

PNEUMATIC SHUTTLE VALVE



200 SERIES



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.

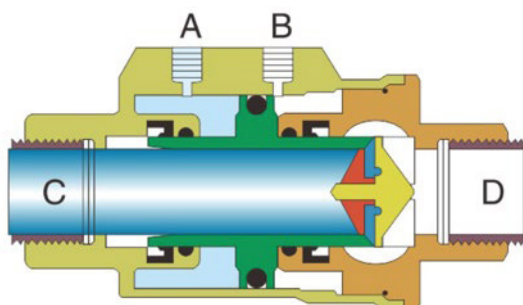
ADVANTAGES

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

APPLICATIONS

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

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.

201 SERIES



TECHNICAL SPECIFICATION

Operating pressure: 0-16 bar (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.

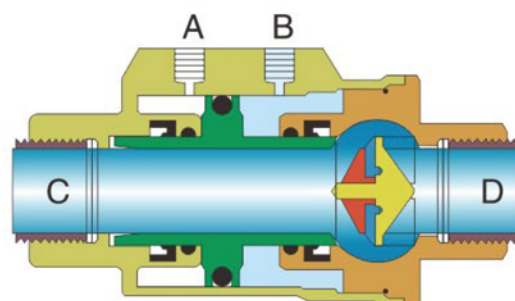
Medium temperature: -20°C - +150°C (FPM),
-20°C - +130°C (EPDM)

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



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.

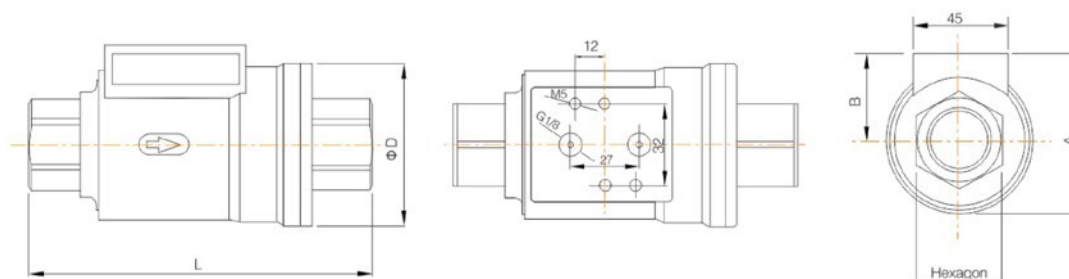
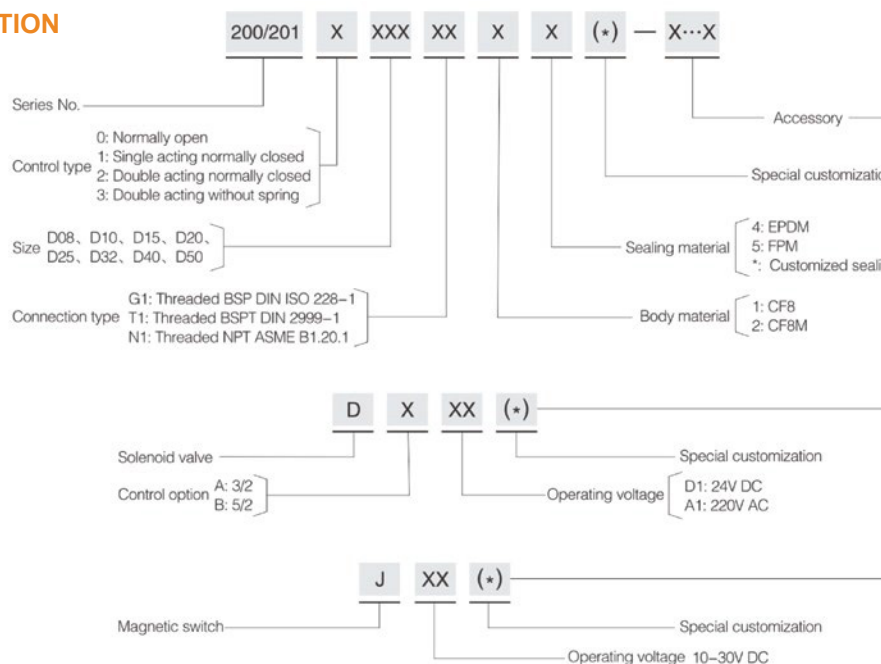
For a single acting N.O. shuttle valve, a spring is installed in "B" chamber, forcing the piston away from seat seal and allowing the valve to remain open in its idle state.



PNEUMATIC SHUTTLE VALVE

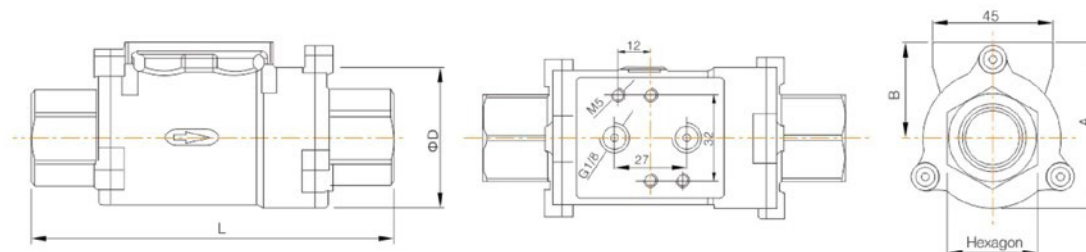


ORDER INTRUCTION



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



PNEUMATIC 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	Double Acting, Normally Closed-Below Seat	Normally Open-Above Seat	Normally Open-Below Seat
Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa	Control Pressure Mpa	Control Pressure Mpa	Control Pressure Mpa
DN10	G3/8"	10	3.2	0-1.6	0.3-0.5	0.3-0.5	0.5	0.5
DN15	G1/2"	15	6.4	0-1.6	0.4-0.5	0.4-0.5	0.5	0.5
DN20	G3/4"	20	8.9	0-1.6	0.4-0.5	0.4-0.5	0.5	0.5
DN25	G1"	25	13.7	0-1.6	0.3-0.7	0.3-0.7	0.5	0.7
DN32	G1 1/4"	32	21.6	0-1.6	0.3-0.7	0.3-0.7	0.5	0.7
DN40	G1 1/2"	40	36.5	0-1.6	0.3-0.7	0.3-0.7	0.5	0.7
DN50	G2"	50	55.0	0-1.6	0.5-0.7	0.5-0.7	0.6	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	Double Acting, Normally Closed-Below Seat	Normally Open-Above Seat	Normally Open-Below Seat
Size	Interface	Orifice mm	Flow value Kv(m³/h)	Differential pressure range MPa	Control Pressure Mpa	Control Pressure Mpa	Control Pressure Mpa	Control Pressure Mpa
DN8	G1/4"	10	2.2	0-1.6	0.35-0.5	0.35-0.5	0.5	0.5
DN10	G3/8"	10	3.1	0-1.6	0.35-0.5	0.35-0.5	0.5	0.5
DN15	G1/2"	15	5.7	0-1.6	0.35-0.5	0.35-0.7	0.5	0.7
DN20	G3/4"	20	10.6	0-1.6	0.35-0.5	0.35-0.5	0.5	0.5
DN25	G1"	25	17.4	0-1.6	0.35-0.5	0.35-0.5	0.5	0.5
DN32	G1 1/4"	32	21.9	0-1.6	0.35-0.5	0.35-0.7	0.5	0.7
DN40	G1 1/2"	40	40.5	0-1.6	0.35-0.5	0.35-0.7	0.5	0.7
DN50	G2"	50	59.3	0-1.6	0.5-0.6	0.5-0.7	0.6	0.7



PNEUMATIC SHUTTLE VALVE



SHUTTLE VALVE WITH SOLENOID VALVE

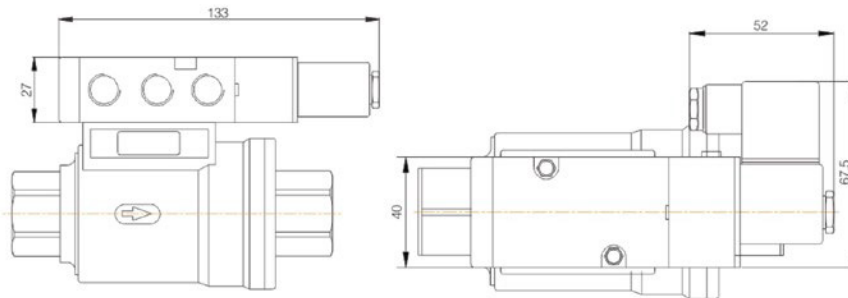


TECHNICAL SPECIFICATION

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

SOLENOID VALVE

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



SHUTTLE VALVE WITH MAGNETIC SWITCH



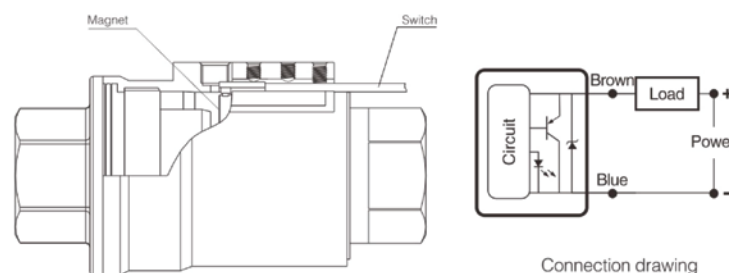
TECHNICAL SPECIFICATION

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 classt	: 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.

MAGNETIC SWITCH

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

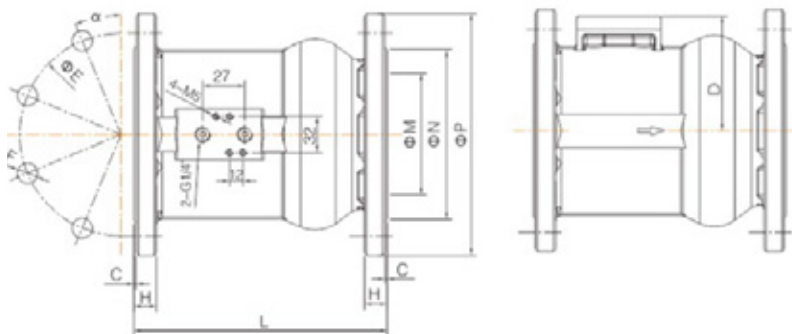




PNEUMATIC SHUTTLE VALVE



204 SERIES FLANGE SHUTTLE VALVE



TECHNICAL SPECIFICATION

Operating pressure	: Above seat 0-16bar (0-232psi) Below seat 0-12bar (0-174psi)	Fluid temperature	: -20°C - +130°C (EPDM)
Control pressure	: 3-5bar (43.5-72.5psi)	Ambient temperature	: -20°C - +80°C
Control fluid	: Filtered compressed air or neutral gas	Control type	: Double acting
Body material	: CF8	Connection type	: Flange DIN2543/DIN2576/EN1092-1/HG20592
Seal material	: EPDM/FKM can be customized)	Leakage class	: DIN EN 12266 Class A
Applicable medium	: EPDM-Suitable for steam and hot water, unsuitable for oils, greases, fuels, etc. FKM-Suitable for most fluid, except for steam.		

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 INTRUCTION

