

3 Port Solenoid Valve Metal Seal

Series VZ400

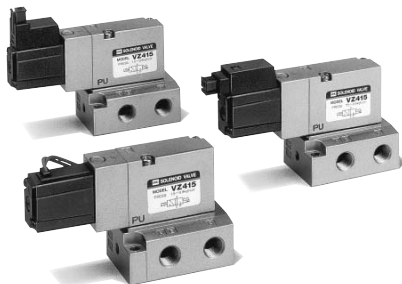
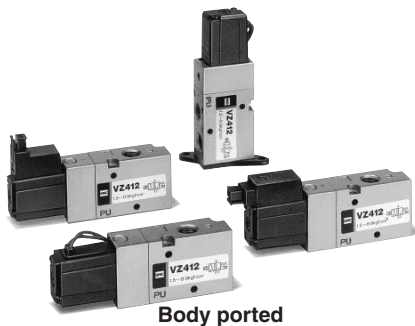
Large flow capacity

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

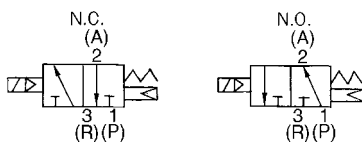
Plug connector

One-touch wiring of plug
connectors

Common pilot exhaust sub-
plate mounted and manifold



JIS Symbol



Model

Piping	Type of actuation	Choice of pilot valve exhaust	
		Individual exhaust	Common exhaust
Body ported	N.C.	VZ412	VZ412*
	N.O.	VZ422	VZ422*
Base mounted	N.C.	—	VZ415
	N.O.	—	VZ425



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

Specifications

Fluid	Air/Inert gas
Maximum operating pressure	1.0 MPa
Minimum operating pressure	0.15 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	-10 to 50°C
Lubrication	Not required
Enclosure	Dustproof ⁽⁵⁾
Manual override	Push type (Safety style), Locking type (Tool required), Locking type (Manual)
Shock/Vibration resistance (m/s ²)	150/50 ⁽⁶⁾

Specifications	Type	Body ported		Base mounted (With sub-plate)		
		N.C. valve	N.O. valve	N.C. valve	N.O. valve	
Port size		Rc 1/8		Rc 1/8, 1/4		
Flow characteristics	1 → 2 (P → A)	C[dm ³ /(s·bar)]	2.0	2.0	2.4	2.4
		b	0.14	0.17	0.19	0.19
		Cv	0.49	0.49	0.57	0.57
	2 → 3 (A → R)	C[dm ³ /(s·bar)]	2.2	2.2	2.2	1.9
		b	0.17	0.17	0.11	0.32
		Cv	0.53	0.53	0.49	0.45
Max. operating frequency (c/s) (AC/DC) ⁽¹⁾		15		15		
Response time (ms) (AC/DC) ⁽²⁾		21/21 or less		21/21 or less		
Weight (kg) ⁽³⁾		0.125		0.250		



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: 0.055 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) ⁽²⁾		
Temperature rise (°C)	45 or less		
Power consumption (W)	DC	1.8 (With indicator light: 2.1)	
Apparent power (VA)	AC	Inrush	4.5/50 Hz, 4.2/60 Hz
		Holding	3.5/50 Hz, 3/60 Hz
Surge voltage suppressor ⁽¹⁾	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) ⁽¹⁾	VZ4000-22A	For VZ4□2
Silencer	R 1/8	Noise reduction: 21 dB (ø13 x 38ℓ)
	R 1/4 ⁽²⁾	Noise reduction: 25 dB (ø16 x 36ℓ)



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

3 Port Solenoid Valve Metal Seal, Body Ported/Base Mounted **Series VZ400**

How to Order

VZ4 1 2 1 G [] [] **01** []

Series VZ400

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

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

* "DOZ" is not available.

Electrical entry

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

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

Option

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

* Only body ported type

Port size

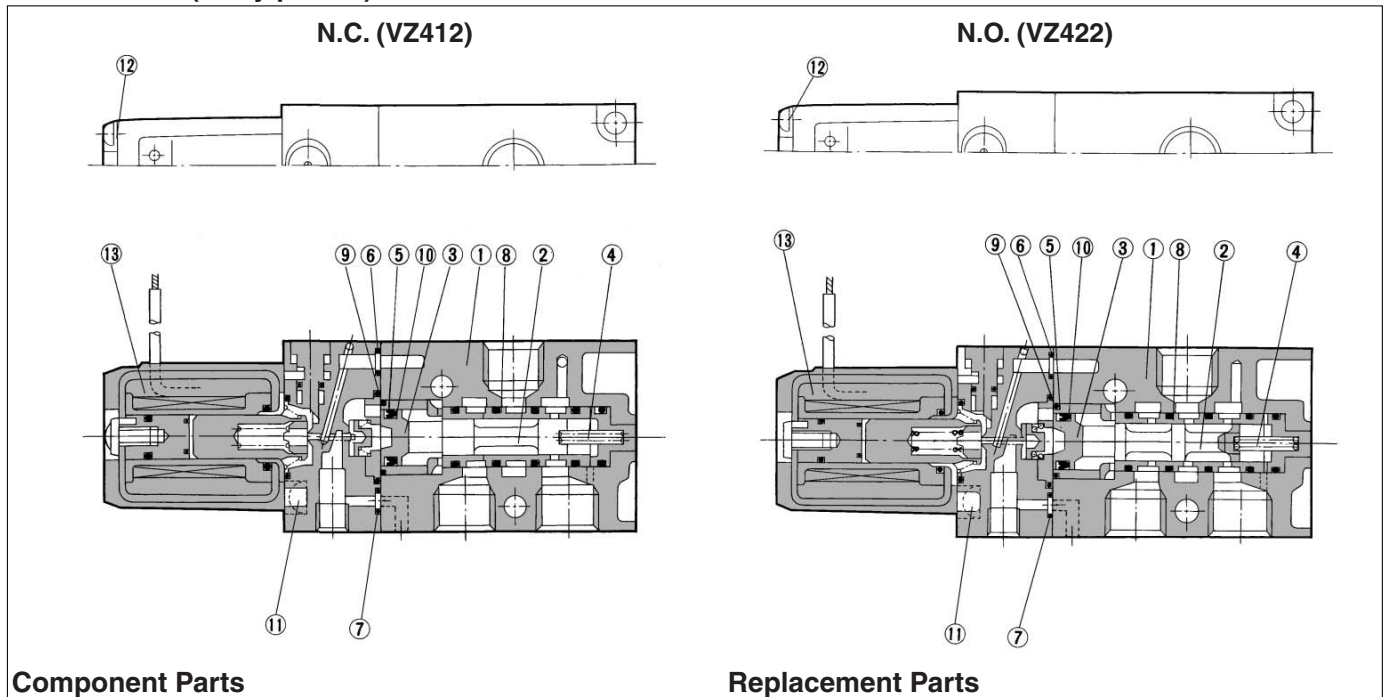
Body ported	01	Rc 1/8
	Nil	Without sub-plate
Base mounted	01	Rc 1/8
	02	Rc 1/4

Manual override

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

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

Construction (Body ported)



Component Parts

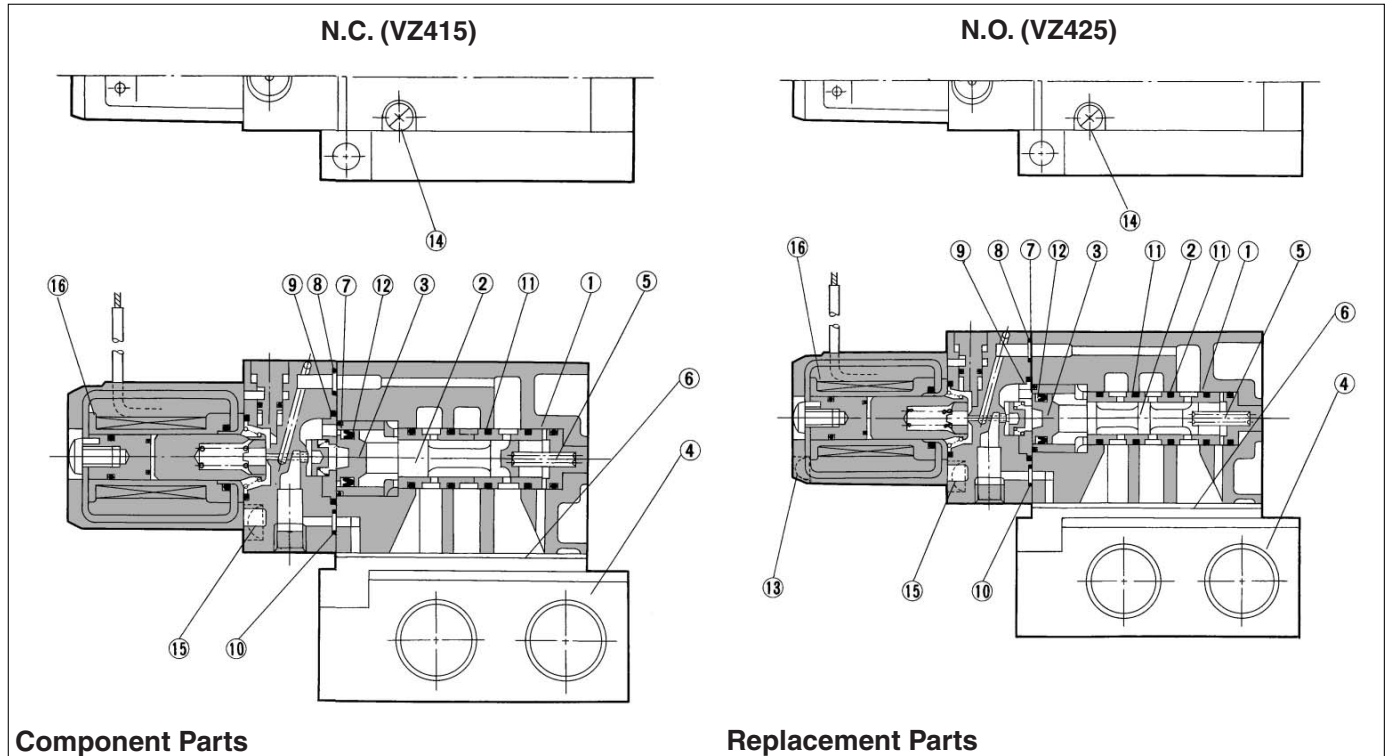
No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver
②	Spool/Sleeve	Stainless steel	
③	Piston	Polyacetal	

Replacement Parts

No.	Description	Material	Note
④	Return spring	Stainless steel	
⑤	O-ring	NBR	
⑥	Seal	NBR	
⑦	O-ring	NBR	
⑧	O-ring	NBR	
⑨	O-ring	NBR	
⑩	Mini Y seal	NBR	
⑪	Round head combination screw	Carbon steel	
⑫	Round head combination screw	Carbon steel	
⑬	Pilot valve assembly	—	SCZ4□□□-□-□

Series VZ400

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	Part no.
⑤	Return spring	Stainless steel	
⑥	Gasket	NBR	
⑦	O-ring	NBR	
⑧	Seal	NBR	
⑨	O-ring	NBR	
⑩	O-ring	NBR	
⑪	O-ring	NBR	
⑫	Mini Y seal	NBR	
⑬	Round head combination screw	Carbon steel	
⑭	Round head combination screw	Carbon steel	
⑮	Round head combination screw	Carbon steel	
⑯	Pilot valve assembly	—	SCZ4□□□-□-□

Sub-plate Assembly Part No.: VZ400-S-⁰¹/₀₂

* Mounting bolt and gasket are not attached.

How to Order Pilot Valve Assembly

SCZ4 G □ □ 1 1

Series VZ400

Electrical entry

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

Manual override

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

Light/Surge voltage suppressor

Code	Suppressor
Nil	None
Z*	With light/surge voltage suppressor
S	With surge voltage suppressor

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

Pilot pressure exhaust

Code	Exhaust Type
1	Spacer side exhaust (Type 20)
2	Body side exhaust (Type 30, 50)

Rated voltage

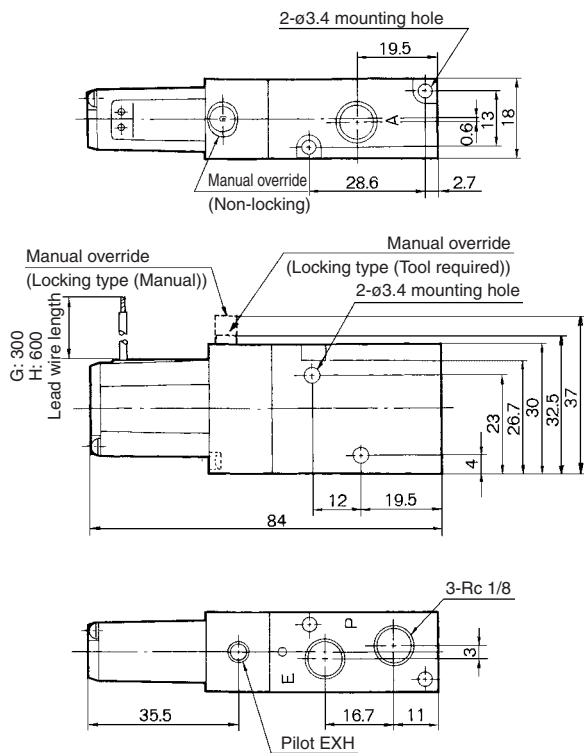
Code	Voltage
1	100 VAC, 50/60 Hz
2	200 VAC, 50/60 Hz
3*	110 VAC, 50/60 Hz
4*	220 VAC, 50/60 Hz
5	24 VDC
6*	12 VDC
9	Other

* Option

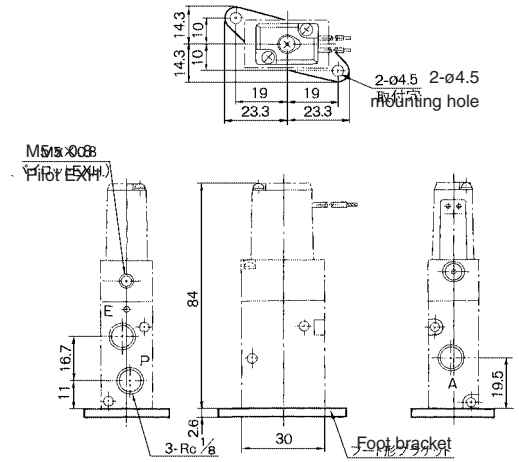
3 Port Solenoid Valve Metal Seal, Body Ported/Base Mounted **Series VZ400**

Dimensions: Body Ported

Grommet: VZ4 $\frac{1}{2}$ 2-□ $\frac{G}{H}$ (S)-01

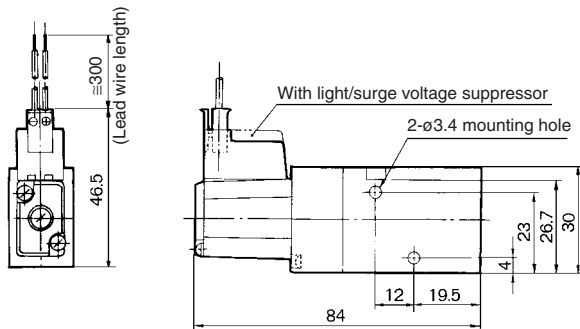


With foot bracket: VZ4 $\frac{1}{2}$ 2-□□-01-F

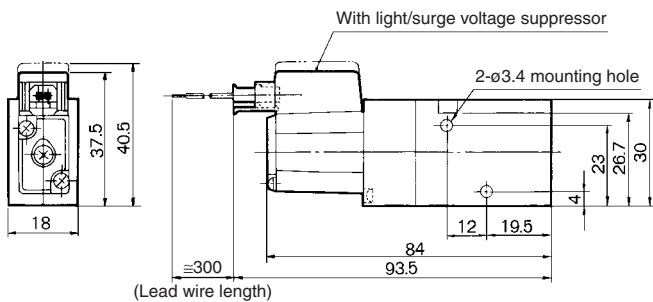


Locking type manual override

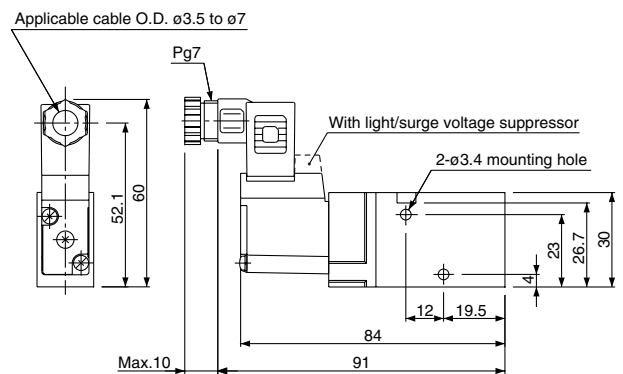
L VZ4 $\frac{1}{2}$ 2-□L(Z)-01



M plug connector: VZ4 $\frac{1}{2}$ 2-□M(Z)-01



DIN terminal: VZ4 $\frac{1}{2}$ 2-□D(Z)-01



V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

VZ

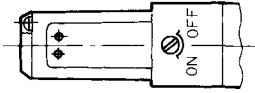
VS

VFN

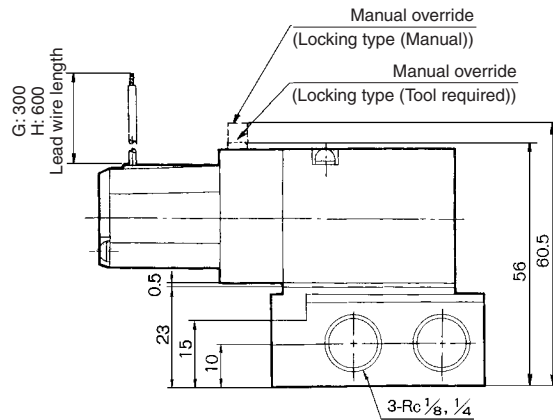
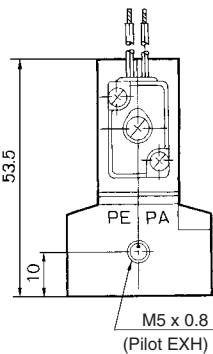
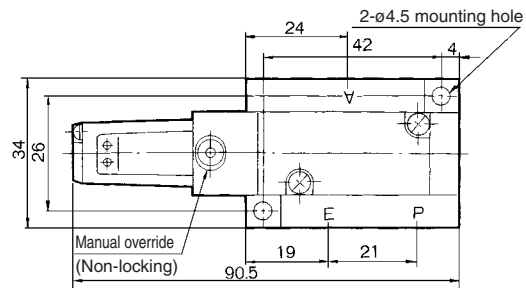
Series VZ400

Dimensions: Sub-plate Mounted

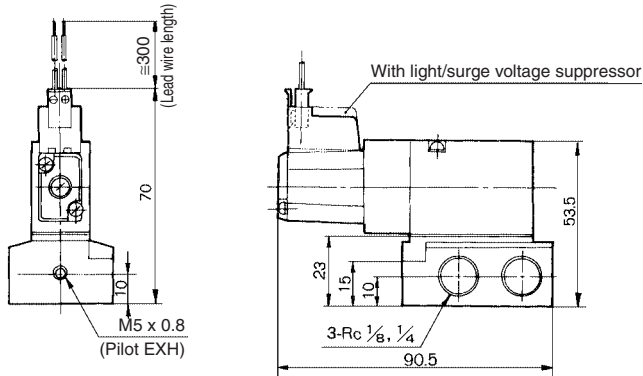
Grommet: VZ4¹/₂5-□^G_H(S)-⁰¹/₀₂



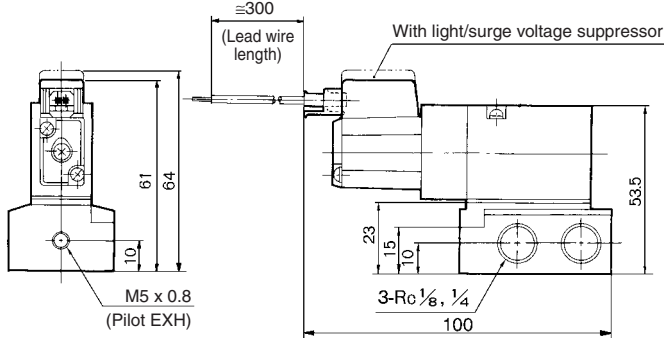
Locking type manual override



L plug connector: VZ4¹/₂5-□L(Z)-⁰¹/₀₂



M plug connector: VZ4¹/₂5-□M(Z)-⁰¹/₀₂



DIN terminal: VZ4¹/₂5-□D(Z)-⁰¹/₀₂

