



Multi-channel Valve

103 Series
Threaded Pneumatic
Three-way Angle
Seat Valve



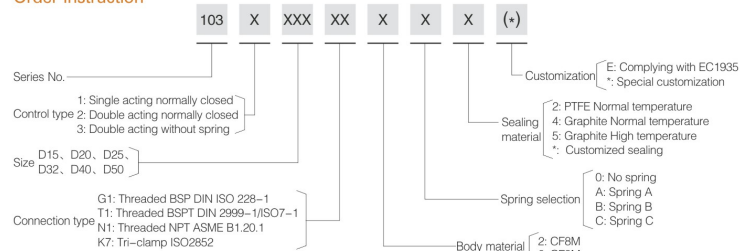
103 Series
Tri-clamp Pneumatic
Three-way Angle
Seat Valve



Technical Specification

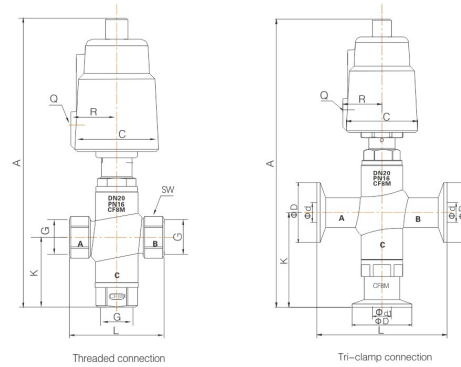
- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control fluid: Filtered compressed air or neutral gas
- Body material: CF8M/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Fluid temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting normally closed,
Double acting normally closed,
Double acting without spring
- Connection type: Threaded connection, Tri-clamp
- Applicable medium: Water, Steam, Oil, Neutral gas or Liquid,
Organic solvent, Acid and lye
- Leakage class: DIN EN 12266 Class A

Order Instruction



Function Principle

When the valve is in idle state, C port is closed due to spring force. When the actuator piston is compressed, C port is opened and B port is closed. When double acting, the valve opens and closes by compressed air.

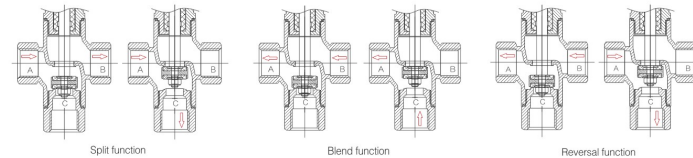


Main Dimension (Threaded connection)

Size	Actuator	Q	C	R	G	A	K	L	SW	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	63	1/8"	75	41	1 1/4"	301	86	116	50	3.26
	90	1/8"	106	55	1 1/4"	355	86	116	50	4.62
DN40	63	1/8"	75	41	1 1/2"	306	90	116	56	3.79
	90	1/8"	106	55	1 1/2"	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	ØD	Ød	Ød1	A	K	L	Weight (kg)
DN15	40	1/8"	50.5	27	34	16	16	223	80	90	0.99
DN20	50	1/8"	60	33	50.5	19	19	246	80	90	1.48
DN25	50	1/8"	60	33	50.5	26	26	262	90	100	1.78
DN32	63	1/8"	75	41	50.5	31	29	319	104	130	3.39
	90	1/8"	106	55	50.5	31	29	373	104	130	4.75
DN40	63	1/8"	75	41	64	35	33	327	111	150	4.09
	90	1/8"	106	55	64	35	33	381	111	150	5.45
DN50	90	1/8"	106	55	64	43	43	408	128	160	6.65



Multi-channel Valve

Single Acting, Normally Closed

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

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

Double Acting, Normally Closed

Size	Actuator	Interface	Orifice	Flow value Kv(m ³ /h)		Split function		Blend function		Reversal function	
				A-B	A-C	Differential pressure range(MPa)	Control pressure (MPa)	Differential pressure range(MPa)	Control pressure (MPa)	Differential pressure range(MPa)	Control pressure (MPa)
DN15-A	40	1/2"	14	4.1	4.9	0-1.6	0.4-0.6	0-1.6	0.4-0.6	0-1.4	0.4-0.6
DN20-B	50	3/4"	18	5.8	6.5	0-1.6	0.3-0.55	0-1.6	0.3-0.55	0-1.6	0.3-0.7
DN25-B	50	1"	24	13.9	14.4	0-1.4	0.3-0.65	0-1.4	0.3-0.65	0-1.2	0.3-0.7
DN32-D	63	1 1/4"	31	20.9	22.8	0-1.3	0.35-0.7	0-1.3	0.35-0.7	0-1.3	0.35-0.7
DN32-C	90	1 1/4"	31	20.9	22.8	0-1.6	0.3-0.55	0-1.6	0.3-0.55	0-1.6	0.3-0.55
DN40-D	63	1 1/2"	35	24.4	26.6	0-1.0	0.35-0.7	0-1.0	0.35-0.7	0-1.0	0.35-0.7
DN40-C	90	1 1/2"	35	24.4	26.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6	0-1.6	0.3-0.6
DN50-C	90	2"	45	29.3	31.9	0-1.6	0.3-0.65	0-1.6	0.3-0.65	0-1.6	0.3-0.7

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

Double Acting Without Spring

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

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

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



Technical Specification

- Operating pressure: 0-16bar (0-232psi)
- Control pressure: 3-8bar (43.5-116psi)
- Control medium: Filtered compressed air or neutral gas
- Body material: CF8M/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Medium temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting normally closed, Double acting normally closed, Double acting without spring
- Connection type: Tri-clamp
- Applicable medium: Water, Steam, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye
- Leakage class: DIN EN 12266 Class A

Function Principle

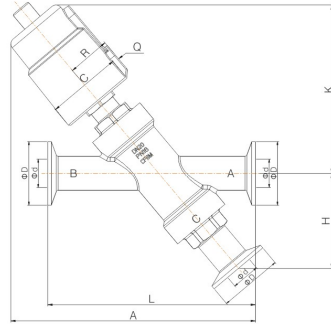
We can achieve flow reversing, diverting and mixing functions with this valve. To a certain extent, this 3-way angle seat valve can replace two 2-way valves. At non-operating state, port C is closed, while port A and port B are interlinked. When give control air to actuator, port C and port A is interlinked,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

Advantages

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



Multi-channel Valve



Main Dimension (Tri-clamp connection)

Size	Actuator	Q	C	R	D	d	A	K	H	L	Weight (kg)
DN20	50	1/8"	50.5	27	50.5	22.5	200	140	76	165	1.98

Single Acting Control

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

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

Double Acting Normally Closed Control

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

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

Double Acting Without Spring Control

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

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

109 Series Pneumatic Modular Valve



Technical Specification

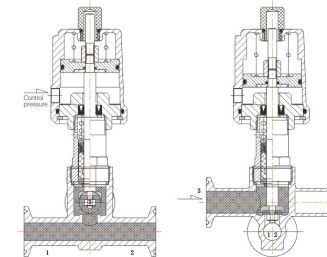
- Operating pressure: 0-16bar (0-232psi)
- Control pressure: 3-8bar (43.5-116psi)
- Control medium: Filtered compressed air or neutral gas
- Body material: CF8M/CF3M and other special materials
- Actuator material: CF8
- Seal material: PTFE
- Medium temperature: -10°C — +180°C
- Ambient temperature: -10°C — +80°C
- Control type: Single acting normally closed, Double acting normally closed, Double acting without spring
- Connection type: Tri-clamp
- Applicable medium: Water, Steam, Oil, Neutral gas or Liquid, Organic solvent, Acid and lye
- Leakage class: DIN EN 12266 Class A

Function Principle

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

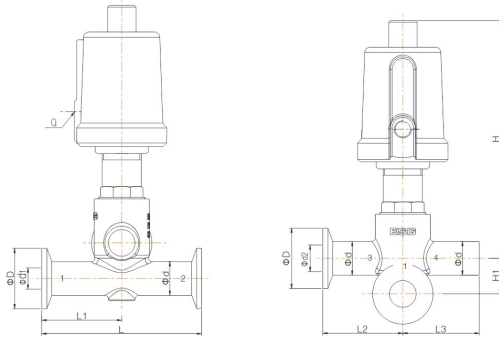
Advantages

- Easy to clean
 - Seat is separate from the public ports. Well machined inner wall of the public ports ensures a smooth flow.
 - The valve utilizes bottom seal and seal ring for connection to valve stem in order to avoid fluid residue and allow effortless cleaning.
- 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.





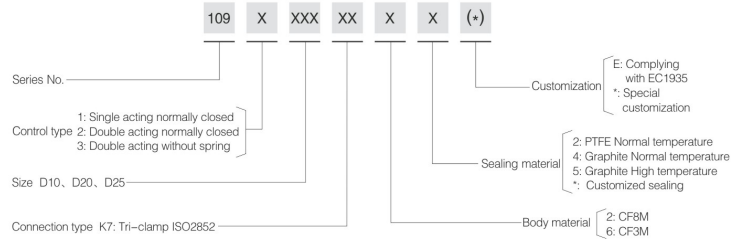
Multi-channel Valve



Main Dimension

Size	Actuator	Q	Ø D	Ø d	Ø d1	Ø d2	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
DN25	63	1/8"	50.5	34	29.5	29.5	165	39	65	63.5	55	130

Order Instruction



110 Series Pneumatic Manifold Valve



Technical Specification

- Operating pressure: 0–16bar (0–232psi)
- Control pressure: 3–8bar (43.5–116psi)
- Control medium: Filtered compressed air or neutral gas
- Seal material: PTFE
- Body material: CF8/CF8M/CF3M and other special materials
- Applicable medium: Water, Oil, Air and other liquid
- Medium temperature: -10°C — +180°C, +25°C — +220°C
- Ambient temperature: -10°C — +80°C
- Connection type: Welded, Threaded, Diamond flange
- Control type: Single acting normally closed, Double acting normally closed, Double acting without spring
- Leakage class: DIN EN 12266 Class A

Advantages

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



Order Instruction

