

# 3 Port Solenoid Valve Metal Seal Series VZ200

Large flow capacity

Low power consumption:  
1.8 W (75 mA, 24 VDC)

Plug connector

One-touch wiring of plug connectors

Common pilot exhaust sub-plate mounted and manifold

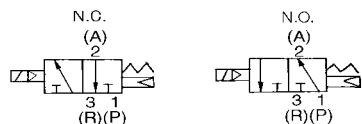


Body ported



Base mounted

JIS Symbol



## Caution

For Safety Instructions and Solenoid Valve Precautions, refer to pages 4-18-2 to 4-18-6.

## Model

Piping	Type of actuation	Choice of pilot valve exhaust	
		Individual exhaust	Common exhaust
Body ported	N.C.	VZ212	VZ212 *
	N.O.	VZ222	VZ222 *
Base mounted	N.C.	—	VZ215
	N.O.	—	VZ225

\* Body ported type provides both individual exhaust and common exhaust.

## Specifications

Fluid	Air/Inert gas
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-10 to 50°C
Lubrication	Not required
Enclosure	Dusproof <sup>(5)</sup>
Manual override	Push type (Safety style), Locking type (Tool required), Locking type (Manual)
Shock/Vibration resistance (m/s <sup>2</sup> )	150/50 <sup>(6)</sup>

Specifications	Type	Body ported		Base mounted (With sub-plate)		
		N.C. valve	N.O. valve	N.C. valve	N.O. valve	
Port size		M5		Rc 1/8		
Flow characteristics	1 → 2 (P → A)	C[dm <sup>3</sup> /(s·bar)]	0.60	0.60	1.0	0.90
		b	0.43	0.43	0.30	0.25
		Cv	0.15	0.15	0.25	0.21
	2 → 3 (A → R)	C[dm <sup>3</sup> /(s·bar)]	0.52	0.52	0.85	0.85
		b	0.35	0.35	0.35	0.35
		Cv	0.13	0.13	0.22	0.22
Max. operating frequency (c/s) (AC/DC) <sup>(1)</sup>		20		20		
Response time (ms) (AC/DC) <sup>(2)</sup>		17/17 or less		17/17 or less		
Weight (kg) <sup>(3)</sup>		0.085		0.155		

Note 1) Minimum operating frequency: as per JIS B 8373 (Once in 30 days)  
 Note 2) Based on JIS B 8375-1981 (Supply pressure; 0.5 MPa; without surge voltage suppressor)  
 Note 3) Value for grommet (Sub-plate weight: 0.03 kg)  
 Note 4) "Note 1)" and "Note 2)" are with controlled clean air.  
 Note 5) Based on JIS C 0920  
 Note 6) 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 energized 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 2000 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)

## Solenoid Specifications

		* Option	
Electrical entry		Grommet (G), Plug connector (L), Plug connector (M), DIN terminal (D)	
Coil rated voltage (V)	AC 50/60 Hz	100, 200, 24 *, 48 *, 110 *, 220 *	
	DC	24, 6 *, 12 *, 48 *	
Allowable voltage fluctuation (%)		-15 to +10% of rated voltage	
Coil insulation type		Class E or equivalent (120°C) <sup>(2)</sup>	
Temperature rise (°C)		45 or less	
Power consumption (W)	DC	1.8 (With indicator light: 2.1)	
Apparent power (VA)	AC	4.5/50 Hz, 4.2/60 Hz	
	Inrush Holding	3.5/50 Hz, 3/60 Hz	
Surge voltage suppressor <sup>(1)</sup>		DC: Diode, AC: ZNR	
Indicator light		DC: LED (Red), AC: Neon bulb	

Note 1) In the case of grommet type, it is equipped on the middle of lead wire.  
 Note 2) Based on JIS C 4003

## Option

Description	Part no.	Note
Foot bracket (With screw) <sup>(1)</sup>	VZ2000-37A-2	For VZ2□2
Silencer	M5	Noise reduction: 18 dB or more (ø8 x 17ℓ)
	R 1/8 <sup>(2)</sup>	AN110-01 Noise reduction: 21 dB or more (ø13 x 38ℓ)

Note 1) For body ported type Note 2) For sub-plate mounted type

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

VZ

VS

VFN

# Series VZ200

## How to Order

**VZ2 1 2 1 G M5**

**Series VZ200**

**Type of actuation**

1	N.C. (Normally closed)
2	N.O. (Normally open)

**Body type**

Body ported	2	Individual pilot exhaust Common pilot exhaust
Base mounted	5	Common pilot exhaust

**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
9*	Other

\* Option

**Option**

F*	Foot bracket
U	Silencer
K*	Foot bracket + Silencer

\* Only body ported type

**Light/Surge voltage suppressor**

Nil	None
Z	With light/surge voltage suppressor (Indicator light is not available for grommet type.)
S	With surge voltage suppressor (Grommet type)

\* "DOZ" is not available.

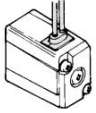
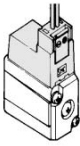
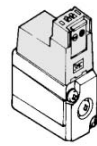
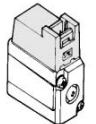
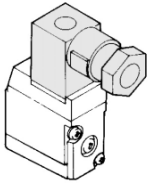
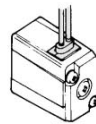
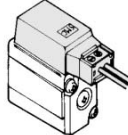
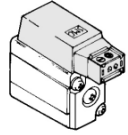
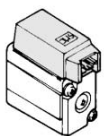
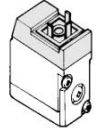
**Port size**


Body ported	M5	M5 x 0.8
Base mounted	Nil	Without sub-plate
	01	Rc 1/8

**Manual override**

Nil	Push type (Safety style)
B	Locking type (Tool required)
C	Locking type (Manual)

**Electrical entry**

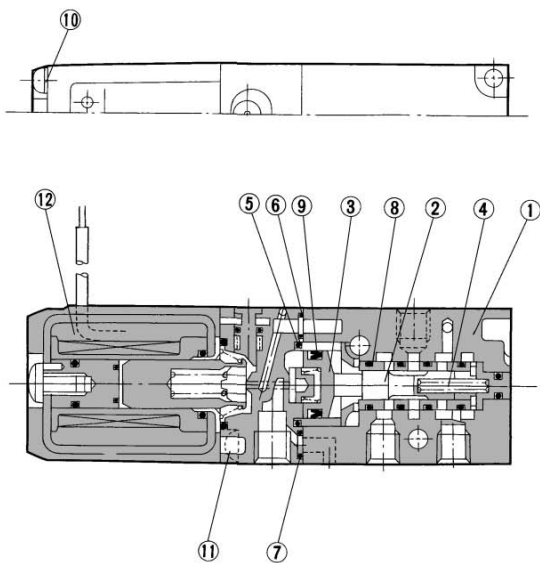
<b>G:</b> Grommet, Lead wire length 300 mm 	<b>L:</b> L plug connector, With lead wire 	<b>LN:</b> L plug connector, Without lead wire 	<b>LO:</b> L plug connector, Without connector 
<b>D:</b> DIN terminal 	<b>H:</b> Grommet, Lead wire length 600 mm 	<b>M:</b> M plug connector, With lead wire 	<b>MN:</b> M plug connector, Without lead wire 
<b>MO:</b> M plug connector, Without connector 	<b>DO:</b> DIN terminal, Without connector 		

 Type "G", "L" and "M": Lead wire 300 mm

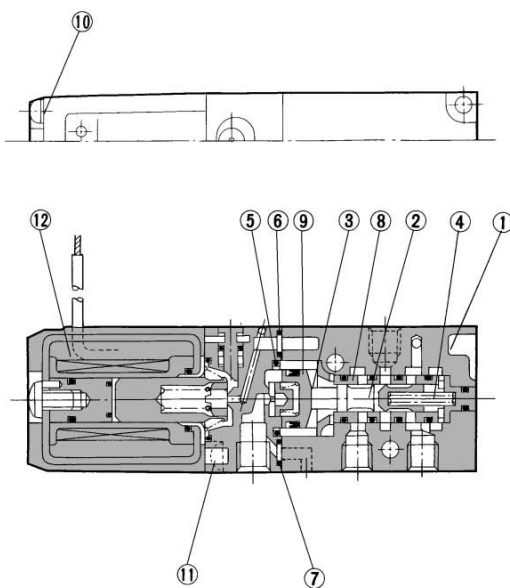
# 3 Port Solenoid Valve Metal Seal, Body Ported/Base Mounted **Series VZ200**

## Construction (Body ported)

N.C. (VZ212)



N.O. (VZ222)



### Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver
②	Spool/Sleeve	Stainless steel	
③	Piston	Polyacetal	

### Replacement Parts

No.	Description	Material	Part no.
④	Return spring	Stainless steel	
⑤	O-ring	NBR	
⑥	Seal	NBR	
⑦	O-ring	NBR	
⑧	O-ring	NBR	
⑨	Mini Y seal	NBR	
⑩	Round head combination screw	Carbon steel	
⑪	Round head combination screw	Carbon steel	
⑫	Pilot valve assembly	—	SCZ2□□□-□□

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

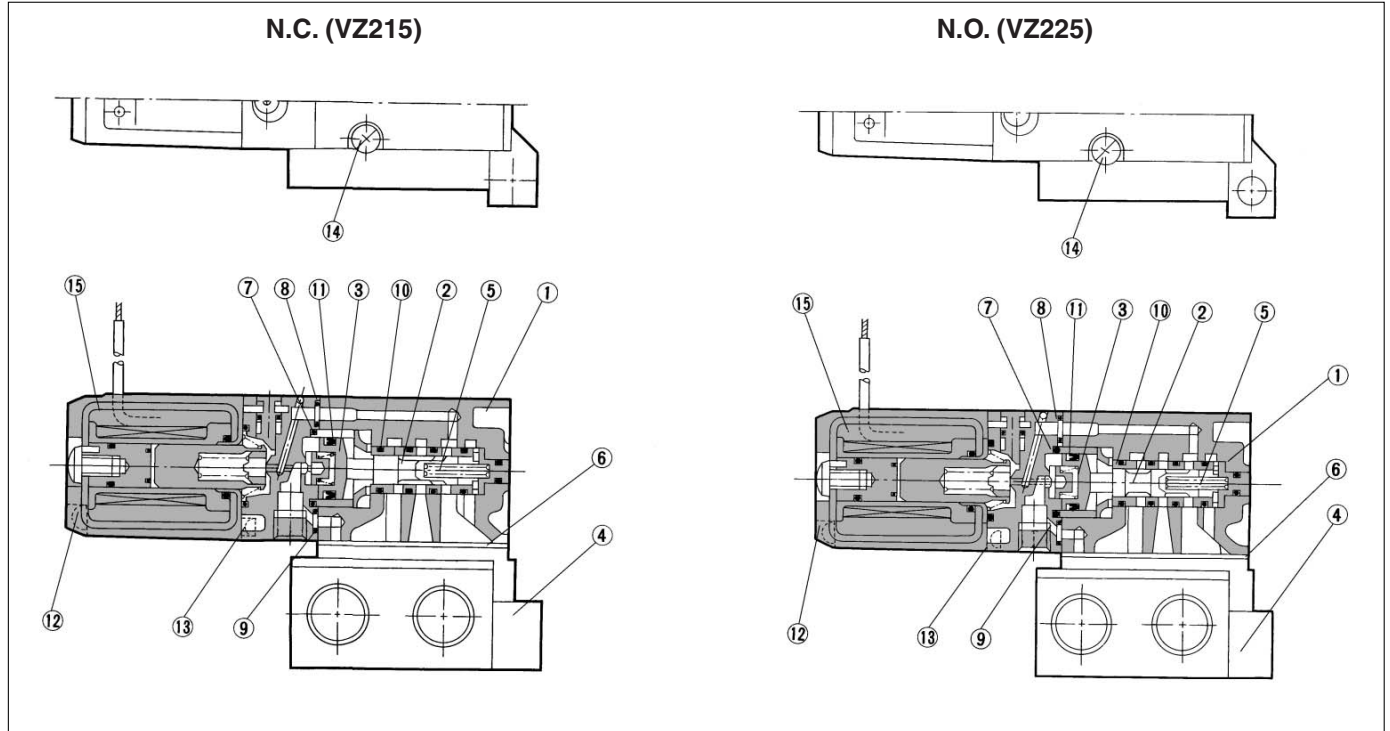
**VZ**

VS

VFN

# Series VZ200

## Construction (Sub-plate mounted)



### Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver
②	Spool/Sleeve	Stainless steel	
③	Piston	Polyacetal	
④	Sub-plate	Aluminum die-casted	Platinum silver

### Replacement Parts

No.	Description	Material	Note
⑤	Return spring	Stainless steel	
⑥	Gasket	NBR	
⑦	O-ring	NBR	
⑧	Seal	NBR	
⑨	O-ring	NBR	
⑩	O-ring	NBR	
⑪	Mini Y seal	NBR	
⑫	Round head combination screw	Carbon steel	
⑬	Round head combination screw	Carbon steel	
⑭	Round head combination screw	Carbon steel	
⑮	Pilot valve assembly	—	SCZ2□□□□□□□

### Sub-plate Assembly Part No.: VZ200-S-01

\* Mounting bolt and gasket are not attached.

## How to Order Pilot Valve Assembly

**SCZ2 G □ □ 1 1**

**Series VZ200**

**Electrical entry**

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

**Manual override**

<b>Nil</b>	Push type (Safety style)
<b>B</b>	Locking type (Tool required)
<b>C</b>	Locking type (Manual)

**Light/Surge voltage suppressor**

<b>Nil</b>	None
<b>Z*</b>	With light/surge voltage suppressor
<b>S</b>	With surge voltage suppressor

\* Indicator light is not available for grommet type.  
\* "DOZ" is not available.

**Pilot pressure exhaust**

<b>1</b>	Spacer side exhaust (Type 20)
<b>2</b>	Body side exhaust (Type 30, 50)

**Rated voltage**

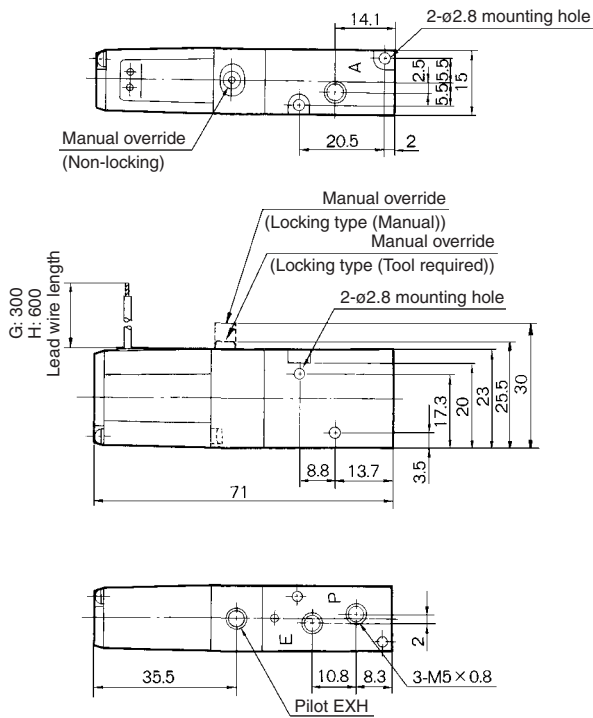
<b>1</b>	100 VAC, 50/60 Hz
<b>2</b>	200 VAC, 50/60 Hz
<b>3*</b>	110 VAC, 50/60 Hz
<b>4*</b>	220 VAC, 50/60 Hz
<b>5</b>	24 VDC
<b>6*</b>	12 VDC
<b>9</b>	Other

\* Option

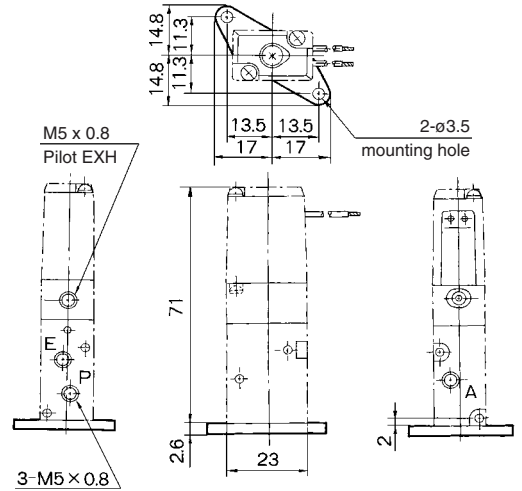
# 3 Port Solenoid Valve Metal Seal, Body Ported/Base Mounted Series VZ200

## Dimensions: Body Ported

### Grommet: VZ2<sup>1</sup>/<sub>2</sub>-□GH(S)-M5

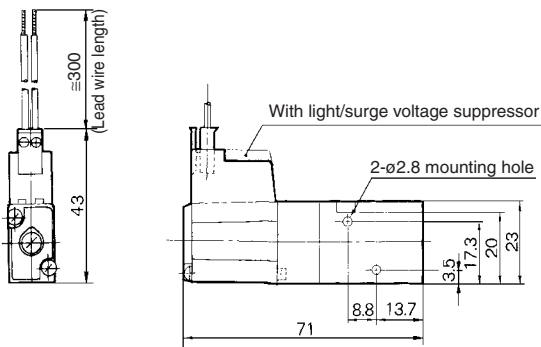


### With foot bracket: VZ2<sup>1</sup>/<sub>2</sub>-□□-M5-F

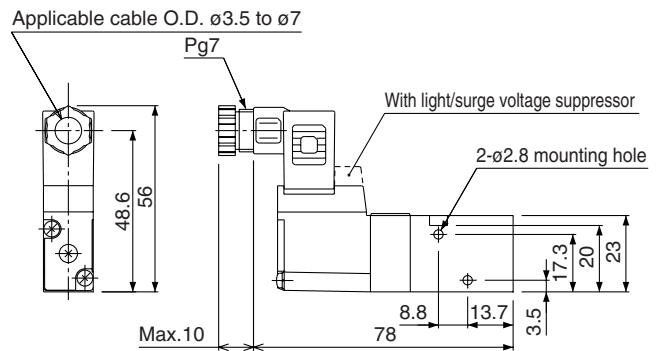


Locking type manual override

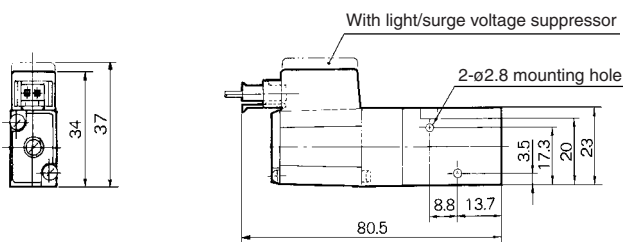
### L plug connector: VZ2<sup>1</sup>/<sub>2</sub>-□L(Z)-M5



### DIN terminal: VZ2<sup>1</sup>/<sub>2</sub>-□D(Z)-M5



### M plug connector: VZ2<sup>1</sup>/<sub>2</sub>-□M(Z)-M5

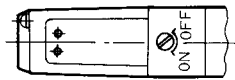


- V100
- SY
- SYJ
- VK
- VZ
- VT
- VP
- VG
- VP
- S070
- VQ
- VKF
- VQZ
- VZ**
- VS
- VFN

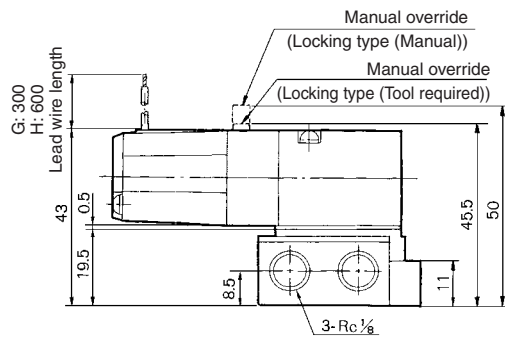
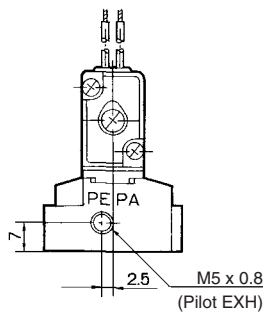
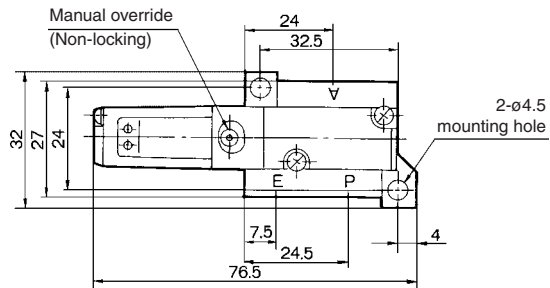
# Series VZ200

## Dimensions: Sub-plate Mounted

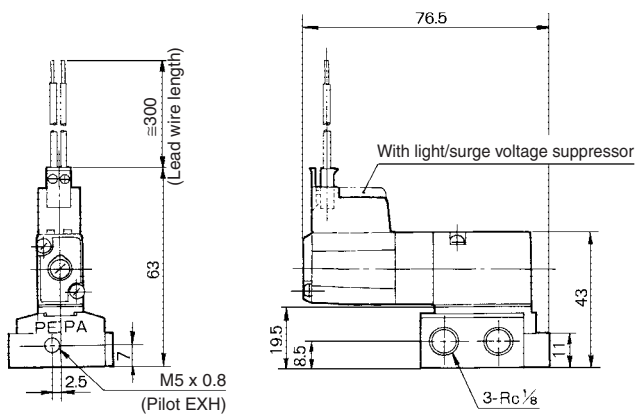
Grommet: VZ2<sup>1</sup>/<sub>2</sub>5-□<sup>G</sup><sub>H</sub>(S)-01



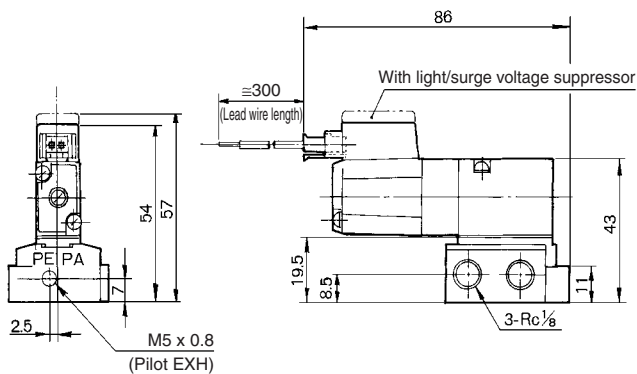
Locking type manual override



L: VZ2<sup>1</sup>/<sub>2</sub>5-□L(Z)-01



M: VZ2<sup>1</sup>/<sub>2</sub>5-□M(Z)-01



DIN terminal: VZ2<sup>1</sup>/<sub>2</sub>5-□D(Z)-01

