

ISO Standard Solenoid Valve

VQ7-6 Series

Size 1/Single Unit



How to Order Valves

VQ7-6-FG-S-3

Passage symbol

- FG: (A) (B) 5 1 3 (R1)(P)(R2) 4 2
- YZ*: (A) (B) 5 1 3 (R1)(P)(R2) 4 2
- FHG: (A) (B) 5 1 3 (R1)(P)(R2) 4 2
- FJG: (A) (B) 5 1 3 (R1)(P)(R2) 4 2
- FPG: (A) (B) 5 1 3 (R1)(P)(R2) 4 2
- FIG: (A) (B) 5 1 3 (R1)(P)(R2) 4 2

* Semi-standard

Number of solenoids

- S: Single
- D: Double

CE-compliant

- Nil
- Q: CE-compliant

Connector

- Nil: DIN terminal block (With connector)
- O: DIN terminal block (Without connector)
- SC: Pre-wired connector

Sub-plate port size

- Nil: Without sub-plate
- A02: Side ported 1/4"
- A03: Side ported 3/8"
- B02: Bottom ported 1/4"
- B03: Bottom ported 3/8"

* Port R is 3/8"

Thread type

- Nil: Rc
- F: G
- T: NPTF

Seal

- Nil: Metal seal
- R: Rubber seal

Pilot exhaust

- Nil: Common exhaust
- V: Individual exhaust

Option

- Nil: None
- Z: Light/Surge voltage suppressor
- N: With indicator light

Coil rated

1	100 VAC, 50/60Hz
2	200 VAC, 50/60Hz
3	24 VDC
4	12 VDC
5	110 VAC, 50/60Hz
6	220 VAC, 50/60Hz

For other rated voltages, please consult with SMC.

How to Order Sub-plate

VS7-1-A02

Port size

- A02: Side ported 1/4"
- A03: Side ported 3/8"
- B02: Bottom ported 1/4"
- B03: Bottom ported 3/8"

* Port 3(R2) and 5(R1) are 3/8"

Thread type

- Nil: Rc
- F: G
- T: NPTF

Specifications

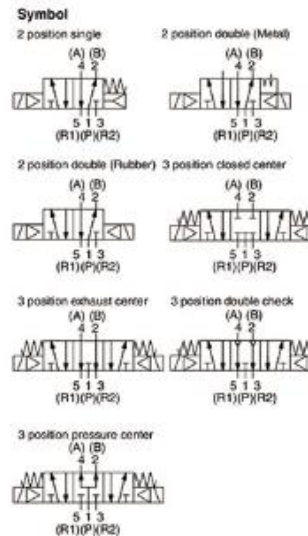
Model	Piping location	Porting specifications		Weight (kg)
		1(P), 2(B), 4(A) port size	3(R2), 5(R1) port size	
VS7-1-A02□	Side	1/4	3/8	0.37
VS7-1-A03□	Side	3/8	3/8	
VS7-1-B02□	Bottom	1/4	3/8	
VS7-1-B03□	Bottom	3/8	3/8	

Model

Series	Number of positions	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)						
				C (per/10, sec)	b	Cv	C (per/10, sec)	b	Cv				
VQ7-6	2 position	Single	1/4	Metal seal	VQ7-6-FG-S-□	4.1	0.10	0.9	5.2	0.10	1.1	20 or less	0.40
		Rubber seal		VQ7-6-FG-S-□R	5.0	0.13	1.1	6.0	0.11	1.4	25 or less		
	Double	Metal seal		VQ7-6-FG-D-□	4.1	0.10	0.9	5.2	0.10	1.1	12 or less		
	Rubber seal	VQ7-6-FG-D-□R		5.0	0.13	1.1	6.0	0.11	1.4	15 or less			
	3 position	Closed center		Metal seal	VQ7-6-FHG-D-□	4.1	0.10	0.9	5.2	0.10	1.1	40 or less	
		Rubber seal		VQ7-6-FHG-D-□R	5.0	0.13	1.1	5.6	0.20	1.3	45 or less		
Exhaust center		Metal seal	VQ7-6-FJG-D-□	4.1	0.10	0.9	5.2	0.10	1.1	40 or less			
Rubber seal		VQ7-6-FJG-D-□R	4.8	0.16	1.1	6.0	0.17	1.4	45 or less				
Double check		Metal seal	VQ7-6-FPG-D-□	1.4	-	-	3.1	-	-	50 or less			
Rubber seal		VQ7-6-FPG-D-□R	1.4	-	-	3.1	-	-	50 or less				
Pressure center	Metal seal	VQ7-6-FIG-D-□	4.1	0.10	0.9	5.2	0.06	1.1	40 or less				
	Rubber seal	VQ7-6-FIG-D-□R	5.6	0.15	1.2	5.9	0.08	1.3	45 or less				

Note 1) Based on JIS B 8419: 2010 (Value for supply pressure of 0.5 MPa, with light/surge voltage suppressor, when using clean air.) Response time values will change depending on pressure and air quality. Value when ON for double type.

Note 2) Weight without sub-plate. (Sub-plate: 0.37 kg)



Standard Specifications

Valve specifications	Valve construction		
	Metal seal	Rubber seal	
Fluid	Air		
Maximum operating pressure	1.0 MPa		
Min. operating pressure	Single	0.15 MPa	
	Double	0.15 MPa	
	3 position	0.15 MPa	
Ambient and fluid temperature	-10 to 60°C ⁽¹⁾	-5 to 60°C ⁽¹⁾	
Lubrication	Not required		
Manual override	Push type (Tool required)		
Impact/Vibration resistance	150/30 m/s ² ⁽²⁾		
Enclosure	IP65 (Dusttight, Low jet-proof)		
Coil rated voltage	12 VDC, 24 VDC, 100 VAC, 110 VAC, 200 VAC, 220 VAC, 240 VAC (50/60Hz)		
Allowable voltage fluctuation	±10% of rated voltage		
Solenoid specifications	Coil insulation type	Class B or equivalent	
	Power consumption (Current)	24 VDC	1W DC (42 mA)
		12 VDC	1W DC (83 mA)
		100 VAC ⁽³⁾	1.2 VA (12 mA)
		110 VAC ⁽³⁾	1.3 VA (11.5 mA)
		120 VAC ⁽³⁾	1.5 VA (12 mA)
		200 VAC ⁽³⁾	2.5 VA (12.5 mA)
		220 VAC ⁽³⁾	2.6 VA (13 mA)
230 VAC ⁽³⁾		2.8 VA (12.5 mA)	
240 VAC ⁽³⁾	3 VA (13 mA)		

Note 1) Use dry air to prevent condensation when operating at low temperatures.
 Note 2) Impact resistance: No malfunction occurred when it is tested 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) The valve with an AC coil comes with a rectifying device; therefore, there is no difference in the consumption current when it is in the inrush and holding states.

- SV
- SYJ
- SZ
- VF
- VP4
- VQ 1/2
- VQ 4/5
- VDC 1/2
- VDC 4/5
- VQZ
- SQ
- VFS
- VFR
- VQ7