

4 Port Solenoid Valve Body Ported Series VZ1000



How to Order

Non plug-in VZ1120 — **5** — **L** — **Indicator light/surge voltage suppressor** — **M5** — **Option**

Configuration

1 2 position single

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*	Other

* Option

Option

F: With foot bracket

 Note) Bracket is not assembled.

M5 X 0.8

Indicator light and surge voltage suppressor

—	None
Z*	With indicator light and surge suppressor
S	With surge voltage suppressor

* It is 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	MO: Without connector
		DO: Without connector	

* LN, MN type: with 2 sockets.

SY

SYJ

SX

VK

VZ

VF

VFR

VP7

VP4

VQ

VQ4

VQZ

VQD

VZS

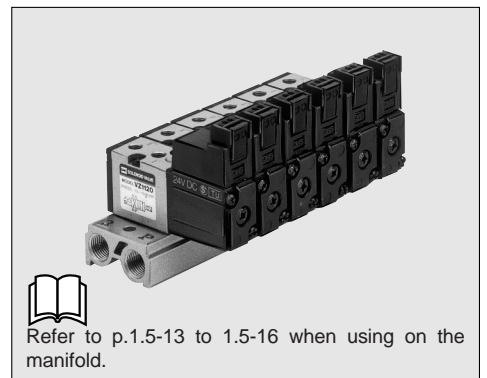
VFS

VS

VS7

Option

Description	Part No.	Remark
Foot bracket	DXT170-34-1B	With mounting screw (M3 X 8)



VZ1000

Applicable for Cylinder Actuation (up to $\varnothing 16$)
 Compact Size
 (Width: 15mm)
 Low Power Consumption
 1.8W DC



P.1.5-80 to 1.5-88

Specifications

Valve style	Pilot style 4 port solenoid valve
Fluid	Air
Operating pressure range MPa	0.15 to 0.7
Ambient and fluid temperature °C	Max. 50
Response time (ms) (0.5MPa) ⁽¹⁾	15 or less
Max. operating frequency (Hz)	15
Effective area	See below
Lubrication	Non-lube
Manual override	Non-locking push style
Exhaust throttle	Not available
Mounting position	Free
Impact/Vibration resistance (m/s ²) ⁽²⁾	300/50
Protection	Dust proof



Note 1) According to dynamic performance test of JIS B8375-1981. (Coil temperature 20°C, rated voltage, without surge voltage suppressor)

Note 2) 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. (Value in the initial stage.)

Vibration resistance: No malfunction from test with 45 to 1000Hz 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% rated voltage	
Power consumption (W) ⁽¹⁾ [Current mA]	DC	1.8 (with light 2.1) [24V DC: 75 (with light 87.5)]
	AC	Inrush
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	

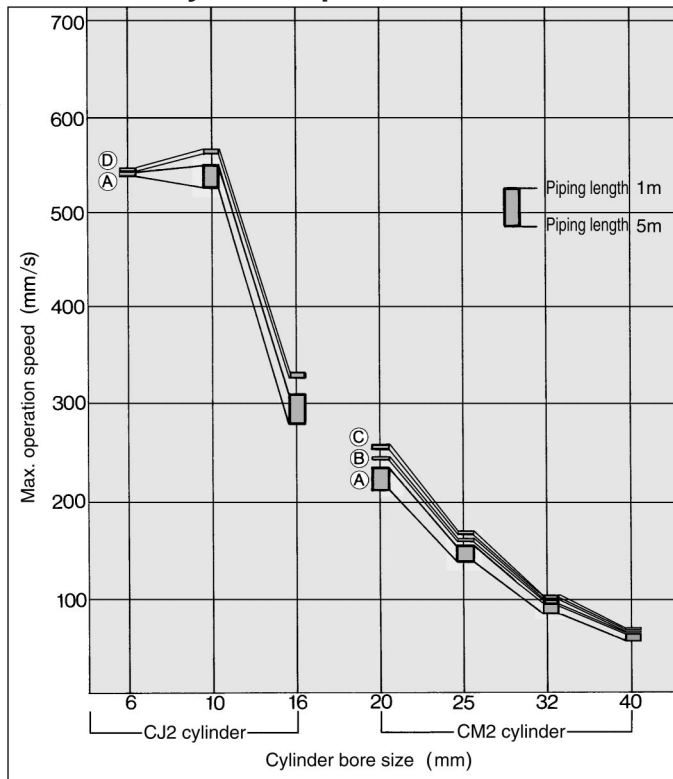


Note 1) At rated voltage

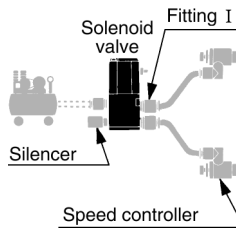
Effective Area and Weight

Valve Model	Configuration	Effective area (mm ²)(Cv)		Port size	Weight (g)
VZ1120-□-M5	2 position single solenoid	P→A	0.6 (0.034)	M5 X 0.8	90
		B→R	1.5 (0.083)		
		P→B	1.0 (0.056)		
		A→R	0.9 (0.05)		

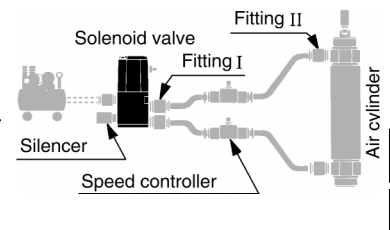
Maximum Cylinder Speed



System figure 1



System figure 2

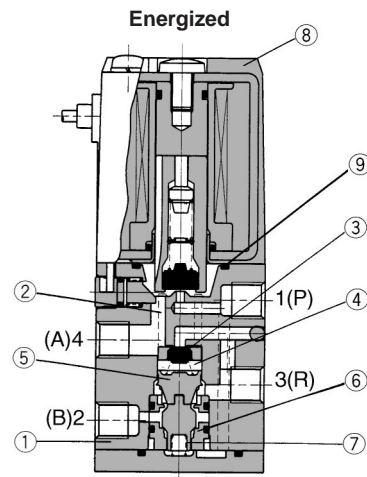
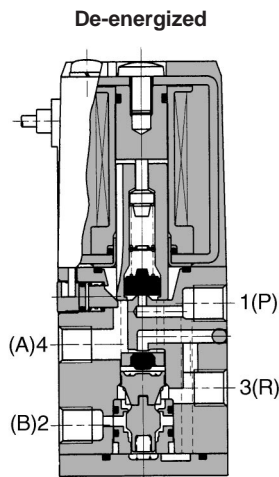
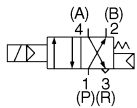


Conditions: Pressure 0.5MPa, Load 50%
(w/ extended cylinder) Cylinder stroke CJ2: 60mm
CM2: 300mm

System construction

System	Solenoid valve	Speed controller	Silencer	Fitting (tube O.D. X connecting screw)	
				I	II
(A)	VZ1120 M5 X 0.8	AS1301F-M5-04 (S=1.5mm ²)	AN120 (S=5mm ²)	ø4 X M5	—
(B)		AS1301F-M5-06 (S=1.5mm ²)		ø6 X M5	—
(C)		AS2301F-01-06 (S=2.7mm ²)		ø6 X M5	—
(D)		AS2001F-06 (S=2.7mm ²)		ø6 X M5	ø6 X M5

Construction



Component Parts

No.	Description	Material	Remark
①	Body	ZDC	Platinum silver
②	Push rod	Resin	
③	EXH poppet	NBR	
④	Back up spring	Stainless steel	
⑤	V packing	NBR	
⑥	Retainer assembly	Brass, NBR	
⑦	Poppet spring	Stainless steel	

Replacement Parts

No.	Description	Material	Part No.	Remark
⑧	Solenoid assembly	Epoxy, Stainless steel	DXT170-A-□□□	
⑨	O ring	NBR	13 X 11 X 1	Common with series VZ ₅ 000

SY

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VP7

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VQ

VQ4

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VFS

VS

VS7

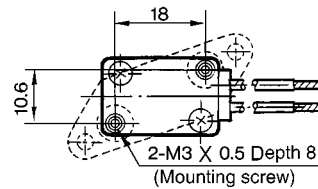
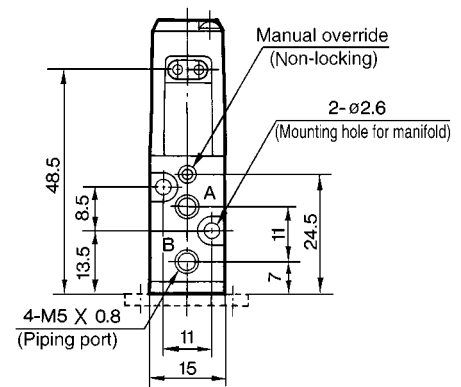
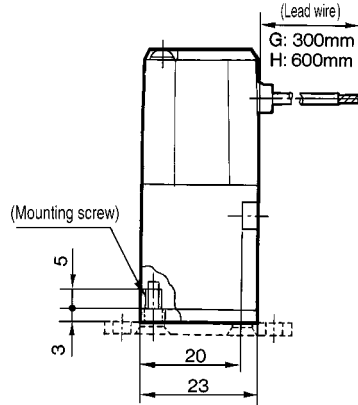
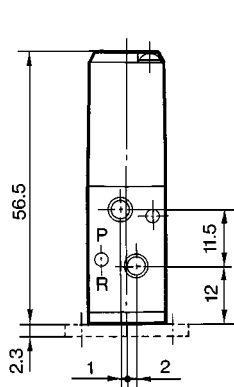
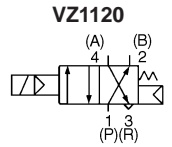
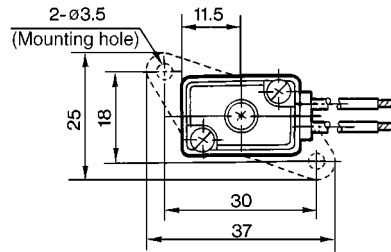
VZ1000



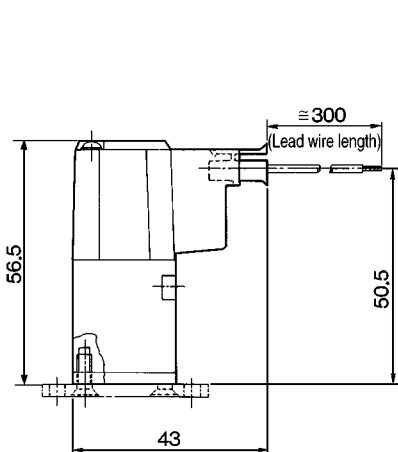
2 Position Single



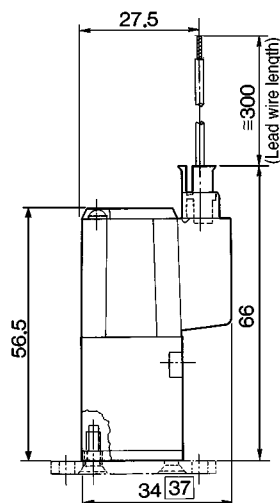
Grommet(G), (H) VZ1120-□G□-M5



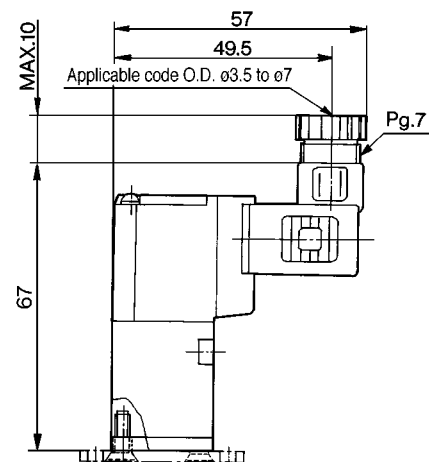
L plug connector (L) VZ1120-□L□-M5



M plug connector (M) VZ1120-□M□-M5



DIN terminal (D) VZ1120-□D□-M5



- Grommet (G), (H) ————— SV4Z1, #1
- L plug connector (L) ————— SV4Z1, #1+ (#12, #008)
- M plug connector (M) ————— SV4Z1, #1+ (#12, #009)
- DIN terminal (D) ————— SV4Z1, #1+ (#12, #010)
- With bracket ————— SV4Z1, (#12, #001)
- Silencer (AN120-M5) ————— SV4Z1, (#12, #002)
- Silencer (AN110-01) ————— SV4Z1, (#12, #003)



□ : With indicator light and surge voltage suppressor