

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 efficient fluid dynamics and less pressure loss.

Advantages

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

Applications

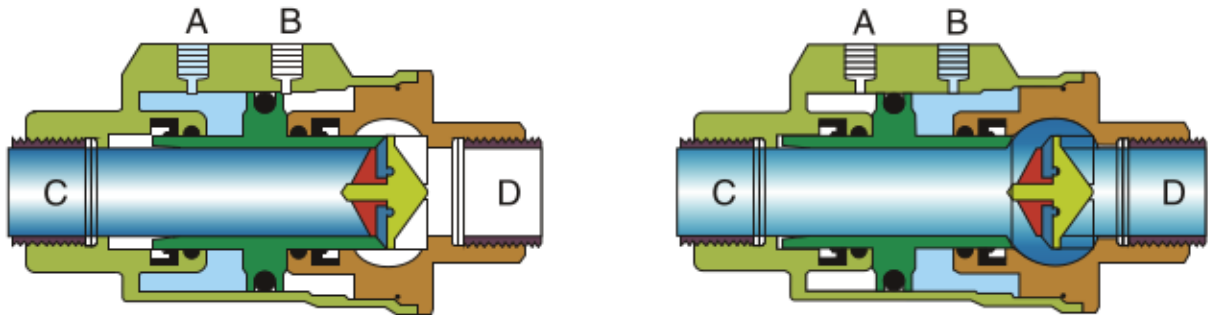
- Beer & Drinks Filling Machinery
- Textile Printing & Dyeing
- Gas Industry
- Pharmacy & Medical Equipment
- Rubber Machinery
- Chemical Industry
- Disinfection
- Frothing Equipment
- Water/sewage Disposal

Technical Specification

Fluid Pressure	Max 1.6MPa (232psi)
Control Pressure	0.3–0.8MPa (43.5–116psi)
Control Medium	Neutral gas, Air
Body Material	CF8M/CF8
Seal Material	EPDM / FKM (VITON)
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(FKM), –20°C — +130°C(EPDM)
Ambient Temperature	–20°C — +80°C
Control Type	Normally closed, Normally open, Double acting with spring, Double acting
Connection Type	Threaded(BSP,NPT,BSPT)

Pneumatic Shuttle Valve

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.

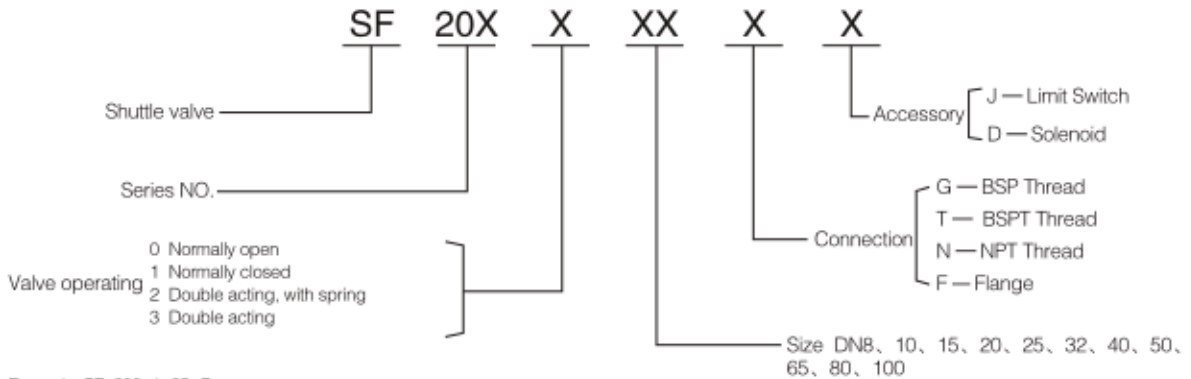
For a single acting N.C. shuttle valve, a spring is installed in "A" pressing the piston against seat seal and allowing the valve to remain closed in its idle state.

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.

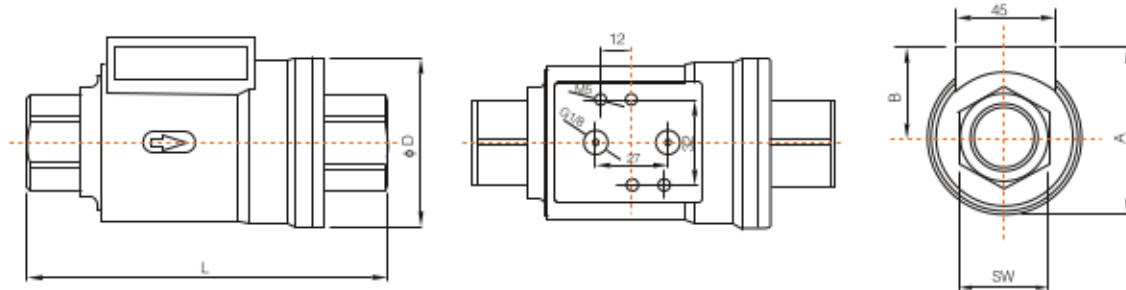
For a single-acting N.O. shuttle valve, a spring is installed in "B", forcing the piston away from seat seal and allowing the valve to remain open in its idle state.

Order Instruction



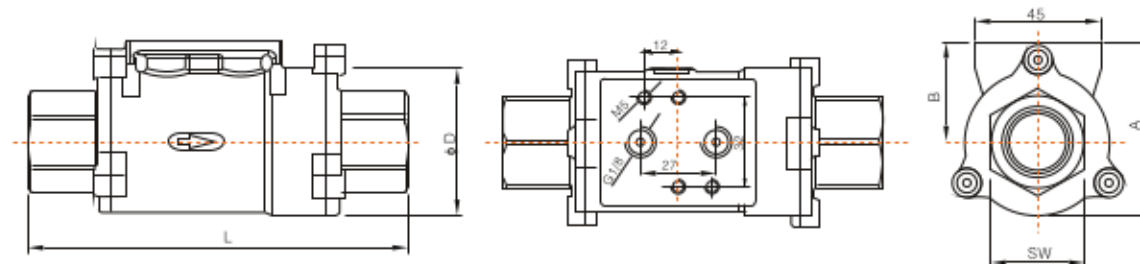
Pneumatic Shuttle Valve

Main Dimension for 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
D (mm)	46	52	64	69	86	96	108
SW (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

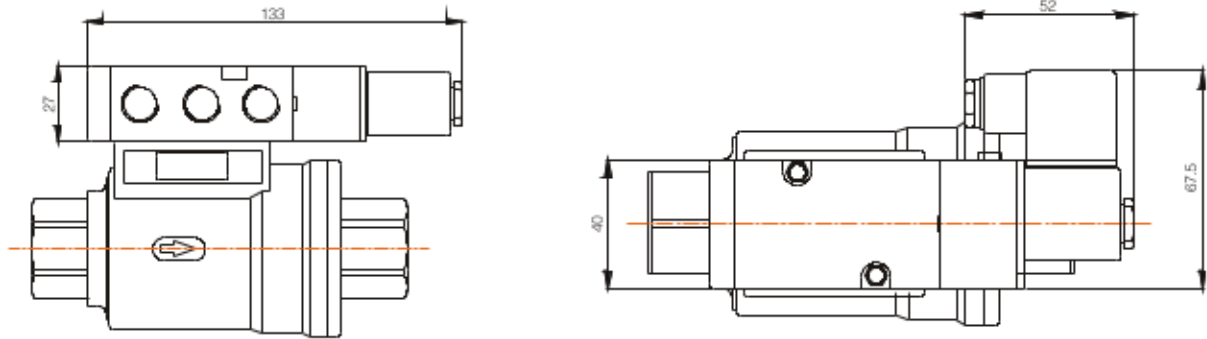
Main Dimension for 201 Series



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
D (mm)	37	37	42.5	52	60	75	84	97
SW (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 Accessory

NAMUR Solenoid Valve



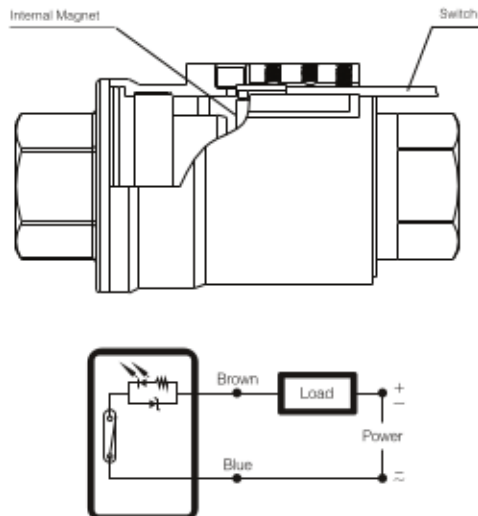
2/5 way NAMUR solenoid valve is suitable for 200 and 201 series.

Technical Specification

Connection	G1/4"
Control Pressure	0.3–0.8Mpa
Power	AC: 220V DC: 24V
Voltage Range	± 10%
Power Consumption	AC 4.5W DC 3W
Ambient Temperature	5 — 55°C
Max Frequency	3 times/second
Protection Level	IP65

Magnetic limit switch

The valve can be provided with magnetic limit switches and signaling LED.

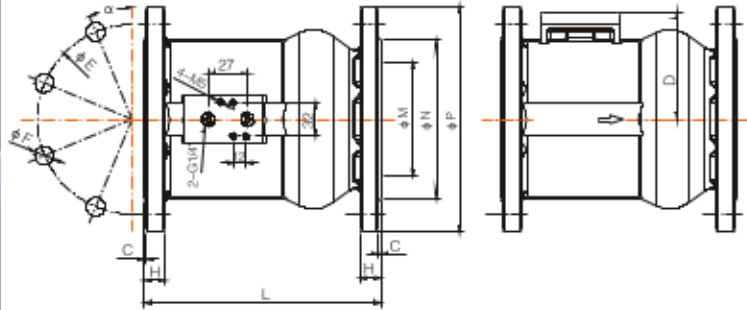


Technical Specification

Size	DN10–DN50
Indication	Red LED
Power	5–120V DC/AC
Max.current	100mA
Cable	PVC; 2 PVC cables
Working temperature	-10 — +70°C
Protection Level	IP67

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

Flange End Pneumatic Shuttle Valve



Flange specification: JB/T82.1-1994; DIN2543-2000

Technical Specification

Fluid Pressure	(Above seat): Max 1.6MPa (232psi), (Below seat): Max 1.2MPa (174psi)
Control Pressure	0.3-0.5MPa (43.5-72.5psi)
Control Medium	Neutral gas,Air
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.
Medium Temperature	-20°C — +130°C
Ambient Temperature	-20°C — +80°C
Control Type	Double acting
Connection Type	Flanged

Main Dimension

Size	D	L	φ E	φ F	H	C	φ M	φ N	φ P	α	Kv(m ³ /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