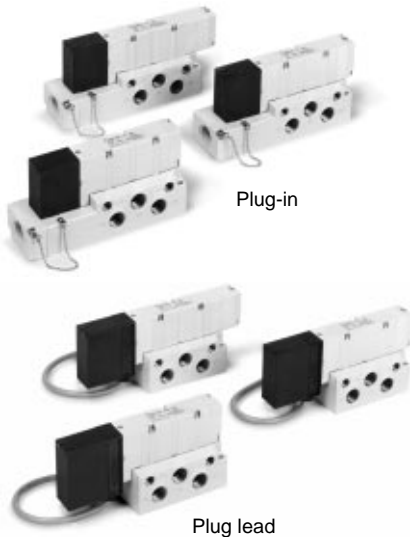


Series VQ4000

Base Mounted Valve

Plug-in, Plug Lead/Single Unit



Model

Series	Configuration	Model	Effective area (mm ²) (Cv) ⁽¹⁾	Response time ms ⁽²⁾		Weight (kg) ⁽³⁾		
				Standard: 1W	Low wattage and AC			
VQ4000	2 position	Single	Metal seal	VQ41 ₅ 0	36.0 (2.0)	20 or less	22 or less	0.23 (0.29)
			Rubber seal	VQ41 ₅ 1	39.6 (2.2)	25 or less	27 or less	
		Double	Metal seal	VQ42 ₅ 0	36.0 (2.0)	12 or less	12 or less	0.26 (0.32)
			Rubber seal	VQ42 ₅ 1	39.6 (2.2)	15 or less	15 or less	
	3 position	Closed center	Metal seal	VQ43 ₅ 0	32.4 (1.8)	45 or less	47 or less	0.28 (0.34)
			Rubber seal	VQ43 ₅ 1	36.0 (2.0)	50 or less	52 or less	
		Exhaust center	Metal seal	VQ44 ₅ 0	36.0 (2.0)	45 or less	47 or less	0.28 (0.34)
			Rubber seal	VQ44 ₅ 1	39.6 (2.2)	50 or less	52 or less	
		Pressure center	Metal seal	VQ45 ₅ 0	36.0 (2.0)	45 or less	47 or less	0.28 (0.34)
			Rubber seal	VQ45 ₅ 1	39.6 (2.2)	50 or less	52 or less	
		Double check	Metal seal	VQ46 ₅ 0	19.8 (1.1)	55 or less	57 or less	0.50 (0.56)
			Rubber seal	VQ46 ₅ 1	21.6 (1.2)	62 or less	64 or less	



Note 1) Value for valve on sub-plate and cylinder port Rc3/8
 Note 2) As per JISB8375-1981 (Supply pressure: 0.5MPa, with indicator light and surge suppressor, clean air).
 Note 3) (): Weight of plug lead unit
 Table: Without sub-plate
 With sub-plate: Add 0.41kgf for plug-in style, 0.30kgf for plug lead style.

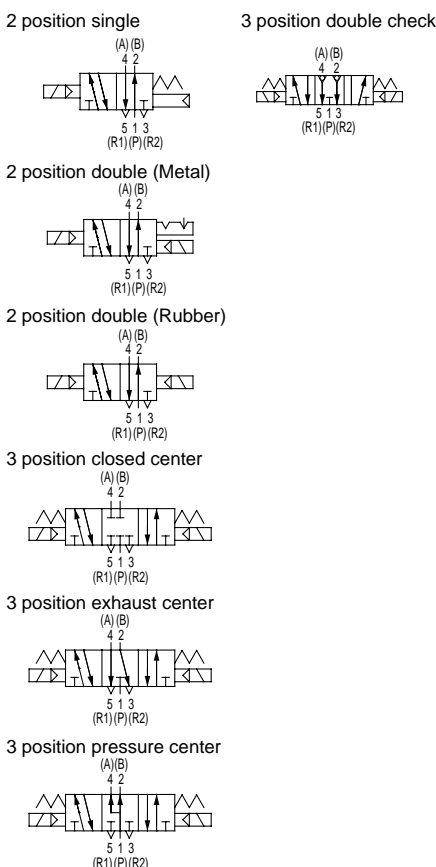
Standard Specifications

	Seal			
	Metal seal	Rubber seal		
Fluid	Air, Inert gas	Air, Inert gas		
Max. operating pressure ⁽³⁾	1.0MPa			
Min. operating pressure	Single	0.15MPa	0.20MPa	
	Double	0.15MPa	0.15MPa	
	3 position	0.15MPa	0.20MPa	
Ambient and fluid temperature	-10 to 50°C ⁽¹⁾	-5 to 50°C ⁽¹⁾		
Lubrication	Not required			
Manual override	Non-locking push style/Locking slotted style (Option)			
Shock/Vibration resistance	150/30 m/s ² (2)			
Enclosure	Dust proof (Available IP65 style)			
Coil rated voltage	12, 24V DC and 100, 110, 200, 220V AC (50/60Hz)			
Solenoid specifications	Allowable voltage	±10% of rated voltage		
	Coil insulation	Class B or equivalent		
	Power consumption (Current value)	24V DC	1W DC (42mA), 0.5W DC (21mA) ⁽³⁾	
		12V DC	1W DC (83mA), 0.5W DC (42mA) ⁽³⁾	
		100V AC	Inrush 1.2VA (12mA), Holding 1.2VA (12mA)	
		110V AC	Inrush 1.3VA (11.7mA), Holding 1.3VA (11.7mA)	
		200V AC	Inrush 2.4VA (12mA), Holding 2.4VA (12mA)	
220V AC	Inrush 2.6VA (11.7mA), Holding 2.6VA (11.7mA)			



Note 1) Use dry air to prevent condensation when operating at low temperatures.
 Note 2) Shock resistance: No malfunction resulted from the impact test using a drop impact tester. The test was performed on the axis and right angle direction of the main valve and armature, for both energized and de-energized states. (Value in the initial stage.)
 Vibration resistance: No malfunction occurred in a one-sweep test between 8.3 and 2,000 Hz. Test was performed at both energize and de-energized states to the axis and right angle direction of the main valve and armature. (Value in the initial stage.)
 Note 3) Values in case of low power consumption model (0.5W).

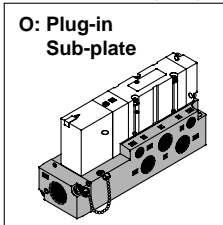
Symbol



How to Order Valve

Body style

O: Plug-in Sub-plate



Port size

-	Without sub-plate (for manifold)
02	Rc1/4
03	Rc3/8

Note) Refer to p.1.11-46 for thread standard.

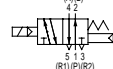
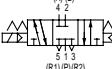
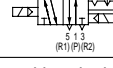
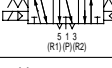
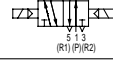
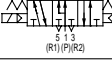
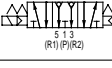
Piping

-	Side piping
B	Bottom piping

Plug-in VQ4 1 0 0

Plug lead VQ4 2 5 1

Configuration

1	2 position single	3	3 position closed center
			
2	Metal 2 position double	4	3 position exhaust center
			
2	Rubber 2 position double	5	3 position pressure center
			
		6 (Note)	3 position double check
			

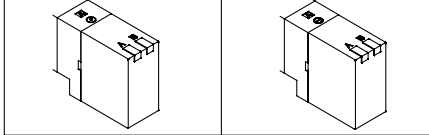
Note) Refer to p.1.11-36 for double check style.

Enclosure

-	Dust-proof
W	Dust tight, jet proof (Applicable to IP 65)

Manual override

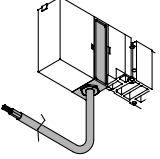
- : Non-locking push style	B: Locking slotted style
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Light and surge voltage suppressor

-	With
E	W/o light/With surge suppressor

Electrical entry

Grommet	G	
	H	
		Lead wire length 0.6m
		Lead wire length 1.5m

Coil 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

Seal

0	Metal seal
1	Rubber seal

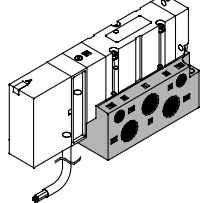
Function

-	Standard (1W)
Y ⁽¹⁾	Low wattage (0.5W)
R ⁽²⁾	External pilot

Note 1) Applicable to DC specification.
 Note 2) Refer to p.1.11-46 for external pilot specification. Combination of external pilot and perfect interface is not possible.
 Note 3) When specifying more than one option, indicate symbols alphabetically.

Body style

5: Plug lead Sub-plate



- SY
- SYJ
- SX
- VK
- VZ
- VF
- VFR
- VP7
- VP4
- VQ
- VQ4**
- VQZ
- VQD
- VZS
- VFS
- VS
- VS7

How to Order Sub-plate

VQ4000

Electrical entry

P	Plug-in conduit terminal
S	Plug lead

Port size

02	Rc1/4
03	Rc3/8

Note 1) Bottom piping type is applicable to only Rc1/4.
 Note 2) Refer to p.1.11-46 for thread standard.

Piping

-	Side piping
B	Bottom piping

Enclosure

-	Dust proof
W	Dust tight, Jet proof

How to replace pilot valve ass'y (Voltage)

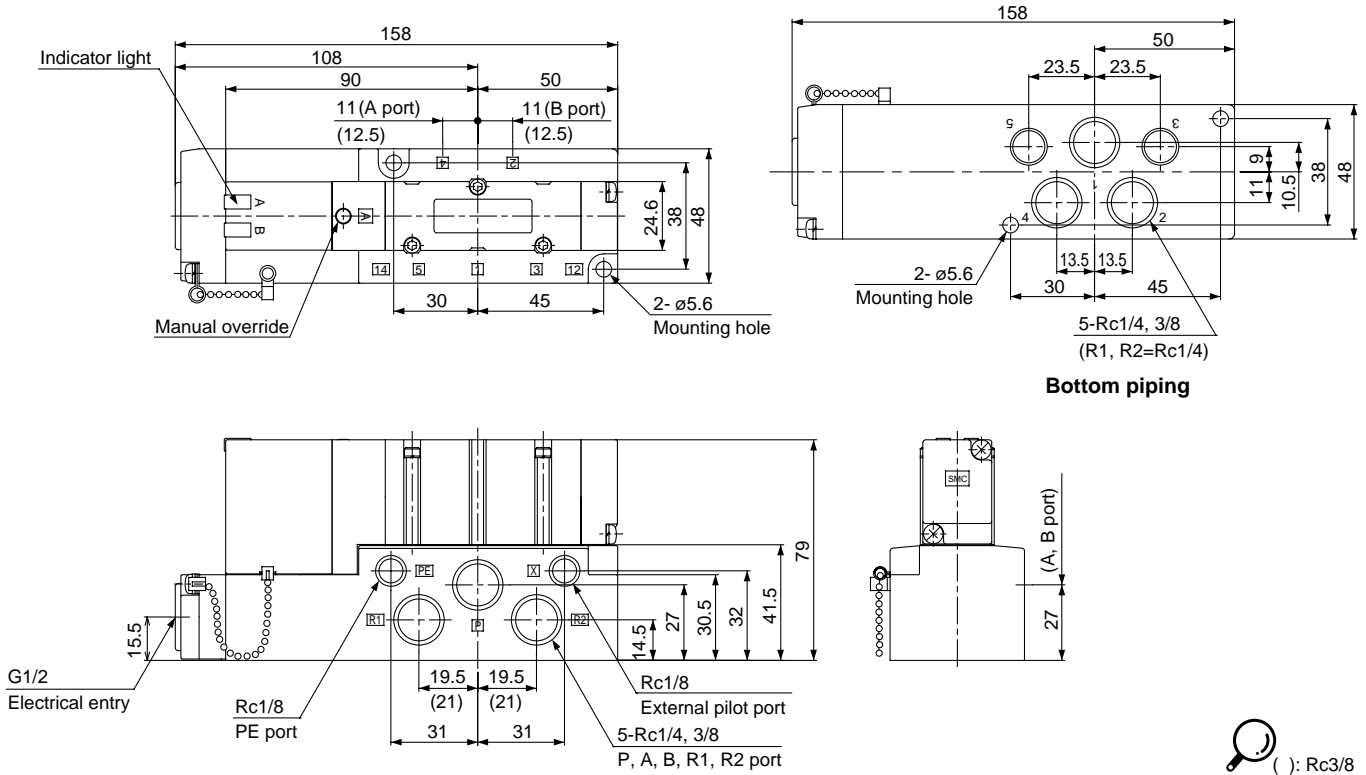
- Refer to p.1.11-42 and p.1.11-43 for part no. of pilot valve ass'y
- Refer to p.1.11-3 for "How to Replace".

Series VQ4000

Plug-in

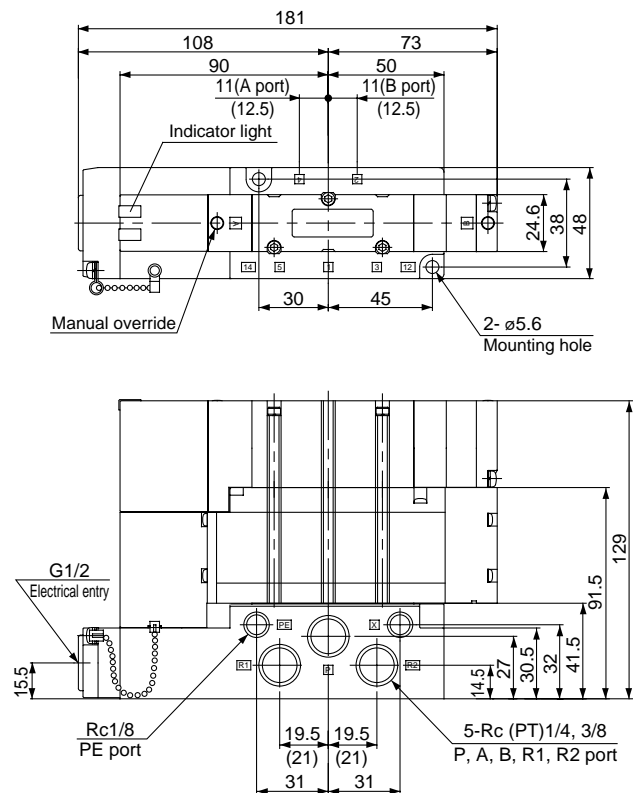
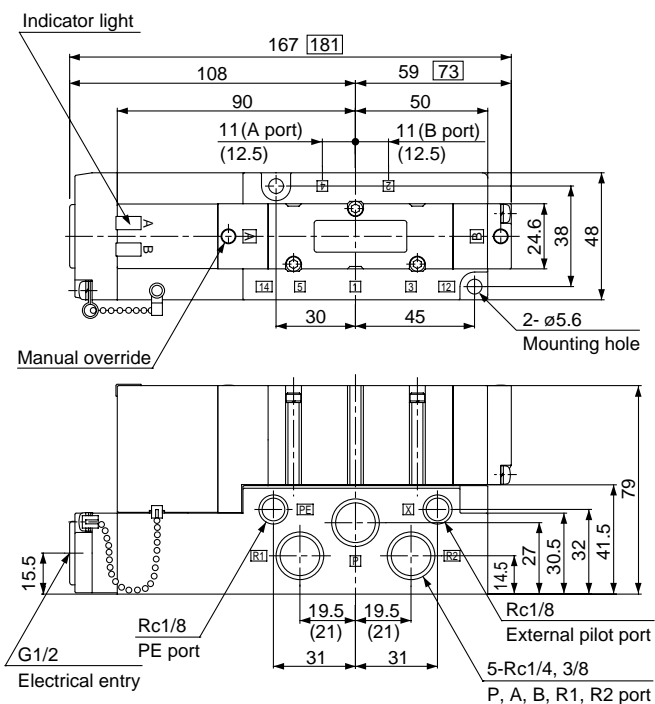
Conduit terminal

2 position single: VQ410⁰-□



- 2 position double: VQ420⁰-□
- 3 position closed center: VQ430⁰-□
- 3 position exhaust center: VQ440⁰-□
- 3 position pressure center: VQ450⁰-□

3 position double check: VQ460⁰-□

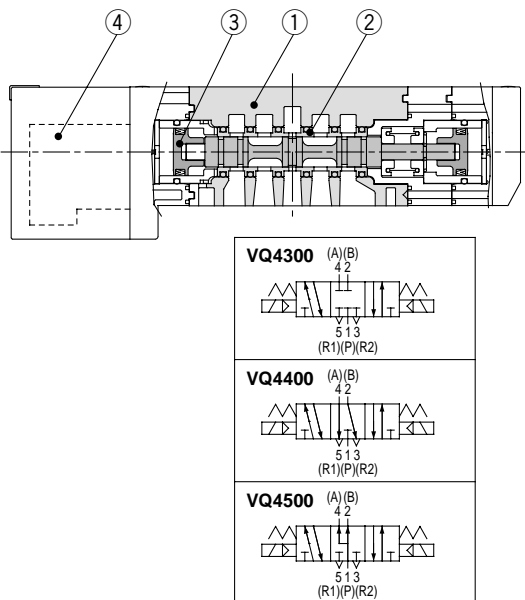
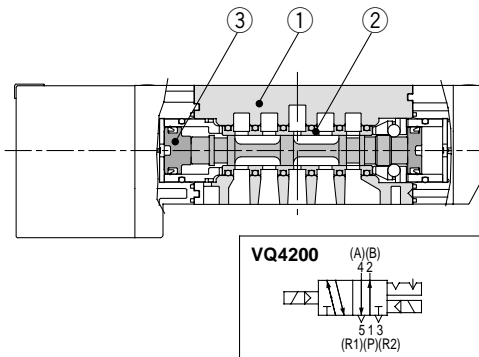
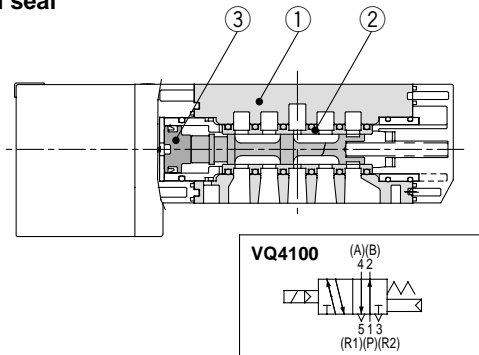


□ : 3 position
(): Rc3/8

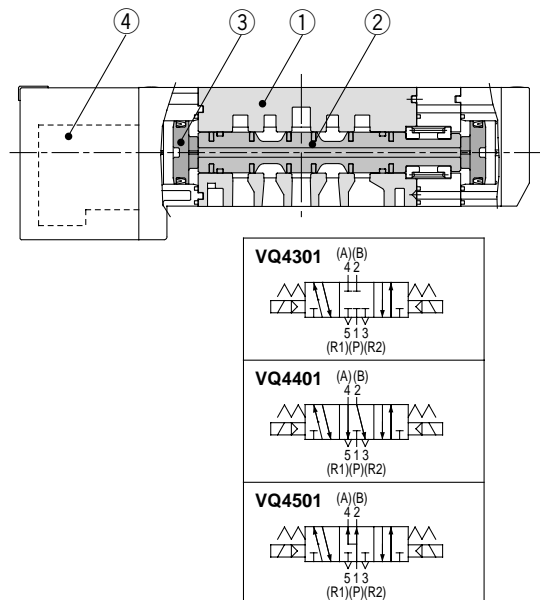
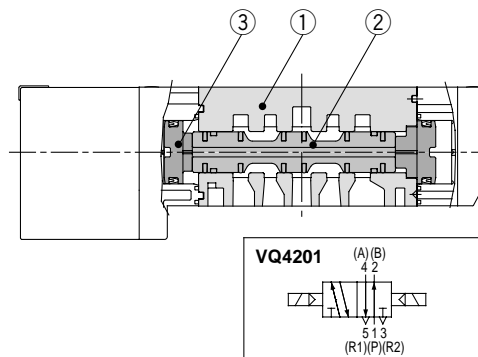
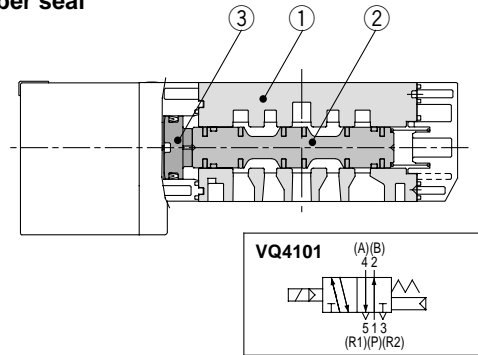
Series VQ4000 Construction

Plug-in Unit

Metal seal



Rubber seal



Component Part

No.	Description	Material	Note
①	Body	Aluminum die-cast	
②	Spool/Sleeve	Stainless steel	
③	Piston	Resin	

Replacement Parts

④	Pilot valve ass'y	VQZ111P-□	*: Coil rated voltage Example) 24V DC: 5
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Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-cast	
②	Spool valve	Aluminum, NBR	
③	Piston	Resin	

Replacement Parts

④	Pilot valve ass'y	VQZ111P-□	*: Coil rated voltage Example) 24V DC: 5
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