

## How to Order Valve VQZ200/300

**VQZ** 2 1 2   — 5 M   — C6 —  

**Series**

2	VQZ200 Body width 15mm
3	VQZ300 Body width 18mm

**Configuration**

	1	2	3	4
N.C.	(A) 2	(A) 2	(A) 2	(A) 2
N.O.	(R) (P) 3 1	(R) (P) 3 1	(R) (P) 3 1	(R) (P) 3 1
	Metal seal		Rubber seal	

**Body style**

2	Body ported
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**Function**

Symbol	Specification	DC	AC
—	Standard	(1.0W) ○	(3) ○
K <sup>(1)</sup>	High pressure (Metal seal only)	(1.0W) ○	—
Y	Low wattage	(0.5W) ○	—
R <sup>(2)</sup>	External pilot	○	○

Note 1) Option  
Note 2) Refer to p.2.10-18 for details about external pilot specification.  
Note 3) Refer to p.2.10-6 for power consumption of AC type.  
Note 4) When specifying more than one option, indicate them alphabetically.

**Bracket**

—	None
F	With bracket

**Port size {2(A)port}**

Symbol	Port size	VQZ200	VQZ300
C4	One-touch fitting for ø4	○	—
C6	One-touch fitting for ø6	○	○
C8	One-touch fitting for ø8	—	○
C10	One-touch fitting for ø10	—	○
M5	M5 thread	○	—
02	Rc (PT) 1/4	—	○

Note 1) Refer to p.2.10-18 for inch size One-touch fittings.

**Manual override**

—: Non-locking push style (Flush)      B: Locking style (Slotted)

**Electrical entry**

G: Grommet (DC Specification)	L: L plug connector with lead wire	LO: L plug terminal without connector	M: M plug connector with lead wire	MO: M plug terminal without connector
	*	*	*	*
Y: DIN terminal	YO: DIN terminal without connector	YZ: DIN terminal	YOS: DIN terminal without connector	
		*	With surge voltage suppressor	

Note) Standard lead wire length: 300mm  
\*With light and surge voltage suppressor.

**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
9 *	Others

\* When requiring AC specification of grommet or special voltage, consult SMC.

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VT

VP

VG

VP

VQ

VQZ

VZ

VS

# VQZ100/200/300 Body Ported



## Standard Specifications

Valve	Seal	Metal seal	Rubber seal
	Fluid	Air, Inert gas	
	Max.operating pressure	0.7MPa (High pressure style: 1.0MPa)	0.7MPa
	Min.operating pressure	0.1MPa	0.15MPa
	Ambient and fluid temp.	-10 to 50°C <sup>(1)</sup>	-10 to 50°C <sup>(1)</sup>
	Max.operating frequency	20Hz	5Hz
	Pilot valve EXH	Individual EXH	
	Lubrication	Not required	
	Manual override	Non-locking push style/Locking slotted style	
	Shock/Vibration resistance <sup>(2)</sup>	150/30 m/s <sup>2</sup>	
Solenoid	Enclosure	Dust proof	
	Coil rated voltage	12V, 24V DC and 100V, 110V, 200V, 220V AC	
	Allowable voltage	±10% of rated voltage	
	Coil insurance	Class B or equivalent	
	Power consumption (Current value)	24V DC	1W DC (42mA), 0.5W DC (21mA)
		12V DC	1W DC (83mA), 0.5W DC (42mA)
		100V AC	Inrush 0.5VA (5mA), Holding 0.5VA (5mA)
		110V AC	Inrush 0.55VA (5mA), Holding 0.55VA (5mA)
		200V AC	Inrush 1.0VA (5mA), Holding 1.0VA (5mA)
		220V AC	Inrush 1.1VA (5mA), Holding 1.1VA (5mA)



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

Note 2) Shock resistance : No malfunctions resulted from the impact test using a drop impact tester. The tests were 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 malfunctions occurred in a one-sweep test between 8.3 and 2,000 Hz. Tests were performed at both energized and de-energized states on the axis and right angle direction of the main valve and armature. (Value in the initial stage.)

## Model

Series	Valve configuration	Model		Effective area (mm <sup>2</sup> )(Cv)	Response time (ms) <sup>(2)</sup>		Weight(g) <sup>(3)</sup>
					Standard: 1W	High pressure: 1W Low wattage and AC	
VQZ100	N.C.	Poppett	VQZ115	3.6 (0.2)	10 or less	13 or less	25
VQZ200	N.C.	Metal seal	VQZ212	8.1 (0.45)	14 or less	18 or less	58
		Rubber seal	VQZ232	10.8 (0.6)	15 or less	20 or less	
	N.O.	Metal seal	VQZ222	7.2 (0.4)	14 or less	18 or less	
		Rubber seal	VQZ242	10.8 (0.6)	15 or less	20 or less	
VQZ300	N.C.	Metal seal	VQZ312	14.4 (0.8)	17 or less	22 or less	92
		Rubber seal	VQZ332	16.2 (0.9)	25 or less	33 or less	
	N.O.	Metal seal	VQZ322	13.5 (0.75)	17 or less	22 or less	
		Rubber seal	VQZ342	16.2 (0.9)	25 or less	33 or less	



Note 1) Value for sub-plate and maximum diameter

Note 2) As per JISB8375-1981 (Supply pressure; 0.5MPa; with indicator light and surge voltage suppressor; clean air)

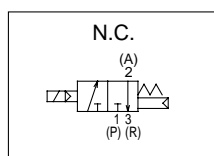
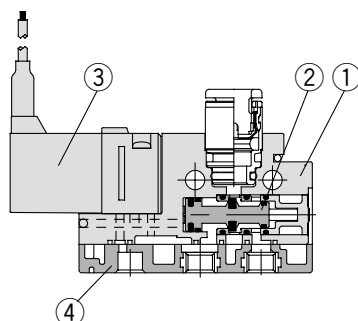
The response time is subject to the pressure and the air quality. The values at the time of ON are given for the double styles.

Note 3) Weight without sub-plate

## Construction

### VQZ100

Poppet

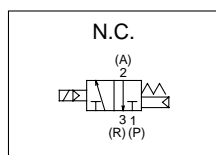
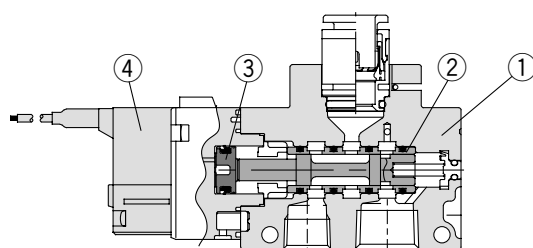


#### Component Parts

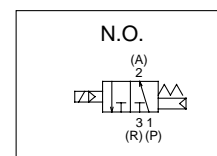
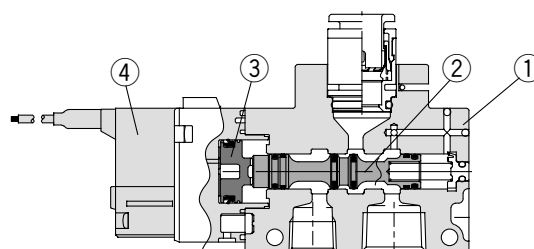
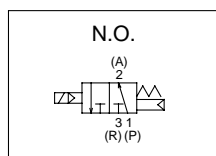
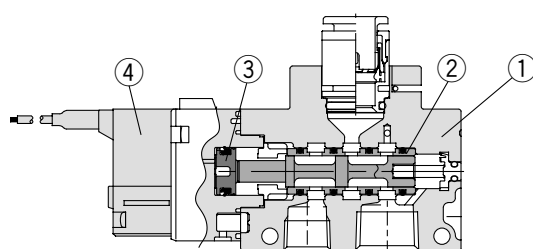
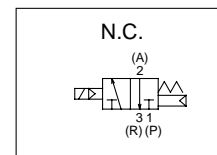
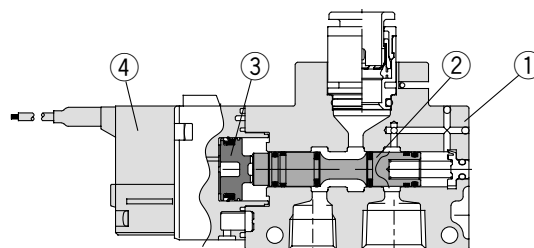
No.	Description	Material	Notes
①	Body	Resin	
②	Spool valve	Aluminum/NBR	
③	Pilot valve	—	
④	P, R plate	Resin/Aluminum	VQZ100-12A

### VQZ200/300

Metal seal



Rubber seal



#### Component Parts

No.	Description	Material	Notes
①	Body	Aluminum die cast	
②	Spool/Sleeve	Stainless steel	Metal seal
	Spool valve	Aluminum/NBR	Rubber seal
③	Piston	Resin	
④	Pilot valve	—	

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