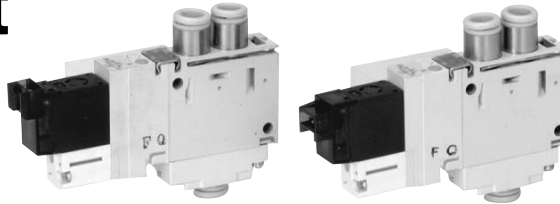


Series VQ Single Unit

For individual use of a single valve.



VQ1000

Model

Series	Number of solenoids	Model	Flow characteristics						Response time (ms) ⁽²⁾			Weight (g)		
			1 → 4/2 (P → A/B)			4/2 → 5/3 (A/B → R1/R2)			Standard: 1 W H: 1.5 W	Low wattage: 0.5 W	AC			
			C [dm ³ /(s·bar)]	b	Cv	C [dm ³ /(s·bar)]	b	Cv						
Body ported VQ1000 Cassette Plug lead	2 position	Single	Metal seal	VQ1160	0.56	0.15	0.13	0.60	0.12	0.14	12 or less	15 or less	29 or less	50
			Rubber seal	VQ1161	0.71	0.20	0.17	0.80	0.16	0.19	15 or less	20 or less	34 or less	
		Double (Latching)	Metal seal	VQ1260	0.56	0.15	0.13	0.60	0.12	0.14	12 or less	15 or less	29 or less	
			Rubber seal	VQ1261	0.71	0.20	0.17	0.80	0.16	0.19	15 or less	20 or less	34 or less	
	3 position	Closed center	Metal seal	VQ1360	0.53	0.16	0.12	0.58	0.12	0.14	20 or less	26 or less	40 or less	65
			Rubber seal	VQ1361	0.65	0.23	0.16	0.70	0.20	0.17	25 or less	33 or less	47 or less	
		Exhaust center	Metal seal	VQ1460	0.54	0.16	0.12	0.60	0.12	0.14	20 or less	26 or less	40 or less	
			Rubber seal	VQ1461	0.65	0.23	0.16	0.80	0.16	0.19	25 or less	33 or less	47 or less	
		Pressure center	Metal seal	VQ1560	0.54	0.16	0.12	0.58	0.12	0.14	20 or less	26 or less	40 or less	
			Rubber seal	VQ1561	0.70	0.20	0.17	0.72	0.20	0.17	25 or less	33 or less	47 or less	

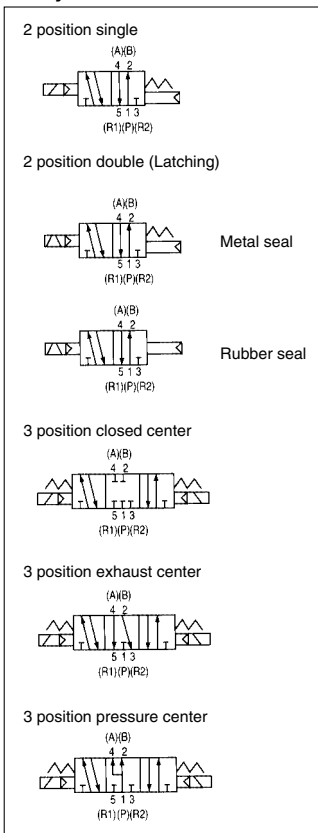


Note 1) Cylinder port size C6 (VQ1000)

Note 2) As per JIS B 8375-1981 (Supply pressure: 0.5 MPa; with indicator light/surge voltage suppressor; clean air. Subject to the pressure and air quality.)

Standard Specifications

JIS Symbol



Valve specifications	Valve construction		Metal seal	Rubber seal
	Fluid		Air/Inert gas	Air/Inert gas
	Maximum operating pressure		0.7 MPa (High pressure type: 0.8 MPa)	
	Min. operating pressure	Single	0.1 MPa	0.15 MPa
		Double (Latching)	0.1 MPa	0.15 MPa
		3 position	0.15 MPa	0.2 MPa
	Ambient and fluid temperature		-10 to 50°C ⁽¹⁾	
	Lubrication		Not required	
	Manual override ⁽²⁾		Push type/Locking type (Tool required, Manual type) Option	
	Impact/Vibration resistance		150/30 m/s ²	
Enclosure		Dust tight		
Solenoid	Coil rated voltage		12, 24 VDC, 100, 110, 200, 220 VAC (50/60 Hz)	
	Allowable voltage fluctuation		±10% of rated voltage	
	Coil insulation type		Class B or equivalent	
	Power consumption (Current)	24 VDC	1 W DC (42 mA), 1.5 W DC (63 mA) ⁽³⁾ , 0.5 W DC (21 mA) ⁽⁴⁾	
		12 VDC	1 W DC (83 mA), 1.5 W DC (125 mA) ⁽³⁾ , 0.5 W DC (42 mA) ⁽⁴⁾	
		100 VAC	Inrush 0.5 VA (5 mA), Holding 0.5 VA (5 mA)	
		110 VAC	Inrush 0.55 VA (5 mA), Holding 0.55 VA (5 mA)	
200 VAC		Inrush 1.0 VA (5 mA), Holding 1.0 VA (5 mA)		
220 VAC	Inrush 1.1 VA (5 mA), Holding 1.1 VA (5 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 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) Values in the case of high pressure type (1.5 W) specifications.

Note 4) Values in the case of low wattage type (0.5 W) specifications.

How to Order Valves

VQ1 1 6 0 Y 5 L C6

Series VQ1000
Symbol

1	2 position single
2	2 position double (Latching)
3	3 position closed center
4	3 position exhaust center
5	3 position pressure center

Seal

0	Metal seal
1	Rubber seal

Function

Symbol	Specifications	DC	AC
Nil	Standard type	(1.0 W) \circ	\circ (1)
H (2)	High pressure type	(1.5 W) \circ	—
N	Negative common type	\circ	—
Y (2)	Low wattage type	(0.5 W) \circ	—

Note 1) For power consumption of AC type, refer to page 2-4-94.
Note 2) Except double (latching).
Note 3) When two or more symbols are specified, indicate them alphabetically.

Sub-plate SUP, Cylinder port

C3	With One-touch fitting for $\phi 3.2$
C4	With One-touch fitting for $\phi 4$
C6	With One-touch fitting for $\phi 6$
M5	M5 thread

Note 1) For inch-size One-touch fittings, refer to "Option" on page 2-4-93.
Note 2) EXH port is a direct exhaust (with built-in silencer).

Manual override

Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)
C	Locking type (Manual)

Note) A manual override for pilot valve is provided to the standard model for double type.

Electrical entry

G	Grommet (Except double (latching) and AC)
L	L plug connector with lead wire
LO	L plug connector without connector
M	M plug connector with lead wire
MO	M plug connector without connector

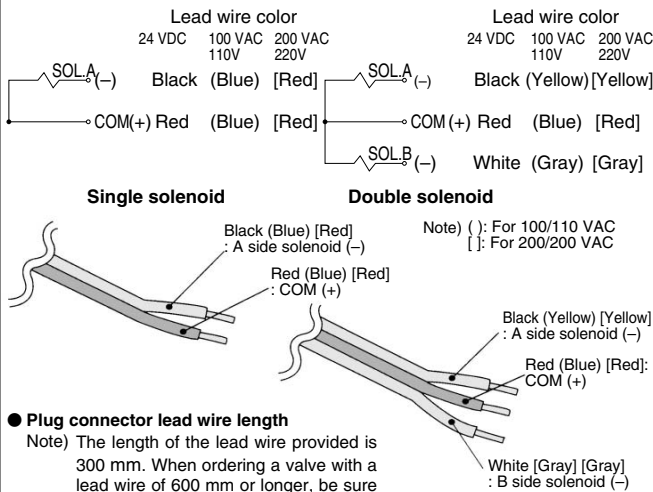
Coil rated voltage

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

VQC
SQ
VQ0
VQ4
VQ5
VQZ
VQD

Wiring Specifications: Positive COM

- The lead wires are connected to the valve as shown below. Connect each to the power supply side.



Plug connector lead wire length

Note) The length of the lead wire provided is 300 mm. When ordering a valve with a lead wire of 600 mm or longer, be sure to indicate the model number of the valve without connector and connector assembly.

Example) Lead wire length 1000 mm
VQ1160-5LO-C6.....3 pcs.
AXT661-14A-10.....3 pcs.

Connector Assembly Part No. (For DC)

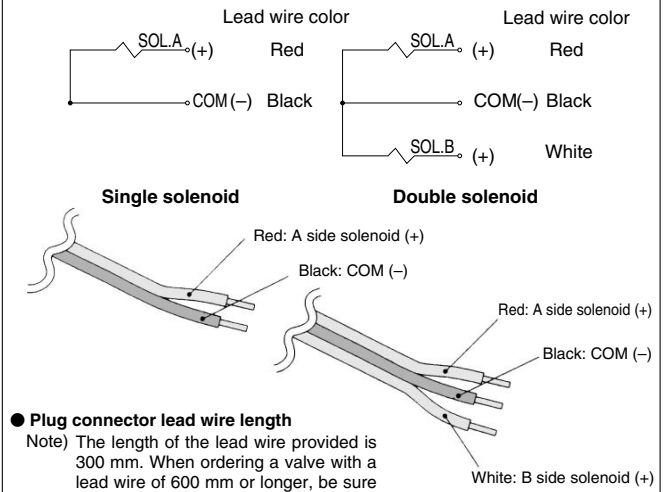
Lead wire length	Single/3 position part no.	Double solenoid part no.
Socket only (3 pcs.)	AXT661-12A	
300 mm	AXT661-14A	AXT661-13A
600 mm	AXT661-14A-6	AXT661-13A-6
1000 mm	AXT661-14A-10	AXT661-13A-10
2000 mm	AXT661-14A-20	AXT661-13A-20
3000 mm	AXT661-14A-30	AXT661-13A-30

Note 1) 100/110 VAC for single: AXT661-31A-*; for double: AXT661-32A-*
200/220 VAC for single: AXT661-34A-*; for double: AXT661-35A-*
* are in accordance with the above table.

Note 2) 3 position type requires 2 sets for A side and B side.

Wiring Specifications: Negative COM (Option)

- The lead wires are connected to the valve as shown below. Connect each to the power supply side.



Plug connector lead wire length

Note) The length of the lead wire provided is 300 mm. When ordering a valve with a lead wire of 600 mm or longer, be sure to indicate the model number of the valve without connector and connector assembly.

Example) Lead wire length 1000 mm
VQ1160N-5LO-C6.....3 pcs.
AXT661-14AN-10.....3 pcs.

Connector Assembly Part No.

Lead wire length	Single/3 position part no.	Double solenoid part no.
Socket only (3 pcs.)	AXT661-12A	
300 mm	AXT661-14AN	AXT661-13AN
600 mm	AXT661-14AN-6	AXT661-13AN-6
1000 mm	AXT661-14AN-10	AXT661-13AN-10
2000 mm	AXT661-14AN-20	AXT661-13AN-20
3000 mm	AXT661-14AN-30	AXT661-13AN-30

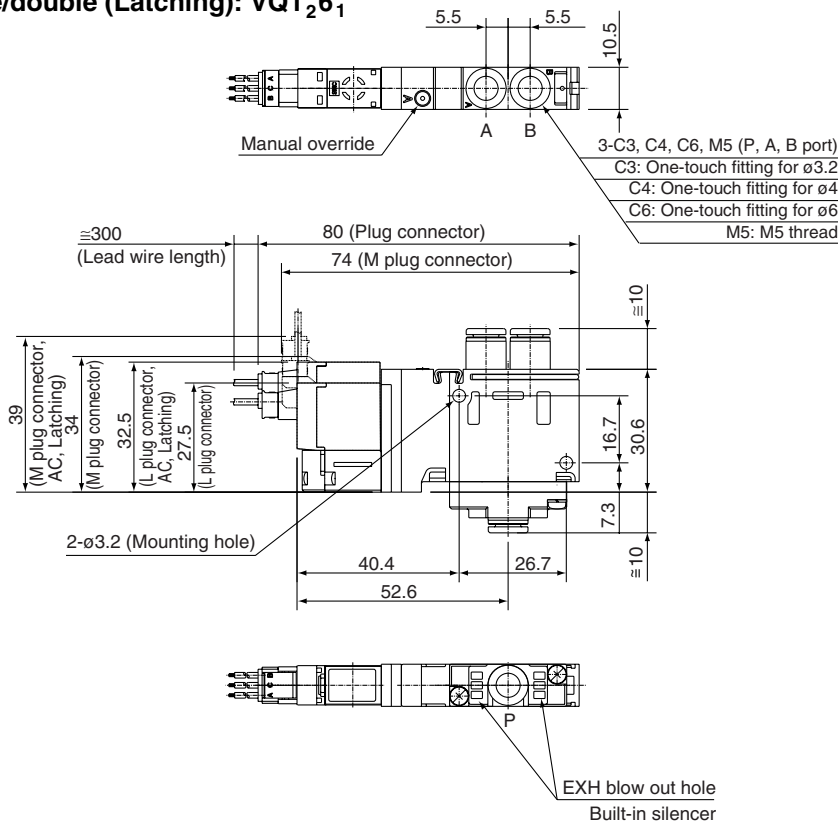
Note 1) When using the negative common specifications, use valves for negative common.

Note 2) 3 position type requires 2 sets for A side and B side.

Series VQ

Dimensions

2 position single/double (Latching): VQ1₂6₁⁰



3 position closed center/exhaust center/pressure center: VQ1₅6₁³

