

3 Port Solenoid Valve Rubber Seal, Body Ported Series VZ100

How to Order

Body ported VZ1 1 0 5 L [] M5 []

Type of actuation

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

Regarding VZ120, R port is a supply port.

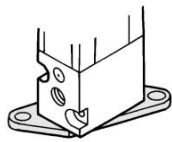
Rated voltage

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: With foot bracket



Note) Bracket is not mounted.

Port size


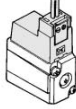


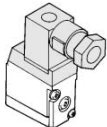





M5	M5 x 0.8
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Light/Surge voltage suppressor

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

* Not available for "GZ", "HZ" and "DOZ"

Electrical entry

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

* "LN", "MN" type: With 2 sockets.

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

Series VZ100

Low power consumption:
1.8 W DC

Applicable for vacuum use
-100 kPa



For manifold use, refer to the pages 4-6-8 to 4-6-11.



Made to Order Specifications
(For details, refer to page 4-6-46.)

Option

Description	Part no.	Note
With foot bracket	DXT170-34-1A	Mounting screw (M3 x 6)
Silencer	M5 AN120-M5 (ø8 x 17ℓ)	For valve unit (R port), Noise reduction: 21 dB or more, Effective area 5 mm ²

Specifications

Fluid	Air
Operating pressure range	Refer to the table below.
Ambient and fluid temperature (°C)	-10 to 50 (No freezing. Refer to page 4-18-4.)
Response time (ms) ⁽¹⁾	15 or less
Max. operating frequency (Hz)	15
Flow Characteristics	Refer to the table below.
Manual override	Non-locking push type
Lubrication	Not required
Mounting orientation	Unrestricted
Shock/Vibration resistance (m/s ²) ⁽²⁾	300/50
Enclosure	Dustproof



Note 1) Based on dynamic performance test, JIS B 8374-1981. (Coil temperature: 20°C, at rated voltage, without 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 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 1000 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)/(H), L plug connector (L), M plug connector (M), DIN terminal (D)		
Coil rated voltage (V)	AC50/60 Hz	100, 200, 24*, 48*, 110*, 220*	
	DC	24, 6*, 12*, 48*	
Allowable voltage fluctuation (%)	-15 to +10% of rated voltage		
Power consumption (W) Note)	DC	1.8 (With indicator light 2.1)	
[Current mA]		[24 VDC: 75 (With indicator light 87.5)]	
Apparent power (VA) Note)	AC	Inrush	4.5/50 Hz, 4.2/60 Hz [100 VAC: 45/50 Hz, 42/60 Hz]
			200 VAC: 22.5/50 Hz, 21/60 Hz]
[Current mA]	AC	Holding	3.5/50 Hz, 3/60 Hz [100 VAC: 35/50 Hz, 30/60 Hz]
			200 VAC: 17.5/50 Hz, 15/60 Hz]
Surge voltage suppressor	DC: Diode, AC: ZNR		
Indicator light	DC: LED (Red), AC: Neon bulb		



Note) At rated voltage

Operating Pressure

Model	Type of actuation	Operating pressure range (MPa)	Vacuum specifications (MPa)		Port size	Weight (g) Note)
			1 (P) port	R port		
Body ported	VZ110	N.C.	0 to 0.7	-27 kPa to 0.6	M5 x 0.8	70
	VZ120	N.O.	0 to 0.5	-100 kPa to 0		



Note) Weight stands for grommet type

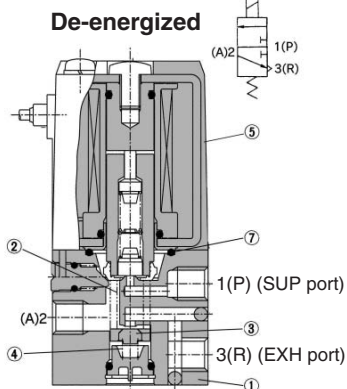
Flow Characteristics

Model	Type of actuation	Port size	Flow characteristics						
			Supply side			Exhaust side			
			N.C.: 1 → 2 (P → A) N.O.: 3 → 2 (R → A)	b	Cv	N.C.: 2 → 3 (A → R) N.O.: 2 → 1 (A → P)	b	Cv	
Body ported	VZ110	N.C.	M5 x 0.8	0.11	0.026	0.023	0.19	0.071	0.042
	VZ120	N.O.		0.19	0.071	0.042	0.13	0.18	0.031

Construction

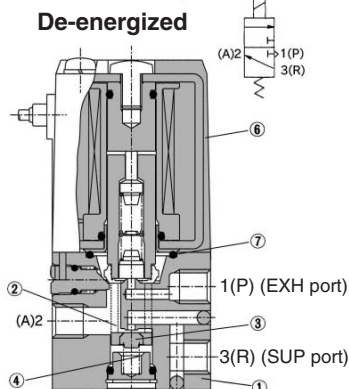
VZ110 (N.C.)

JIS Symbol



VZ120 (N.O.)

JIS Symbol



Component Parts

No.	Description	Material	Note
①	Body	ZDC	Platinum silver
②	Push rod	Resin	
③	EXH poppet	NBR	
④	N.C. Back up spring	Stainless steel	
	N.O. Poppet spring		

Replacement Parts

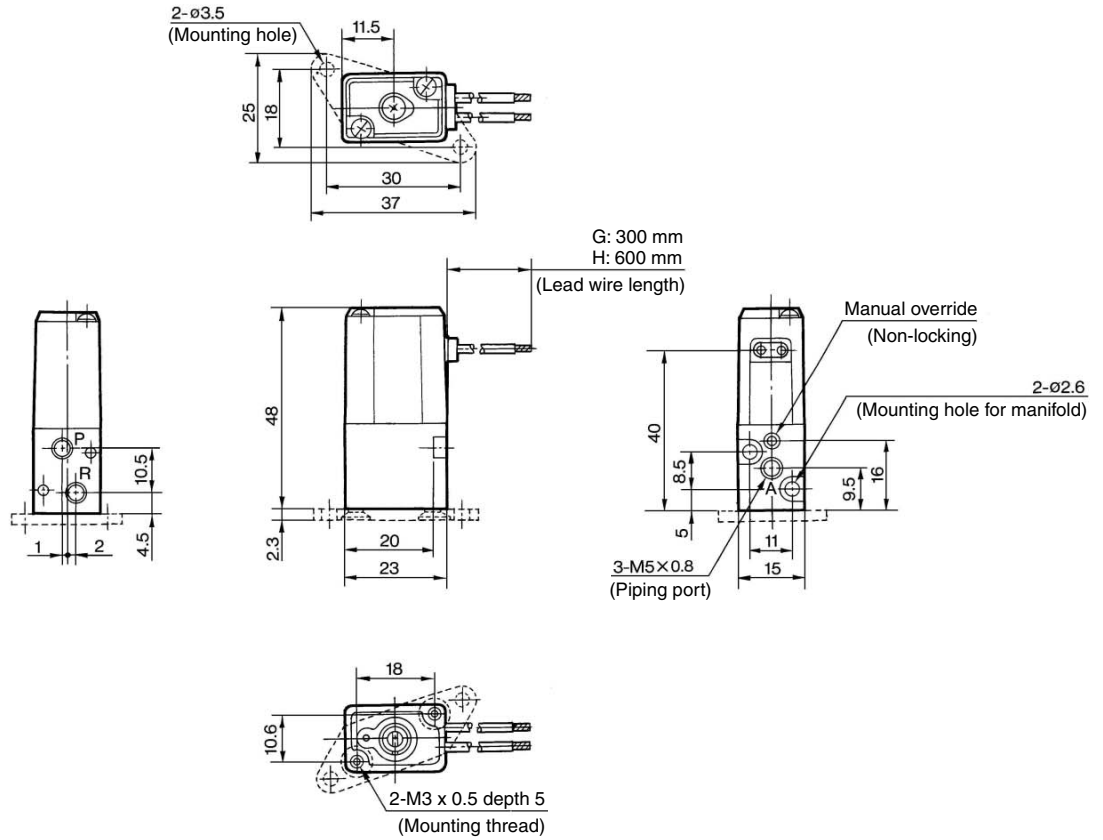
No.	Description	Part no.	Material	Note
⑤	Solenoid assembly	DXT170-A-□□□	Epoxy Stainless steel	VZ110
⑥	Solenoid assembly	DXT170-E-□□□	Epoxy Stainless steel	VZ120
⑦	O-ring	13 x 11 x 1	NBR	Common with Series VZ ₃ 00

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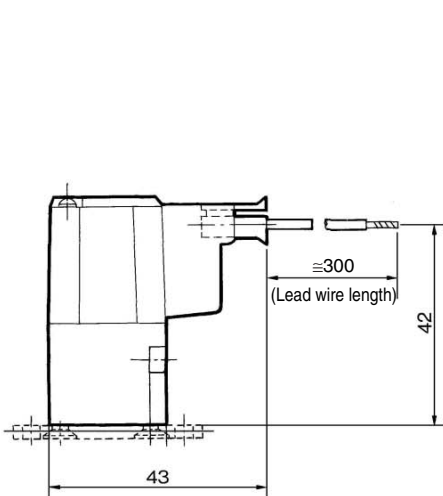


Body Ported

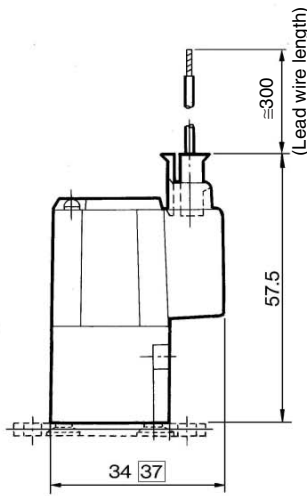
Grommet (G), (H)
VZ1□0-□^G□-M5(-F)



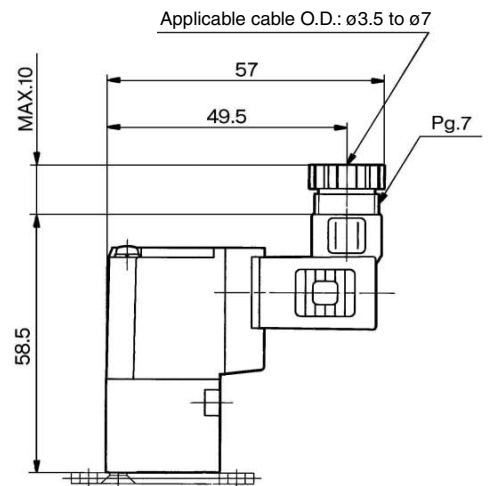
L plug connector (L)
VZ1□0-□L□-M5



M plug connector (M)
VZ1□0-□M□-M5



DIN terminal (D)
VZ1□0-□D□-M5



□: With light/surge voltage suppressor

V100

SY

SYJ

VK

VZ

VT

VP

VG

VP

S070

VQ

VKF

VQZ

VZ

VS

VFN