

Base Mounted

Plug-in: Single Unit

VQC4000 Series

Model

Series	Configuration	Model		Port size	Flow rate characteristics						Response time [ms]		Weight [kg]		
					1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → EA/EB)			Standard: 0.95 W	Low wattage type: 0.4 W			
					C [dm ³ (s-bar)]	b	Cv	C [dm ³ (s-bar)]	b	Cv					
VQC4000	2-position	Single	Metal seal	VQC4100	3/8	6.2	0.19	1.5	6.9	0.17	1.7	20	22	0.23	
			Rubber seal	VQC4101		7.2	0.43	2.1	7.3	0.38	2.0	25	27		
		Double	Metal seal	VQC4200		6.2	0.19	1.5	6.9	0.17	1.7	12	16		0.26
			Rubber seal	VQC4201		7.2	0.43	2.1	7.3	0.38	2.0	15	17		
	3-position	Closed center	Metal seal	VQC4300		5.9	0.23	1.5	6.3	0.18	1.6	45	47	0.28	
			Rubber seal	VQC4301		7.0	0.34	1.9	6.4	0.42	1.9	50	52		
		Exhaust center	Metal seal	VQC4400		6.2	0.18	1.5	6.9	0.17	1.7	45	47	0.28	
			Rubber seal	VQC4401		7.0	0.38	1.9	7.3	0.38	2.0	50	52		
		Pressure center	Metal seal	VQC4500		6.2	0.18	1.6	6.4	0.18	1.6	45	47	0.28	
			Rubber seal	VQC4501		7.0	0.38	1.9	7.1	0.38	2.0	50	52		
		Double check	Metal seal	VQC4600		2.7	—	—	3.7	—	—	55	57	0.50	
			Rubber seal	VQC4601		2.8	—	—	3.9	—	—	62	64		

Note 1) Cylinder port 3/8: Value for valve on sub-plate

Note 2) Based on JIS B 8419: 2010. (Supply pressure: 0.5 MPa, with indicator light and surge voltage suppressor, clean air. This will change depending on pressure and air quality.) The value when ON for the double type.

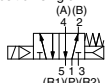
Note 3) Table: Without sub-plate, With sub-plate: Add 0.41 kg.



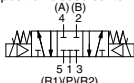
Plug-in unit

Symbol

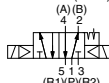
2-position single



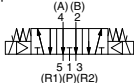
3-position closed center



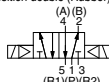
2-position double (Metal)



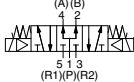
3-position exhaust center



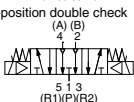
2-position double (Rubber)



3-position pressure center



3-position double check



Standard Specifications

Valve specifications	Valve construction	Metal seal	Rubber seal
	Fluid	Air	
Max. operating pressure	1.0 MPa		
Min. operating pressure	Single	0.15 MPa	0.20 MPa
	Double	0.15 MPa	
3-position	0.15 MPa	0.20 MPa	
Ambient and fluid temperature	-10 to 50°C (Note 1)		
Lubrication	Not required		
Manual override	Push type/Locking type (Tool required)/Locking type (Manual)		
Impact/Vibration resistance	150/30 m/s ² (Note 2)		
Enclosure	Dust-tight (IP67 compatible) (Note 3)		
Electrical specifications	Coil rated voltage	12, 24 VDC	
	Allowable voltage fluctuation	±10% of rated voltage	
	Coil insulation type	Class B or equivalent	
	Power consumption [W]	24 VDC	0.95, 0.4
12 VDC		0.95, 0.4	

Note 1) Use dry air to prevent condensation when operating at low temperatures.

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 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)

Note 3) Only applicable to S, T, L and M kits



How to Order Valves

Plug-in

VQC4 1 0 0 - - - 1 - - -

1	2-position single (A)(B) 4 2 1 3 (R1)(P)(R2)
	2-position double (A)(B) 4 2 1 3 (R1)(P)(R2)
2	2-position double (A)(B) 4 2 1 3 (R1)(P)(R2)
	2-position double (A)(B) 4 2 1 3 (R1)(P)(R2)

Type of actuation

3	3-position closed center (A)(B) 4 2 1 3 (R1)(P)(R2)
4	3-position exhaust center (A)(B) 4 2 1 3 (R1)(P)(R2)
5	3-position pressure center (A)(B) 4 2 1 3 (R1)(P)(R2)
6	3-position double check (A)(B) 4 2 1 3 (R1)(P)(R2)

Note) For double check type, refer to the **Web Catalog** of the VQ4000/5000 series.

• Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

• Port size

Nil	Without sub-plate (For manifold)
02	1/4
03	3/8

• Porting specifications

Nil	Side ported
B	Bottom ported

• Manual override

<p>Nil: Non-locking push type (Tool required)</p>	<p>B: Locking type (Tool required)</p>	<p>C: Locking type (Manual)</p>
---	--	---------------------------------

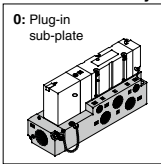
• Light/Surge voltage suppressor

Nil	Yes
E	Without light, with surge voltage suppressor

• Coil voltage

5	24 VDC
6	12 VDC

Body



Seal

0	Metal seal
1	Rubber seal

Function

Nil (Note 1)	Standard (0.95 W)
Y	Low wattage type (0.4 W)
R (Note 2)	External pilot

- Note 1) When the power is energized continuously, refer to "Specific Product Precautions 1" on page 1192.
 Note 2) For details about external pilot type, refer to the **Web Catalog** of the VQ4000/5000 series. In addition, external pilot type cannot be combined with a double check spacer.
 Note 3) When multiple symbols are specified, indicate them alphabetically.

How to Order Sub-plates



VQ4000 - PW - - 02 - -

Porting specifications

Nil	Side ported
B	Bottom ported (Note)

Port size

02	1/4
03	3/8

Note) For bottom ported, port size is 1/4 only.

CE/UKCA-compliant

Nil	-
Q	CE/UKCA-compliant

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Replacement of pilot valve assembly (Voltage)

- Refer to page 1190 for pilot valve assembly part numbers.
- Refer to page 1193 for replacement method.

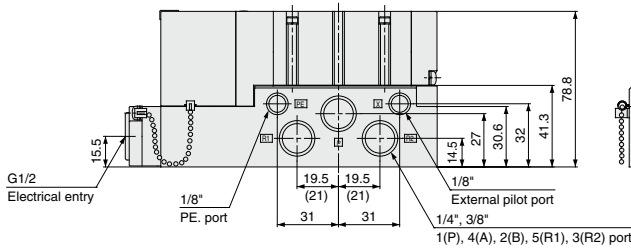
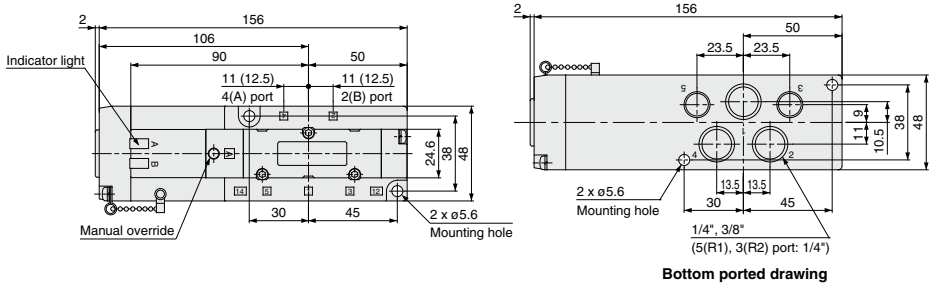


VQC4000 Series

Dimensions: Plug-in Type

Conduit terminal

2-position single: VQC410⁰-□



2-position double: VQC420⁰-□

3-position closed center: VQC430⁰-□

3-position exhaust center: VQC440⁰-□

3-position pressure center: VQC450⁰-□

3-position double check: VQC460⁰-□

