

3 Port Direct Operated/Metal Seal

VS3135/3145



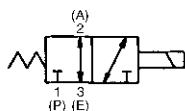
VS3135
Terminal style



VS3145

VS3135

JIS symbol



Specifications

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



Note 1) If it is low temperature, dry air should be used. (No freezing)

Note 2) If a lubricant is provided, use turbine oil #1 (ISO VG32).

Note 3) Based on JIS C4003.

Note 4) Shock resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle directions of the main valve and armature, for both energized and de-energized states.

Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2000Hz. Test was performed at both energized and de-energized states to the axis and right angle directions of the main valve and armature. (Valve in the initial stage.)

Model

Model		VS3135	VS3145
Effective area (Cv)	1/4:	34.5 (1.92)	75 (4.17)
	3/8:	46.5 (2.58)	81 (4.50)
	1/2:	46.5 (2.58)	
Response (1) time (ms)	AC	30 or less	30 or less
	DC	60 or less	80 or less
Max. operating (2) frequency (CPM)	AC	300 or less	180 or less
	DC	180 or less	180 or less
Weight (kg)	AC	0.8	1.6
	DC	1.4	2.4
Apparent power VA	AC	Inrush 50Hz	100
		Inrush 60Hz	90
	Holding	50Hz	20
		60Hz	14
Power consumption (W)	DC	13.2	24



Note 1) Based on JIS B8375-1981. (At 0.5 MPa, without surge voltage suppressor)

Note 2) Min. operating frequency is once in 30 days. (Based on JIS B8375.)

Note 3) Note 1)/Note 2): Under the condition of controlled clean air.

How To Order

VS31 **3** **5** - **02** **1** **□** **□**

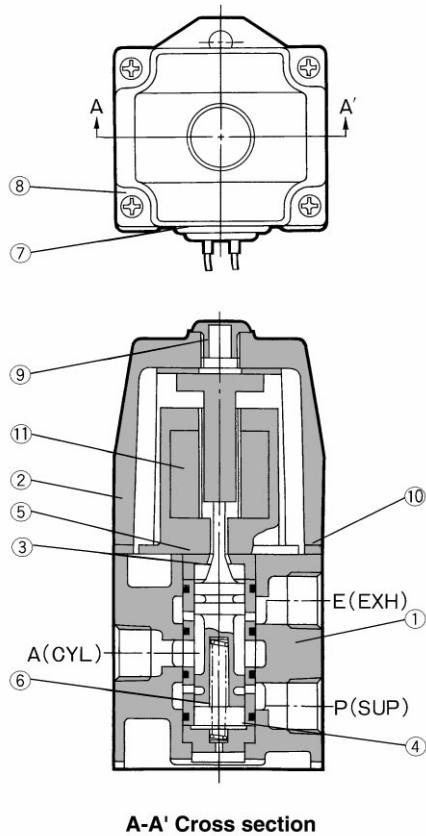
Body size	Port size	Voltage	Electrical entry	Option
3	3/8 Base	02 Rc(PT) 1/4	1 100V AC 50/60Hz	- Grommet
4	1/2 Base	03 Rc(PT) 3/8	2 200V AC 50/60Hz	T Conduit terminal
		04 Rc(PT) 1/2	3* 110V AC 50/60Hz	WTB Drip proof conduit terminal
		06 Rc(PT) 3/4	4* 220V AC 50/60Hz	TZ Surge voltage suppressor
			5 24V DC	TL Conduit terminal w/ indicator light
		9* Others		P Manual override

*Option

Caution

Refer to p.0-33 to 0-36 through for Safety Instruction and common precautions.

Construction



A-A' Cross section

Component Parts

No.	Description	Material	Notes
①	Body	Aluminum die cast	Color: Platinum silver
②	Solenoid cover	Aluminum die cast	Color: Platinum silver
③	Spool sleeve	Stainless steel	

⑪ Solenoid Coil Assembly

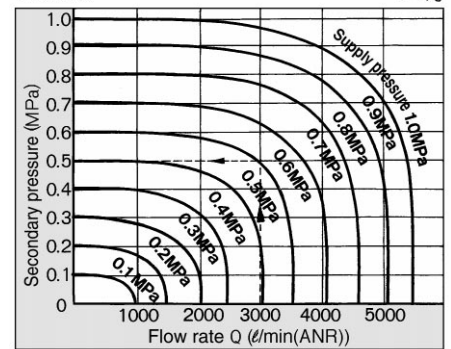
Electrical entry	Voltage	Part No.	
		VS3135	VS3145
Grommet	100V AC	A01-01	A12-01
	200V AC	A01-02	A12-02
	24V DC	A07-52	A08-52
Conduit terminal	100V AC	A01-01-63	A12-01-63
	200V AC	A01-02-63	A12-02-63
	24V DC	A07-52-63	A08-52-63

Replacement Parts

No.	Description	Material	Part No.	
			VS3135	VS3145
④	Cap	Resin	XT019-6	AXT103-4
⑤	Bushing	Resin	XT013-13-2	XT021-12
⑥	Spring	Steel wire	XT010-15	XT103-5
⑦	Rubber plug for wire	NBR	XT010-20	XT010-20
⑧	Head cap screw	Steel wire	XT010-21	XT010-21
⑨	Plug for cover	NBR	XT041-1	XT041-1
⑩	Gasket	NBR	XT013-31-2	NXT030-8

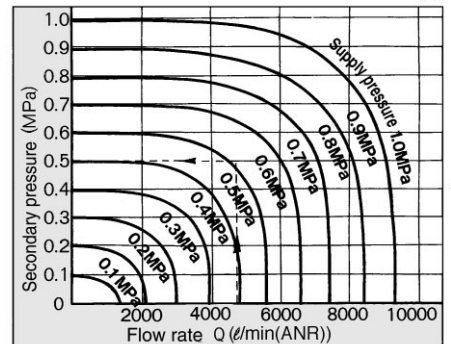
Flow Characteristics

VS3135 Effective area $S=46.5 \text{ mm}^2$ PT $\frac{3}{8}$



Example) If supply pressure is 0.6MPa and flow rate is 3000L/min., exhaust pressure is 0.5MPa (Pressure difference: 0.1MPa), as shown in the graph.

VS3145 Effective area $S=75 \text{ mm}^2$ PT $\frac{1}{2}$



Example) If supply pressure is 0.6MPa and flow rate is 4800L/min., exhaust pressure is 0.5MPa (Pressure difference: 0.1MPa), as shown in the graph.

SY

SYJ

VK

VZ

VT

VT

VP

VG

VP

VQ

VQZ

VZ

VS

