

How to Order Valves

VQC 4 1 0 0 [] - 5 [] []

Series

4	VQC4000
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Type of actuation

1	2 position single (A)(B) (R1)(P)(R2)	4	3 position exhaust center (A)(B) (R1)(P)(R2)
	2 position double (metal) (A)(B) (R1)(P)(R2)		3 position pressure center (A)(B) (R1)(P)(R2)
2	2 position double (rubber) (A)(B) (R1)(P)(R2)	5	3 position perfect (A)(B) (R1)(P)(R2)
	3 position closed center (A)(B) (R1)(P)(R2)		6

Light/Surge voltage suppressor

Nil	With
E	Without light, with surge voltage suppressor

Coil voltage

5	24 VDC <small>Note</small>
6	12 VDC

Note) S kit is only available for 24 VDC.

Function

Nil	Standard type (1 W)
R	External pilot
Y	Low wattage type (0.5 W)

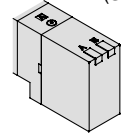
* When specifying more than one option, enter symbols in alphabetical order.

Seal type

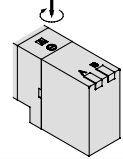
0	Metal seal
1	Rubber seal

Manual override

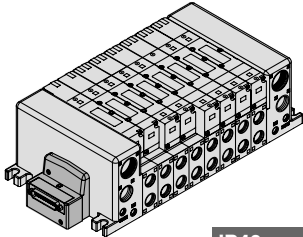
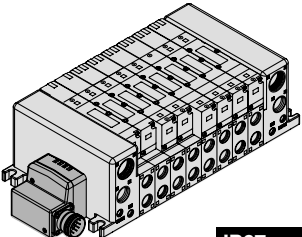
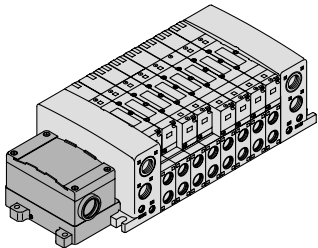
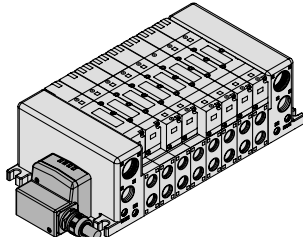
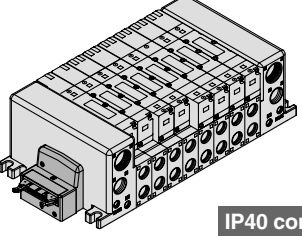
Nil: Non-locking push type (Slotted)



B: Locking type (Slotted)



Kit Designation/Electrical Entry/Cable Length

<p>F Kit (D-sub connector kit)</p>  <p>IP40 compliant</p>	<p>M Kit (Multiple connector kit)</p>  <p>IP67 compliant</p>	<p>T Kit (Terminal block box kit)</p>  <p>IP67 compliant</p>																				
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<p>L Kit (Lead wire kit)</p>  <p>IP67 compliant</p>	<p>P Kit (Flat ribbon cable kit)</p>  <p>IP40 compliant</p> <p><small>Note</small>) For a 20P flat ribbon cable, the cable assembly must be ordered separately.</p>	<p>TD0 Terminal block box kit 1 to 10 stations (16 stations)</p> <p><small>Note</small>) P kit: when using the flat ribbon cable kit (20P), order cable assemblies separately.</p>																				
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Series VQC

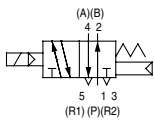
Base Mounted

Plug-in Unit

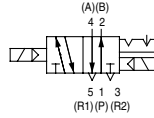


JIS Symbol

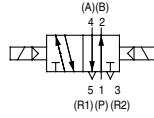
2 position single



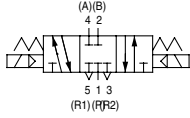
2 position double (metal)



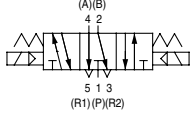
2 position double (rubber)



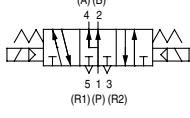
3 position closed center



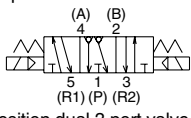
3 position exhaust center



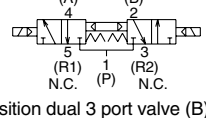
3 position pressure center



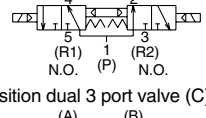
3 position exhaust center with pressure release valves



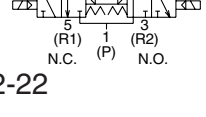
4 position dual 3 port valve (A)



4 position dual 3 port valve (B)



4 position dual 3 port valve (C)



Model

Series	No. of solenoids	Model	Flow characteristics						Response time (ms) ^{Note 2)}		Weight (g)	
			1 → 4, 2 (P → A, B)			4, 2 → 5, 3 (A, B → R1, R2)			Standard: 1 W	Low wattage		
			C [dm ³ /(s·bar)]	b	C _v	C [dm ³ /(s·bar)]	b	C _v				
VQC1000	2 position	Single	Metal seal VQC1100	0.70	0.15	0.16	0.72	0.25	0.18	12 or less	15 or less	64
			Rubber seal VQC1101	0.85	0.20	0.21	1.0	0.30	0.25	15 or less	20 or less	
		Double	Metal seal VQC1200	0.70	0.15	0.16	0.72	0.25	0.18	10 or less	13 or less	
			Rubber seal VQC1201	0.85	0.20	0.21	1.0	0.30	0.25	15 or less	20 or less	
	3 position	Closed center	Metal seal VQC1300	0.68	0.15	0.16	0.72	0.25	0.18	20 or less	26 or less	78
			Rubber seal VQC1301	0.70	0.20	0.16	0.65	0.42	0.18	25 or less	33 or less	
		Exhaust center	Metal seal VQC1400	0.68	0.15	0.16	0.72	0.25	0.18	20 or less	26 or less	
			Rubber seal VQC1401	0.70	0.20	0.16	1.0	0.30	0.25	25 or less	33 or less	
		Pressure center	Metal seal VQC1500	0.70	0.15	0.16	0.72	0.25	0.18	20 or less	26 or less	
			Rubber seal VQC1501	0.85	0.20	0.21	0.65	0.42	0.18	25 or less	33 or less	
4 position	Dual 3 port valve	Rubber seal VQC1 ^A _C 01	0.70	0.20	0.16	0.70	0.20	0.16	25 or less	33 or less		
VQC2000	2 position	Single	Metal seal VQC2100	2.0	0.15	0.46	2.6	0.15	0.60	22 or less	29 or less	90
			Rubber seal VQC2101	2.2	0.28	0.55	3.2	0.30	0.80	24 or less	31 or less	
		Double	Metal seal VQC2200	2.0	0.15	0.46	2.6	0.15	0.60	15 or less	20 or less	
			Rubber seal VQC2201	2.2	0.28	0.55	3.2	0.30	0.80	20 or less	26 or less	
	3 position	Closed center	Metal seal VQC2300	2.0	0.15	0.46	2.0	0.18	0.46	29 or less	38 or less	110
			Rubber seal VQC2301	2.0	0.28	0.49	2.2	0.31	0.60	34 or less	44 or less	
		Exhaust center	Metal seal VQC2400	2.0	0.15	0.46	2.6	0.15	0.60	29 or less	38 or less	
			Rubber seal VQC2401	2.0	0.28	0.49	3.2	0.30	0.80	34 or less	44 or less	
		Pressure center	Metal seal VQC2500	2.4	0.17	0.57	2.0	0.18	0.46	29 or less	38 or less	
			Rubber seal VQC2501	3.2	0.28	0.80	2.2	0.31	0.60	34 or less	44 or less	
4 position	Dual 3 port valve	Rubber seal VQC2 ^A _C 01	1.8	0.28	0.46	1.8	0.28	0.46	34 or less	44 or less		
VQC4000	2 position	Single	Metal seal VQC4100	6.2	0.19	1.5	6.9	0.17	1.7	20 or less	22 or less	230
			Rubber seal VQC4101	7.2	0.43	2.1	7.3	0.38	2.0	25 or less	27 or less	
		Double	Metal seal VQC4200	6.2	0.19	1.5	6.9	0.17	1.7	12 or less	12 or less	
			Rubber seal VQC4201	7.2	0.43	2.1	7.3	0.38	2.0	15 or less	15 or less	
	3 position	Closed center	Metal seal VQC4300	5.9	0.23	1.5	6.3	0.18	1.6	45 or less	47 or less	280
			Rubber seal VQC4301	7.0	0.34	1.9	6.4	0.42	1.9	50 or less	52 or less	
		Exhaust center	Metal seal VQC4400	6.2	0.18	1.5	6.9	0.17	1.7	45 or less	47 or less	
			Rubber seal VQC4401	7.0	0.38	1.9	7.3	0.38	2.0	50 or less	52 or less	
		Pressure center	Metal seal VQC4500	6.2	0.18	1.9	6.4	0.18	1.6	45 or less	47 or less	
			Rubber seal VQC4501	7.0	0.38	1.9	7.1	0.38	2.0	50 or less	52 or less	
Perfect	Metal seal VQC4600	2.7	—	—	3.7	—	—	55 or less	57 or less	500		
Rubber seal VQC4601	2.8	—	—	3.9	—	—	62 or less	64 or less				



Note 1) Values represented in this column are in the following conditions:

- VQC1000: Cylinder port size C6 without a back pressure check valve
- VQC2000: Cylinder port size C8 without a back pressure check valve
- VQC4000: Cylinder port size Rc 3/8

Note 2) Values represented in this column are based on JIS B 8375-1981 (operating with clean air and a supply pressure of 0.5 MPa. Equipped with light/surge voltage suppressor. Values vary depending on the pressure as well as the air quality.) Values for double types are when the switch is ON.

Standard Specifications

Valve Configuration		Metal seal		Rubber seal			
		Air/Inert gas					
Valve specifications	VQC1000/2000	Max. operating pressure		0.7 MPa (High pressure type: 1.0 MPa) ^{Note 4)}			
		Min. operating pressure	Single	0.1 MPa	0.15 MPa		
			Double	0.1 MPa			
			3 position	0.1 MPa	0.2 MPa		
	4 position	—	0.15 MPa				
	VQC4000	Max. operating pressure ^{Note 3)}		1.0 MPa (0.7 MPa)			
		Min. operating pressure	Single	0.15 MPa	0.2 MPa		
			Double	0.15 MPa			
	3 position	0.15 MPa	0.2 MPa				
	Proof pressure		1.5 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 override) ^{Note 5)} /Slide locking type ^{Note 5)}					
Impact resistance/Vibration resistance		150/30 m/s ² ^{Note 2)}					
Enclosure		Dust proof (IP67 compliant)					
Electrical specifications	Rated coil voltage		24 VDC				
	Allowable voltage fluctuation		±10% of rated voltage				
	Coil insulation type		Equivalent to B type				
	Power consumption (Current)	24 VDC	1 W DC (42 mA), 0.5 W DC (21 mA)				
		12 VDC	1 W DC (83 mA), 0.5 W DC (42 mA)				

- VQC
- SQ
- VQ0
- VQ4
- VQ5
- VQZ
- VQD

Note 1) Use dry air to prevent condensation at low temperatures.
 Note 2) **Impact resistance:** No malfunction resulted from the impact test using a drop impact tester. The test was performed one time each in the axial and right angle directions of the main valve and armature, for both energized and de-energized states.
Vibration resistance: No malfunction occurred in a one-sweep test between 45 and 2000Hz. Test was performed in the axial and right angle directions of the main valve and armature for both energized and de-energized states.
 Note 3) Values in () are for the low wattage (0.5 W) specification.
 Note 4) Metal seal type only.
 Note 5) Only for VQC1000/2000.



Manifold Specifications

Series	Base model	Connection type	Piping specifications		Applicable stations ^{Note 2)}	Applicable solenoid valves	5 station weight (g)
			Port direction	Port size ^{Note 1)}			
VQC1000	VV5QC11-□□□	<ul style="list-style-type: none"> ■ F Kit: D-sub connector ■ P Kit: Flat cable ■ T Kit: Terminal block box ■ S Kit: Serial transmission ■ L Kit: Lead wire ■ M Kit: Multiple connector 	Side	C8 (For ø8) Options Direct outlet with built-in silencer C3 (For ø3.2) C4 (For ø4) C6 (For ø6) M5 (M5 threads)	(F, L, M and P kits) 1 to 12 stations T kit 1 to 10 stations S kit 1 to 8 stations: EX500 1 to 12 stations: EX250 1 to 8 stations: EX126	VQC1□00-5 VQC1□01-5	628 (Single) 759 (Double, 3P)
VQC2000	VV5QC21-□□□		Side	C10 (For ø10) Options Direct outlet with built-in silencer Branch type C12 (for ø12) C4 (For ø4) C6 (For ø6) C8 (For ø8)	1 to 8 stations: EX500 1 to 12 stations: EX250 1 to 8 stations: EX126	VQC2□00-5 VQC2□01-5	1051 (Single) 1144 (Double, 3P)
VQC4000	VV5QC41-□□□		Side Bottom	C8 (For ø8) C10 (For ø10) C12 (For ø12) Rc 1/4 Rc 3/8 Rc 1/4	(F, L, M and P kits) 1 to 12 stations T kit 1 to 10 stations S kit 1 to 12 stations: EX240, EX250 1 to 8 stations: EX500 1 to 8 stations: EX126	VQC4□00-5 VQC4□01-5	4150 • S kit (without unit) • Solenoid weight is not included.

Note 1) One-touch fittings in inch sizes are also available.
 Note 2) An optional specification for special wiring is available to increase the maximum number of stations.

