



3 Port Solenoid Valve Direct Operated Poppet Type **VT317 Series** Rubber Seal

Compact yet provides a large flow capacity

Dimensions (W x H x D).....45 x 89.5 x 45 (Grommet)

C: 2.6 dm³/(s·bar)
(Passage 2 → 3)

Suitable for use in vacuum applications

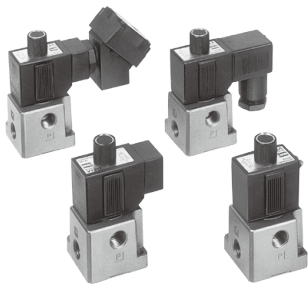
-101.2 kPa

(For vacuum specifications: VT/VO317V)

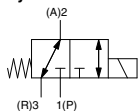
A single valve with 6 valve functions

(Universal porting type)

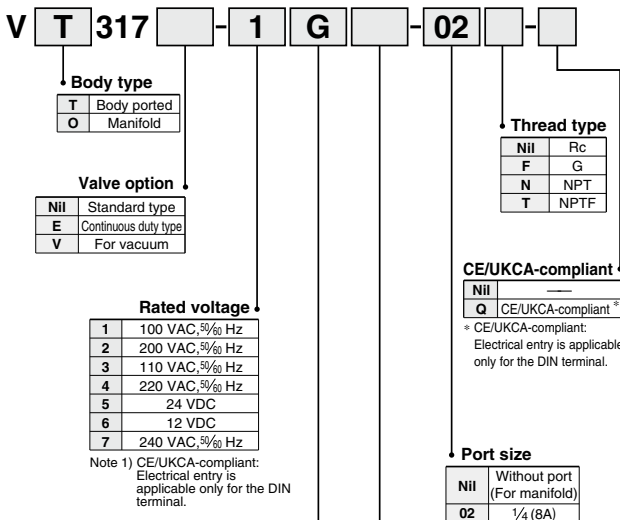
Selective porting can provide 6 valve functions, such as N.C. valve, N.O. valve, Divider valve, Selector valve etc.



Symbol



How to Order



Note 1) CE/UKCA-compliant: Electrical entry is applicable only for the DIN terminal.

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Electrical entry	CE/UKCA-compliant	
G	Grommet, 300 mm lead wire	—
H	Grommet, 600 mm lead wire	—
C	Conduit	—
T	Conduit terminal	—
D	DIN terminal	●
DO	DIN terminal, Without connector	●

Note) A gasket must be ordered separately for DO. Gasket part no.: VX020-026

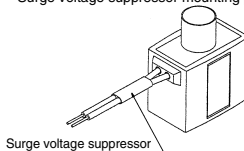
Electrical entry Symbol	Light/Surge voltage suppressor							CE/UKCA-compliant
	G	H	C	T	D	DO	D	DO
Nil	●	●	●	●	●	●	●	●
S	●(Note)	●(Note)	●(Note)	●	●	●	—	—
Z	—	—	—	●	—	—	—	—

S: With surge voltage suppressor

Note) Refer to the figure below.

Z: With light/surge voltage suppressor

Surge voltage suppressor mounting part (For "G")



Manifold

Model	Applicable manifold type	Accessory
VO317-(Q)	Common or individual exhaust	O-ring (KA00066, 4 pcs.) (Note) Hexagon socket head screw (XT012-25C#1, 2 pcs.)

VT317 Series

Standard Specifications

Type of actuation		Direct operated type 2 position single solenoid	
Fluid		Air	
Operating pressure range		0 to 0.9 MPa	
Ambient and fluid temperature		-10 to 50°C (No freezing.)	
Response time ⁽¹⁾		30 ms or less (at the pressure of 0.5 MPa)	
Max. operating frequency		10 Hz	
Lubrication		Not required (Use turbine oil Class 1 ISO VG32, if lubricated.)	
Manual override		Non-locking push type	
Mounting orientation		Unrestricted	
Impact/Vibration resistance ⁽²⁾		150/50 m/s ²	
Enclosure		Dustproof	
Electrical entry		Grommet, Conduit, Conduit terminal, DIN terminal	
Coil rated voltage (V)	AC (50/60 Hz)	100, 200, 110*, 220*, 240*	
	DC	24, 12*	
Allowable voltage fluctuation		-15 to +10% of rated voltage	
Apparent power ⁽³⁾	AC	Inrush	19 VA (50 Hz), 16 VA (60 Hz)
		Holding	11 VA (50 Hz), 7 VA (60 Hz)
Power consumption ⁽³⁾		DC	Without indicator light: 6 W, With indicator light: 6.3 W
Light/Surge voltage suppressor (Not applicable for grommet type)		AC	Varistor, Neon bulb
		DC	Varistor, LED (Neon bulb for 100 V or more)

* Semi-standard

Flow Rate Characteristics/Weight

Valve model	Flow rate characteristics												Weight
	1 → 2 (P → A)			2 → 3 (A → R)			3 → 2 (R → A)			2 → 1 (A → P)			
	C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv	
VT317													
VT317V (Vacuum spec. type)	2.4	0.26	0.62	2.6	0.34	0.67	2.8	0.25	0.67	2.5	0.37	0.66	0.29kg
VT317E (Continuous duty type)													

Valve Options

Continuous duty type: VT317E

Exclusive use of VT317E is recommended for continuous duty with long time loading.

⚠ Caution

1. This model is for continuous duty, not for high cycle rates.
2. Energizing solenoid should be done at least once in 30 days.

Vacuum spec. type: VT317V

This vacuum model has less air leakage than the standard model under low pressure. It is recommended for vacuum application.

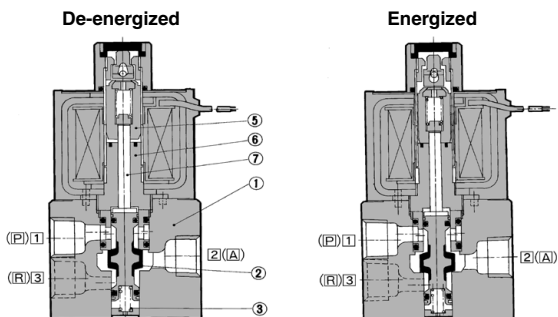
⚠ Caution

1. Since this valve has slight air leakage, it can not be used for vacuum holding (including positive pressure holding) in the pressure container.

Specifications different from standard are as follows.

Operating pressure range -101.2 kPa to 0.1 MPa

Construction



Operation principles

<De-energized>

Spool valve ② is pushed upward by the return spring ③, port P ① is closed, and port A ② and port R ③ are opened.

<Energized>

When an electric current is applied to the molded coil ④, the armature ⑤ is attracted to the core ⑥, and through the push rod ⑦, it pushes down the spool valve ②. Then, port P ① and port A ② are connected. At this time, there will be gaps between the armature ⑤ and the core ⑥, but the armature will be magnetically attracted to the core ⑥.

Component Parts

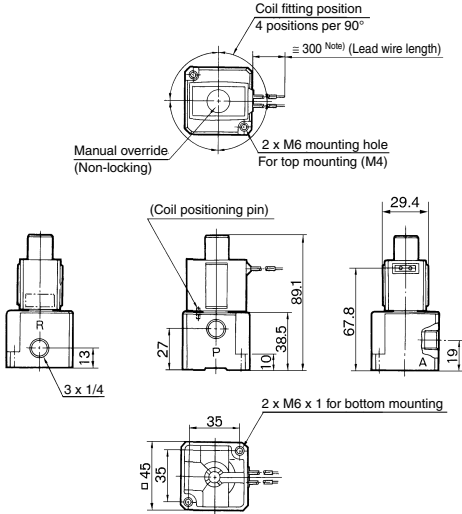
No.	Description	Material	Note
1	Body	Aluminum die-casted	Color: Platinum silver
2	Spool valve	Aluminum, NBR	



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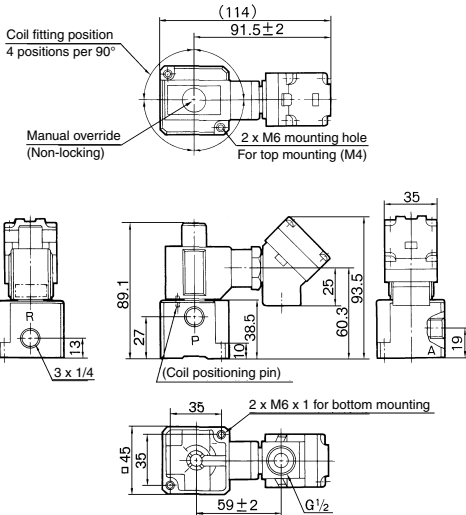
Dimensions

Grommet: VT317-□G

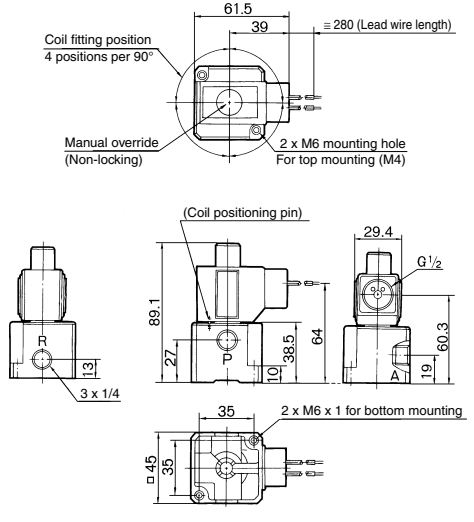


Note) There is also "VT317-□H" (Lead wire length: 600 mm).

Conduit terminal: VT317-□T



Conduit: VT317-□C



DIN terminal: VT317-□D

