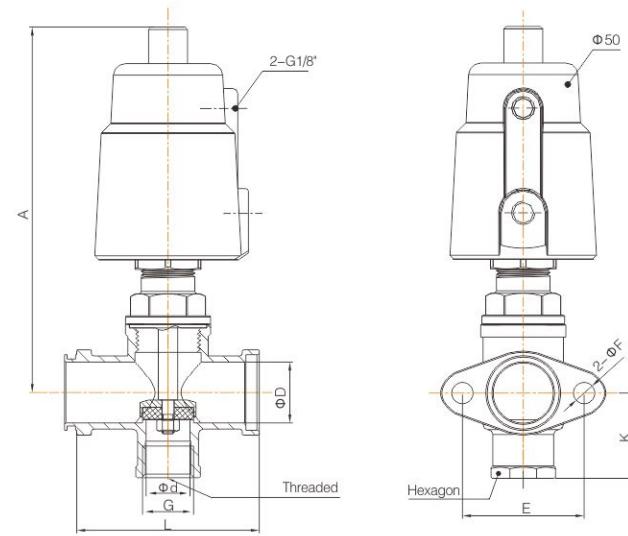


Advantages

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

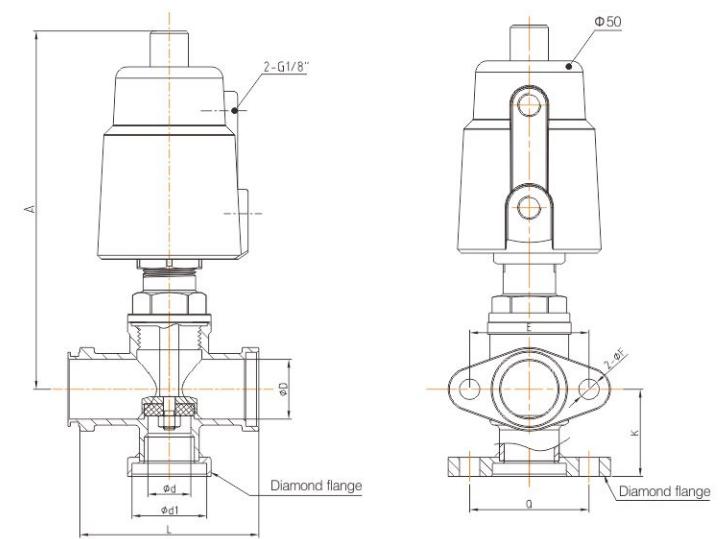


Multi-channel Valve



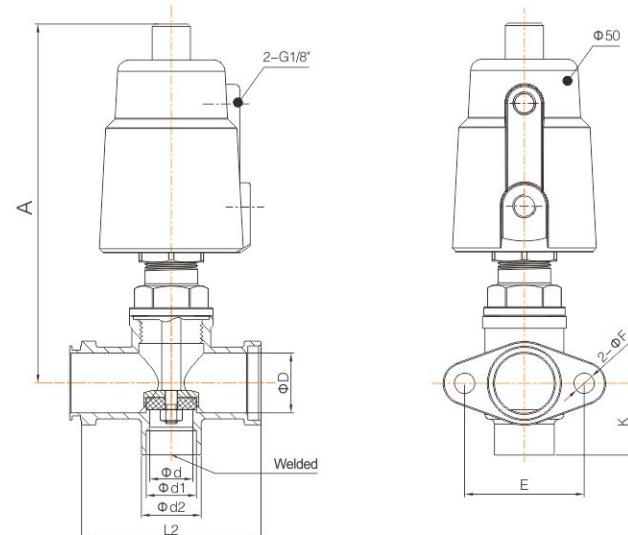
Main Dimension (Threaded connection)

Size	A	K	L	φD	φd	G	Hexagon	φE	2-φF	Flow value Kv(m³/h)	Weight (kg)
DN15	153	35	76	25	18	1/2"	27	50	8.5	8.1	1.2
DN25	153	46	90	32	24	1"	39	57	8.5	14.8	1.6



Main Dimension (Diamond flange connection)

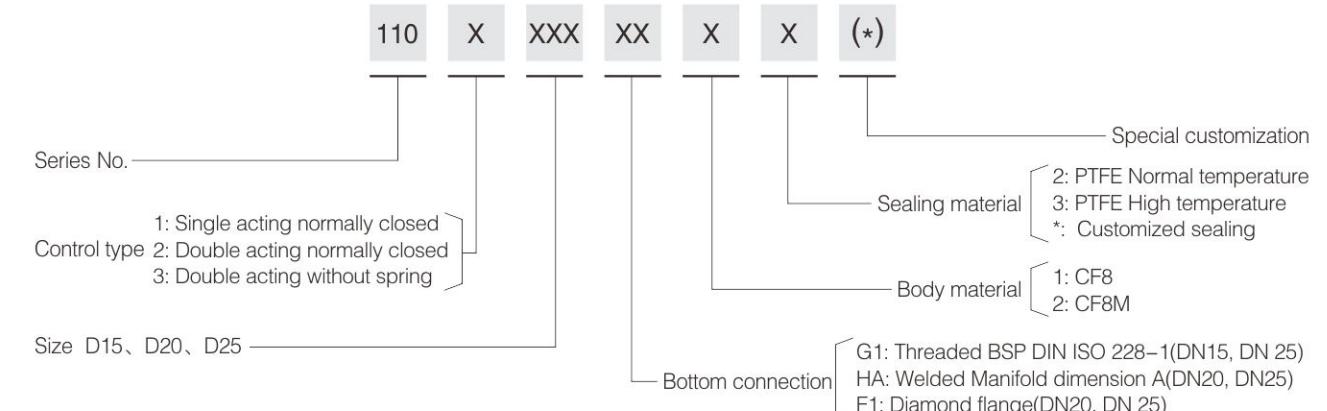
Size	A	K	L	φD	φd	φd1	φd2	φE	2-φF	Flow value Kv(m³/h)	Weight (kg)
DN20	153	36.5	76	25	18	31.3	50	50	8.5	8.1	1.2
DN25	153	43	90	32	24	40	57	57	8.5	14.8	1.6



Main Dimension (Welded connection)

Size	A	K	L	φD	φd	φd1	φd2	φE	2-φF	Flow value Kv(m³/h)	Weight (kg)
DN20	153	30	76	25	18	21	25	50	8.5	8.1	1.2
DN25	153	36	90	32	24	27	32	57	8.5	14.8	1.6

Order Instruction



Filling Valve

1AA Series
Pipe-less Filling Valve



1AB Series
Pipe-less Filling Valve



1AC/1AF Series
Filling Valve with
Internal Sealing



1AP Series
Filling Valve with Internal
Sealing and Suction

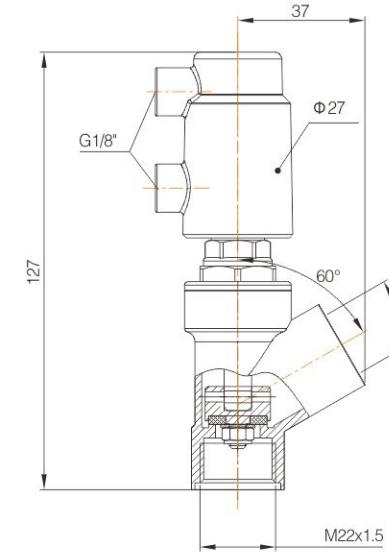
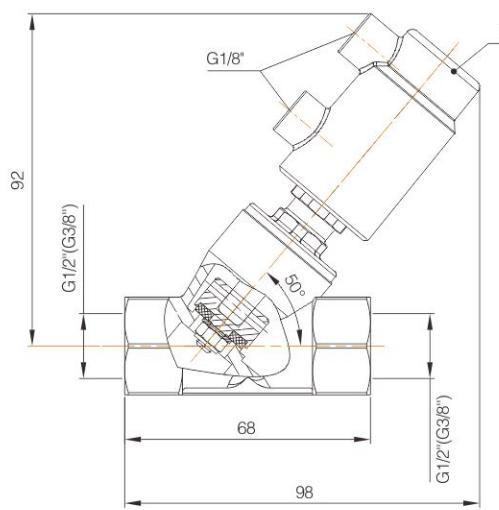


Advantages

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

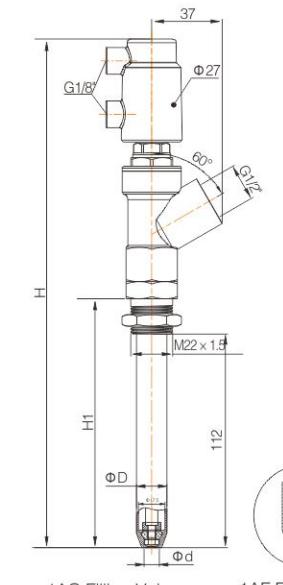
Technical Specification

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



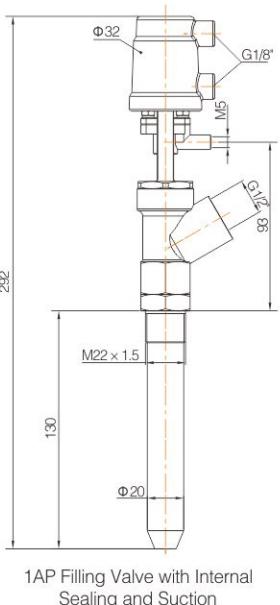
Advantages

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



1AC Filling Valve
with Internal Sealing

1AF Filling Valve
with Internal Sealing



1AP Filling Valve with Internal
Sealing and Suction

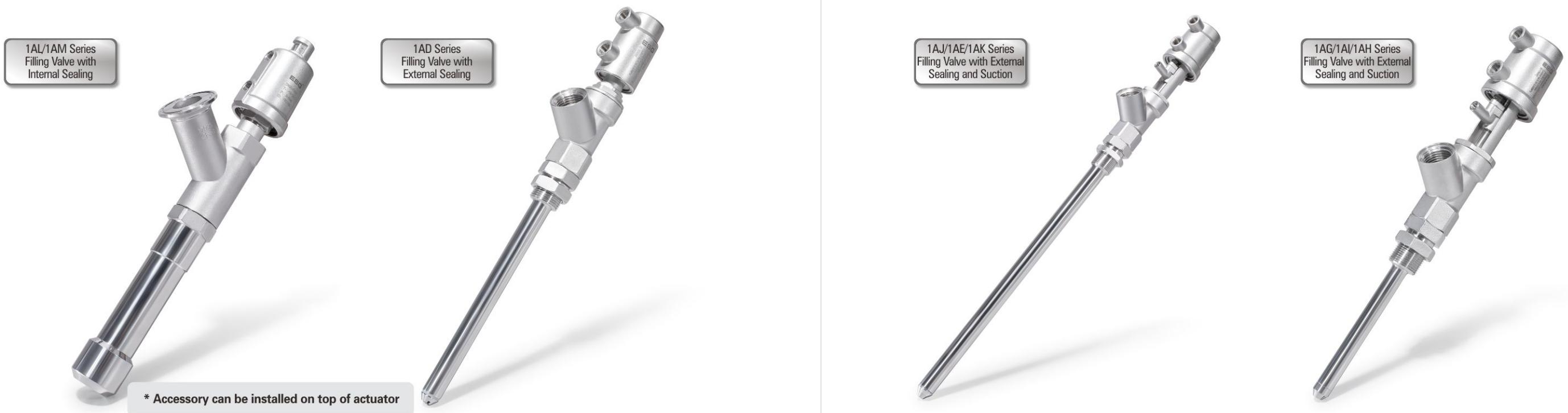
Technical Specification

- 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
- Seal material: PTFE
- Medium temperature: -10°C — +120°C
- Ambient temperature: -10°C — +80°C

1AC/1AF Main Dimension

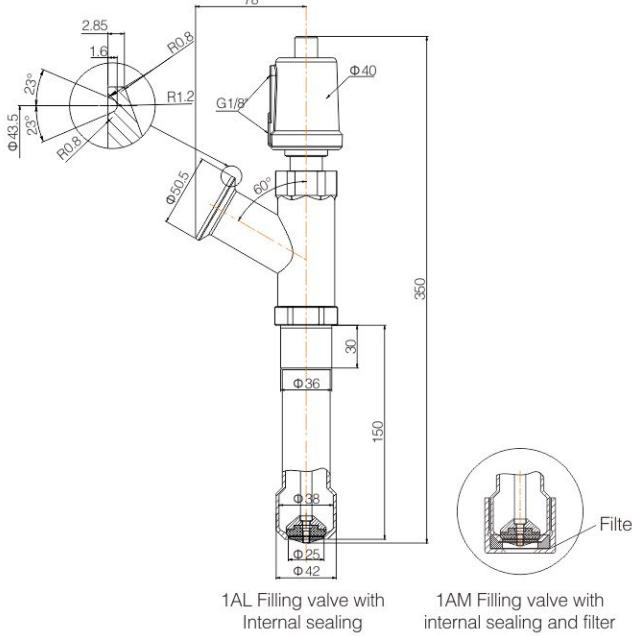
Size	Φ D	Φ d	H	H1
1AC	20	10	267	130
1AC	18	9	267	130
1AF	20	10	267	130
1AF	16	8	267	130

Filling Valve



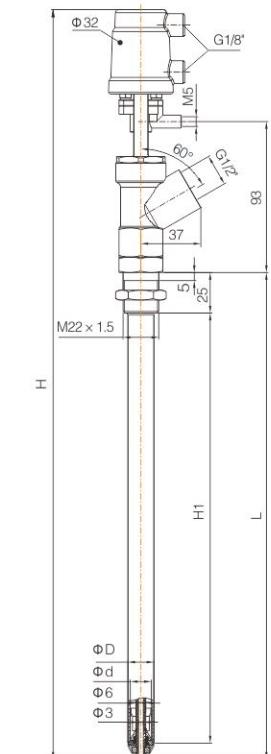
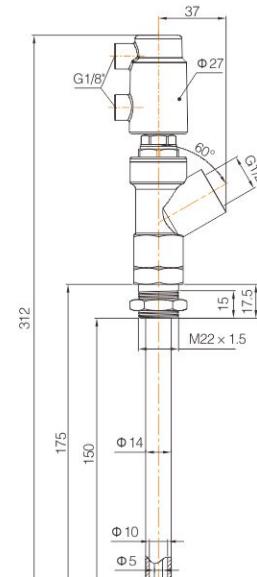
Advantages

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



Technical Specification

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



Advantages

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

Technical Specification

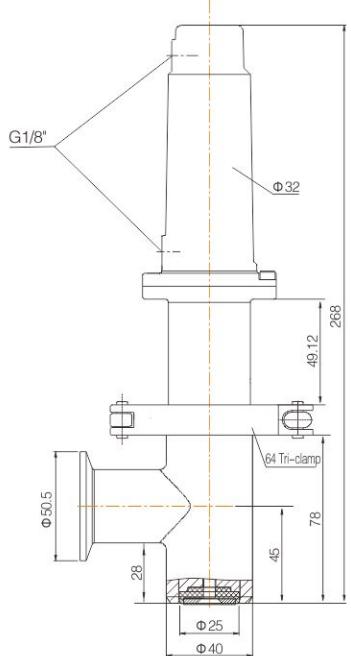
- Control type: Double acting normally closed, Double acting without spring
- Operating pressure: 0–7bar (0–102psi)
- Control pressure: 3–3.5bar (44–51psi)
- Body material: CF8M
- Seal material: PTFE
- Medium temperature: –10°C — +120°C
- Ambient temperature: –10°C — +80°C

Main Dimension

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

Filling Valve

1A1 Series
Sauce Filling Valve
with Internal Sealing



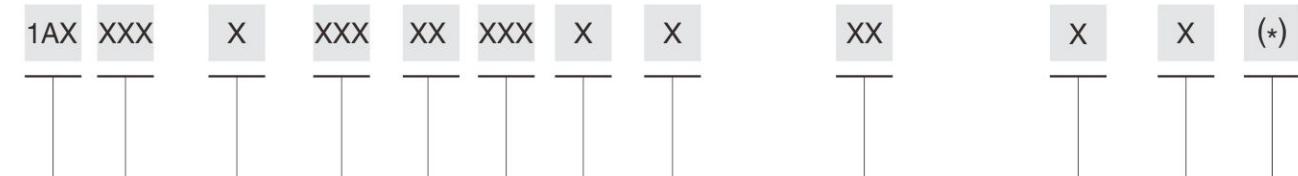
Advantages

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

Technical Specification

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

Order Instruction



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

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

Shuttle Valve

200 Series
Pneumatic
Shuttle Valve



201 Series
Pneumatic
Shuttle Valve



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 effluent fluid dynamics and less pressure loss.

Applications

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

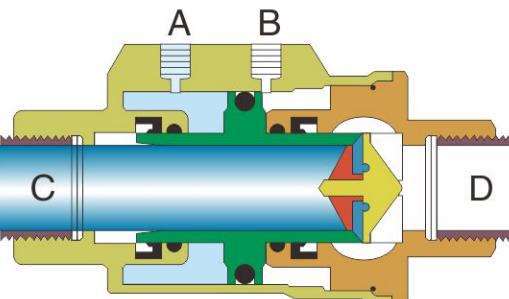
Advantages

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

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/FPM
- 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 (FPM),
-20°C — +130°C (EPDM)
- Ambient temperature: -20°C — +80°C
- Control type: Normally closed, Normally open,
Double acting normally closed, Double acting
without spring
- Connection type: Threaded connection (BSP、BSPT、NPT)
- Leakage class: DIN EN 12266 Class A

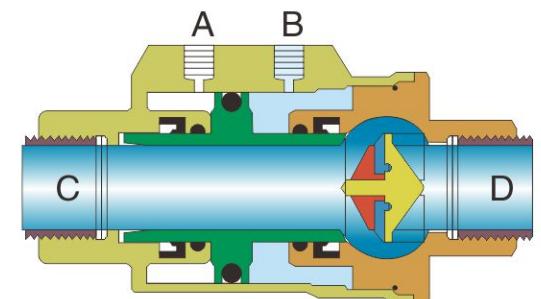
Open/Close



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.

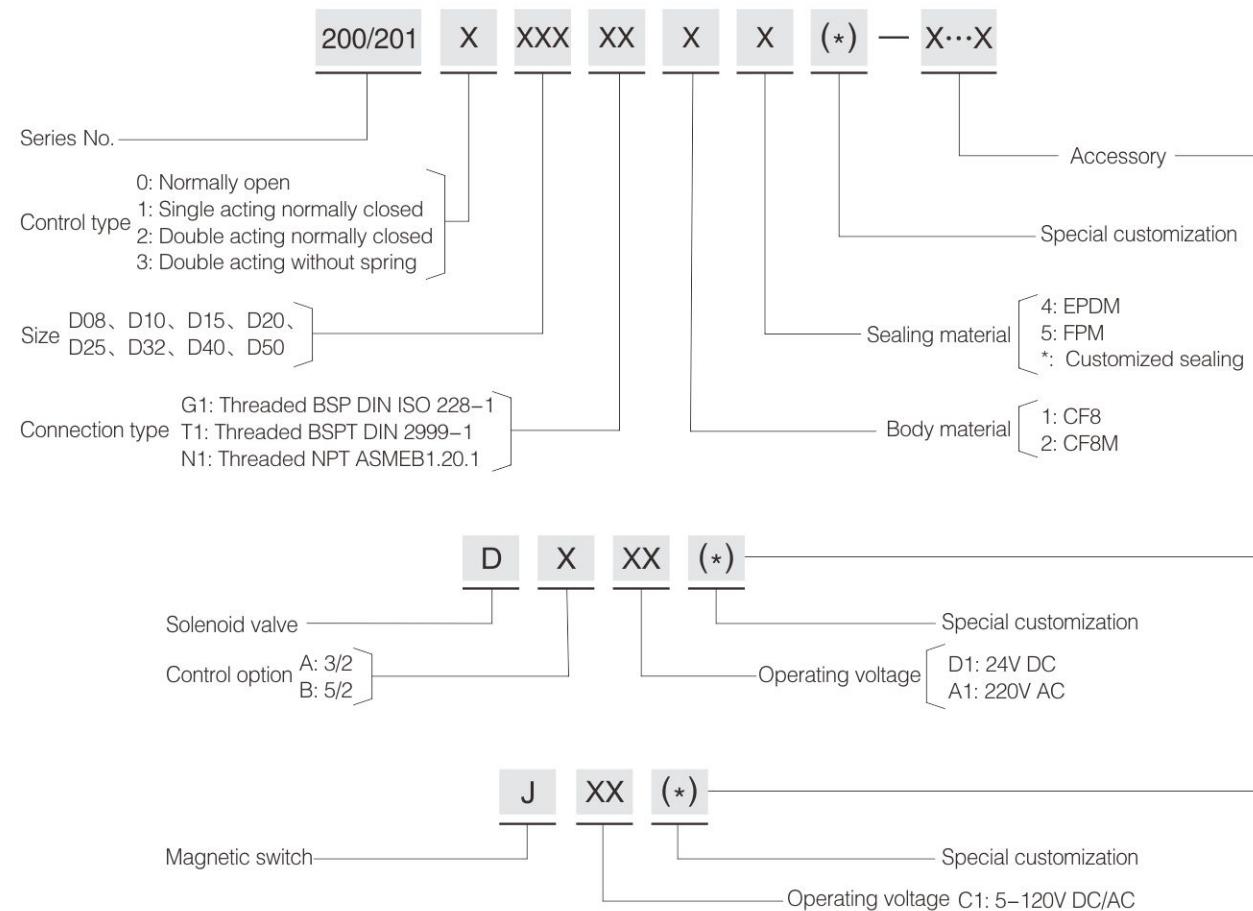


Opening

When hole "B" is supplied with air (hole "A" must be discharging), the piston move 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



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
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

Single Acting, Normally Closed-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa
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	0-0.9	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-Above Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa
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

Double Acting, Normally Closed-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa
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
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

Normally Open-Below Seat

Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa
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

201 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	0.35-0.5
DN10	G3/8"	10	3.1	0-1.6	0.35-0.5
DN15	G1/2"	15	5.7	0-1.6	0.35-0.5
DN20	G3/4"	20	10.6	0-1.6	0.35-0.5
DN25	G1"	25	17.4	0-1.6	0.35-0.5
DN32	G1 1/4"	32	21.9	0-1.6	0.35-0.5
DN40	G1 1/2"	40	40.5	0-1.6	0.35-0.5
DN50	G2"	50	59.3	0-1.6	0.5-0.6

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	0.35
DN10	G3/8"	10	3.1	0-1.6	0.35
DN15	G1/2"	15	5.7	0-1.2	0.35
DN20	G3/4"	20	10.6	0-1.6	0.35
DN25	G1"	25	17.4	0-1.6	0.35
DN32	G1 1/4"	32	21.9	0-1.2	0.35
DN40	G1 1/2"	40	40.5	0-0.8	0.35
DN50	G2"	50	59.3	0-0.8	0.5

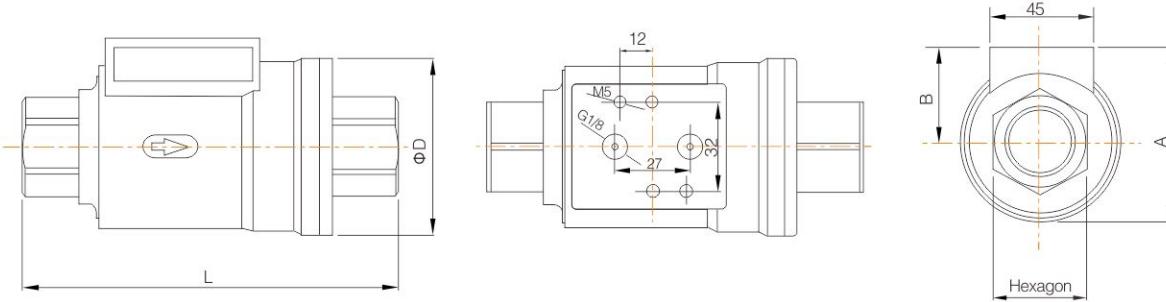
Double Acting, Normally Closed-Above Seat

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	0.35-0.5
DN10	G3/8"	10	3.1	0-1.6	0.35-0.5
DN15	G1/2"	15	5.7	0-1.6	0.35-0.5
DN20	G3/4"	20	10.6	0-1.6	0.35-0.5
DN25	G1"	25	17.4	0-1.6	0.35-0.5
DN32	G1 1/4"	32	21.9	0-1.6	0.35-0.5
DN40	G1 1/2"	40	40.5	0-1.6	0.35-0.5
DN50	G2"	50	59.3	0-1.6	0.5-0.6

Double Acting, Normally Closed-Below Seat

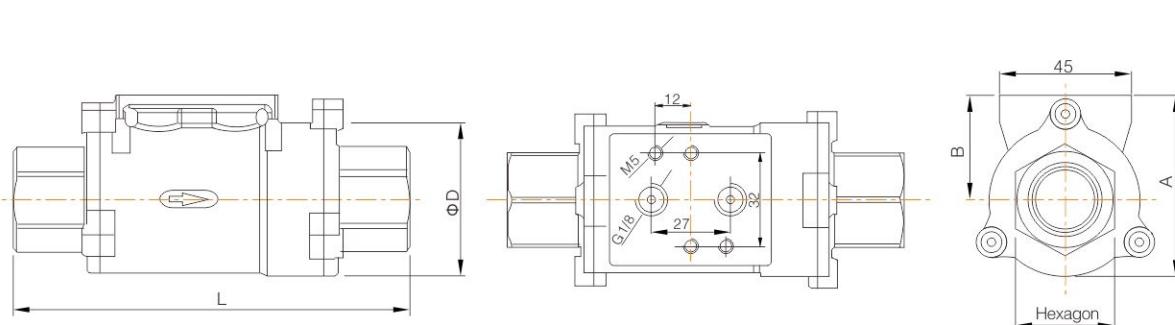
Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa
DN8	G1/				

Shuttle Valve



Main Dimension (200 Series)

Size	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Thread end	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A (mm)	56	61	72	78	94	104	116
ΦD (mm)	46	52	64	69	86	96	108
Hexagon (mm)	22	26.5	32	41	50	56	70
B (mm)	33	35	40	43	51	56	62
L (mm)	98	112	135	143	165	180	207
Weight (Kg)	0.76	0.94	1.43	1.85	2.98	3.66	5.64



Main Dimension (201 Series)

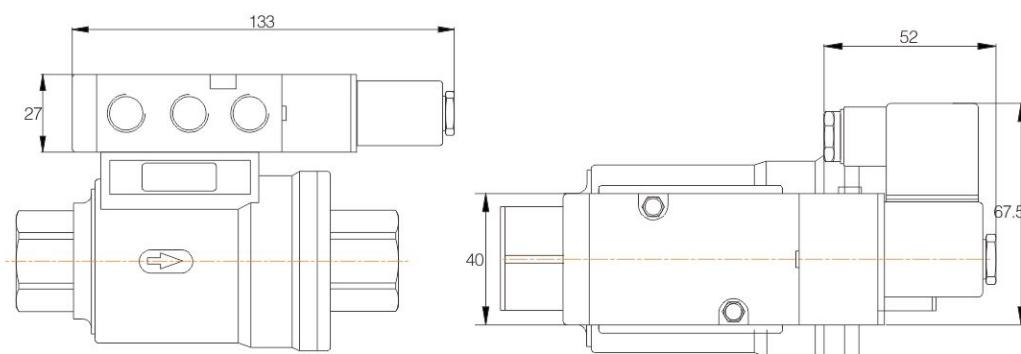
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Thread end	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A (mm)	49.5	49.5	53.3	63.5	70	85.5	95	109
ΦD (mm)	37	37	42.5	52	60	75	84	97
Hexagon (mm)	22	22	26	32	40	49	53	68
B (mm)	31	31	32	37.5	40	48	53	60
L (mm)	98	98	112	135	143	165	180	207
Weight (Kg)	0.54	0.54	0.67	1.05	1.45	2.32	2.82	4.38

Shuttle Valve
with Solenoid Valve



Solenoid Valve

2/5 way NAMUR solenoid valve is suitable for 200 and 201 series.



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 — 55°C
- Max frequency: 3 times/second
- Protection level: IP65
- Leakage class: DIN EN 12266 Class A

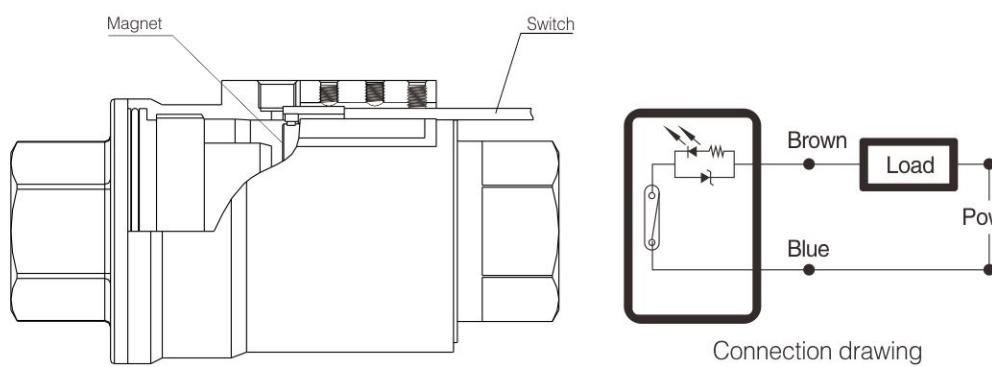
Shuttle Valve

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.



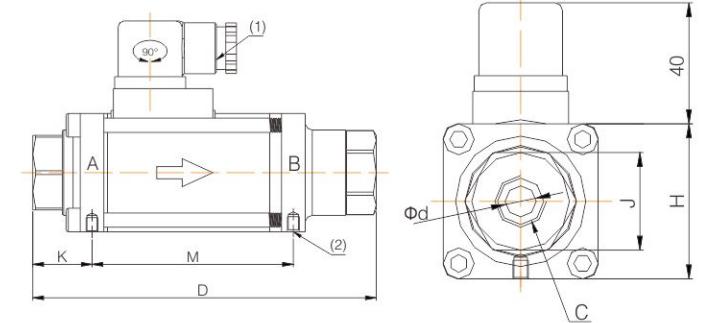
Technical Specification

- Size: DN10–DN50
- Indication: Red LED
- Power: 5–120V DC/AC
- 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.

Solenoid Shuttle Valve

202 Series
Two-way Solenoid
Coaxial Valve



Technical Specification

- Control type: Direct acting
- Connection type: Thread (BSP, NPT, BSPT)
- Operating pressure: A→B: 40bar (580psi), B→A: 12bar (174psi)
- Applicable fluid: Neutral gas or liquid
- Medium viscosity: 500cst (mm²/s)
- Medium temperature : -20°C to — +130°C
- Ambient temperature: -30°C — +60°C
- Body material: CF8/CF8M
- Seal materials: FPM
- Power: DC, 24V
- Protection: IP65
- Leakage class: DIN EN 12266 Class A

Function Principle

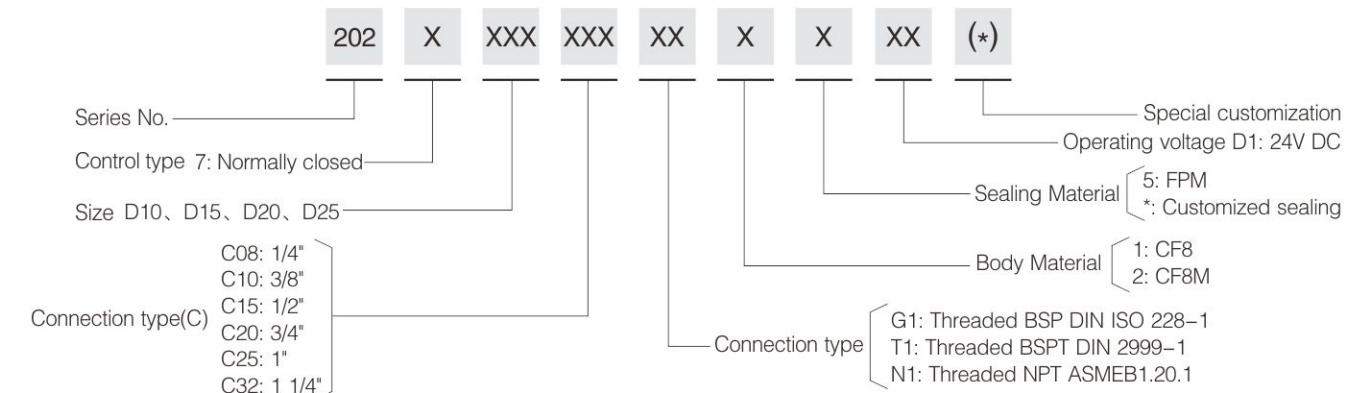
Normally Closed (closed when turned off)
When turned on, electromagnetic force opens the valve; When turned off, spring force closes the valve.

Main Dimension

Size	C	Φ d	D	K	M	J	H	KV (m ³ /h)	Voltage parameter		Opening and closing time (Pressure 4bar)	
									Nominal voltage	Nominal current	Open(ms)	Close(ms)
DN10	G 1/4"	10	145	25	85	32	50	1.8	DC 24V	DC 1.2A	45	70
	G 3/8"											
	G 1/2"											
	G 3/4"											
DN15	G 1/2"	15	173	31	103	41	70	5.1	DC 24V	DC1.6A	60	130
	G 3/4"											
DN20	G 3/4"	20	193	35	111	46	80	7.2	DC 24V	DC 2.0A	105	150
	G 1"											
DN25	G 1"	25	212	36	121	50	90	10.7	DC 24V	DC 2.2A	150	190
	G 1 1/4"											

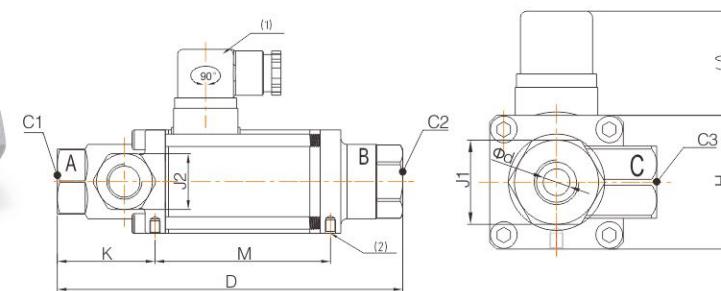
Note: (1) Connector rectifier for DC (2) 2 mounting holes M5

Order Instruction



Solenoid Shuttle Valve

203 Series
Three-way Solenoid
Coaxial Valve



Technical Specification

- Control type: Direct acting
- Connection type: Thread (BSP,NPT,BSPT)
- Operating pressure: 7bar (102psi)
- Contro medium: Gas
- Medium temperature: -20°C — +130°C
- Ambient temperature: -30°C — +60°C

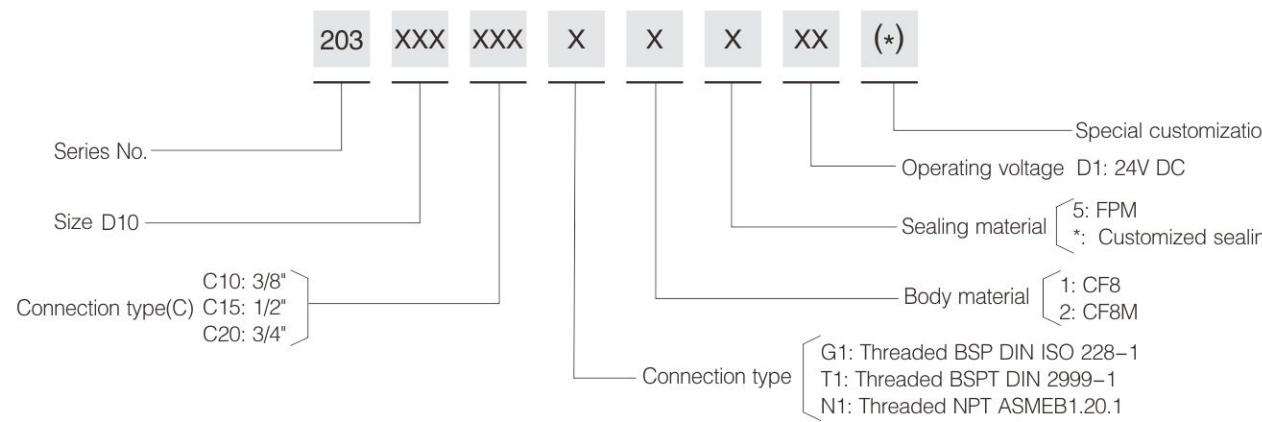
- Body material: CF8
- Seal material: FPM
- Control type: NC
- Control power: 24V DC
- Protection: IP65
- Leakage class: DIN EN 12266 Class A

Main Dimension

Size	Φd	C1	C2	C3	D	K	M	J1	J2	H	Nominal voltage	Nominal current
DN10	10	G 3/8"	G 3/8"	G 3/8"	166	46.5	84.5	32	27	50	24V DC	DC 1.2A
		G 1/2"	G 1/2"	G 1/2"								
		G 3/4"	G 3/4"	G 1/2"								

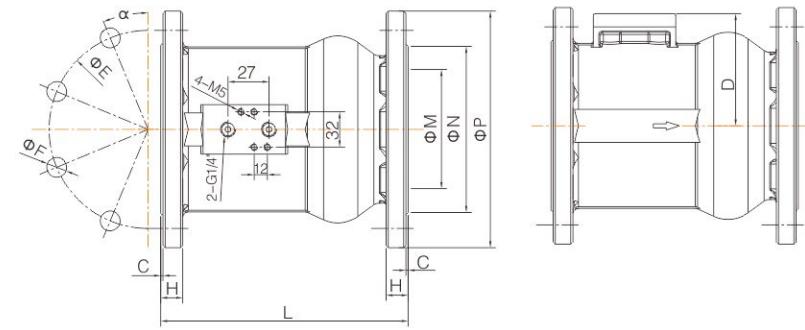
Note: (1) Connector rectifier for DC (2) 2 mounting holes M5

Order Instruction



Shuttle Valve

204 Series
Flanged
Shuttle Valve



Technical Specification

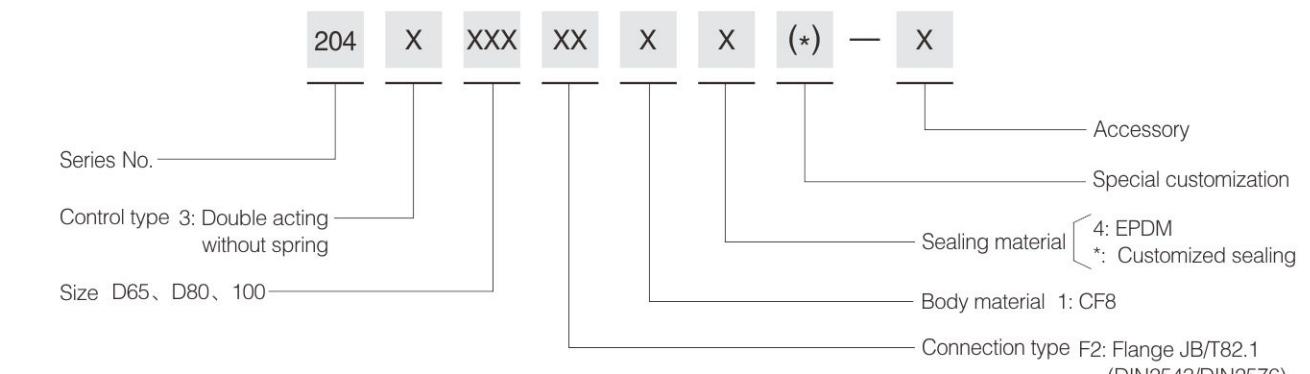
- Operating pressure: Above seat 0—16bar (0—232psi)
Below seat 0—12bar (0—174psi)
- Control pressure: 3—5bar (43.5—72.5psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8
- Seal material: EPDM/FKM can be customized
- Applicable medium: EPDM—Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
FKM—Suitable for most fluid, except for steam.

- Fluid temperature: -20°C — +130°C (EPDM)
- Ambient temperature: -20°C — +80°C
- Control type: Double acting
- Connection type: Flange (JB/T82.1—1994; DIN2543—2000)
- 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— ϕ 18	20	2	66	120	180	45°	139.3	10.0
DN80	92	212	160	8— ϕ 18	22	2	75	135	195	22.5°	202.6	13.32
DN100	102	227	180	8— ϕ 18	22	2	94	155	215	22.5°	288	16.30

Order Instruction



Pneumatic Butterfly Valve

300 Series
Pneumatic
Butterfly Valve

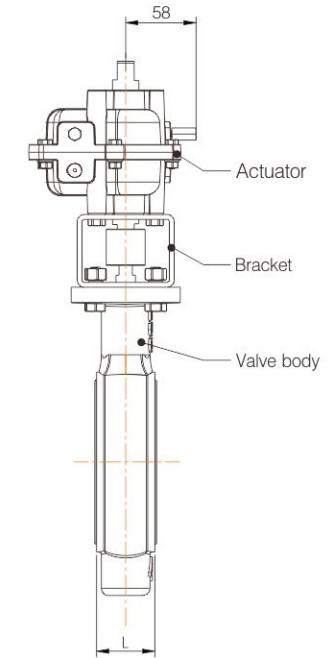
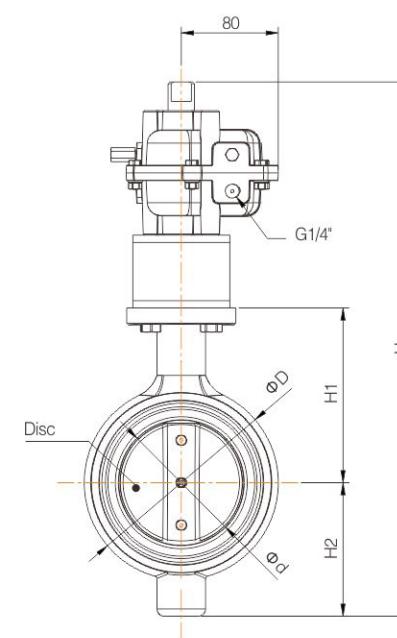
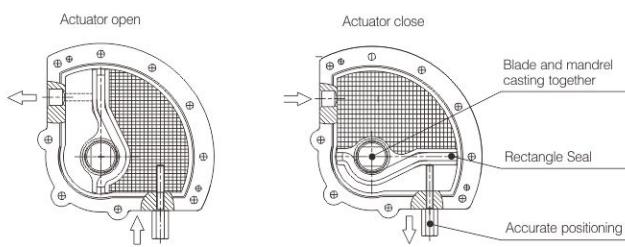


Function Principle

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

Technical Specification

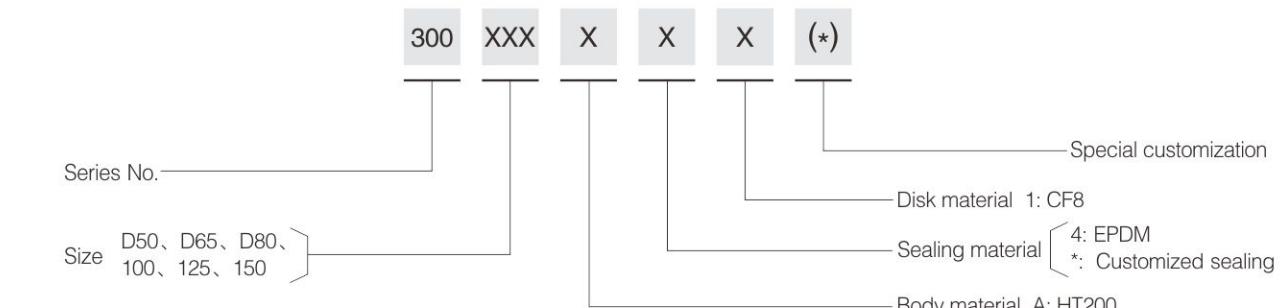
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Applicable medium: EPDM—Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc.
- Medium temperature: -10°C—+130°C
- Body material: HT200
- Seal material: EPDM
- Disc material: CF8
- Control type: Double acting



Main Dimension

Size	Operating pressure (Mpa)	Control Pressure (Mpa)	L (mm)	H (mm)	H1 (mm)	H2 (mm)	Φ d (mm)	Φ D (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	0.3 - 0.8	52	468	156	124	152.5	218	10.8

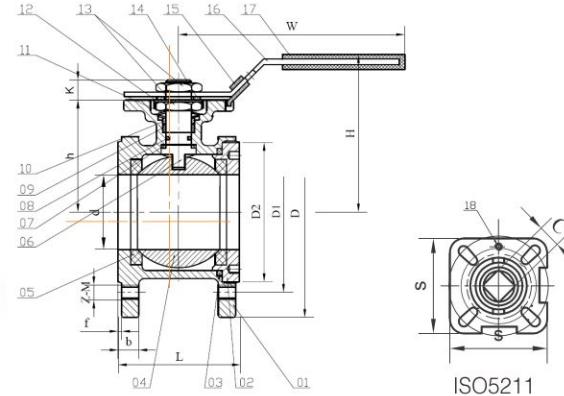
Order Instruction



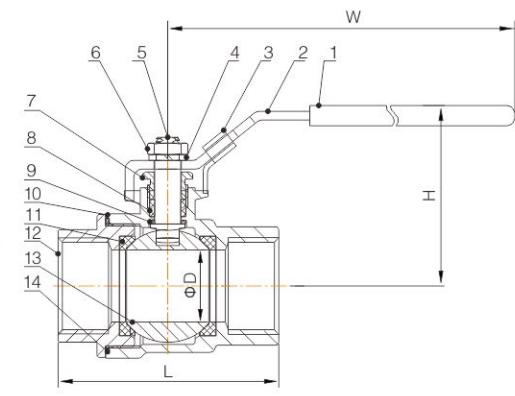
Manual Ball Valve



421 Series
1-PC Flanged Ball Valve
with Mounting Pad



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



Technical Specification

- Nominal pressure: PN16/25/40 (1/2"~2");
PN16 (2-1/2" ~ 4")
- Medium temperature: -10°C — +150°C
(PTFE Standard)
- Ball material: CF8(304), CF8M(316)
- Applicable medium: Water, Oil, Gas
- Connection type: Flange
DIN2543/2544/2545 (1/2"-2");
DIN2543 (2-1/2" - 4")

Main Dimension

Size	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
d	15	20	25	32	40	50	65	76	94
L	36	38	50	53	65	78	98	118	140
D	95	105	115	140	150	165	185	200	220
D1	65	75	85	100	110	125	145	160	180
D2	45	58	68	78	88	102	122	138	158
b	11	11	12	14	15	16	16	18	18
f	2	2	2	2	3	3	3	3	3
H	89	94	90	100	105	125	140	145	175
W	117	117	164	164	203	203	255	255	302
C	9	9	11	11	14	14	17	17	17
ISO5211	F03/F04	F03/F04	F04/F05	F04/F05	F05/F07	F05/F07	F07/F10	F07/F10	F07/F10
Z-M	4-M12	4-M12	4-M12	4-M16	4-M16	4-M16	4-M16	8-M16	8-M16
h	55.3	60.3	58.5	70.5	76.5	84.5	94.5	110.5	122.5
S	42.6	42.6	50.5	50.5	64.5	65.5	93.6	94.2	94.1
K	9.5	9.5	10	12.5	14.5	14	17	16	19
N.m	5	8	10	14	18	25	48	75	110

Order Instruction

412 XXX XX X X (*)

Series No.

D15, D20, D25,
Size D32, D40, D50,
D65, D80, 100

Special customization
Sealing material 1: PTFE Standard
*: Customized sealing
Body material 1: CF8
2: CF8M
Connection type F2: Flange JB/T82.1
(DIN2543/DIN2576)

Technical Specification

- Nominal pressure: PN63
- Medium temperature: -10°C — +150°C
(PTFE Standard)
- 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	12.5	12.5	15	20	25	32	38	50	65	76	94
L	49	49	58	66	77	90	98	121	147	173	222
H	48	48	52	61	65	79	83	97	126	138	158
W	100	100	100	127	127	154	154	192	252	252	283

Order Instruction

421 XXX XX X X (*)

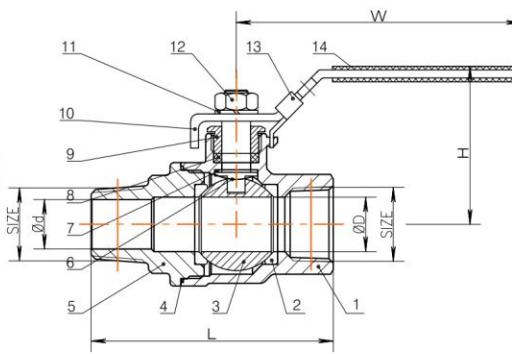
Series No.

D08, D10, D15, D20,
Size D25, D32, D40, D50,
D65, D80, 100

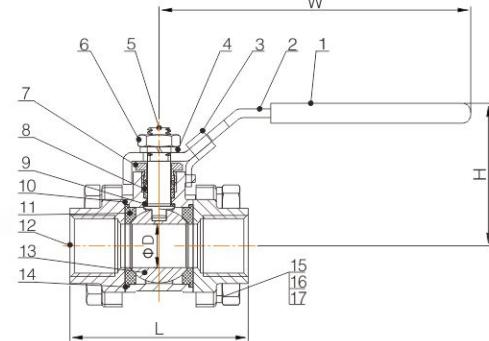
Special customization
Sealing material 1: PTFE Standard
*: Customized sealing
Body material 1: CF8
2: CF8M
Connection type G1: Threaded BSP DIN ISO 228-1
T1: Threaded BSPT DIN 2999-1
N1: Threaded NPT ASMEB1.20.1



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



**431 Series
3-PC Threaded
Ball Valve**



Technical Specification

- Nominal pressure: PN63
 - Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
 - 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)

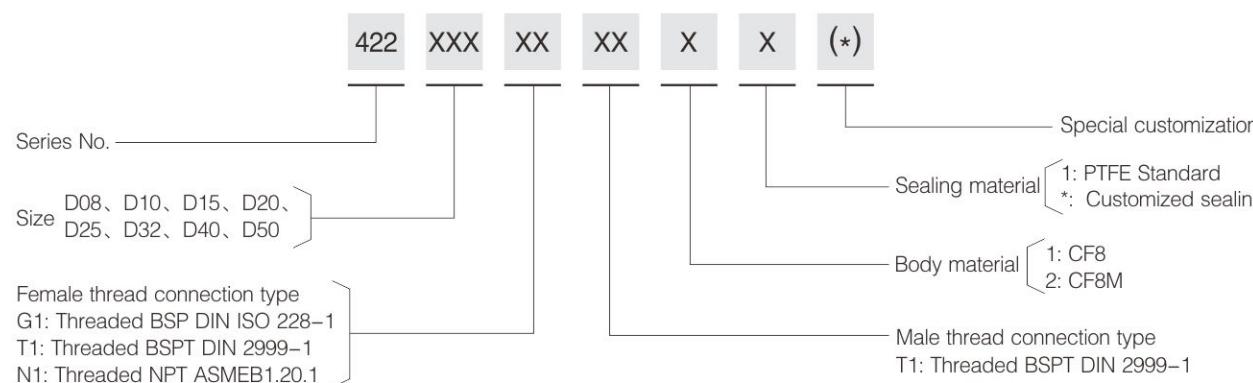
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
ΦD	12.5	12.5	15	20	25	32	38	50
Φd	8	8	13.6	18.2	23	31	36	48
L	55	55	67.5	78	91	101	107	132
W	106	106	106	116	148	148	182	182
H	49	49	51	58	73	79	85	95

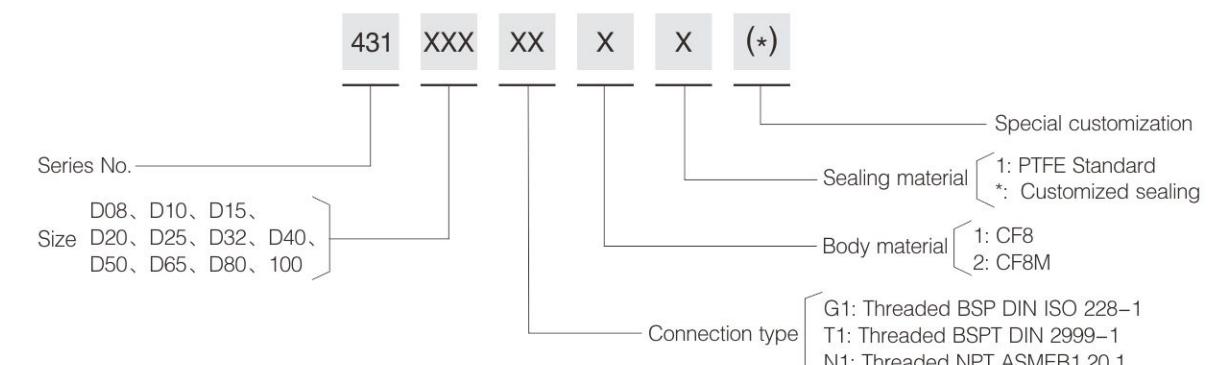
Technical Specification

- Nominal pressure: PN63
 - Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
 - Body and bonnet material: CF8/CF8M
 - Ball material: CF8(304), CF8M(316)
 - Seal material: PTFE
 - Connection type: Threaded connection
(BSP、BSPT、NPT)

Order Instruction

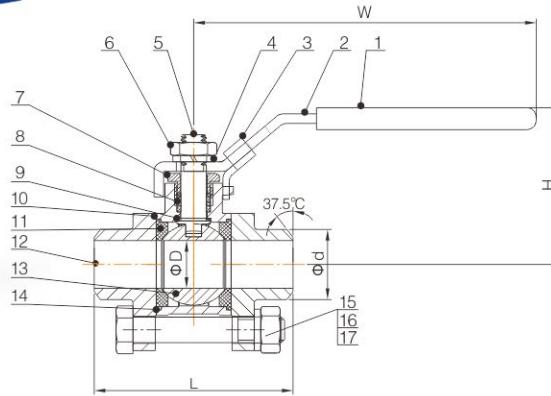


Order Instruction

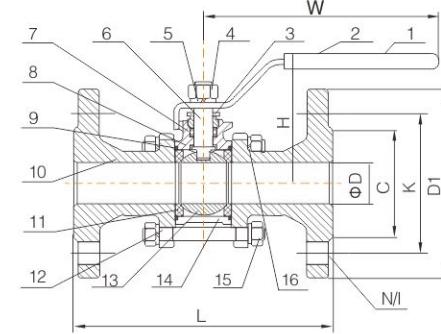
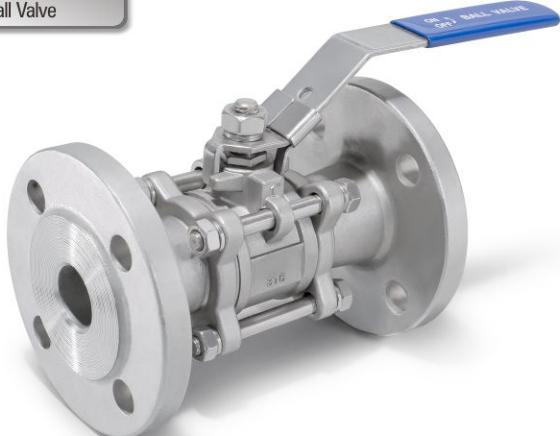


Manual Ball Valve

432 Series
3-PC Butt Weld
Ball Valve



433 Series
3-PC Flanged
Ball Valve



Technical Specification

- Nominal pressure: PN63
- Medium temperature: -10°C — +150°C (PTFE Standard)
- 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	65	76	94
Φ d	18	22	27.5	33.5	44	50	61.6	76.3	90	116
L	52.4	62.4	72.2	81.6	95	106	127.2	158	179	213
H	48	52	61	65	79	83	97	135	144	149
W	100	100	127	127	154	154	192	244	244	285

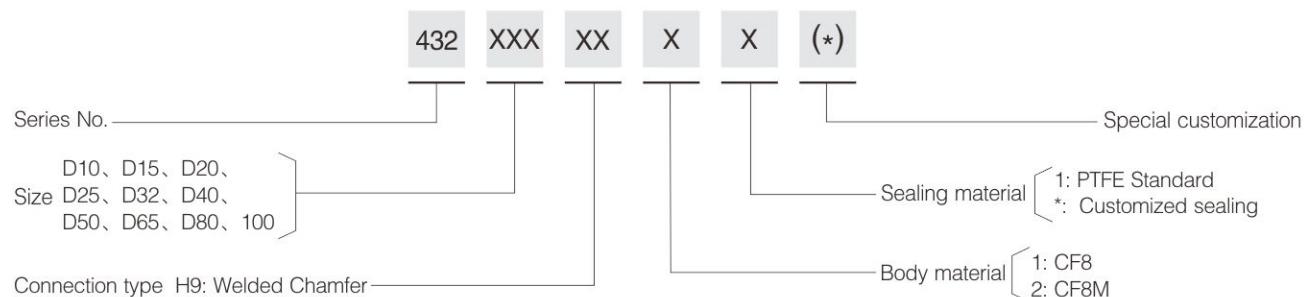
Technical Specification

- Nominal pressure: PN40
- Medium temperature: -10°C — +150°C (PTFE Standard)
- Body and bonnet material: CF8/CF8M
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Flange (DIN2545)

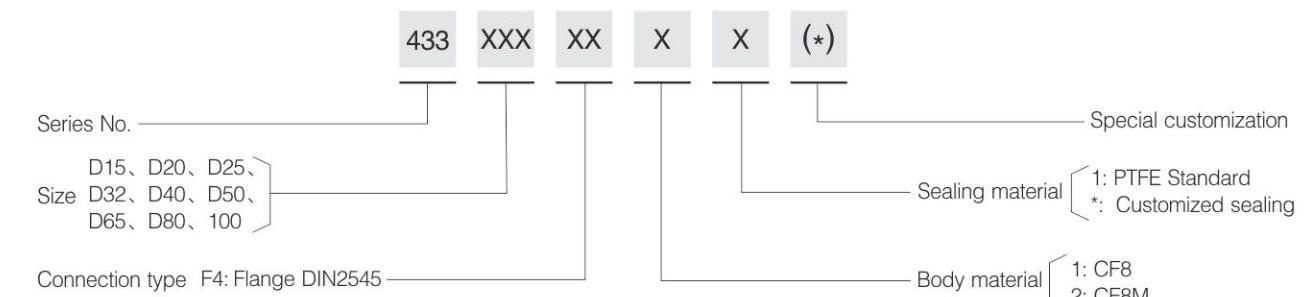
Main Dimension

Size	Φ D	D1	K	C	L	H	W	N/I
DN15	15	95	65	45	130	88	146	4-14
DN20	20	105	75	58	150	90	146	4-14
DN25	25	115	85	68	160	96	153	4-14
DN32	32	140	100	78	180	105	153	4-18
DN40	40	150	110	88	200	120	217	4-18
DN50	50	165	125	102	230	130	217	4-18
DN65	65	185	145	122	290	160	251	8-18
DN80	80	200	160	138	310	175	251	8-18
DN100	100	235	190	162	350	200	291	8-22

Order Instruction

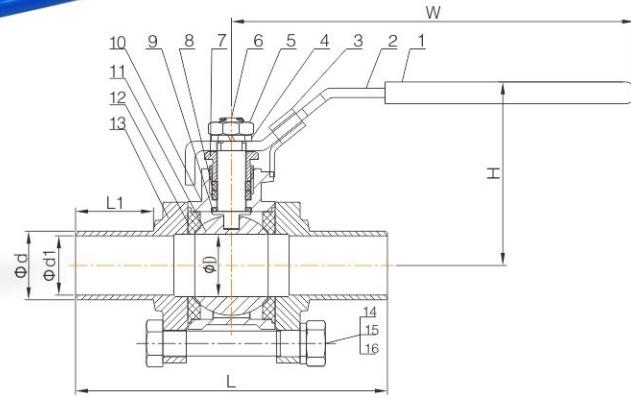


Order Instruction

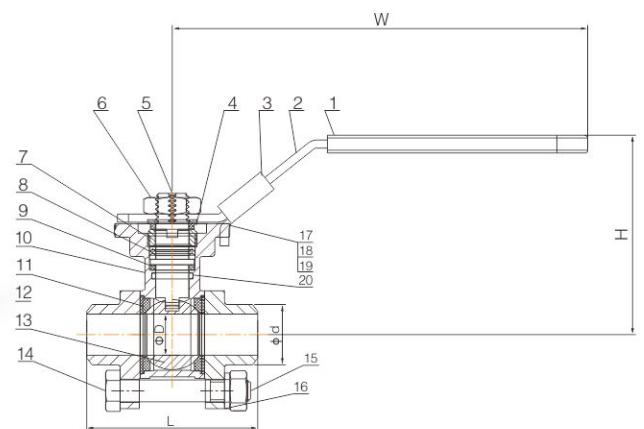


Manual Ball Valve

434 Series
3-PC Extended Butt
Weld Ball Valve



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



Technical Specification

- Nominal pressure: PN63
- Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
- 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	$\Phi d1$	L	L1	H	W
DN15	15	18	15	93.5	25	52	100
DN20	20	22	19	100	25	61	127
		25.4	22.4				
		28	25				
		21	18				
DN25	25	25.4	22.4	107.5	25	65	127
		28	25				
		31.8	28.8				
		34	31				
DN32	32	31.8	28.8	118	25	79	154
		34	31				
		38.1	35.1				
		40	37				
DN40	38	38	35	127	25	83	154
		40	37				
DN50	50	57	54	127.5	18	97	192

Order Instruction

434 XXX XX X X (*)

Series No.

Size D15, D20, D25,
D32, D40, D50

Connection type H*: Welded customized dimension

Special customization
Sealing material 1: PTFE Standard
*: Customized sealing
Body material 1: CF8
2: CF8M

Technical Specification

- Nominal pressure: PN63
- Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
- 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	18	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

Order Instruction

441 XXX XX X X (*)

Series No.

Size D10, D15, D20,
D25, D32, D40, D50

Connection type H9: Welded Chamfer

Special customization

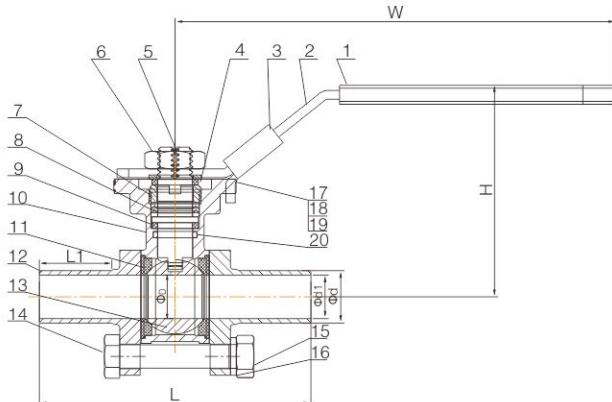
Sealing material 1: PTFE Standard
*: Customized sealing

Body material 1: CF8
2: CF8M

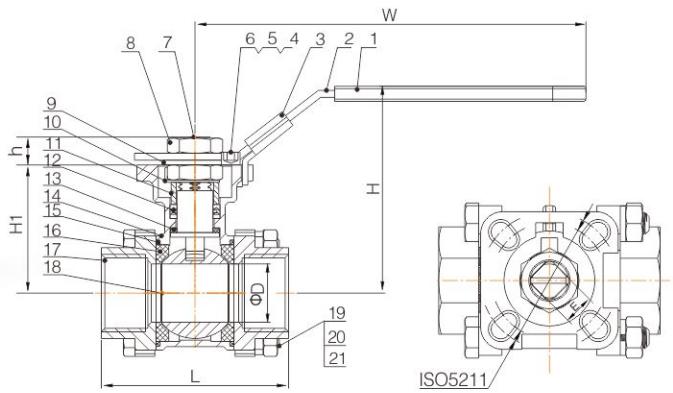
Manual Ball Valve



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



443 Series
3-PC Threaded Ball Valve
with Mounting Pad



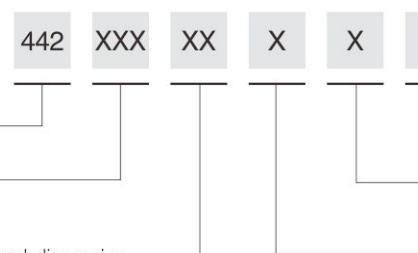
Technical Specification

- Nominal pressure: PN63
- Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
- 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	$\Phi d1$	L	L1	H	W
DN15	15	18	15	93.5	25	75	140
		22	19				
		25.4	22.4				
		28	25				
DN20	20	21	18	100	25	81	140
		25.4	22.4				
		28	25				
		31.8	28.8				
DN25	25	34	31	107.5	25	88	160
		25.4	22.4				
		28	25				
		31.8	28.8				
DN32	32	38.1	35.1	118	25	94	160
		34	31				
		40	37				
		40	37				
DN40	38	38	35	127	25	106	185
		40	37				
DN50	50	57	54	127.5	18	121	185

Order Instruction



Series No. _____
Size D15、D20、D25、
D32、D40、D50
Connection type H*: Welded customized dimension _____

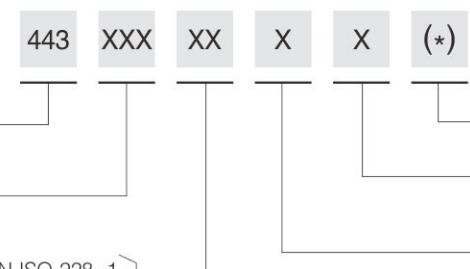
Technical Specification

- Nominal pressure: PN63
- Medium temperature: $-10^{\circ}\text{C} \text{ --- } +150^{\circ}\text{C}$
(PTFE Standard)
- 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	12.5	12.5	15	20	25	32	38	50	65	76	94
L	50.5	50.5	61.5	70	80.5	93	103	125	158	179	213
H	72	72	75	72	88	94	106	121	143	157	182
W	140	140	140	140	160	160	185	185	230	230	320
H1	38	38	41	40.5	55	60	70	85	95.5	109	130
h	11	11	11	9	11	11	15	15	17	17	22
E	9	9	9	9	11	11	14	14	17	17	22
ISO5211	F03	F03	F03	F04	F04	F05	F05	F07	F07	F07	F07
	F04	F04	F04	F05	F05	F07	F07	F10	F10	F10	F10

Order Instruction

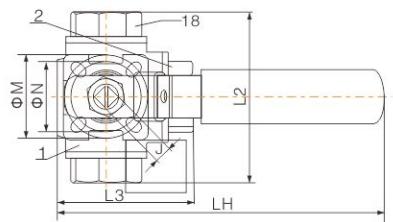
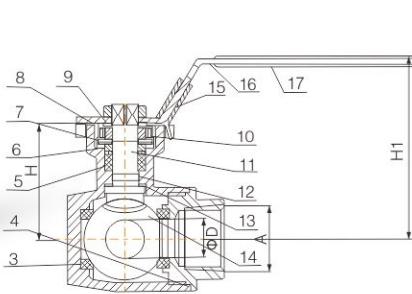


Series No. _____
D08、D10、D15、
Size D20、D25、D32、D40、
D50、D65、D80、100
Special customization _____
G1: Threaded BSP DIN ISO 228-1
Connection type T1: Threaded BSPT DIN 2999-1
N1: Threaded NPT ASMEB1.20.1
Sealing material _____
Body material _____
1: PTFE Standard
*: Customized sealing
1: CF8
2: CF8M

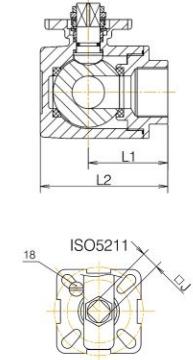
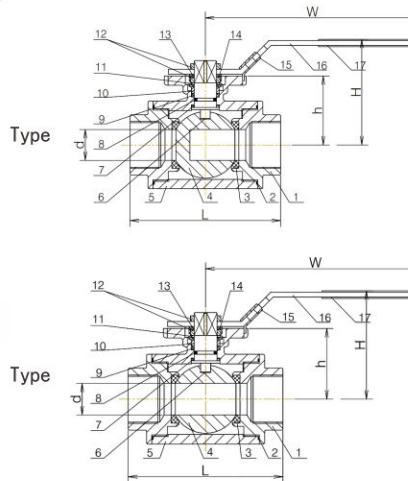
Manual Ball Valve



444 Series
3-Way Ball Valve
with Tall Mounting Pad



445 Series
3-Way Ball Valve
with Mounting Pad



ISO5211

Technical Specification

- Nominal pressure: PN63
- Medium temperature: -10°C — +150°C (PTFE Standard)
- Body and bonnet material: CF8(304), CF8M(316)
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP、BSPT、NPT)

Main Dimension

Size	A	ΦD	H	H1	L	ΦN	ΦM	J	R1	R2	L2	L3	LH
DN15	1/2"	12.5	42	75	9	36	42	9	3	3	79	64	163
DN20	3/4"	16	49	82	9	36	42	9	3	3	83	68	165
DN25	1"	20	59.5	97	11	42	50	11	3	3.5	104	82	190
DN32	1 1/4"	25	63	101	11	42	50	11	3	3.5	111	90	195
DN40	1 1/2"	32	73.5	115	14	50	70	14	3.5	4.5	126	106	227
DN50	2"	38	82.5	122	14	50	70	14	3.5	4.5	147	123	235

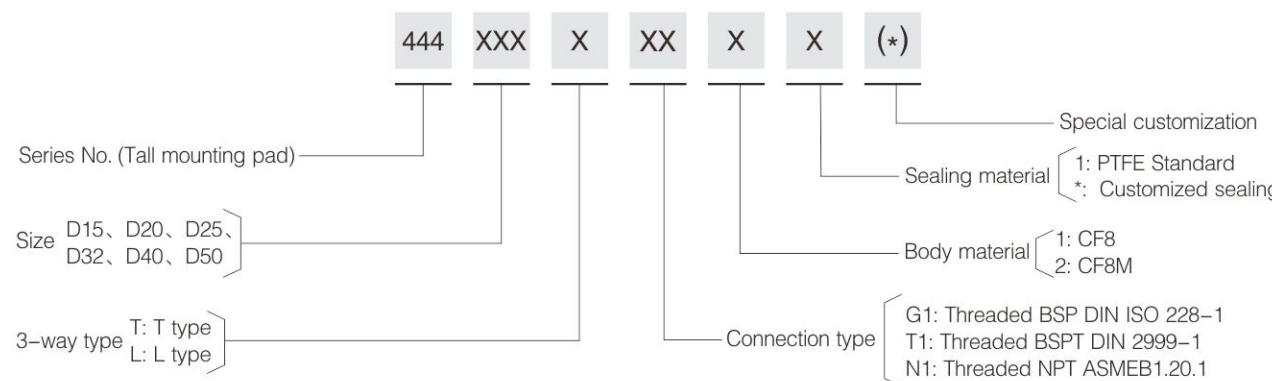
Technical Specification

- Nominal pressure: PN63
- Medium temperature: -10°C — +150°C (PTFE Standard)
- Body and bonnet material: CF8(304), CF8M(316)
- Ball material: CF8(304), CF8M(316)
- Seal material: PTFE
- Connection type: Threaded connection (BSP、BSPT、NPT);

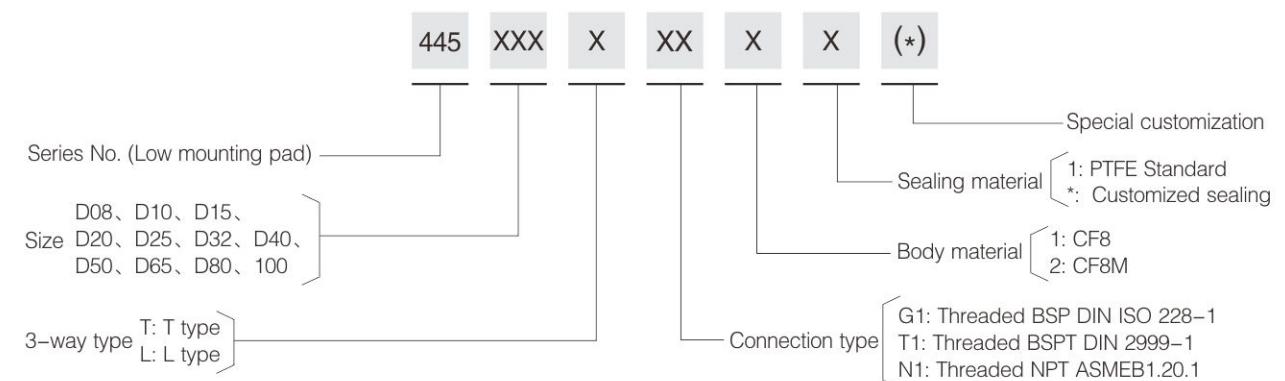
Main Dimension

Size	d	L	H	W	h	L1	□J	ISO5211	L2
DN8	9.5	75	66	130	36.8	37.5	9	F03/F04	57.5
DN10	11	75	66	130	36.8	37.5	9	F03/F04	57.5
DN15	12	75	66	130	36.8	37.5	9	F03/F04	57.5
DN20	15	85	72	161	41.2	42.5	11	F04/F05	65.5
DN25	20	100	77	161	46.5	50	11	F04/F05	79
DN32	25	122	92	203	56	61	14	F05/F07	97
DN40	32	131	96	203	60	65.5	14	F05/F07	106.5
DN50	40	158	107	203	70.5	79	14	F05/F07	129
DN65	49	178	135	254	95.5	89	17	F07/F10	145
DN80	60	202	147	254	106	101	17	F07/F10	167
DN100	75	246	160	310	119	123	17	F07/F10	203

Order Instruction



Order Instruction



Pneumatic Ball Valve

451 Series
Pneumatic
Ball Valve Type A



451 Series
Pneumatic
Ball Valve Type B



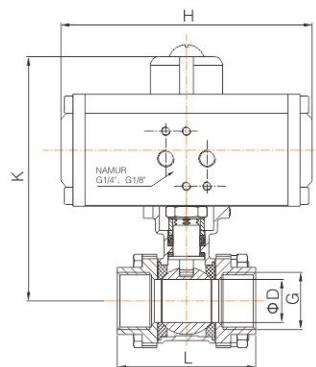
451 Series
Pneumatic
Ball Valve Type C



Technical Specification

- Nominal pressure: PN63
- Medium temperature: -10°C — +150°C (PTFE Standard)
- Body and bonnet material: CF8, CF8M
- Ball material: CF8(304), CF8M(316)
- Seal ring and Packing: PTFE
- Control type: Double acting
(Single-acting option is available upon request.)

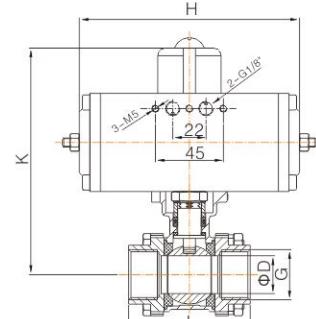
451 Series Pneumatic Ball Valve Type A



Main Dimension

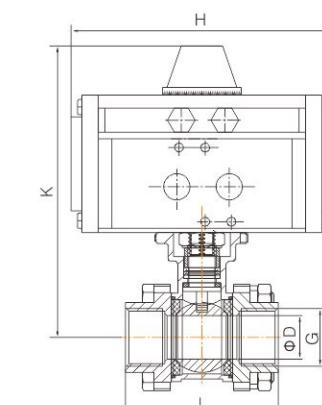
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	12.5	12.5	15	20	25	32	38	50
L	50	50	62	70	80	93	103	125
H	122	122	122	122	147	168	168	168
K	120	120	125	130	135	155	180	195

451 Series Pneumatic Ball Valve Type B



Main Dimension

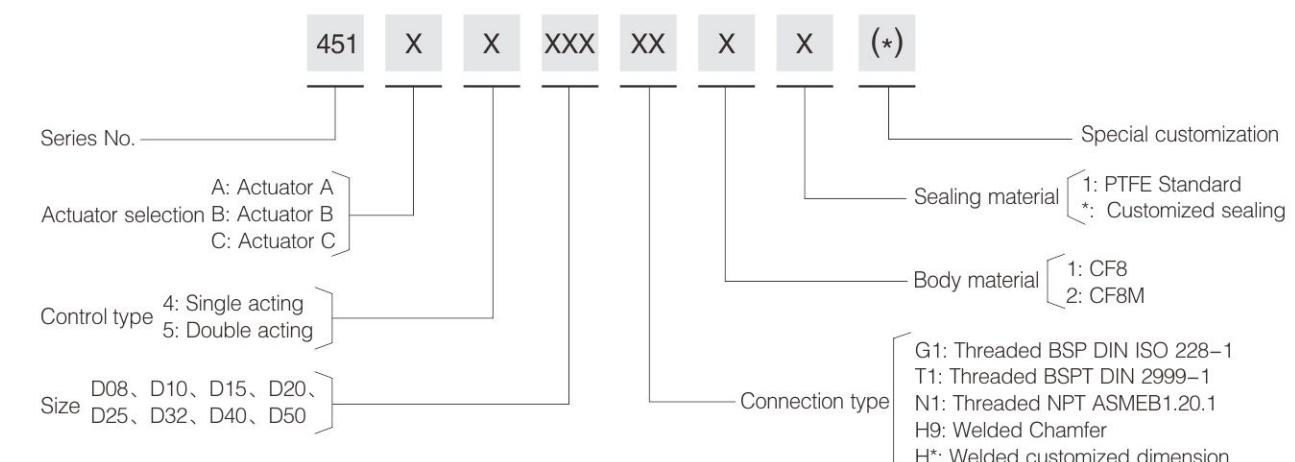
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	12.5	12.5	15	20	25	32	38	50
L	50	50	62	70	80	93	103	125
H	142	142	142	146	146	146	168	168
K	105	105	108	145	150	165	190	205



Main Dimension

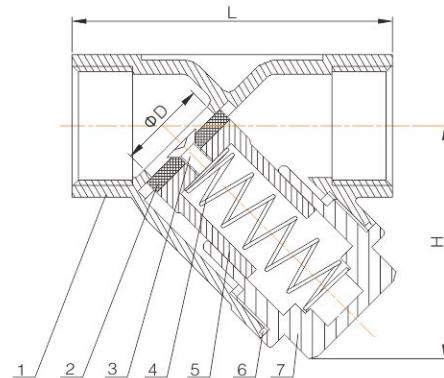
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
ΦD	12.5	12.5	15	20	25	32	38	50
L	50	50	62	70	80	93	103	125
H	110	110	110	110	110	110	169	192
K	107.1	107.1	109.1	116.6	123.6	172	193	208

Order Instruction

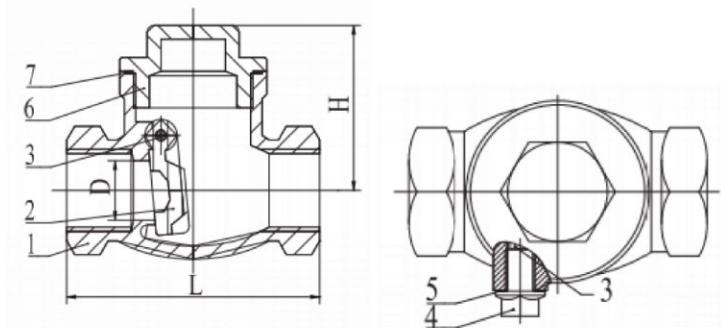


Check Valve

501 Series
Y-Spring Check Valve



502 Series
Swing Check Valve



Technical Specification

- Nominal pressure: PN55
- Medium temperature: $-10^{\circ}\text{C} \text{---} +120^{\circ}\text{C}$
- Connection type: Threaded connection (BSP、BSPT、NPT)
- Body material: CF8/CF8M
- Seal material: PTFE
- Minimum open pressure: 16–92mbar

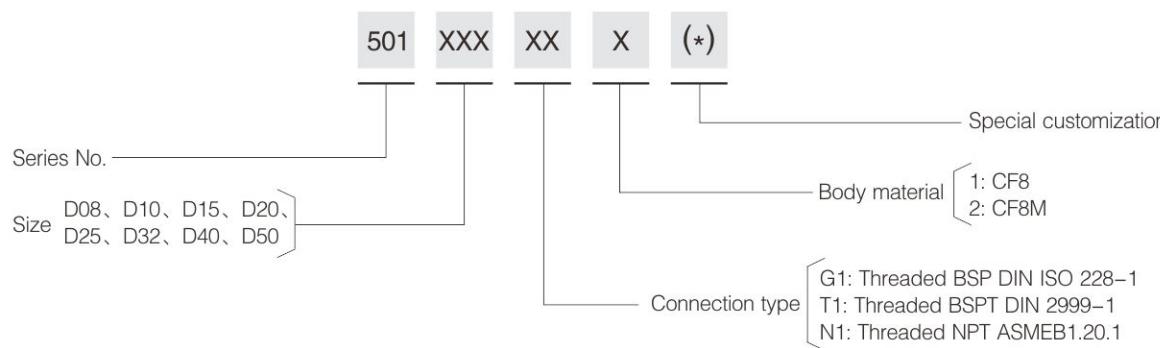
Part List

No.	Part	Material	No.	Part	Material
1	Body	CF8/CF8M	5	Sleeve	CF8/CF8M
2	Seat	PTFE	6	Gasket	PTFE
3	Sunk screw	316	7	Bonnet	CF8/CF8M
4	Spring	304			

Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50
Φ D	14	14	14	20	25	32	40	50
H	44	44	44	52	65	70	78	90
L	65	65	65	80	90	105	120	138

Order Instruction



Technical Specification

- Nominal pressure: PN16
- Medium temperature: $-25^{\circ}\text{C} \text{---} +180^{\circ}\text{C}$
- Connection type: Threaded connection (BSP、BSPT、NPT)
- Body material: CF8/CF8M
- Seal material: Metal-to-metal seal

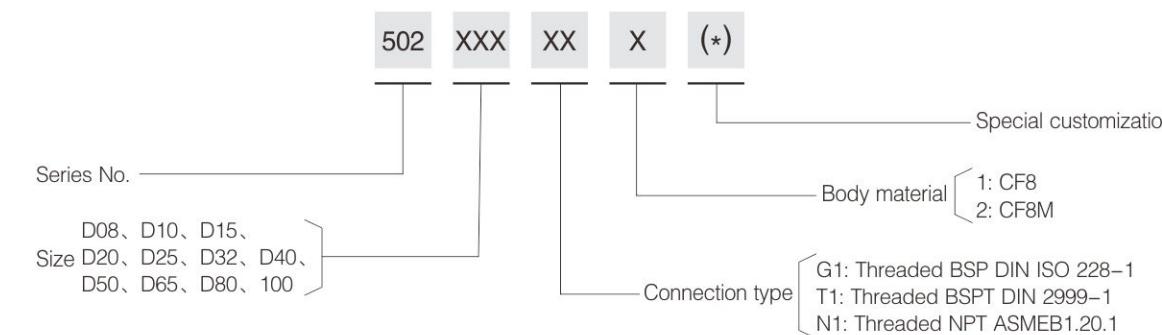
Part List

No.	Part	Material	No.	Part	Material
1	Body	CF8/CF8M	5	Gasket	PTFE
2	Gasket	CF8/CF8M	6	Bonnet	CF8/CF8M
3	Plug	304/316	7	Sealing ring	PTFE
4	Nut	304			

Main Dimension

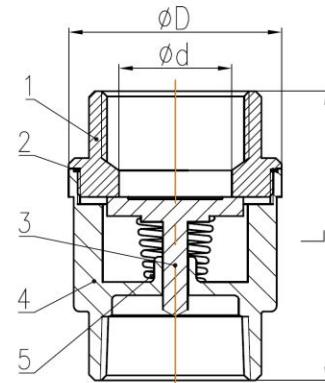
Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
D	10	12	15	20	25	32	40	50	64	73	94
L	65	65	65	80	90	105	120	140	164	190	240
H	42	42	42	50	58	62	72	81	94	103	136

Order Instruction

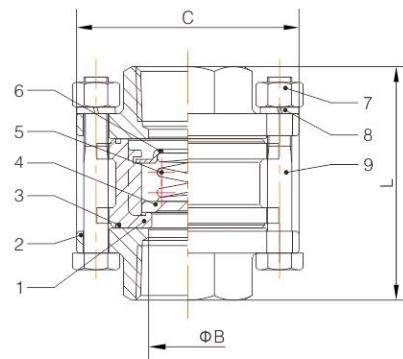


Check Valve

503 Series
2-PC Spring Vertical
Check Valve



504 Series
3-PC Spring Vertical
Check Valve



Technical Specification

- Nominal pressure: PN63
- Size: DN8–DN100
- 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
Ød	8	10	15	20	25	30	38	47	61	75	94
ØD	30.5	30.5	37	42	48	58	70	82	102.5	120	150
L	53	53	56	63	74	81	91	97	118	138	158

Technical Specification

- Nominal pressure: PN63
- Size: DN8–DN100
- 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: 22–60mbar

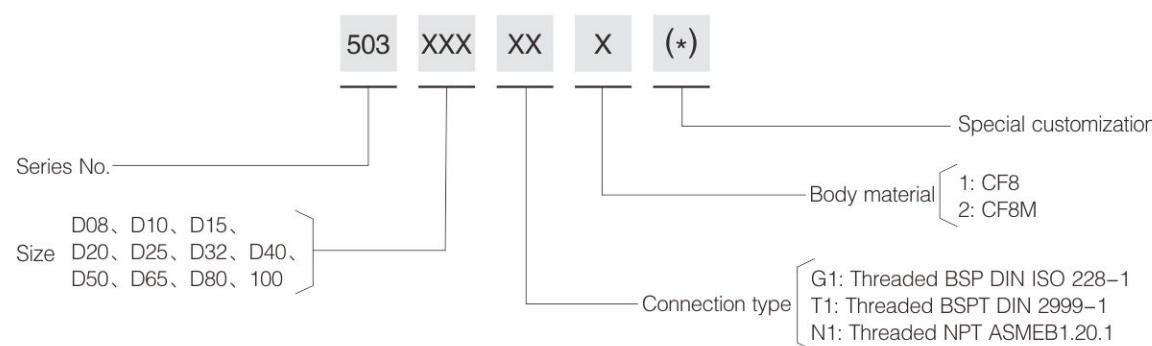
Part List

No.	Part	Material	No.	Part	Material
1	Body	CF8/CF8M	6	Plug	304
2	Bonnet	CF8/CF8M	7	Bolt	304
3	Seal	PTFE	8	Washer	304
4	Disc	316	9	Nut	304
5	Spring	316			

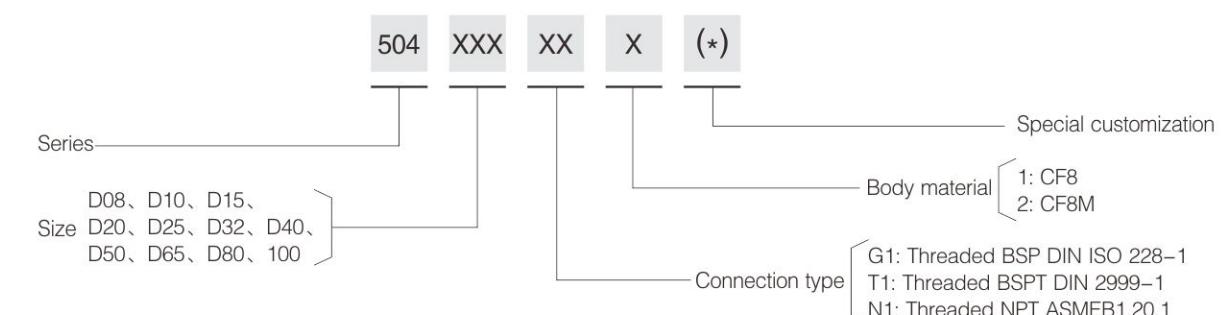
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
ØB	8	10	15	20	25	32	40	50	65	76	94
C	45	45	54	62	71	88	95	117	147	167	224
L	48.5	48.5	56	65	74	83	92	110	125.5	141	164

Order Instruction

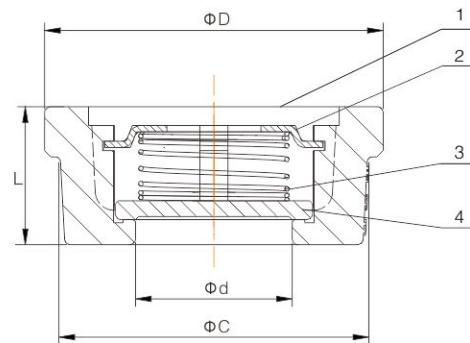


Order Instruction

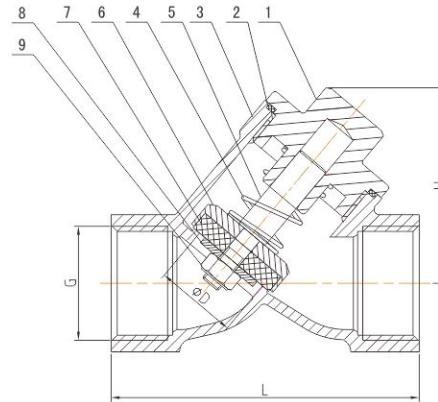


Check Valve

508 Series
Wafer Type Disc
Check Valve



509 Series
Y-Spring 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

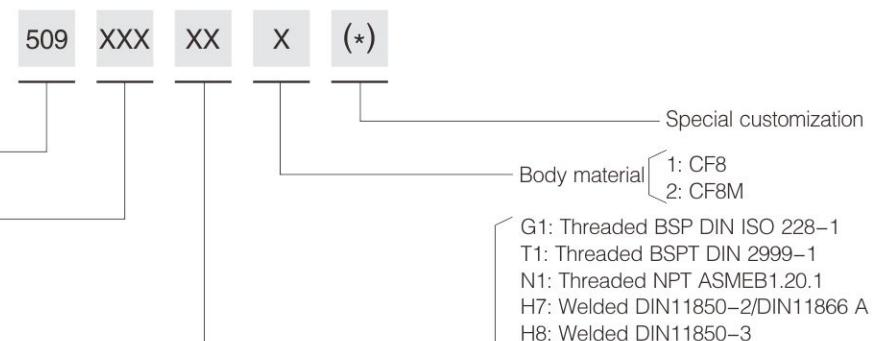
Technical Specification

- Nominal pressure: PN16
- Size: DN15–DN50
- Medium temperature: -10°C — $+180^{\circ}\text{C}$
- Connection type: Threaded, Welded, Tri-clamp, Flanged
- Minimum open pressure: 30–40mbar

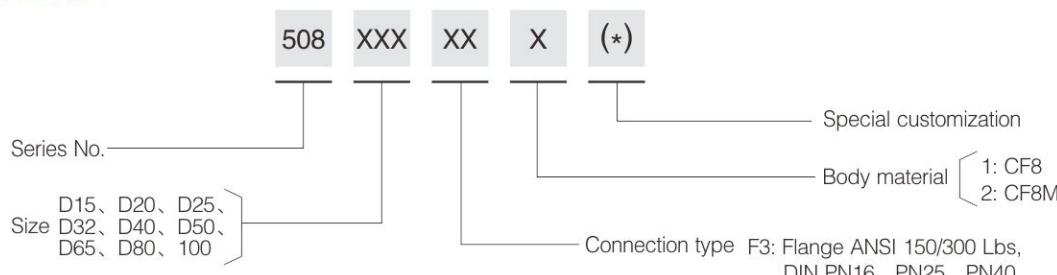
Function Principle

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.

Order Instruction



Order Instruction



Strainer

601 Series
Single Cap Strainer

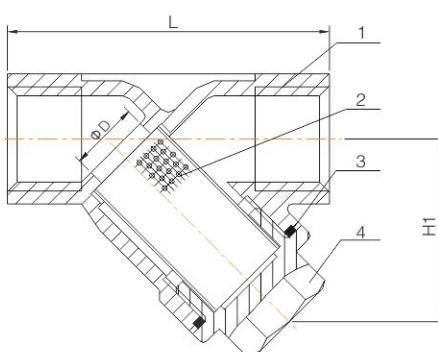


602 Series
Double Cap Strainer



Technical Specification

- Nominal pressure: PN55



Part List

No.	Part	Material
1	Body	CF8M/CF8
2	Filter	304
3	Gasket	PTFE
4	Cover	CF8M/CF8

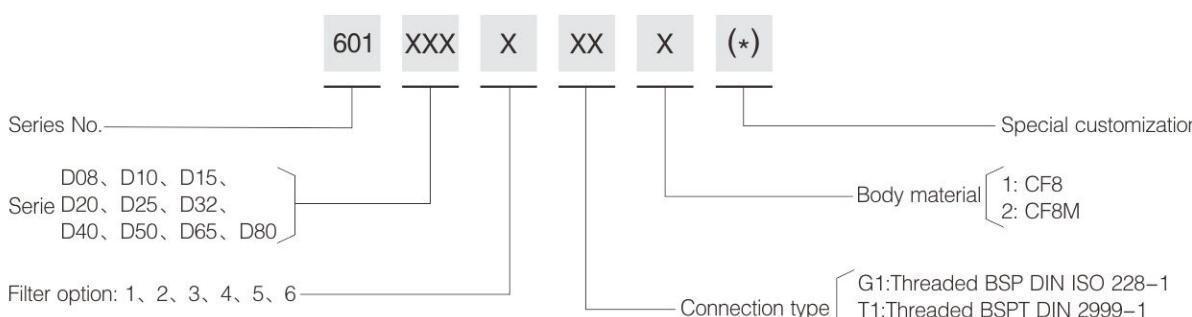
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
Φ D	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	178	210

Filter Option

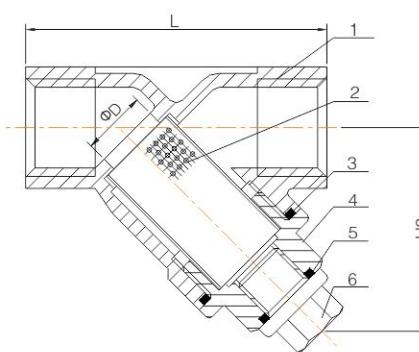
Filter Option	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1 20 mesh perforated filter	✓	✓	✓	✓	✓	✓	✓	✓
2 30 mesh wired filter	✓	✓	✓	✓	✓	✓	✓	✓
3 30 mesh + frame	✓	✓	✓	✓	✓	✓	✓	✓
4 80 mesh + frame	✓	✓	✓	✓	✓	✓	✓	✓
5 100 mesh + 20 mesh	✓	✓	✓	✓	✓	✓	✓	✓
6 100 mesh + frame						✓	✓	

Order Instruction



Technical Specification

- Nominal pressure: PN55



Part List

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

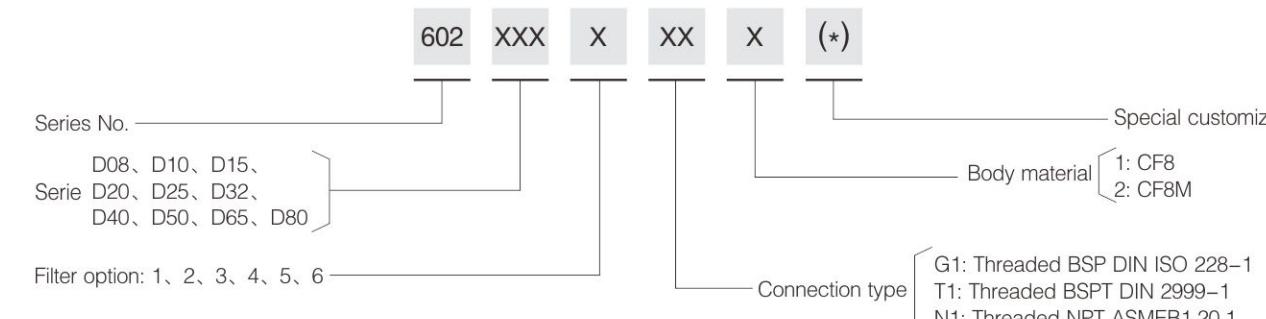
Main Dimension

Size	DN8	DN10	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
Φ D	14	14	14	20	25	32	40	50	60	80
H2	44	44	44	52	63	67	74	86	104	128
L	65	65	65	80	90	105	120	138	178	210

Filter Option

Filter Option	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1 20 mesh perforated filter	✓	✓	✓	✓	✓	✓	✓	✓
2 30 mesh wired filter	✓	✓	✓	✓	✓	✓	✓	✓
3 30 mesh + frame	✓	✓	✓	✓	✓	✓	✓	✓
4 80 mesh + frame	✓	✓	✓	✓	✓	✓	✓	✓
5 100 mesh + 20 mesh	✓	✓	✓	✓	✓	✓	✓	✓
6 100 mesh + frame					✓	✓		✓

Order Instruction



Strainer

603 Series
Flanged Strainer

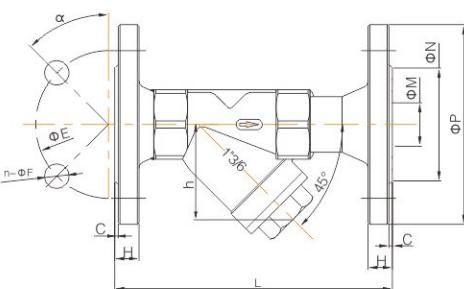


604 Series
Filter Discharge Valve



Technical Specification

- Nominal pressure: PN16
- 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	155	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	4-18	78	135	200	22.5°

Filter Option

Filter Option	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80
1 20 mesh perforated filter	✓	✓	✓	✓	✓	✓	✓	✓
2 30 mesh wired filter	✓	✓	✓	✓	✓	✓		
3 30 mesh + frame	✓	✓	✓	✓	✓	✓		
4 80 mesh + frame	✓	✓	✓	✓	✓	✓	✓	
5 100 mesh + 20 mesh		✓	✓	✓	✓	✓		
6 100 mesh + frame						✓	✓	

Order Instruction

603 XXX X XX X (*)

Series No.

Serie D15、D20、D25、D32、
D40、D50、D65、D80

Filter option: 1、2、3、4、5、6

Special customization

Body material
1: CF8
2: CF8M

Connection type F2: Flange JB/T82.1
(DIN2543/DIN2576)

Order Instruction

604 XXX X XX X (*)

Series No.

Serie D15、D20、D25、D32、
D40、D50、D65、D80

Filter option: 1、2、3、4、5、6

Special customization

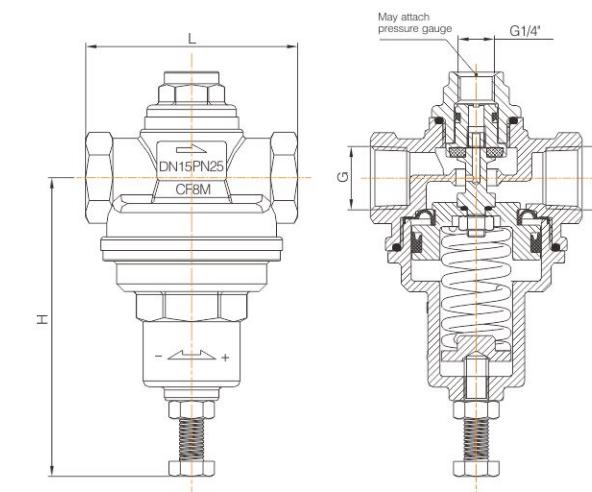
Body material
1: CF8
2: CF8M

Connection type F2: Flange JB/T82.1
(DIN2543/DIN2576)

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.

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 superior service life.
3. Simple structure, fast reaction and accurate pressure adjustment.

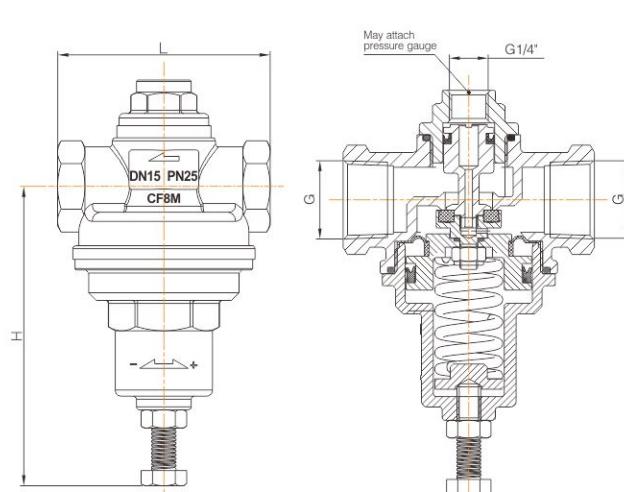
Main Dimension

Size	G	H	L	Flow value Kv(m³/h)
DN15	1/2"	100	70	2.1
DN20	3/4"	100	85	3.4
DN25	1"	105	92	5.5

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.

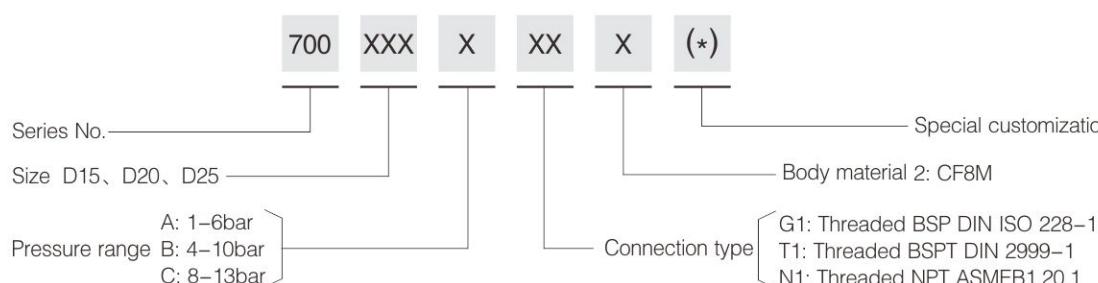
Advantages

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.

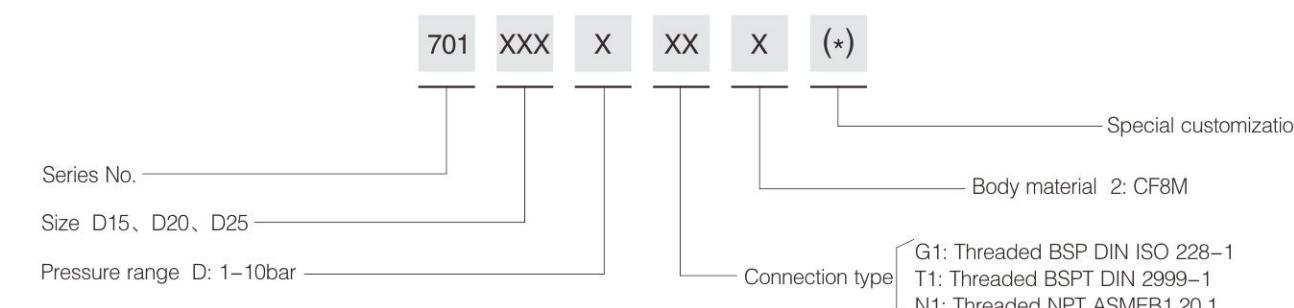
Main Dimension

Size	G	H	L	Flow value Kv(m³/h)
DN15	1/2"	100	70	2.1
DN20	3/4"	100	85	3.4
DN25	1"	105	92	5.5

Order Instruction

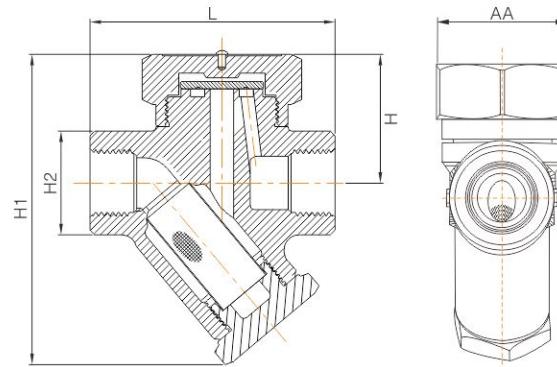


Order Instruction



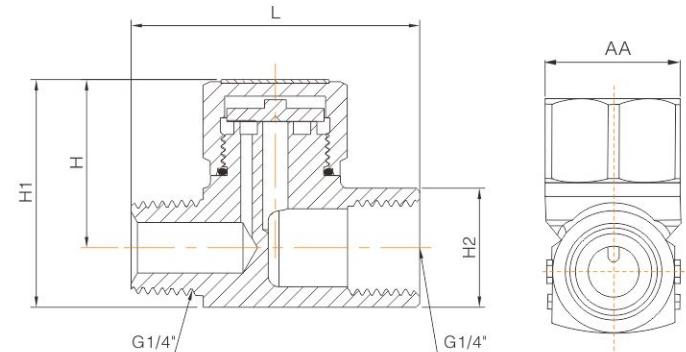
Thermodynamic Steam Trap

800 Series
Thermodynamic
Steam Trap



* Flange connection is available upon request

801 Series
Thermodynamic
Steam Trap



Advantages

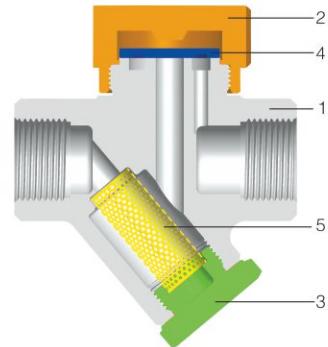
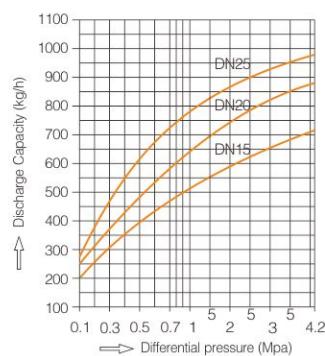
1. Compact structure.
2. High durability due to stainless steel inner components and valve body.
3. Long service life.
4. Easy to service and repair.

Application: Steam pipelines, iron machines, drying units, etc.

Technical Specification

- Operating Pressure: 0.3–10bar (4–145psi)
- Max. Operating Temp: 400°C

Discharge Capacity



Part List

No.	Part	Material
1	Body	ASTM CA40
2	Cover	304 (CF8)
3	Discharge bolt	304 (CF8)
4	Disk	420
5	Filter	304 (30 mesh by default)

Main Dimension

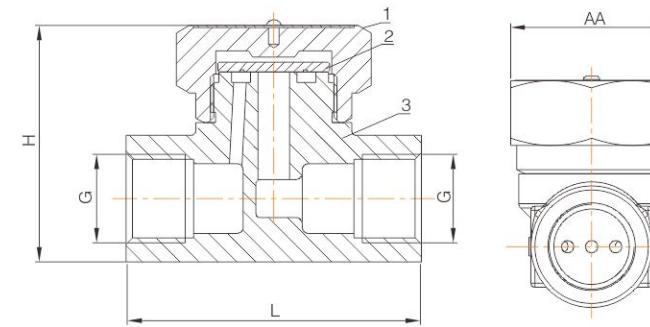
Size	Thread end	Dimension (mm)					Weight (kg)
		L	H	H1	H2	AA	
DN15	1/2"	78	40	99.6	33	44	0.9
DN20	3/4"	90	49.2	109.2	39	48	1.2
DN25	1"	95	57.5	121.6	45	56	1.7

Order Instruction

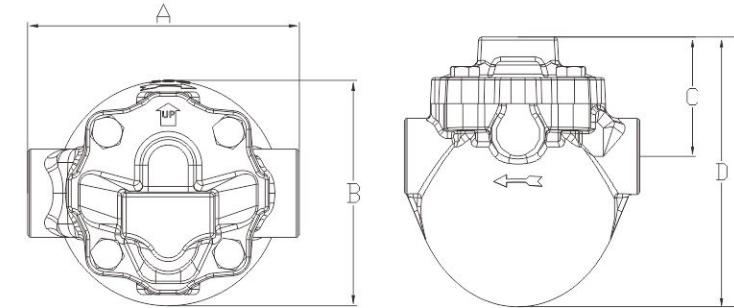
800	XXX	XX	X	(*)
Series No.				
Special customization				
Body material 7: CA40				
Connection type				
G1: Threaded BSP DIN ISO 228-1 T1: Threaded BSPT DIN 2999-1 N1: Threaded NPT ASMEB1.20.1 F2: Flange JB/T82.1 (DIN2543/DIN2576)				

Thermodynamic Steam Trap

801 Series
Thermodynamic
Steam Trap



802 Series
Ball Float Steam Trap

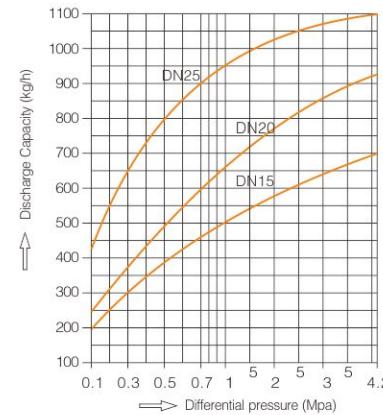


Advantages

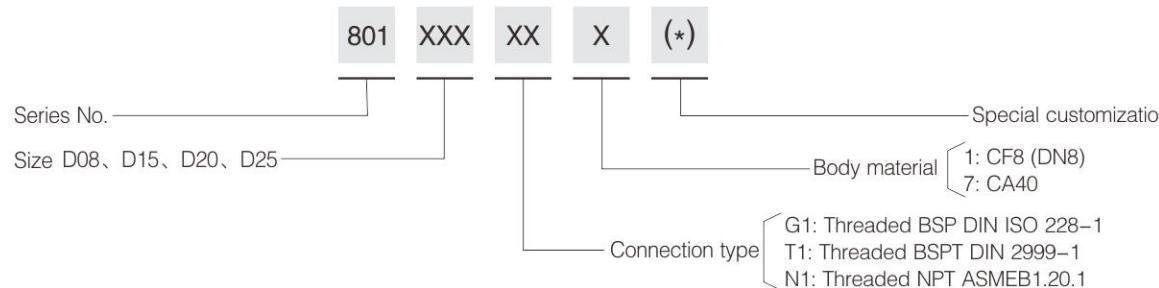
1. Compact structure.
2. High durability due to stainless steel inner components and valve body.
3. Long service life.
4. Easy to service and repair.

Application: Steam pipelines, iron machines, drying units, etc.

Discharge Capacity



Order Instruction



Technical Specification

- Operating Pressure: 2.5–42bar (36–609psi)
- Max. Operating Temp: 400°C

Part List

No.	Part	Material
1	Cover	CF8
2	Disk	420
3	Body	ASTM CA40

Main Dimension

Size	G	L	H	AA	Weight (kg)
DN15	1/2"	41	70	40	0.5
DN20	3/4"	43	80	44	0.8
DN25	1"	52	89	55	1.25

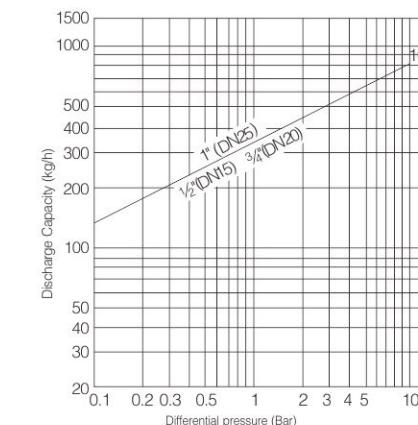
Advantages

1. Support 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.

Technical Specification

- Nominal Pressure: PN16
- PMA Max.Allowable Pressure: 16bar (232psi)
- TMA Max.Allowable Temperature: 250°C
- Max.Differential Pressure: 10bar (145psi)
- Connection type: Threaded connection (BSP、BSPT、NPT)

Discharge Capacity

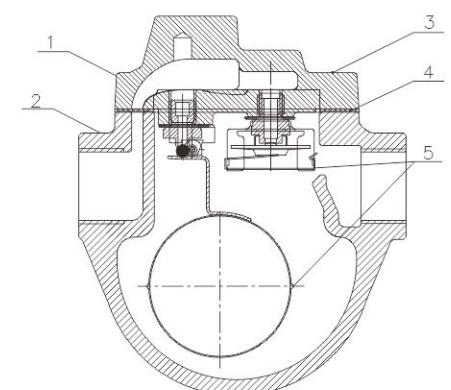


Main Dimension

Size	A	B	C	D
DN15	145	108	74	169
DN20	145	108	74	169
DN25	145	108	74	169

Part List

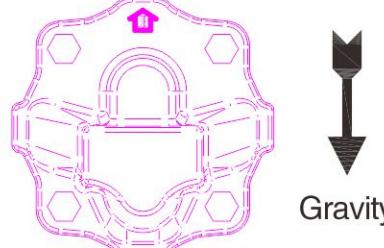
No.	Part	Material
1	Cover	CF8/CF8M
2	Body	CF8/CF8M
3	Stem	304
4	Gasket	Soft graphite
5	Internal component	Stainless steel



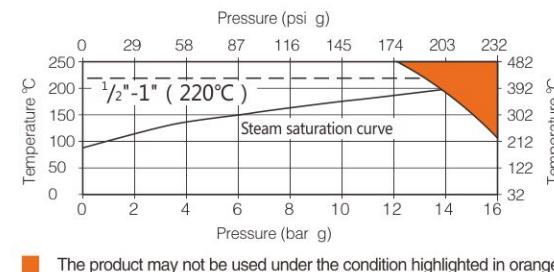
Thermodynamic Steam Trap

Special Note

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

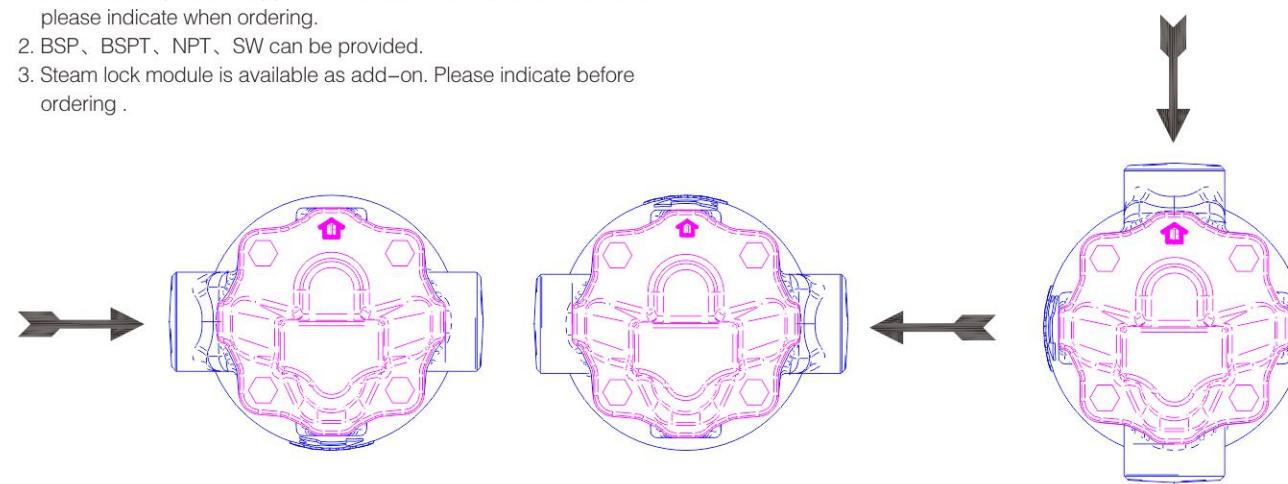


Operating Condition



Ordering Instructions

1. The steam trap can be applied in three directions (as shown below), please indicate when ordering.
2. BSP, BSPT, NPT, SW can be provided.
3. Steam lock module is available as add-on. Please indicate before ordering .



Order Instruction

802	XXX	XX	X	X	(*)	
Series No.						Special customization
Size D15, D20, D25						Installation direction
G1: Threaded BSP DIN ISO 228-1						L: Left to right R: Right to left U: Up to down

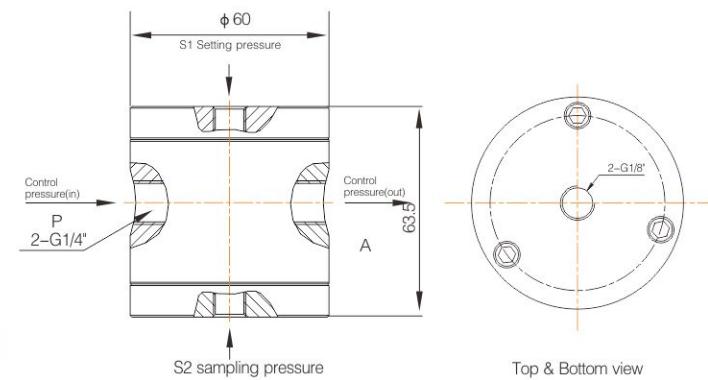
Connection type T1: Threaded BSPT DIN 2999-1
N1: Threaded NPT ASMEB1.20.1

Body material 1: CF8
2: CF8M

Other Valves

ESG®

900 Series
Balancing Valve



Advantages

Automatically adjusting and operating with no manual input required. High sensitivity: when the pressure changes by +/- 0.1bar, balancing valve will auto switch .

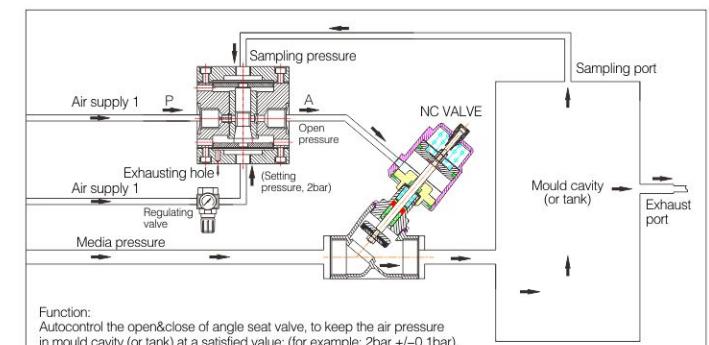
Technical Specification

- Port Size:
P, A: G1/4"; S1, S2: G1/8"
- Pressure range:
S1 port: setting pressure 0.2–4bar, depending on specific application. Filtered compressed air is commonly used.
S2 port: sampling pressure from equipment pipelines, will be $S1 \pm 0.1$ bar
P, A port: dependent on the control pressure of the connected angle seat valve, normally 2–8bar
- Temperature range: 0 — 100°C

Function Principle

The balancing valve automatically controls the connected valve to maintain a certain working pressure of the equipment. Port A is controlled by fixing air pressure at S1 and adjusting it at S2. When $(S1-S2) > 0.1$ bar, Port A will open and the connected valve will open. When $(S2-S1) > 0.1$ bar, port A will close and the connected valve will also close .

Work Flow Chart

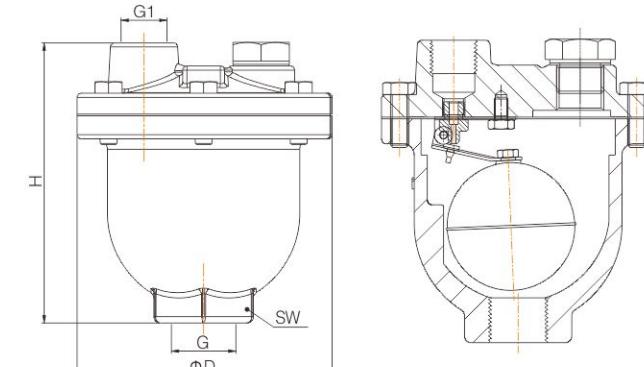


Order Instruction

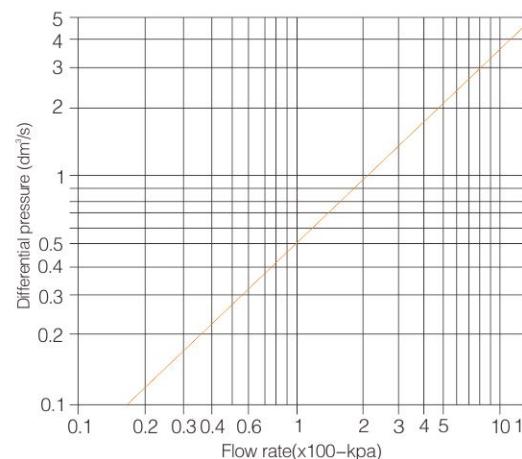
900	X	(*)		Special customization
Series No.				Body material 8: AL

Other Valves

901 Series
Float Type
Air Eliminator



Differential pressure/flow rate chart



Function Principle

This 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.

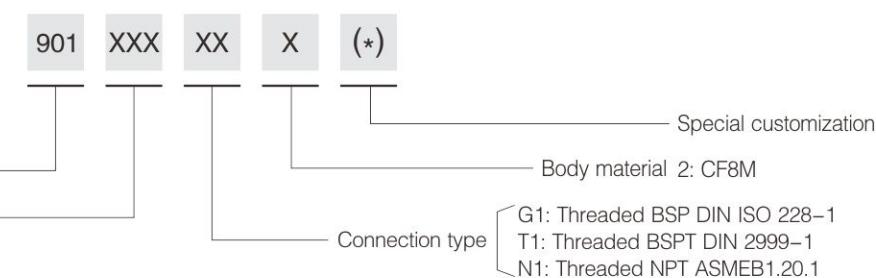
Technical Specification

- 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

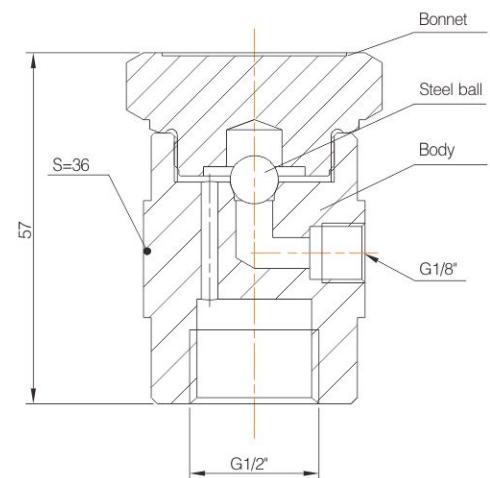
Main Dimension

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



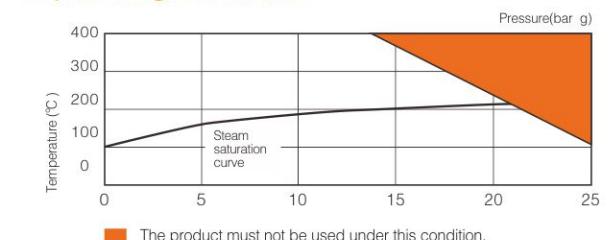
902 Series
Vacuum Breaker



Attention

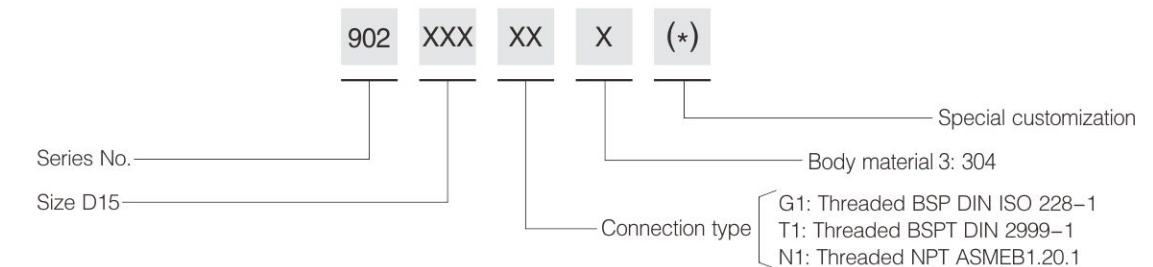
Valve must be installed in vertical position. The system connection port is located at the bottom of the valve. If used for steam system, it must be installed at the top of the system to prevent the valve from being immersed in condensation.

Operating Condition



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

Order Instruction



Other Valves

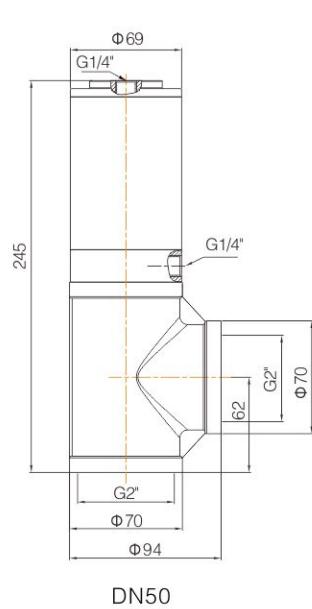
908 Series
Threaded Drain Valve



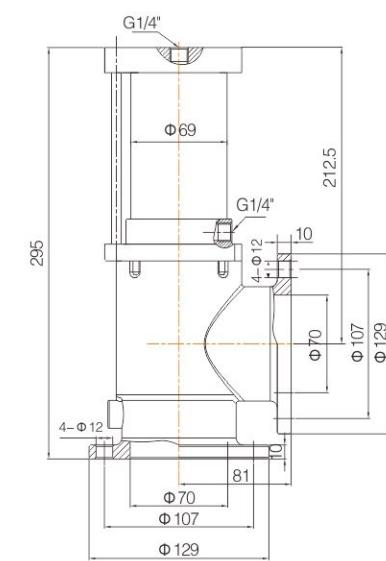
908 Series
Flanged Drain Valve



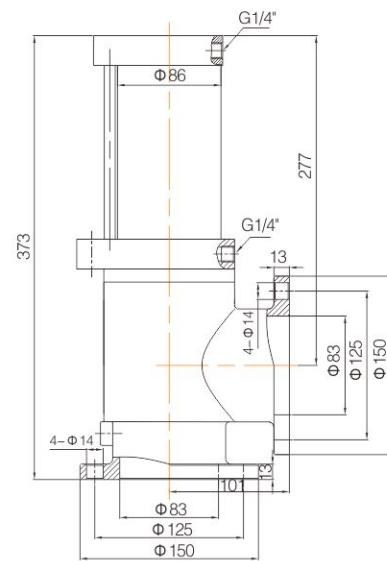
909 Series
Exhaust Valve



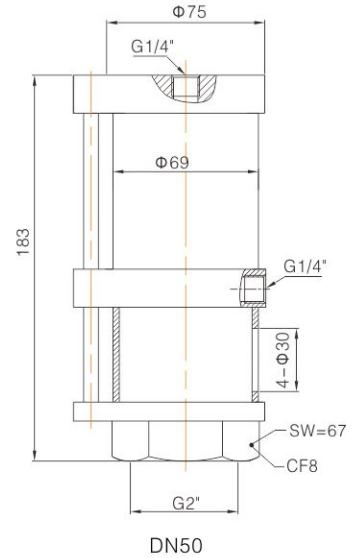
DN50



DN65



DN80



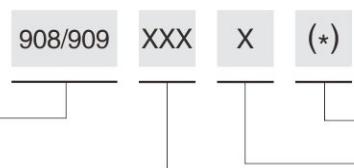
DN50

Technical Specification

- Size: DN50 (Threaded connection), DN65、DN80 (Flange connection)
- Operating pressure: 0–16bar (0–232psi)
- 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

Order Instruction



Series No. _____ Special customization
 Size (908)D50、D65、D80
 (909)D50 Body material 1: CF8

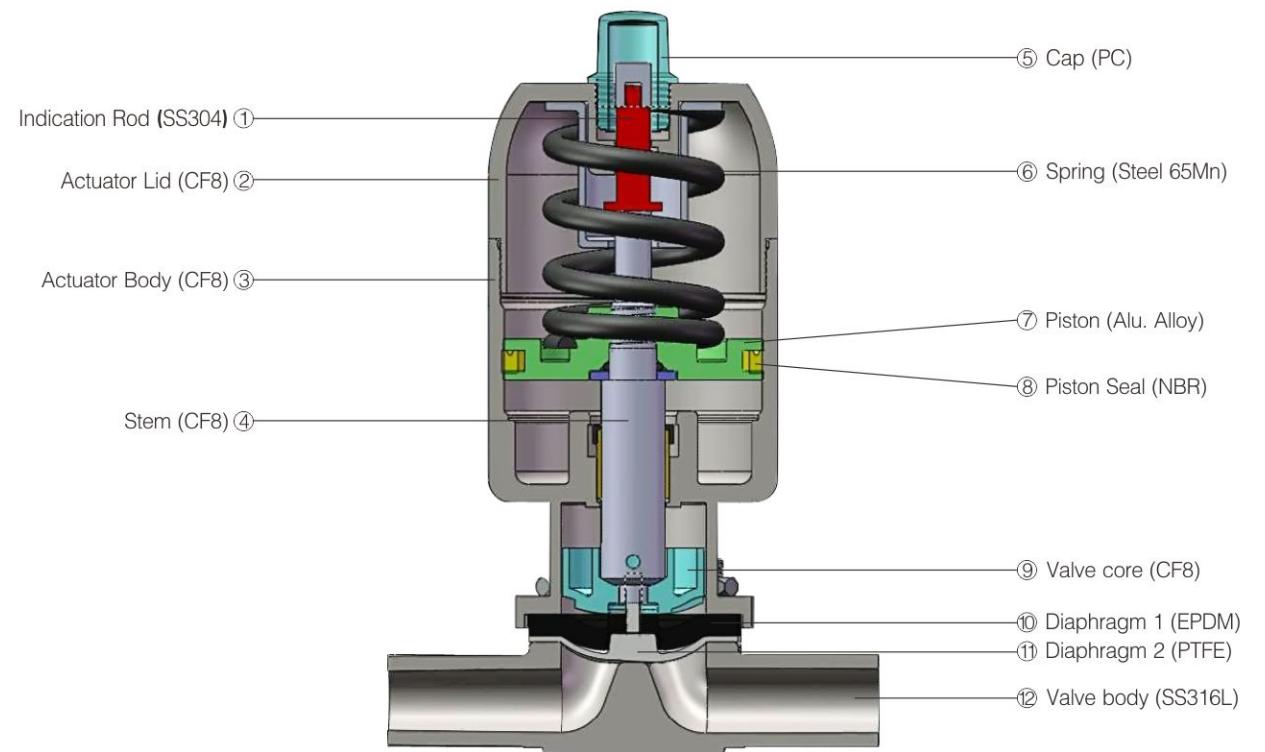
Diaphragm Valve



Diaphragm valves are widely used in pharmaceutical, beverage, food, and chemical industry, due to its large flux and low residue, ensuring safety and reliability. The diaphragm meets safety standards set by FDA and USP for pharmaceutical and food industries, and satisfies various requirements and demands of end users. ESG never ceases to adapt to the ever-changing market demand with high-quality products.

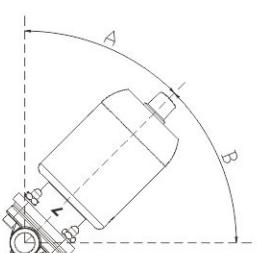
Application Industry

Pharmaceutical, food and beverages, cosmetics, brewing, chemicals, etc.



Installation Angle

Size	Installation angle	
	A	B
DN08	40.4°	49.6°
DN10	33.6°	56.4°
DN15	22.2°	67.8°
DN20	26.5°	63.5°
DN25	29.9°	60.1°
DN40	27.2°	62.8°
DN50	30.1°	59.9°



Technical Specification

- Material: (Body) SS316L
(Pneumatic) Actuator + Valve seat SS304;
(Manual) Valve seat SS304
- Internal surface: $R_a \leq 0.4 \mu m$, mechanically polished
- Diaphragm material: EPDM + PTFE
(double-layer diaphragm)
- Operating pressure: 0–10bar (0–145psi)
- Fluid temperature: $-10^{\circ}C$ — $+150^{\circ}C$
- Control pressure(pneumatic): 4.5–7bar (65–102psi)

Typical Applications

Fermentation tank, Preparation vessel, Filling machine, Sterilizing equipment, Aseptic fluid transfer, CIP/SIP, etc.



Diaphragm Valve



Quality Control

1. Valve assembly inspection:
100% inspection according to the shipping inspection form
2. Diaphragm valve seal test:
100% valve assembly seal test, tested according to DIN EN 12266-1
3. Inner surface finish:
100% IPQC (in-process control), roughness sampling test according to GB2828
4. Contact surface inspection:
Material testing – Spectrum analyzer; Dimension inspection – Three Coordinate Measuring Machine
5. Qualification:
Quality Management System ISO9001, Food Contact Raw Materials and Products Directive EC1935-2004, Explosion-proof Safety ATEX Directive 2014/34/EU



Roughness tester



Spectromax meter



Three-coordinate measurement machine

Diaphragm Introduction



* Diaphragm is available for purchase separately

Advantages

Safety, reliability and durability of diaphragm valves are heavily dependent upon performance of the diaphragm. Diaphragm is the soul of diaphragm valve.

PTFE/EPDM two-piece diaphragm is a high-standard diaphragm typically used for aseptic and hygienic applications. PTFE diaphragms are developed and manufactured by ESG. High quality raw materials sourced globally are manufactured into highly dense, smooth and flexible diaphragm products. Our diaphragms are SIP-capable and autoclavable thanks to its superb high-temperature performance. We have tested our diaphragms through accredited institutions and obtained FDA 21CFR 177.1550 and USP40-NF25 certifications, which correspond to the highest standards in food, beverage and pharmaceutical industries.

Diaphragm certificate

ESG PTFE diaphragms are tested and certified by accredited 3rd party institution (SGS in Switzerland)

<p>Test Report No. TAOHO1805120701 Date: 13 Nov 2018 QINGDAO ELITE MACHINERY MANUFACTURE CO., LTD TONGJI INDUSTRY ZONE, JIIMO, QINGDAO, CHINA The following sample(s) was/were submitted and identified on behalf of the client as: PTFE SGS Job No.: QH16102024715CW - QD Date of Sample Received: 24 Oct 2016 Testing Period: 24 Oct 2016 - 13 Nov 2016 Test Requested: Determination of cytotoxicity by client. Test Method: Please refer to next page(s). Test Results: Please refer to next page(s). Result Summary: Commission Regulation (EU) No 1020/2011 of 14 January 2011 with amendments Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004 on materials and articles intended to come into contact with food amendments-Specific migration of bisphenol A: BPA Commission Regulation (EU) No 1020/2011 of 14 January 2011 with amendments -Specific migration of heavy metals Europe Regulation CMR 2013-Extractable heavy metals Conclusion: For Metal: The tested parameters comply with the requirement Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004. For PTFE: The tested parameters comply with the requirement Commission Regulation (EU) No 1020/2011 of 14 January 2011 with amendments Regulation (EC) No 1935/2004 of the European Parliament and of the Council of 27 October 2004.</p>	<p>Test Report No. SHHNG1803484401 Date: 02 Mar 2018 QINGDAO ELITE MACHINERY MANUFACTURE CO., LTD TONGJI INDUSTRY ZONE, JIIMO, QINGDAO, CHINA The following sample(s) was/were submitted and identified on behalf of the client as: PTFE SGS Job No.: QH16102024715CW - QD Date of Sample Received: 26 Feb 2018 Testing Period: 26 Feb 2018 - 02 Mar 2018 Test Requested: Selected testing as requested by client. Test Method: Please refer to next page(s). Test Results: Please refer to next page(s). Result Summary: FDA 21 CFR 177.1550-Total extractives FDA 21 CFR 177.1550-Fluoride extractives (as fluoride)</p>	<p>Attachment 1: Test for in vitro cytotoxicity (Elution test) Test Report - Attachment Client name: QINGDAO ELITE MACHINERY MANUFACTURE CO., LTD Contract number: 1805120701 Assignment ID: 18A-101105 Sample No.: 18A-100105/1a In vitro cytotoxicity study was conducted to assess the potential for cytotoxicity of PTFE Diaphragms, based on the USP >B7<- BIOLOGICAL REACTIVITY TEST Test. Under the conditions of this study, the test article met the requirements of the test and the positive controls performed as anticipated. EQUIPMENT & REAGENTS Biosafety Cabinet ID: 14-A20102 Calibration expiry date: 2018.09.05 ID: 14-A20103 Calibration expiry date: 2018.09.05 CO₂ Incubator ID: 14-A20104 Calibration expiry date: 2018.08.16 ID: 14-A20108 Calibration expiry date: 2018.09.16 Complete Media Lot: 0235197 Expiry date: 2018.04.15 ID: K0M357 Expiry date: Current Lot HODPE Lot: A-162K Expiry date: 2021.11.30 SPU-ZDEC MATERIALS The test article provided by the sponsor was identified and handled as follows: Test Article: PTFE Diaphragms Storage Conditions: Room temperature Extract Vehicle: Minimum Essential Complete Medium Test Extract Preparation: According to the sponsor's requirement, the test sample was extracted at 121°C for 30 min before testing. 104.8ml of the test sample was extracted in 34 ml of extraction vehicle for 24 hours. The extract was used in extraction.</p>
<p>Certificate of Receipt of Technical Documentation Number: CML 18ATEX1055 Issue 0 1. In accordance with Directive 2014/34/EU, Article 13, (b) (ii) and Annex VIII this certificate confirms receipt of a dossier of technical documentation. 2. This certificate is evidence that the manufacturer has fulfilled its duties concerning communication of the dossier of technical documentation to a Notified Body in accordance with the requirements of Directive 2014/34/EU, Article 13, (b) (ii). 3. Certification Management Limited, a Notified Body, number 2603 according to Council Directive 2014/34/EU Article 17 and 26. 4. Manufacturer name #: Qingdao Elite Machinery Manufacture Co., Ltd. 5. Address #: No 15, Jinhajiang Road, Tongji Industry Zone, Jimo, Qingdao, China 6. Manufacturer Ref. # Equipment #: TCF-VC-AN-2018012801 Angle Seat Valve, Pneumatic Shuttle Valve, Check Valve, Strainer, Pressure Reducing Valve, Angle Valve, Diaphragm Valve Model(s): DN8-100 The apparatus marking includes the code: II 2GD c T4 7. Future modification or addition to the stored dossier of technical information will be acknowledged by a further issue of this Certificate of Receipt 8. Issue: 0 Date: 08 Feb 2018 Expiry after: 08 Feb 2028 Information provided by the manufacturer/ M D Sheahan FirstMC Managing Director Unit 1, Liverpool Business Park Newgate Street, Liverpool L10 4LZ T +44 (0) 151 901 1180 E info@cmlex.com www.cmlex.com Page 1 of 1</p>		

● EC 1935 / FDA(Food and Drug Administration) Certificate / USP(US Pharmacopeia) Certificate / ATEX anti-explosion certificate

Diaphragm Valve

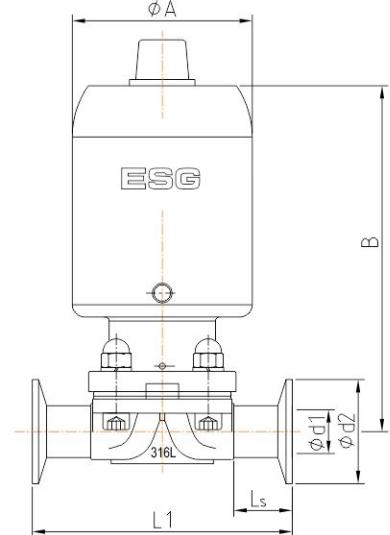
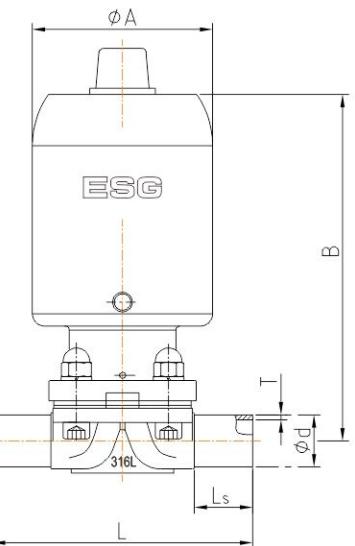


Main Dimension

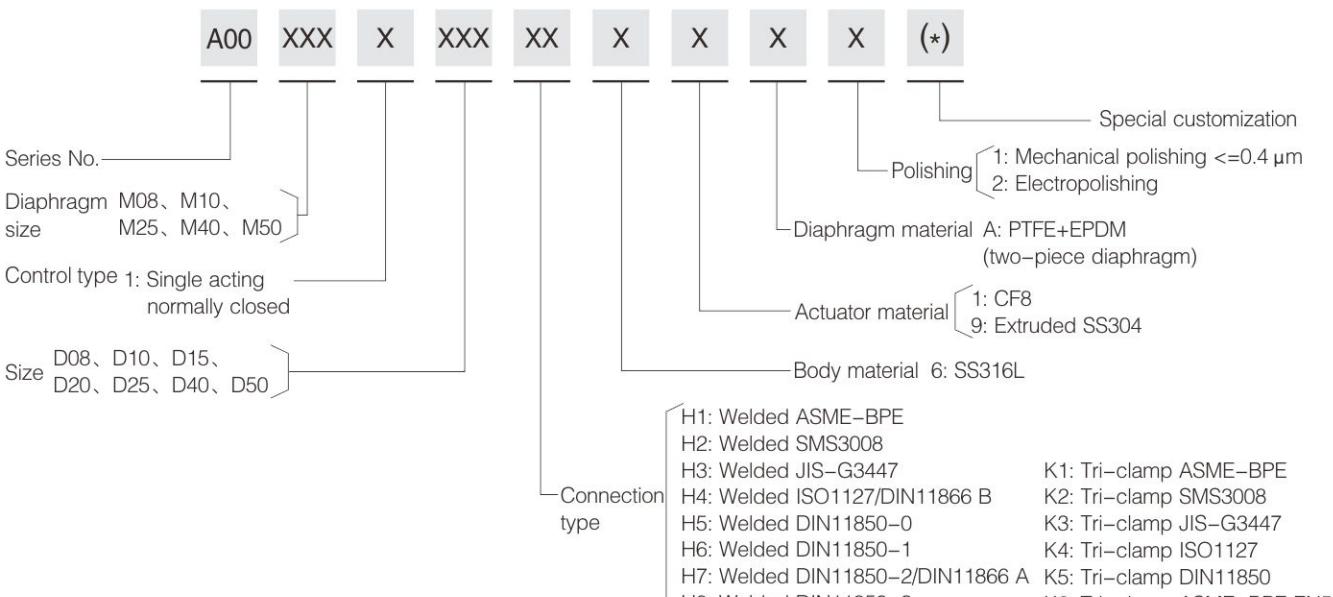
Size	Diaphragm	Pneumatic diaphragm valve -Welded connection				ASME-BPE		SMS3008		JIS-G3447		ISO-1127		DIN-11850				DIN-11866			
		Φ A	B	Ls	L	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	-0	-1	-2	-3	A	B		
DN8	8	47	85	20	72	6.35 × 0.89	—	—	—	—	—	—	—	—	—	—	—	—	—		
DN10	8	47	85	20	72	9.53 × 0.89	—	—	—	—	—	—	—	—	—	—	—	—	—		
DN15	8	57	106	20	72	12.70 × 1.65	—	—	—	—	—	—	—	—	—	—	—	—	—		
	10	65	134	29	108	—	—	—	21.3 × 1.6	18 × 1.5	18 × 1.0	19 × 1.5	20 × 2	19 × 1.5	21.3 × 1.6	—	—	—	—		
DN20	10	65	134	29	108	19.05 × 1.65	—	—	—	—	—	—	—	—	—	—	—	—	—		
DN25	25	88	170	26	120	—	—	—	26.9 × 1.6	22 × 1.5	22 × 1.0	23 × 1.5	24 × 2	23 × 1.5	26.9 × 1.6	—	—	—	—		
DN30	25	88	170	26	120	25.4 × 1.65	25.0 × 1.2	25.4 × 1.2	33.7 × 2	28 × 1.5	28 × 1.0	29 × 1.5	30 × 2	29 × 1.5	33.7 × 2	—	—	—	—		
DN40	40	109	196	30	153	38.1 × 1.65	38.0 × 1.2	38.1 × 1.2	48.3 × 2	40 × 1.5	40 × 1.0	41 × 1.5	43 × 2	41 × 1.5	48.3 × 2	—	—	—	—		
DN50	50	129	226	30	173	50.8 × 1.65	51.0 × 1.2	50.8 × 1.5	60.3 × 2	52 × 1.5	52 × 1.0	53 × 1.5	54 × 2	53 × 1.5	60.3 × 2	—	—	—	—		

Size	Diaphragm	Pneumatic diaphragm valve -Tri-clamp connection				ASME-BPE		ASME-BPE			SMS3008		JIS-G3447		ISO-1127			DIN-11850		
		EN558-1 Series 7				Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1
DN8	8	47	85	15.5	4.57	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—	
DN10	8	47	85	15.5	7.75	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—	
	8	57	106	15.5	9.4	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—	
	10	65	134	34	—	—	—	—	—	—	—	—	—	—	18.1	50.5	108	16.0	34	108
DN20	10	65	134	34	15.75	25	101.6	15.75	25	117	15.75	25	117	—	—	—	—	—	—	
	25	88	170	30	—	—	—	—	—	—	—	—	—	—	23.7	50.5	117	20.0	34	117
DN25	25	88	170	30	22.1	50.5	114.3	22.1	50.5	127	22.6	50.5	127	23	50.5	127	29.7	50.5	127	26.0
DN40	40	109	196	33	34.8	50.5	139.7	34.8	50.5	159	35.6	50.5	159	35.7	50.5	159	44.3	64	159	38.0
DN50	50	129	226	39	47.5	64	158.8	47.5	64	190	48.6	64	190	47.8	64	190	56.3	77.5	190	50.0

Other specifications available for customization.



Order Instruction

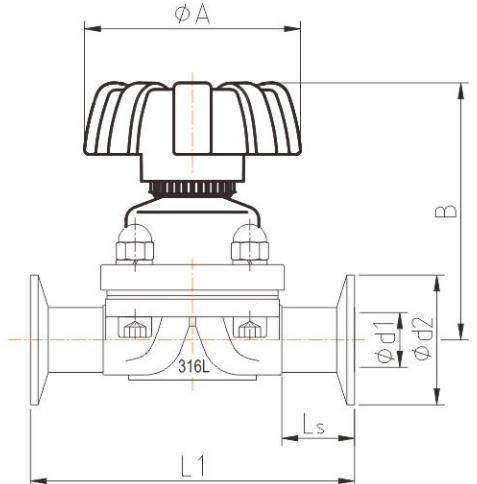
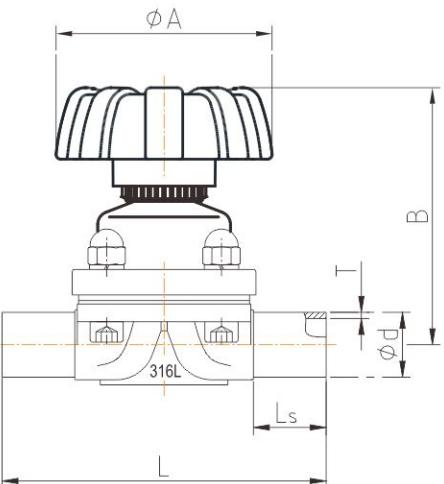


Diaphragm Valve

A01 Series
Welded Manual
Diaphragm Valve



A01 Series
Tri-clamp Manual
Diaphragm Valve



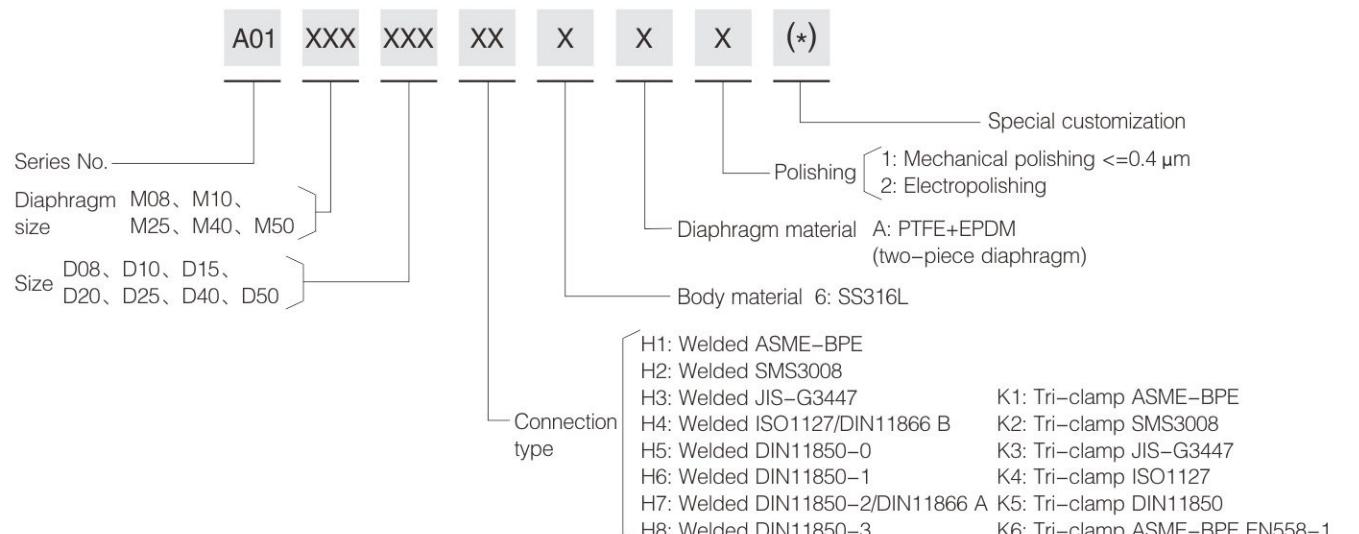
Main Dimension

Size	Diaphragm	Manual diaphragm valve -Weld connection					DIN-11850				DIN-11866			
		Φ A	B	Ls	L	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T	Φ d × T
DN8	8	40	64	20	72	6.35 × 0.89	—	—	—	—	—	—	—	—
DN10	8	40	64	20	72	9.53 × 0.89	—	—	—	—	—	—	—	—
	8	50	64	20	72	12.70 × 1.65	—	—	—	—	—	—	—	—
DN15	10	65	85	29	108	—	—	—	21.3 × 1.6	18 × 1.5	18 × 1.0	19 × 1.5	20 × 2	19 × 1.5
	10	65	85	29	108	19.05 × 1.65	—	—	—	—	—	—	—	—
DN20	25	85	102	26	120	—	—	—	26.9 × 1.6	22 × 1.5	22 × 1.0	23 × 1.5	24 × 2	23 × 1.5
	25	85	102	26	120	25.4 × 1.65	25.0 × 1.2	25.4 × 1.2	33.7 × 2	28 × 1.5	28 × 1.0	29 × 1.5	30 × 2	29 × 1.5
DN25	25	85	102	26	120	25.4 × 1.65	25.0 × 1.2	25.4 × 1.2	33.7 × 2	28 × 1.5	28 × 1.0	29 × 1.5	30 × 2	29 × 1.5
DN40	40	105	115	30	153	38.1 × 1.65	38.0 × 1.2	38.1 × 1.2	48.3 × 2	40 × 1.5	40 × 1.0	41 × 1.5	43 × 2	41 × 1.5
DN50	50	125	133	30	173	50.8 × 1.65	51.0 × 1.2	50.8 × 1.5	60.3 × 2	52 × 1.5	52 × 1.0	53 × 1.5	54 × 2	53 × 1.5

Size	Diaphragm	Manual diaphragm valve -Tri-clamp connection					ASME-BPE			SMS3008			JIS-G3447			ISO-1127			DIN-11850		
		Φ A	B	Ls	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1	Φ d1	Φ d2	L1		
DN8	8	40	64	15.5	4.57	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—		
DN10	8	40	64	15.5	7.75	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—		
	8	50	64	15.5	9.4	25	63.5	—	—	—	—	—	—	—	—	—	—	—	—		
DN15	10	65	85	34	—	—	—	—	—	—	—	—	—	—	—	18.1	50.5	108	16.0		
	10	65	85	34	15.75	25	101.6	15.75	25	117	15.75	25	117	—	—	—	—	—	—		
DN20	25	85	102	30	—	—	—	—	—	—	—	—	—	—	—	23.7	50.5	117	20.0		
	25	85	102	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	117		
DN25	25	85	102	30	22.1	50.5	114.3	22.1	50.5	127	22.6	50.5	127	23	50.5	127	29.7	50.5	127	26.0	
DN40	40	105	115	33	34.8	50.5	139.7	34.8	50.5	159	35.6	50.5	159	35.7	50.5	159	44.3	64	159	38.0	
DN50	50	125	133	39	47.5	50.5	158.8	47.5	64	190	48.6	64	190	47.8	64	190	56.3	77.5	190	50.0	

Other specifications available for customization.

Order Instruction



Diaphragm Valve

A02 Series
Proportional Control
Angle Seat Valve



Technical Specification

- Voltage: 24V DC
- Power: <5W
- Input signal: 0/4–20mA, 0–5/10V
- Output signal: 0/4–20mA, 0–5/10V
- Enclosure material: PA6-GF30+PC
- Control pressure: 3–7bar (44–102psi)
- Ambient temperature: 0–60°C
- Protection level: IP65

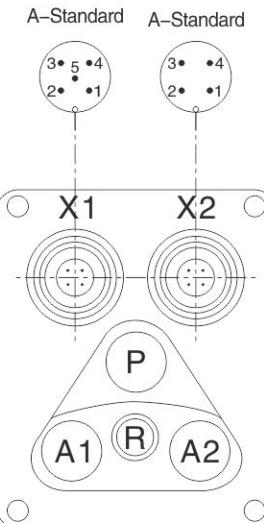
Function Principle

Intelligent positioner is a microprocessor-based valve regulator. The valve's open/close state is controlled by external input signals. It is widely used in industrial fluids control systems in order to enable remote and automated control.

Advantages

1. Compact size meets space constraint.
2. Reliable performance and sensitive reaction.
3. Large LCD display makes it easy to operate.
4. Standard electrical interface allows convenient wiring.
5. High adjustment precision and strong anti-interference performance.
6. Spring-loaded feedback rod for easy installation.
7. Allows various types of connection interface.

Interface Definition



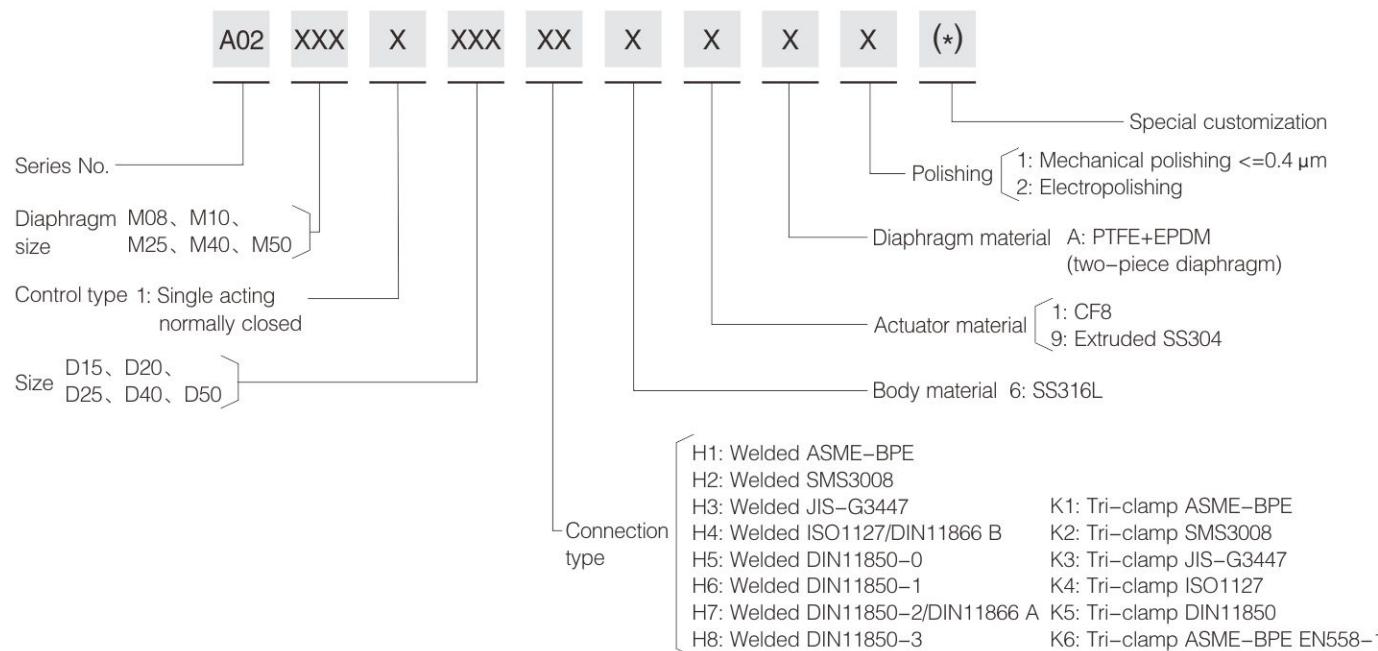
Electrical Terminal

Port Label	Terminal #	Description	Signal type
X1	1	Analog signal output +	0/4–20mA or 0–5/10V
	2	Improper position alarm output	High level
	3	Safe position enable output	High level
	4	Safe position trigger input	High level
	5	Signal common GND	GND
X2	1	Power +	+24V
	2	Power GND	GND
	3	Set signal input +	0/4–20mA or 0–5/10V
	4	Set signal input to GND	GND

Pneumatic Terminal

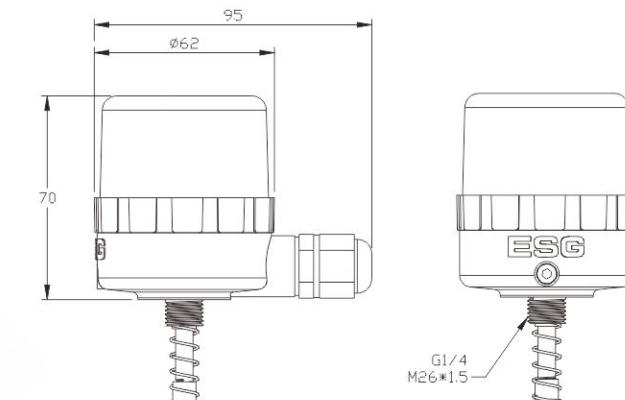
Port Label	Description
P	Air input
A1	Pilot port 1
A2	Pilot port 2
R	Exhaust port

Order Instruction

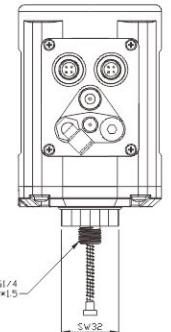
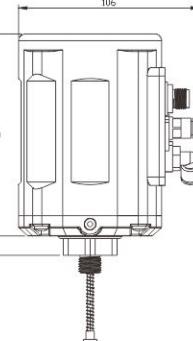
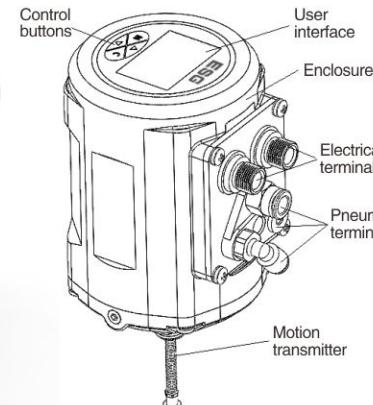


Control Accessory

OSO Series
Position Indicator



OPO Series
Intelligent positioner



Technical Specification

- Stroke range: 5–35mm
- Voltage: 12V DC–36V DC
- Current: 25mA/24V DC
- Indication Light: Visually feedbacks the valve's open/close status
- Temperature range: -30°C – +80 °C
- Protection level: IP65
- 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.

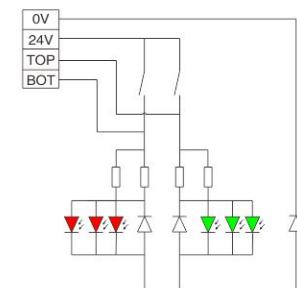
Function Principle

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

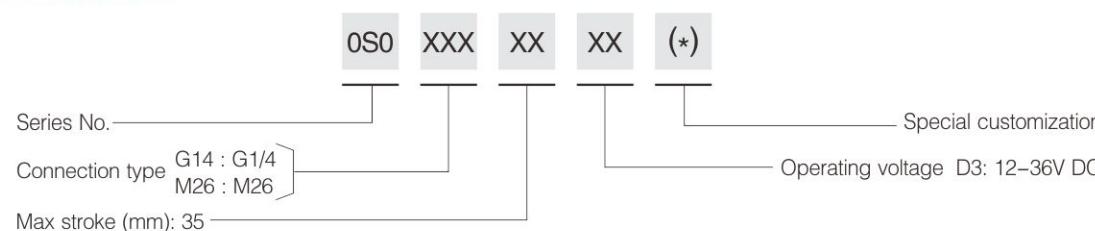
Advantages

- Compact size meets space constraint.
- Reliable performance and sensitive reaction.
- Spring-loaded and threaded connection are easily interchangeable.
- Quick installation and allows 360° rotation adjustment.
- Unique slider adjustment mechanism, convenient adjustment and precise position.
- Screw-free terminal block makes wiring more convenient.
- Standard cable waterproof lock ensures internal dustproof and moisture proof.

Electrical Schematic



Order Instruction



Technical Specification

- Stroke range: 5–15mm, 15–30mm
- Voltage: 24V DC
- Power: <5W
- Input signal: 0/4–20mA, 0–5/10V
- Output signal: 0/4–20mA, 0–5/10V
- Enclosure material: PA6-GF30+PC
- Main dimension: Φ85x132
- Control pressure: 3–7bar (44–102psi)
- Temperature range: 0–60 °C
- Protection level: IP65
- Mounting interface: G1/4 or M26x1.5 (can be customized)

Advantages

- Compact size meets space constraint.
- Reliable performance and sensitive reaction.
- Large LCD display makes it easy to operate.
- Standard electrical interface allows convenient wiring.
- High adjustment precision and strong anti-interference performance.
- Spring-loaded feedback rod for easy installation.
- Allows various types of connection interface.

Function Principle

Intelligent positioner is a microprocessor-based valve regulator. The valve's open/close state is controlled by external input signals. It is widely used in industrial fluids control systems in order to enable remote and automated control.

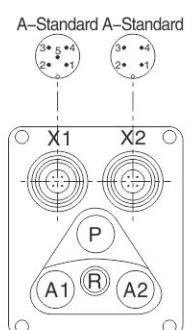
Electrical Terminal

Port Label	Terminal #	Description	Signal type
X1	1	Analog signal output +	0/4–20mA or 0–5/10V
	2	Improper position alarm output	High level
	3	Safe position enable output	High level
	4	Safe position trigger input	High level
	5	Signal common GND	GND
X2	1	Power +	+24V
	2	Power GND	GND
	3	Set signal input +	0/4–20mA or 0–5/10V
	4	Set signal input to GND	GND

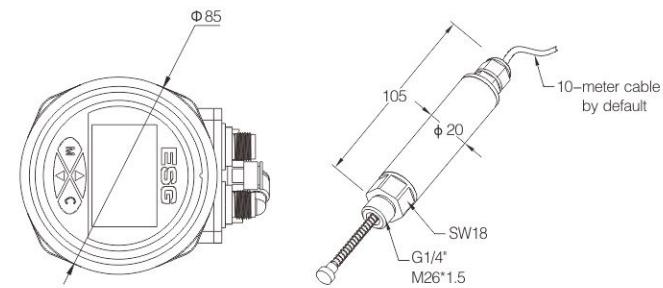
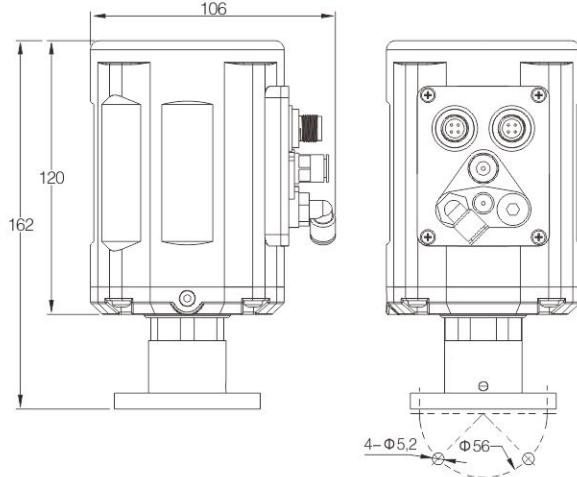
Pneumatic Terminal

Port Label	Description
P	Air input
A1	Pilot port 1
A2	Pilot port 2
R	Exhaust port

Interface Definition



Control Accessory



Order Instruction

OP0/OP1 X XXX XX XX (*)

Series No. _____
Control type 4 :Single acting
Connection type G14: G1/4
M26: M26

Special customization
Operating voltage D1: 24V DC
Max stroke (mm): 15、30

Seal Materials Chemical Compatibility Guide

Chemicals	NBR	EPDM	FPM	PTFE
Acetic acid-pure	-	O	-	+
Acetone-pure	-	+	-	+
Ammonia (gaseous)-pure	-	+	O	+
Ammonia (liquid)-pure	-	O	O	+
Battery acid (sulphuric acid 20%)	O	+	+	+
Brine (cooling brine)	+	+	+	+
Calcium hydroxide (lime water)-Aqueous	+	+	+	+
Carbon dioxide (dry)-pure	+	O	+	+
Carbon dioxide (humid)	+	O	O	+
Chlorinated lime (calcium hypochlorite)-aqueous	-	+	O	+
Chlorine bleaching lye (sodium hypo-chlorite)-aqueous	-	+	O	+
Chlorine (gaseous)-dry	-	-	O	+
Chlorine (liquid)- pure	-	-	O	+
Chlorine water (chlorine-humid)	-	-	O	+
Citric acid-aqueous	+	+	+	+
Dextrose (glycose)- aqueous	+	+	+	+
Ethyl alcohol (ethanol)-pure	O	+	O	+
Ethyl alcohol + acetic acid	O	+	O	+
Ethyl alcohol-fermented mash	+	+	+	+
Ethylene glycol (glycol)-pure	+	+	+	+
Formaldehyde solution (formalin)-aqueous	O	O	O	+
Glycerine-aqueous	+	+	+	+
Glycerine-pure	O	+	+	+
Inert gases-pure	+	+	+	+
Lactic acid-aqueous	O	O	+	+
Malic acid-aqueous	+	+	+	+
Methanol (methyl alcohol)-pure	-	+	-	+
Nitrogen-pure	+	+	+	+
Oxygen-pure	O	O	+	+
Ozone (humid and dry)	-	O	O	+
Silicone oil	+	+	+	+
Soda lye (sodium hydroxide)-aqueous	O	+	O	+
Sodium carbonate (soda)-aqueous	+	+	+	+
Sodium chloride (table salt)-aqueous	+	+	+	+
Sodium hydrogen carbonate (sodium bi-carbonate)-aqueous	+	+	+	+
Sodium hypochlorite (chlorine bleachinglye)-aqueous	-	O	+	+
Starch solution-aqueous	+	+	+	+
Toluene-pure	-	-	O	+
Water-distilled	+	+	+	+
Water (seawater)	+	+	+	+
Water vapour (130°C)	O	+	+	+
Yeast-aqueous	+	+	+	+

+: suitable O: limited suitability -: unsuitable

Limited suitability parts are rated as wear parts and are not included in the standard warranty conditions.

