

3 Port Solenoid Valve Direct Operated Poppet type

Compact yet provides a large flow capacity

Dimensions (WxHxD)....45x89.5x45

C:21.6 dm³/(s·bar)
(Passage 2 to 3)

Suitable for use in vacuum applications

-101.2 kPa

(FoR vacuum specifications: VT/VO317V)

A single valve with 6 valve functions

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



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

V T 317 - 1 G - 02 -

Body Type

T	Body Ported
O	Manifold

Valve option

Nil	Standard type
O	Continuous duty type
V	For vacuum

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
6	12 VDC
7	240 VAC, 50/60 Hz

Note 1) CE/UKCA-compliant: Electrical only for the DIN Terminal.

Note 2) For other rated voltages. Please consult with US

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, Whitout connector	•

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

Thread type

Nil	Rc
F	G
N	NPT
T	NPTF

CE/UKCA-compliant

Nil	-----
Q	CE/UKCA-compliant*

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

Port size

Nil	Without port (For manifold)
02	1/4 (8A)

Thread type

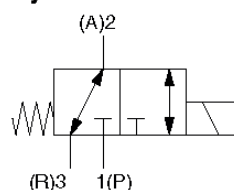
								CE/UKCA-compliant
Electrical entry	G	H	C	T	D	DO	D	DO
Symbol								
NIL	•	•	•	•	•	•	•	•
S	Note)	Note)	Note)	•	•	---	•	---
Z	---	---	---	•	•	---	•	---

S: With surge voltage suppressor

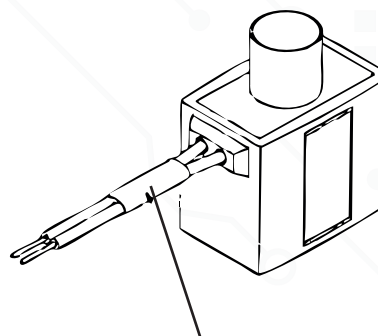
Note) Refer to the figure below.

Z: With light/surge voltage suppressor.

Symbol



Surge voltage suppressor mounting part (Fort "G")



Tamaño del cuerpo	Applicable manifold type	Accessory
VO317(-Q)	Common or individual exhaust2FF2-B	O-ring (KA00066, 4pcs.) Note) Hexagon socket head screw (XT012-25C-1, 2pcs.)

Note) it is not applied to "Continues duty type"

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Standard Specifications

Type of actuation	Type of actuation
Fluid	Fluid
Operating pressure range	Operating pressure range
Ambient and fluid temperature	Ambient and fluid temperature
Response time(1)	Response time(1)
Max. operating frequency	Max. operating frequency
Lubrication	Lubrication
Manual override	Manual override
Mounting orientation	Mounting orientation
Impact/Vibration resistance (2)	Impact/Vibration resistance (2)
Enclosure	Enclosure

Electrical entry		Grommet, Conduit, Conduit terminal, DIN terminal
Coil rated voltage (V)	A/C (50/60 Hz)	100, 200, 110*, 220*, 240*
	DC	24, 12*
Allowable coltage 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	Whitout indicator light: 6W, With indicator light 6.3 W
	AC	Varistor, Neon bulb.
Light/Surge voltage suppressor (Not applicable for grommet type)	AC	Varistor, LED (Neon bulb for 100V or more).
	DC	Varistor, LED (Neon bulb for 100V or more).

*Semi-standard

Note 1) Based on dynamic performance test, JIS B 8419: 2010. (Coil temperature: 20°C, at rated voltage, whitout surge suppressor).

Note 2) Impact Resistance: No Malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both ebergized and de-energized states every once for each condition. (Values at the initial period)

Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 100 Hz. Test was performed at both energized and de-energized states in the axial direction and at the right angles to the main valve and armature. (Values at the initial period).

Note 3) At rated voltage.

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(dm³/(s·bar))	b	Cv	C(dm³/(s·bar))	b	Cv	C(dm³/(s·bar))	b	Cv	C(dm³/(s·bar))	b	Cv	
VT317	2.4	0.26	0.62	2.6	0.34	0.67	2.8	0.25	0.67	2.5	0.37	0.66	Grommet
VT317V (Vacuum spec.type)													
VT317 (Continuous duty type)													

Note) Values for a single valve unit. It differs in the manifold case. Refer to manifold specifications on page 1254.

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. But even in low cycle rates, if energizing the valve more than once a day, please consult with us.
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.

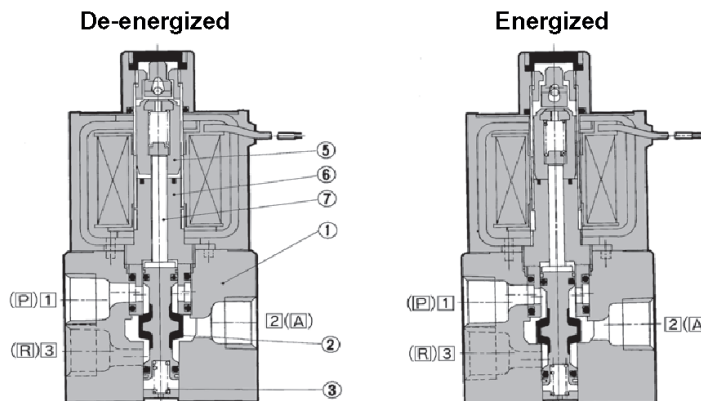
!!!Caution!!!

- 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 0.1MPa

Construction



Operation principles

De-energized

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

!!!Caution!!!

When an electric current is applied to the moded 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 and port A 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.

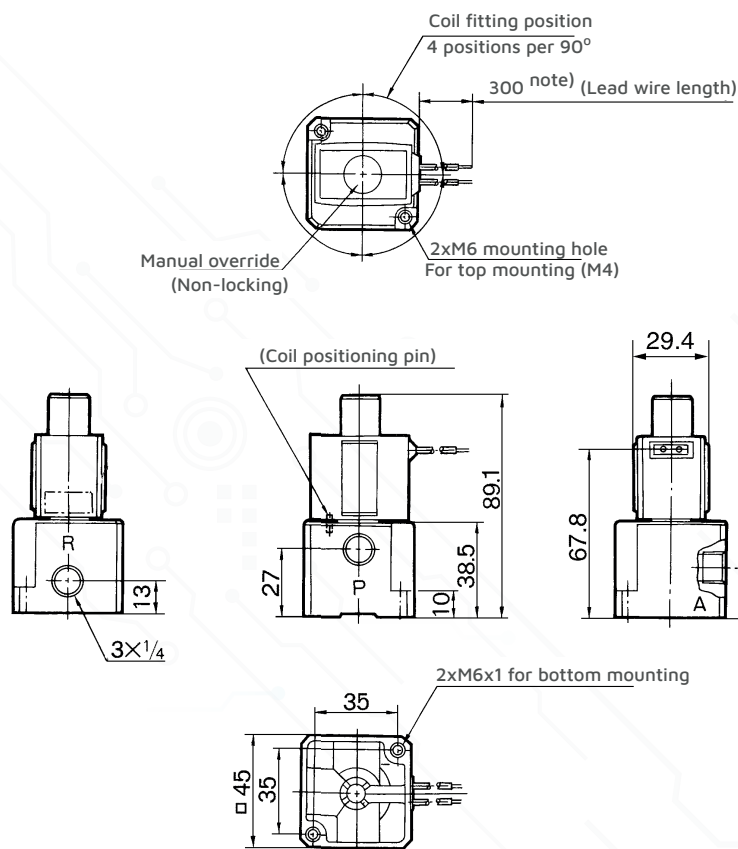
Component parts

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

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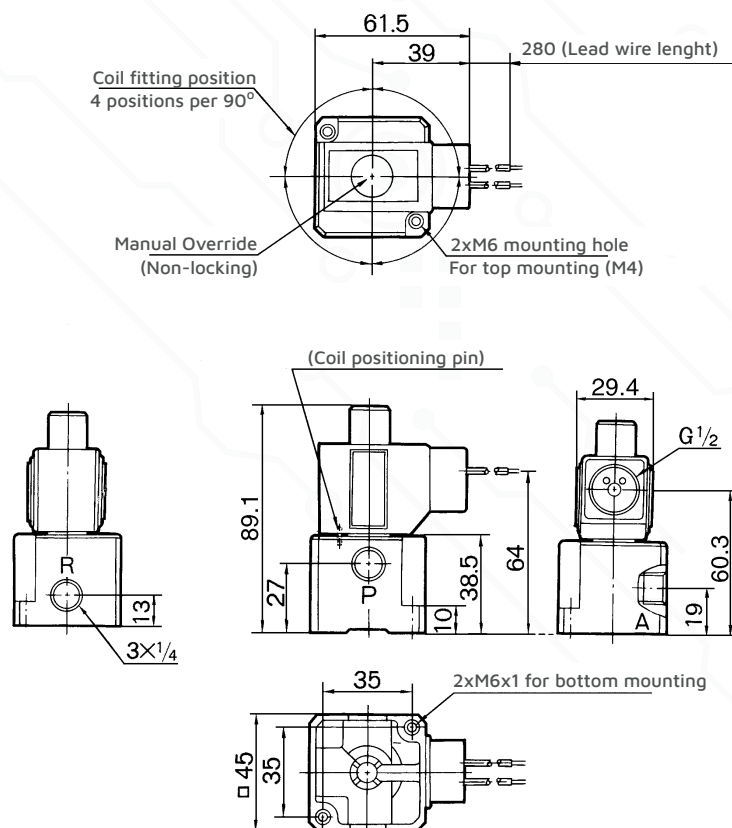
Dimensions

Grommet: VT317-■G



Dimensions

Grommet: VT317-■G



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