

# 3 Port Body Ported, Base Mounted Rubber Seal

## Series VZ300

### How to Order

**Body Ported** VZ3 1 2  5 L    M5

**Base Mounted** VZ3 1 4  5 L

**Actuation**

1	Normally closed (A) 2 1 3 (P)(R)
2	Normally open (A) 2 1 3 (P)(R)

**Body option**

-: Individual pilot exhaust    M: Common exhaust (pilot and main valve)    R: External pilot (Note)

R port P/E port    R port P/E port

Note) VZ3□2R is only for Manifold.

**Rated voltage**

1	100V AC 50/60Hz
2	200V AC 50/60Hz
3*	110V AC 50/60Hz
4*	220V AC 50/60Hz
5*	24V DC
6*	12V DC
9*	Others

\*Option

**Port Size**  
M5: M5 X 0.8

**Option**

F: With foot bracket

Note) The bracket is not assembled. Except for external pilot

**Port size**

-: Without sub-plate    01: With Rc(PT)1/8 sub-plate Rc(PT)

**Manual override**

-: Non-locking push style    B: Locking slotted style    C: Locking knob style

**Indicator light and surge voltage suppressor**

-	None
Z*	Indicator light and surge voltage suppressor
S	Surge voltage suppressor

\*Not available for GZ, HZ and DOZ

**Electrical entry**

Grommet	L plug connector	M plug connector	DIN terminal
G: 300mm lead wire	L: 300mm lead wire	M: 300mm lead wire    MN: Without lead wire	D: With connector
H: 600mm lead wire	LN: Without lead wire	LO: Without connector	DO: Without connector
	MO: Without connector		

- SY
- SYJ
- VK
- VZ**
- VT
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- VP
- VG
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- VQ
- VQZ
- VZ
- VS

# VZ300

**Low Power Consumption:  
1.8WDC**

**Applicable for Vacuum Use  
-100kPa**

VZ300R: External pilot style

**Exhaust measures for the pilot valve are unnecessary.**

VZ300M: Central exhaust style

It is not necessary to take exhaust measures for the pilot valve for environmental protection.

**Can also be used as a selector valve or a divider valve.**

VZ300R: External pilot style

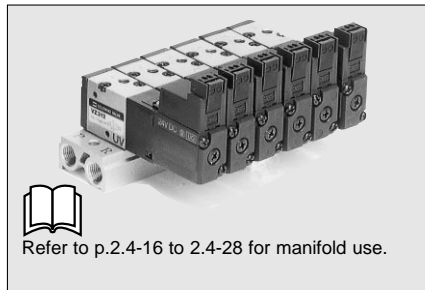
Can be used for universal porting.



Series VZ300/Body Ported



Series VZ300/Base Mounted



Refer to p.2.4-16 to 2.4-28 for manifold use.



P.2.4-45

## Specifications

Fluid		Air
Operating pressure (MPa)	Internal pilot	0.15 to 0.7
Ambient and fluid temperature (°C)		Max. 50
Response time (ms) (0.5MPa) <sup>(1)</sup>		20 or less
Max. operating frequency (Hz)		10
Effective area		See below
Manual override <sup>(2)</sup>		Non-locking push style, Locking slotted style, Locking knob style
Pilot exhaust		Individual pilot exhaust, Common exhaust (pilot and main valve)
Lubrication		Non-lube
Mounting position		Free
Impact/vibration resistance (m/s <sup>2</sup> ) <sup>(3)</sup>		300/50
Protection structure		Dust proof



Note 1) According to dynamic performance test of JIS B8374-1981.( Coil temperature 20°C, rated voltage, without surge voltage suppressor)

Note 2) When operating the locking style manually, apply torque of 0.2Nm or less.

Note 3) Impact resistance: No malfunction from test using drop impact tester, to axis and right angle directions of main valve and armature, each one time when energized and de-energized.

Vibration resistance: (Value in the initial stage.)

No malfunction from test with 8.3 to 2000Hz 1 sweep, to axis and right angle directions of main valve and armature, each one time when energized and de-energized. (Value in the initial stage.)

## Solenoid Specifications

\*Option

Electrical entry		Grommet (G)/(H), L plug connector (L), M plug connector (M), DIN terminal (D)	
Coil rated voltage V	AC50/60Hz	100, 200, 24*, 48*, 110*, 220*	
	DC	24, 6*, 12*, 48*	
Allowable voltage %		-15 to +10% of rated voltage	
Power consumption W <sup>(1)</sup> [Current mA]	DC	1.8 (with light 2.1)[24VDC: 75 (with light 87.5)]	
Apparent power VA <sup>(1)</sup> [Current mA]	AC	Inrush	4.5/50Hz, 4.2/60Hz [ 100V AC: 45/50Hz, 42/60Hz 200V AC: 22.5/50Hz, 21/60Hz ]
		Holding	3.5/50Hz, 3/60Hz [ 100V AC: 35/50Hz, 30/60Hz 200V AC: 17.5/50Hz, 15/60Hz ]
Surge voltage suppressor		DC: Diode, AC: ZNR	
Indicator light		DC: LED(red), AC: Neon light	



Note 1) At rated voltage

## Effective Area and Weight

Valve	Actuation	Port size	Effective area (mm <sup>2</sup> ) (Cv)	Weight (g)
Body ported style	VZ312	N.C.	M5 X 0.8	3.6 (0.2)
	VZ322	N.O.		
Base mounted style (with sub-plate)	VZ314	N.C.	Rc(PT) 1/8	4.5 (0.25)
	VZ324	N.O.		

## Option

Description	Part No.	Note
Foot bracket	DXT170-34-1B	With screw (for VZ3□2)

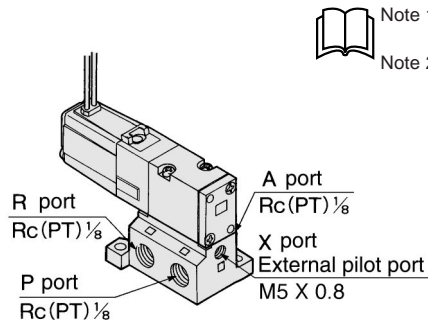
## External Pilot

### VZ300R

This obtains external pressure for the pilot valve separately from the main valve pressure. It can be operated with a low pressure line with a vacuum (to -100kPa) or below 0.15MPa.

### Specifications

Applicable model	Base mounted style(VZ314R, VZ324R)	
Operating pressure range MPa	Main pressure	-100kPa to 0.7
	External pilot pressure	0.15 to 0.7

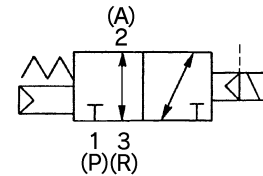


Note 1) Refer to the p.2.4-16 for manifold base.

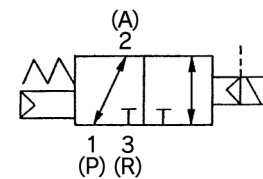
Note 2) In the case of the body ported style, the pilot style (VZ3□2R) is used exclusively on a manifold. An external pilot style that can be used individually is available as a Made to Order. Refer to the p.2.4-45 for details.

### JIS symbol

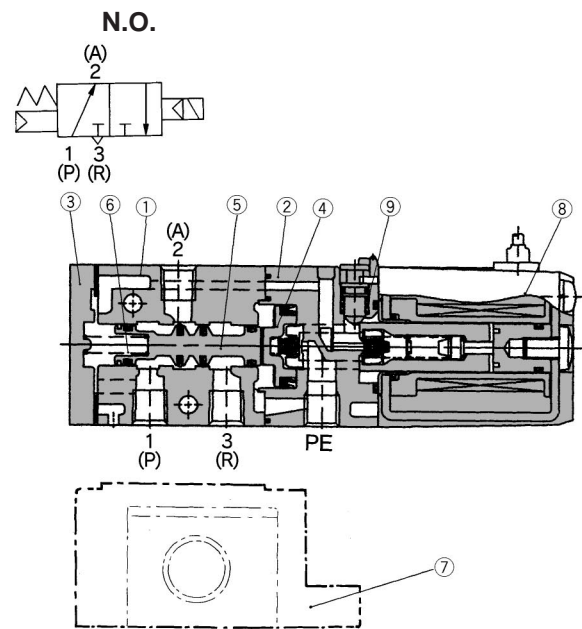
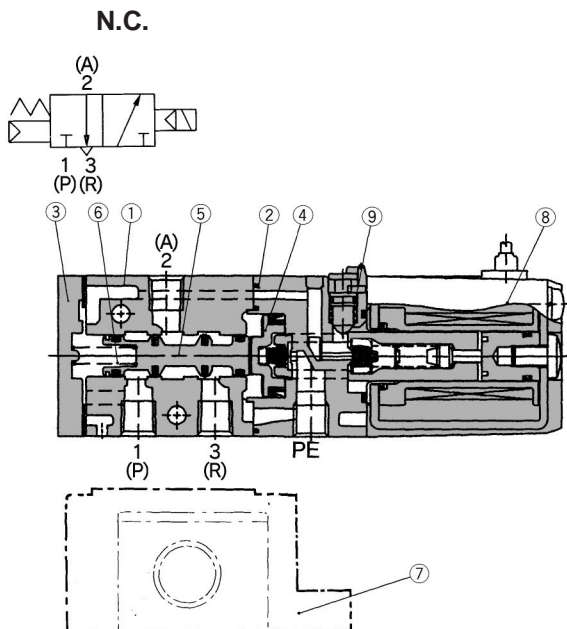
VZ31□R



VZ32□R



## Construction



### Component Parts

No.	Description	Material	Note
①	Body	Aluminum die cast	Platinum silver
②	Piston plate	Resin	Black
③	End cover	Aluminum die cast	Black
④	Piston	Resin	—
⑤	Spool valve ass'y	—	—
⑥	Spool spring	Stainless steel	—

### Replacement Parts

No.	Description	Material	Part No.	Note
⑦	Sub-plate	Aluminum die cast	DXT200-13-1P	
⑧	Solenoid ass'y	Epoxy, stainless steel	DXT170-C-□□□	
⑨	O-ring	NBR	13 X 11 X 1	Common with VZ100

SY

SYJ

VK

VZ

VT

VT

VP

VG

VP

VQ

VQZ

VZ

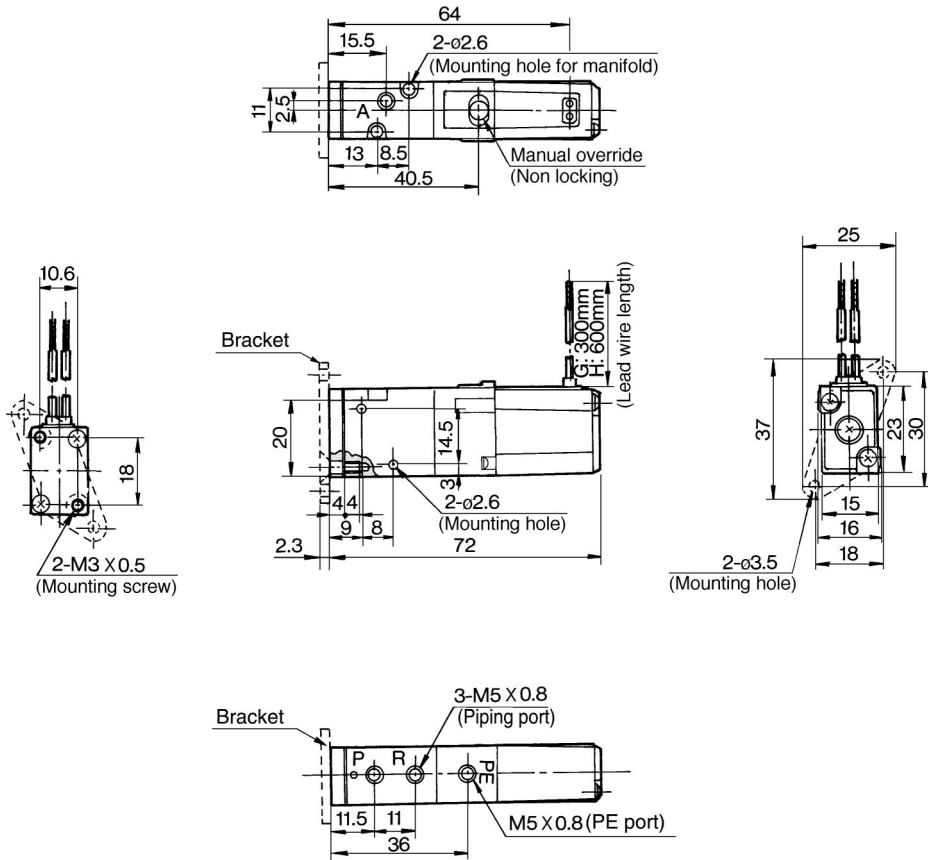
VS

# VZ300

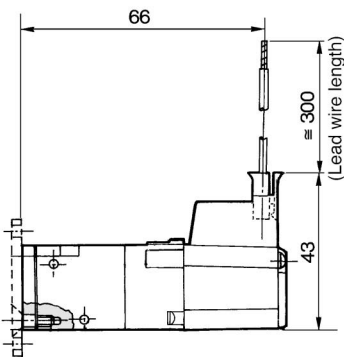


## Body Ported

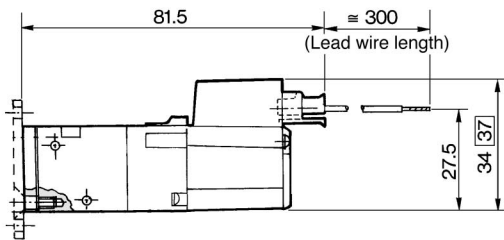
### Grommet (G), (H) VZ3□2-□□□□-M5



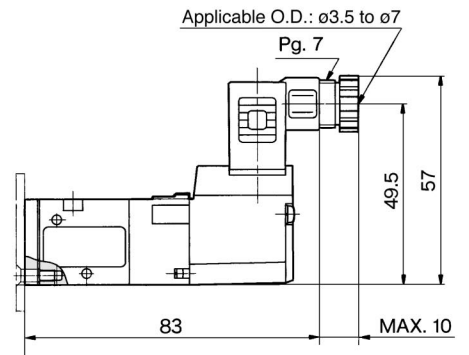
### L plug connector (L) VZ3□2-□L□□-M5



### M plug connector (M) VZ3□2-□M□□-M5



### DIN terminal (D) VZ3□2-□D□□-M5

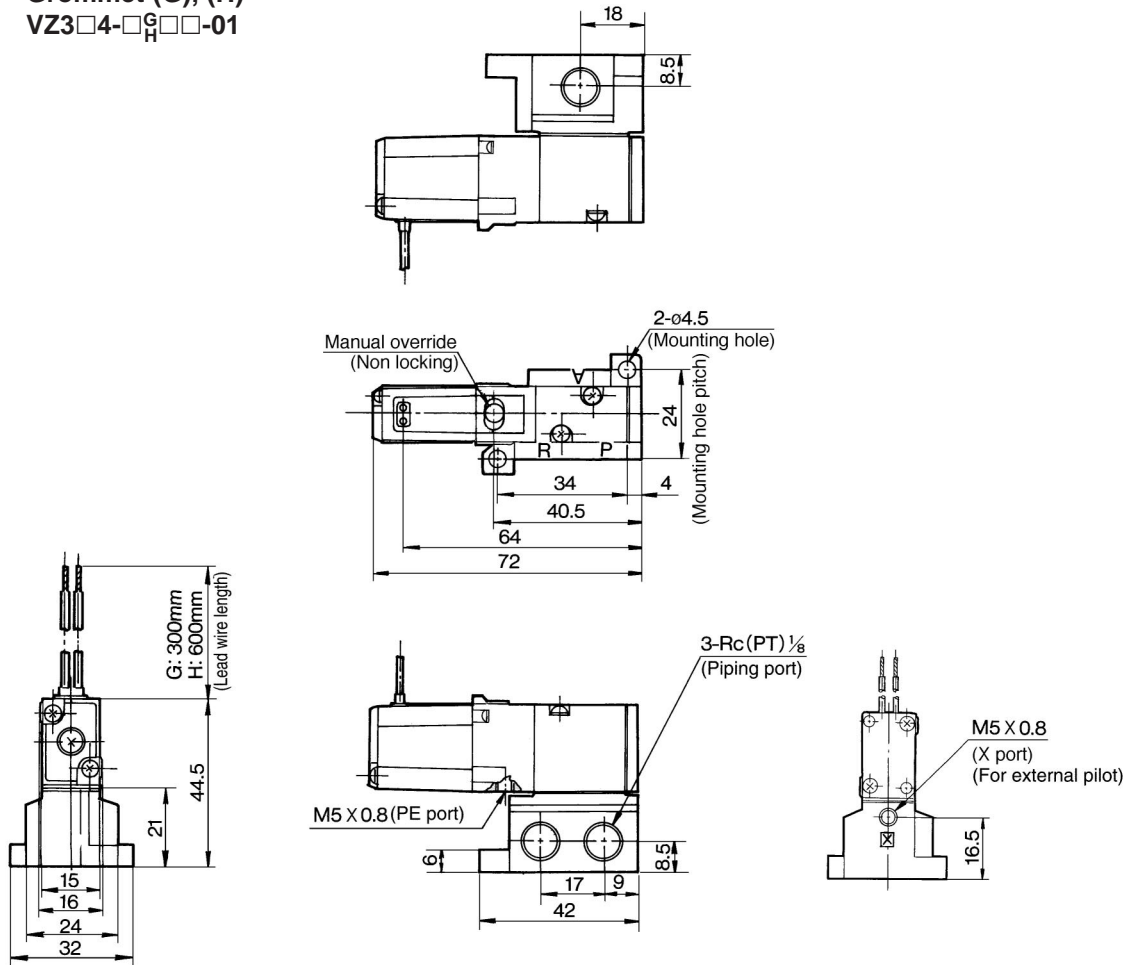


□ : with indicator light and surge voltage suppressor



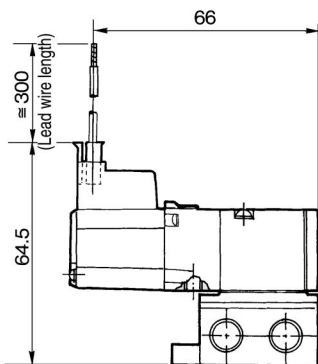
## Base Mounted

**Grommet (G), (H)**  
VZ3□4-□G□□-01

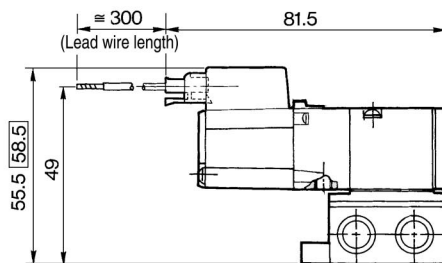


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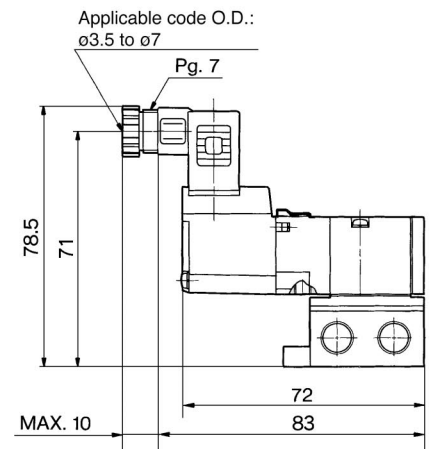
**L plug connector (L)**  
VZ3□4-□L□□-01



**M plug connector (M)**  
VZ3□4-□M□□-01



**DIN terminal (D)**  
VZ3□4-□D□□-01



□ : with indicator light and surge voltage suppressor