



3 Port Direct Operated Solenoid Valve

Series VS3135/3145

Metal Seal



Terminal type



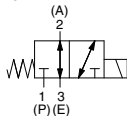
Specifications

Fluid	Air	
Proof pressure	1.5 MPa	
Operating pressure range	0 to 1.0 MPa	
Ambient and fluid temperature (°C) ⁽¹⁾	-20 to 60	
Lubrication ⁽²⁾	Not required	
Manual override	Option (Non-locking type available)	
Electrical entry	Grommet, Conduit terminal, Drip proof conduit terminal	
Coil rated voltage	AC	100, 200 V 50/60 Hz
	DC	24 V
Allowable voltage fluctuation	-15 to +10% of rated voltage	
Coil insulation type	Class B or equivalent (130°C) ⁽³⁾	
Impact/Vibration resistance (m/s ²)	150/50 ⁽⁴⁾	

Model

Valve model		VS3135						VS3145							
Flow characteristics		P → A			A → E			P → A			A → E				
		C	b	Cv	C	b	Cv	C	b	Cv	C	b	Cv		
		[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	[dm ³ /(s·bar)]	
1/4	6.1	0.3	1.5	6.1	0.4	1.6	—	—	—	—	—	—			
3/8	7.2	0.2	1.8	7.3	0.2	1.8	—	—	—	—	—	—			
1/2	9.0	0.2	2.3	9.0	0.3	2.4	18	0.27	4.8	16	0.34	4.1			
3/4	—	—	—	—	—	—	20	0.21	5.1	15	0.46	4.5			
Response time ⁽¹⁾ (ms)	AC	30 or less						30 or less							
	DC	60 or less						80 or less							
Max. operating ⁽²⁾ frequency (c.p.m.)	AC	300 or less						180 or less							
	DC	180 or less						180 or less							
Weight (kg)	AC	0.8						1.6							
	DC	1.1						2.4							
Apparent power (VA)	AC	Inrush	50 Hz	100						300					
			60 Hz	90						360					
		Holding	50 Hz	20						50					
			60 Hz	14						60					
Power consumption (W)	DC	13.2						24							

Symbol



How to Order

VS31 3 5 - 02 1 □ □ □ - □ □ □

Body size

3	3/8 Standard
4	1/2 Standard

Port size

Size	3135	3145
02	1/4	○ —
03	3/8	○ —
04	1/2	○ —
06	3/4	— ○

Coil rated voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC (50/60 Hz)
4	220 VAC (50/60 Hz)
5	24 VDC

Option

NII	None
P	Manual override AC coil: Locking type DC coil: Non-locking type

Thread type

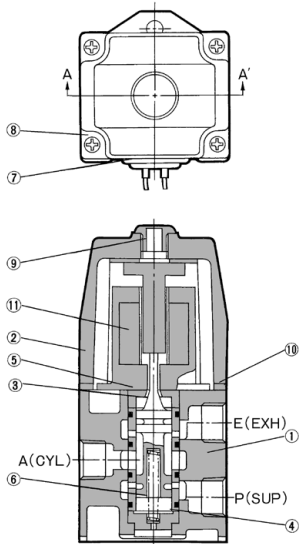
NII	Rc
N	NPT
T	NPTF
F	G

Electrical entry

NII	Grommet	WTB	Drip proof conduit terminal (Metallic fittings compliant with standards used.)
T	Conduit terminal	WTBL	Drip proof conduit terminal (Metallic fittings compliant with standards used.), With light
TL	Conduit terminal, With light	WTBZ	Drip proof conduit terminal (Metallic fittings compliant with standards used.), With surge voltage suppressor (With AXT307-1-□)
TZ	Conduit terminal, With surge voltage suppressor (With AXT307-1-□)	WTBLZ	Drip proof conduit terminal (Metallic fittings compliant with standards used.), With light/surge voltage suppressor (With AXT307-1-□)
TLZ	Conduit terminal, With light/surge voltage suppressor (With AXT307-1-□)		



Construction



A-A' cross section

Component Parts

No.	Description	Material
1	Body	Aluminum die-casted
2	Solenoid cover	Aluminum die-casted
3	Spool/Sleeve	Stainless steel

⑪ Solenoid Coil Assembly Part No.

Electrical entry	Voltage	Part no.	
		VS3135	VS3145
Grommet	100 VAC	A01-01	A12-01
	200 VAC	A01-02	A12-02
	24 VDC	VS4000-A07-52	A08-52
Conduit terminal	100 VAC	A01-01-63	A12-01-63
	200 VAC	A01-02-63	A12-02-63
	24 VDC	VS4000-A07-52	A08-52-63

Replacement Parts

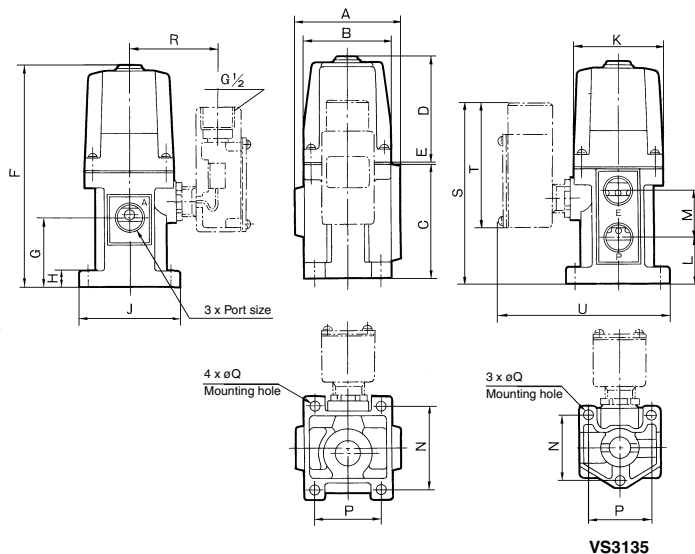
No.	Description	Material	Part no.	
			VS3135	VS3145
4	Cap	Resin	—	—
5	Bushing	Resin	XT013-13-2	XT021-12
6	Spring	Steel wire	—	—
7	Rubber plug for wire	NBR	XT010-20	XT010-20
8	Round head combination screw	Steel wire	XT010-21#1	XT010-21#1
9	Plug for cover	NBR	XT041-1	XT041-1
10	Gasket	NBR	XT013-31-2	NXT030-8



Dimensions

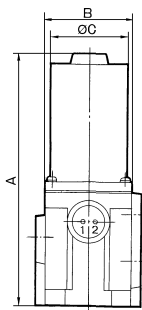
3 Port Direct Operated Solenoid Valve **VS3135/3145 Series**

VS3135/3145



Model	Port size Rc	A	B	C	D	E	F	G	H	J	K	L	M	N	P	øQ	Terminal dimensions			
																	R	S	T	U
VS3135-02																				
VS3135-03	1/4, 3/8, 1/2	64	64	65	70	1	136	35	9	64	54	19	32	50	50	7	60	120	96	118
VS3145-04																				
VS3145-06	1/2, 3/4	82	68	88	92	1	181	53	12	81	70	35	36	66	52	9	66	140	96	133

DC



Model	Port size Rc	A	B	øC
VS3135-02				
VS3135-03	1/4, 3/8, 1/2	129	64	50.8
VS3135-04				
VS3145-04				
VS3145-06	1/2, 3/4	196	68	60.5