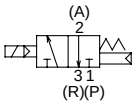
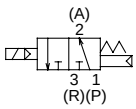
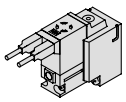
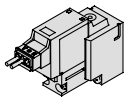
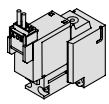
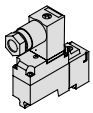
3 Port Solenoid Valve
Metal Seal/Rubber Seal
Base Mounted
VQZ100/200/300

Variations

Base Mounted — 3 Port

	Cv Metal/Rubber		Configuration	Voltage	Electrical entry	Light and surge voltage suppressor	Manual override
VQZ100 	—	(Poppet) 0.3	 N.C.  N.O. (Except for VQZ100)	(Standard) 12V DC 24V DC (Made to order) 100V AC 200V AC 110V AC 220V AC	Grommet (G)  L plug connector (L)  M plug connector (M)  DIN connector (Y)  (Except for VQZ100)	Indicator light and surge voltage suppressor L plug connector (L) M plug connector (M) DIN connector (YZ) (Except for VQZ100)	Non-locking push style (Flush) Locking style (Slotted)
VQZ200 	0.6	0.7					
VQZ300 	0.9	1.2					

⚠Precautions

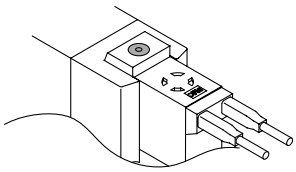
Be sure to read before handing. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

⚠Warning

Manual Override

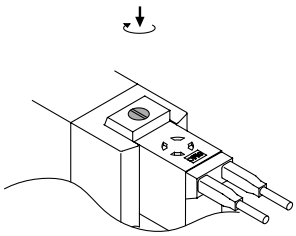
Without an electric signal for solenoid valve the manual override is used for switching the main valve.

Non-locking push style (Flush)

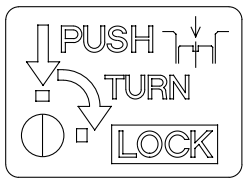


Push down on the manual override button with a small screwdriver until it stops. Release the screwdriver and the manual override will return.

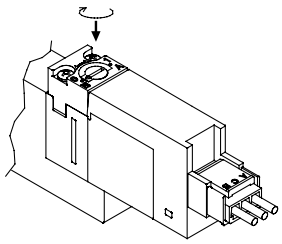
Locking style (Slotted) VQZ200/300



Push down on the manual override button with a small screwdriver until it stops. While down, turn clockwise by 90° to lock it. Turn it counterclockwise to release it.



Locking style (Slotted) VQZ100



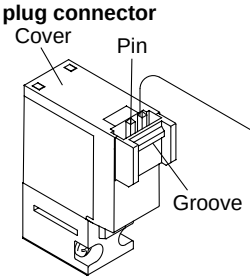
Turn the manual override clockwise by 180° to set the ▶ mark to "1" and press it in the direction indicated by arrow, then it will be locked in the ON state.
Turn the manual override counterclockwise by 180° to set the ▶ mark to "0", then it will be reset.

⚠Caution

How to Use L and M Plug Connector

Connection/Disconnection of connector

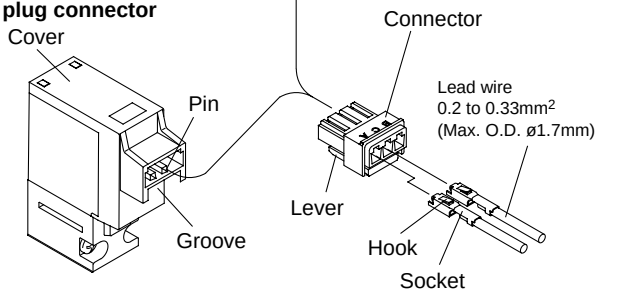
M plug connector



Connection:
Push the connector straight onto the pins of solenoid, making sure the lip of the lever securely "locks" into the groove of the solenoid cover.

Disconnection:
Press the lever against the connector housing and pull it outward from the solenoid.

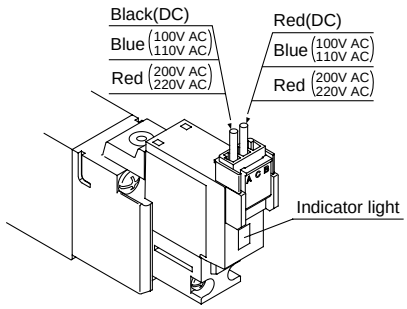
L plug connector



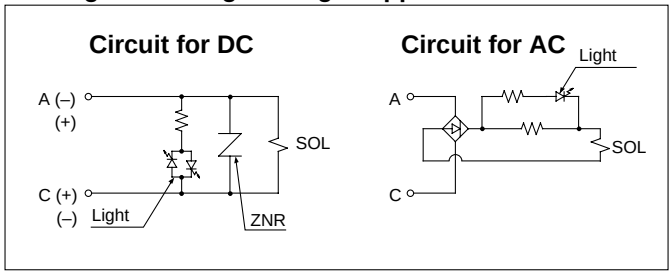
Refer to p.2.10-39 for part No. of plug connector ass'y.

Connection and Electrical Circuit

The VQZ series features non-polar solenoids.



With light and surge voltage suppressor



Due to the use of non-polar light, the VQZ series has no polarity.
Refer to p.1.12-57 for the latching style.

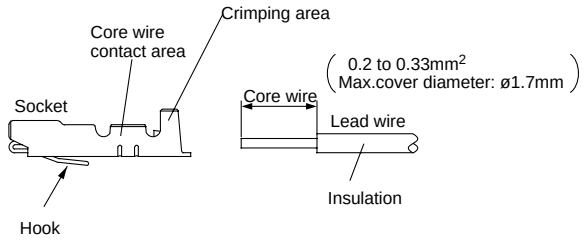
⚠Precautions

Be sure to read before handling. Refer to p.0-33 to 0-36 for Safety Instructions and common precautions.

Connection of Lead Wire (Not necessary if ordering pre-connected model.)

Crimping connection of lead wire and socket

Strip 3.2 to 3.7mm of the lead wire ends, insert each stripped wire into a socket and crimp it using the special crimping tool. Be careful that the outer insulation of the lead wires does not interfere with the socket contact part.



Tool for crimping: Model No. DXT170-75-1

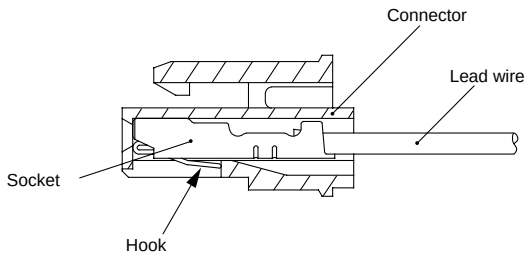
Connection/Disconnection of socket with lead wire

Connection

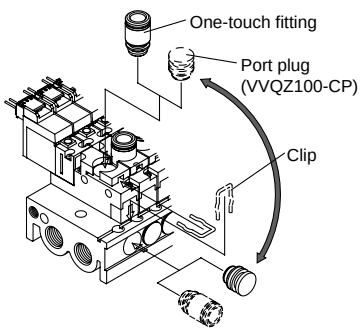
Insert lead wire and crimped socket into square holes (Indicated as A,B, COM) of connector. Press the socket in fully until the hook of the socket locks into the groove of the connector housing. Confirm the locked positon by lightly pulling on the lead wire.

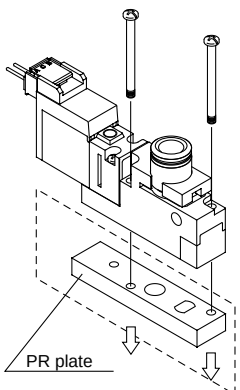
Discoonnection

To remove the socket from the connector, pull out lead wire while depressing the hook of the socket with a fine screw driver. If the socket is to be re-used, reposition the hook again.



Change in Piping Direction for VQZ100 Only





①Changing the piping direction from in-line to perpendicular (port on the valve) is possible on the VQZ100 series. Follow the steps below to change piping direction:
Remove the fitting clips that hold the fitting and port plug in place.
Remove the fitting and port plug
Insert the fitting in previous port plug position and insert port plug in fitting's previous position.
Replace the fitting clips.

VQZ100-12A (Standard)
VQZ100-12B (External pilot)
∗ 2 mounting screws are included with each plate.

②A base mount VQZ100 valve can be converted to an individual in-line (body ported) valve by installing an adapter plate on the mounting surface of the valve.

How to Wire the DIN Connector

Conforming to ISO/DIN 43650C (8mm between pins) Cut the power and air supply before mounting/ removing the connector.

①Loosen the top screw and remove the connector housing from the terminal spades on the solenoid.
②Remove the housing screw and insert a screwdriver into the slot area on the underside of the DIN cap and carefully separate block and housing.
③Loosen the terminal screws of the block and insert stripped lead wires in accordance with the wiring diagram. Secure each wire by retightening the terminal screw.
④Tighten the housing grommet nut to secure the cable wire.

Change of the electrical entry

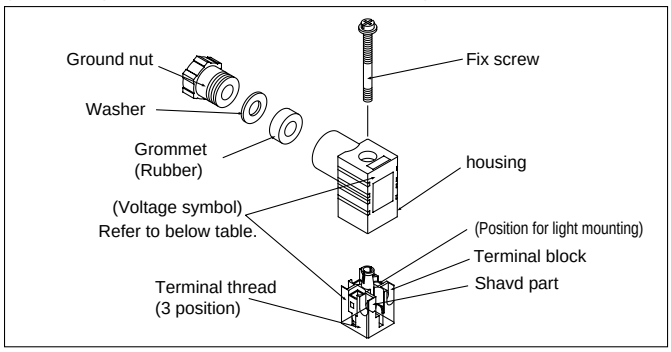
Once the housing is separated from the terminal block, rotate it in any direction to change the orientation of the electrical entry.
∗ In the case of the indicator light option, avoid damaging the light with the lead wire connections.

Precaution

Pull connector out vertically, never at an angle.

Applicable cable

Cord O.D. : ø3.5 to ø7
(Reference) 0.5mm² 2-core and 3-core wires equivalent to JISC3306.



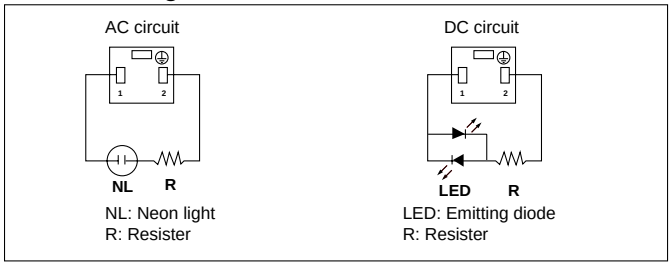
Part No. for DIN connector (Based on DIN)

Without light	AXT100-20-1

With light

Rated voltage	Voltage symbol	Part No.
24V DC	24V	AXT100-20-2-05
12V DC	12V	AXT100-20-2-06
100V AC	100V	AXT100-20-2-01
200V AC	200V	AXT100-20-2-02
110V AC	110V	AXT100-20-2-03
220V AC	220V	AXT100-20-2-04

Circuit with light



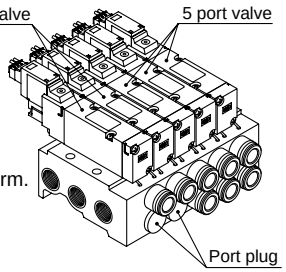
⚠Caution

Mounting 3 port valves on 5 port manifolds

(VQZ$\frac{1}{2}\frac{}{3}$85$\frac{0}{1}$,N.C./VQZ$\frac{1}{2}\frac{}{3}$95$\frac{0}{1}$,N.O.)

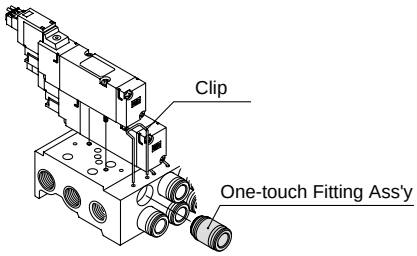
When a 3 port valve is mounted on a 5 port manifold, The "A" port is the working port. The "B"port can either be plugged or unplugged.

When port plug is used on B port, indicate "CM" in manifold part No. and port size, and supecify the port plug location on the manifold specification form.



Changing One-touch Fittings

The built-in fittings on the manifold can be changed easily. Simply remove the corresponding valve and take out the fitting clip underneath. Then remove the affected fitting and replace it with a new one. Finally, replace the fitting clip and remount the valve.



Precaution

When pull the fitting assembly away from the manifold base, remove the clip, then connect a tube or plug (KQP-□□) with the One-touch fitting and pull out it while holding the tube or plug. Do not hold the release button to avoid damage.

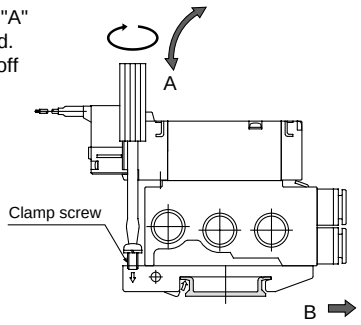
DIN Rail Removal/Mounting

To remove manifold from DIN rail:

1) Loosen the clamp screw on the "A" side of both ends of the manifold.
2) Lift the "A" side of the manifold off the DIN rail and slide it in the direction of the "B" side.

Mounting manifold to DIN rail:

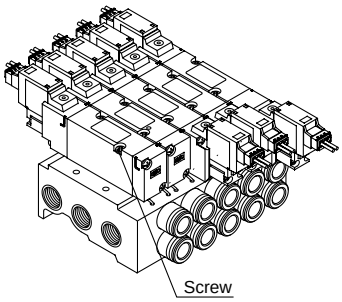
1) Catch the hook of the DIN rail bracket on the "B" side on the DIN rail.
2) Push side "A" onto the DIN rail and tighten the clamp screw. (Tightening torque of 0.3 to 0.4 Nm)



Valve Mounting

After confirming the gasket is correctly placed under the valve, tighten the mounting screws with the appropriate torque listed below.

Model	Suitable tightening torque
VQZ100	0.13 to 0.19Nm
VQZ200	0.25 to 0.35Nm
VQZ300	0.5 to 0.7Nm



3 Port Solenoid Valve

VQZ100/200/300

Valve Single Unit

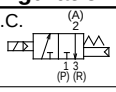
How to Order Valve VQZ100

VQZ 1 1 5 ☐ — 5 M ☐ — 01

Series

1	VQZ100 Body width10mm

Configuration

1	N.C. 

Body style

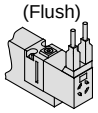
5	Base mounted

Function

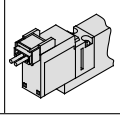
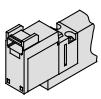
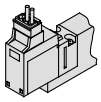
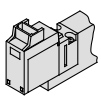
Symbol	Specification	DC	AC
—	Standard	(1.0W) ○	(3) ○
K (1)	High pressure	(1.0W) ○	—
Y	Low wattage	(0.5W) ○	—
R (2)	External	○	○

Note 1) Option
Note 2) Refer to p.2.10-38 for details about external pilot specification.
Note 3) Refer to p.2.10-26 for power consumption of AC type.
Note 4) When specifying more than one option, indicate them alphabetically.

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
	 *	 *	 *	 *

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 and/or special voltage, consult SMC.

Note) Refer to p.2.10-39 for sub-plate part No.

Port size {2(A)port}

CP	Without sub-plate
01	Rc(PT)1/8

How to Order Valve VQZ200/300

VQZ [2] [1] [5] [ ] — [5] [M] [ ] — [ ]

Series

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

Configuration

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

Body style

5	Base mounted

Function

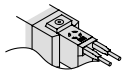
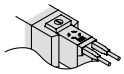
Symbol	Specification	DC	AC
—	Standard	(1.0W) ○	○ (3)
K (1)	High pressure (Metal seal only)	(1.0W) ○	—
Y	Low wattage	(0.5W) ○	—
R (2)	External pilot	○	○

Note 1) Option
Note 2) Refer to p.2.10-38 for details about external pilot specification.
Note 3) Refer to p.2.10-26 for power consumption of AC type.
Note 4) When specifying more than one option, indicate them alphabetically.

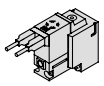
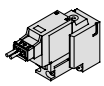
Port size {2(A)port}

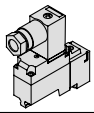
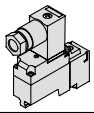
Symbol	Port size	VQZ200	VQZ300
—	Without sub-plate	○	○
01	Rc(PT)1/8	○	—
02	Rc(PT)1/4	○	○
03	Rc(PT)3/8	—	○

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 

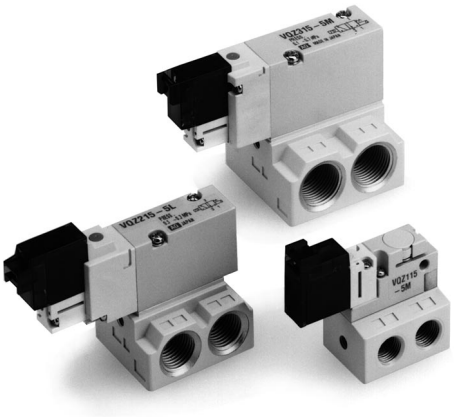
Note) Standard lead wire length: 300mm.
*With light and surge voltage suppressor.

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 and/or special voltage, consult SMC.

Note) Refer to p.2.10-39 for sub-plate part no.



Standard Specifications

Valve	Seal		Metal seal	Rubber seal
	Fluid		Air, Inert gas	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 (1)	–10 to 50°C (1)
	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 (2)		150/30 m/s^2	
	Enclosure		Dust proof	
Solenoid	Coil rated voltage		12V, 24V DC 100V, 110V, 200V, 220V AC	
	Allowable voltage		±10% of rated voltage	
	Coil insurance		Class B	
	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 to the axis and right angle direction of the main valve and armature. (Value in the initial stage.)

Model

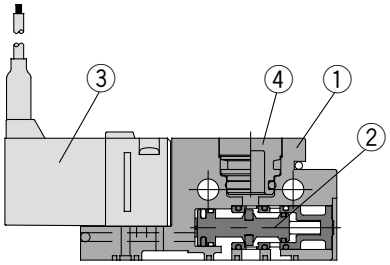
Series	Valve configuration	Model		Effective area(mm^2)(Cv) (1)	Responce time (ms) (2)		Weight (g) (3)
					Standard: 1W	High pressure: 1W Low wattage and AC	
VQZ100	N.C.	Poppet	**VQZ115**	5.4 (0.3)	10 or less	13 or less	25
VQZ200	N.C.	Metal	**VQZ215**	10.8 (0.6)	14 or less	18 or less	53
		Rubber	**VQZ235**	12.6 (0.7)	15 or less	20 or less	
	N.O.	Metal	**VQZ225**	10.0 (0.55)	14 or less	18 or less	
		Rubber	**VQZ245**	12.6 (0.7)	15 or less	20 or less	
VQZ300	N.C.	Metal	**VQZ315**	16.2 (0.9)	17 or less	22 or less	77
		Rubber	**VQZ335**	21.6 (1.2)	25 or less	33 or less	
	N.O.	Metal	**VQZ325**	15.3 (0.85)	17 or less	22 or less	
		Rubber	**VQZ345**	21.6 (1.2)	25 or less	33 or less	

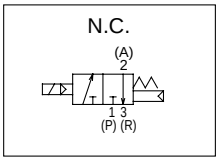
Note 1) Valve of sub-plate and maximum diameter.
Note 2) As per JIS8375-1981 (Supply pressure: 1.5MPa; with indicator light and surge voltage suppressor; clean air) The responce time is subject to the pressure and the air quality. The values at the time of ON are given for the double styles.
Note 3) Weight without sub-plate.

Construction

VQZ100

Poppet



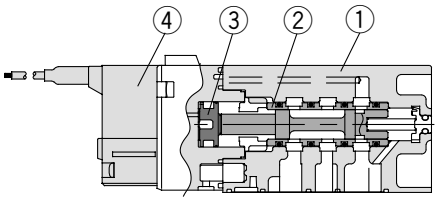


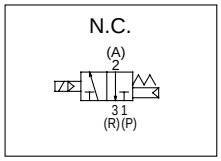
Component Parts

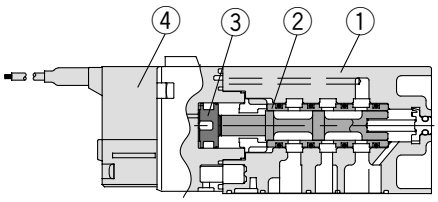
No.	Description	Material	Notes
①	Body	Resin	
②	Spool valve	Aluminum/NBR	
③	Pilot valve	——	
④	Port plug	Resin/NBR	VVQZ100-CP

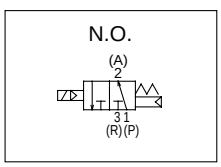
VQZ200/300

Metal seal

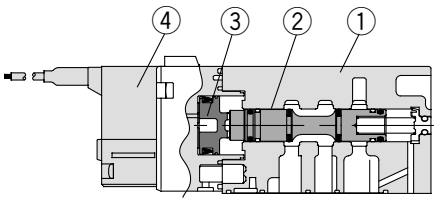


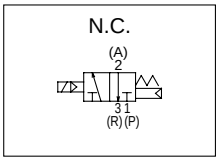


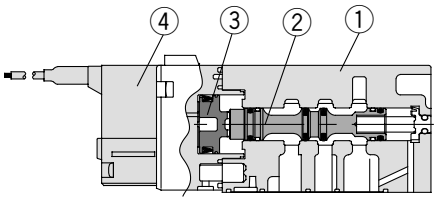


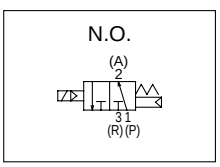


Rubber seal









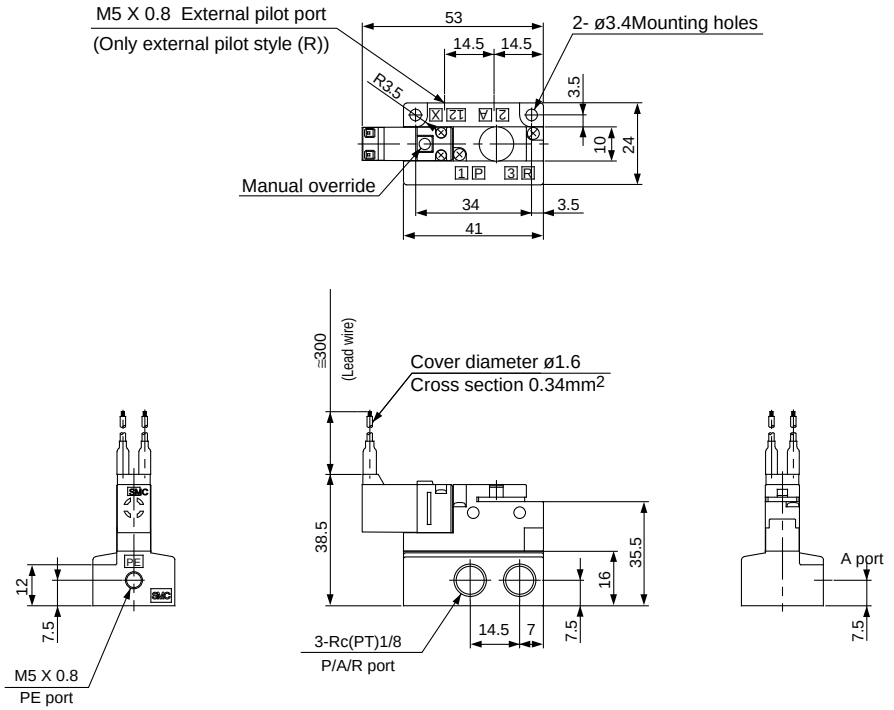
Component Parts

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

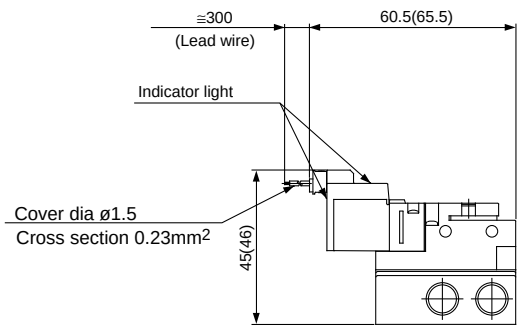
Dimensions: VQZ100

Valve single unit

Grommet (G): VQZ115(R)-□G□-01

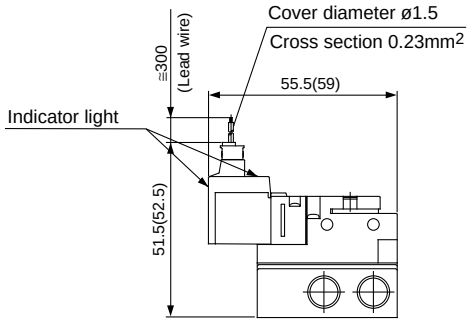


L plug connector (L): VQZ115(R)-□L□-01



〈 〉: AC

M plug connector (M): VQZ115(R)-□M□-01

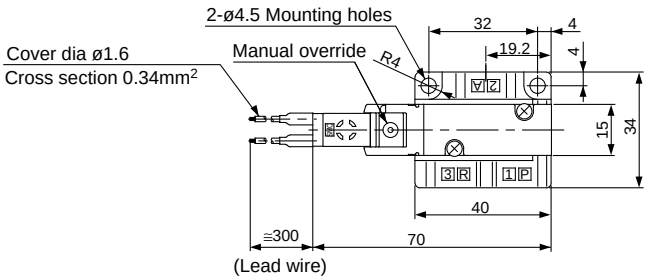


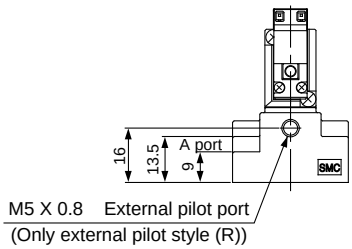
〈 〉: AC

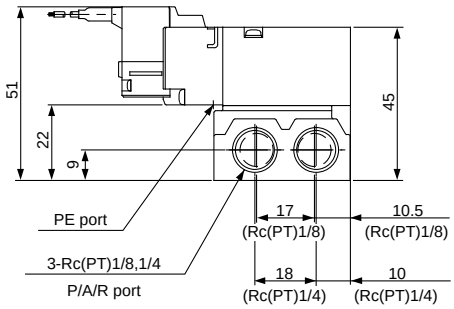
Dimensions: VQZ200

Valve single unit

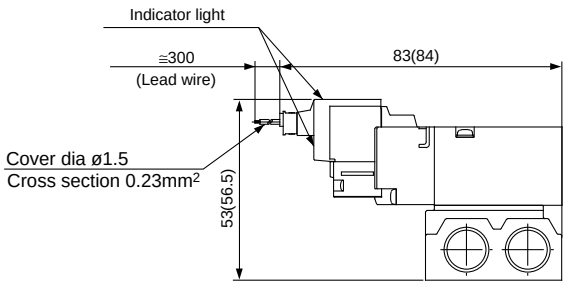
Grommet (G): VQZ2□5(R)-□G□- 01/02





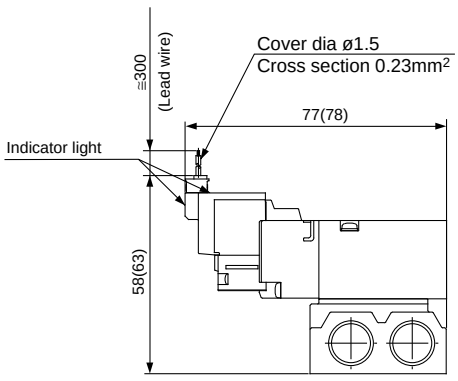


L plug connecter (L): VQZ2□5(R)-□L□- 01/02



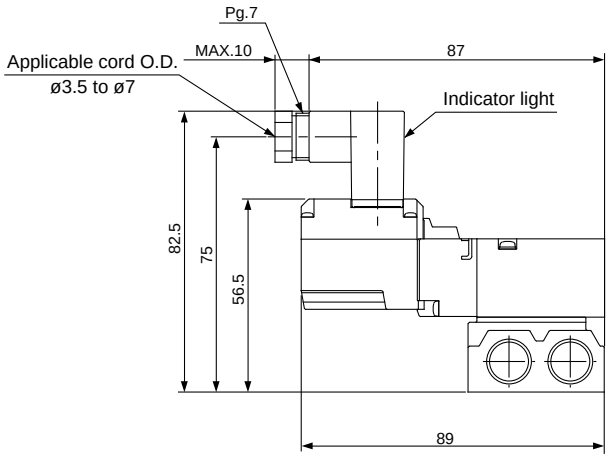
〈 〉: AC

M plug connecter (M): VQZ2□5(R)-□M□- 01/02



〈 〉: AC

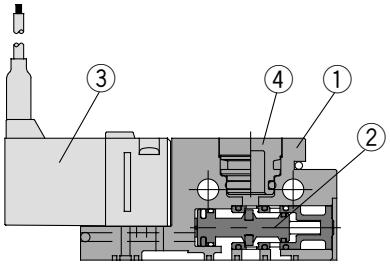
DIN terminal (Y): VQZ2□5(R)-□Y□- 01/02

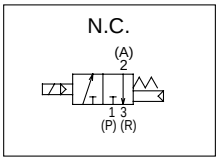


Construction

VQZ100

Poppet



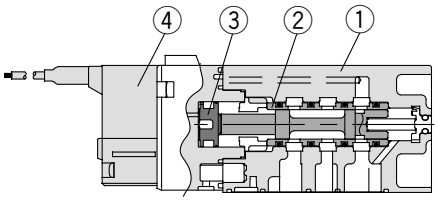


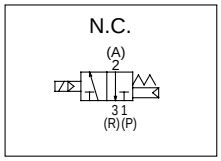
Component Parts

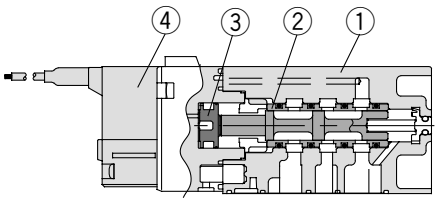
No.	Description	Material	Notes
①	Body	Resin	
②	Spool valve	Aluminum/NBR	
③	Pilot valve	——	
④	Port plug	Resin/NBR	VVQZ100-CP

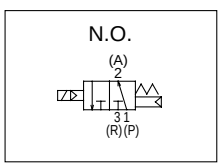
VQZ200/300

Metal seal

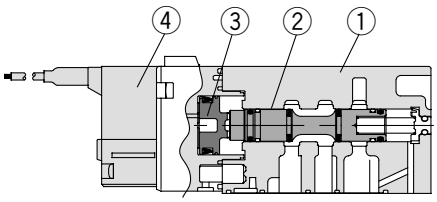


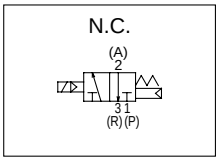


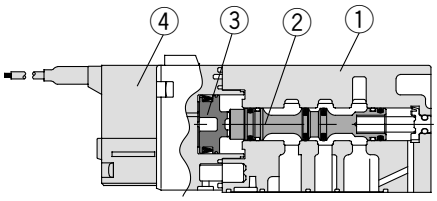


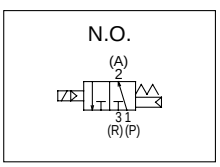


Rubber seal









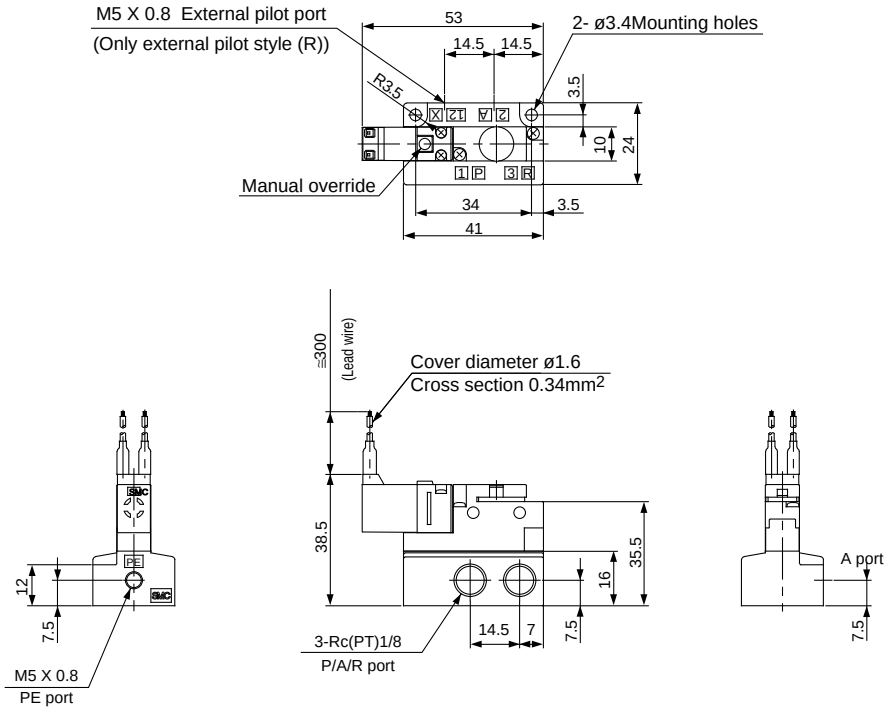
Component Parts

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

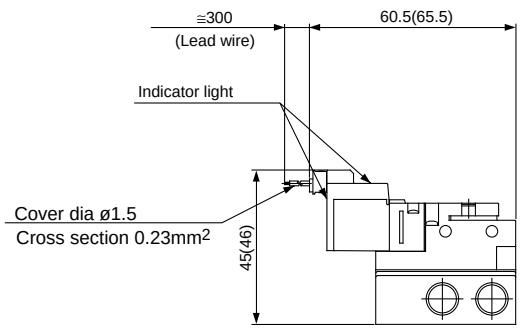
Dimensions: VQZ100

Valve single unit

Grommet (G): VQZ115(R)-□G□-01

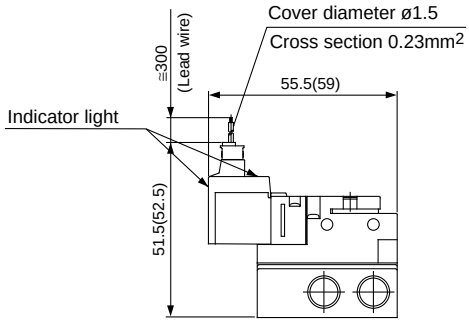


L plug connector (L): VQZ115(R)-□L□-01



〈 〉: AC

M plug connector (M): VQZ115(R)-□M□-01

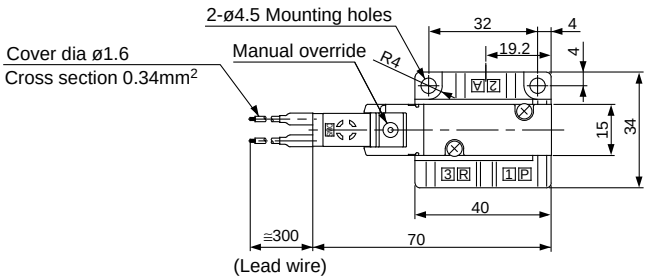


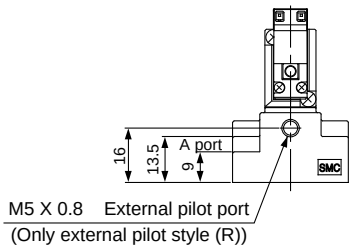
〈 〉: AC

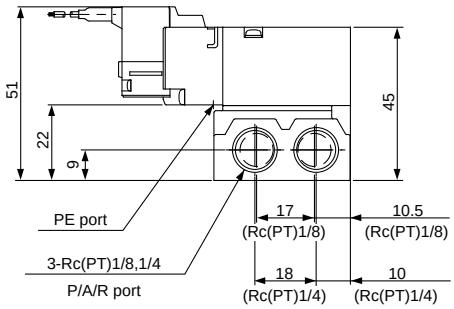
Dimensions: VQZ200

Valve single unit

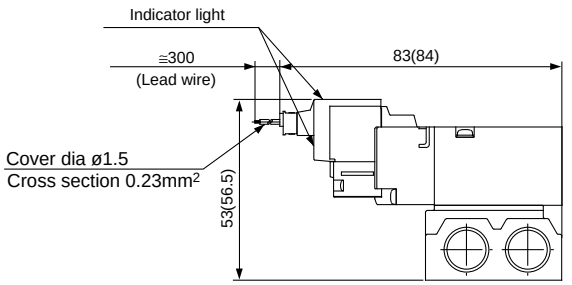
Grommet (G): VQZ2□5(R)-□G□- 01/02





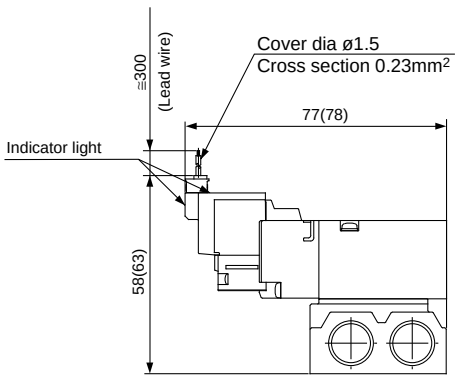


L plug connecter (L): VQZ2□5(R)-□L□- 01/02



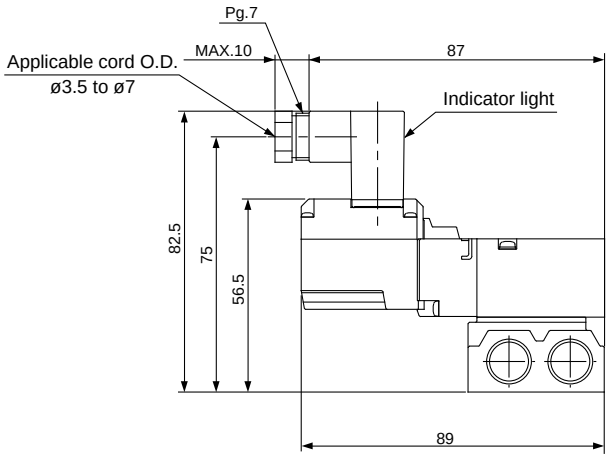
〈 〉: AC

M plug connecter (M): VQZ2□5(R)-□M□- 01/02



〈 〉: AC

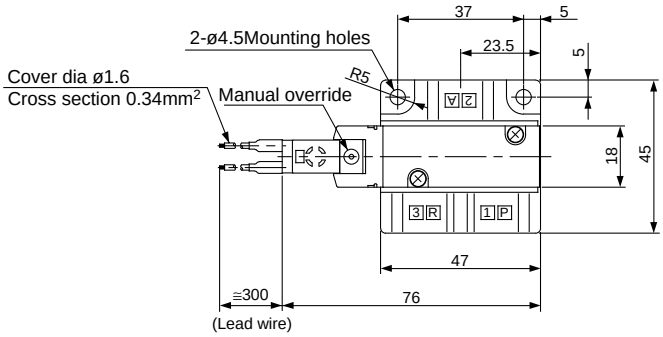
DIN terminal (Y): VQZ2□5(R)-□Y□- 01/02

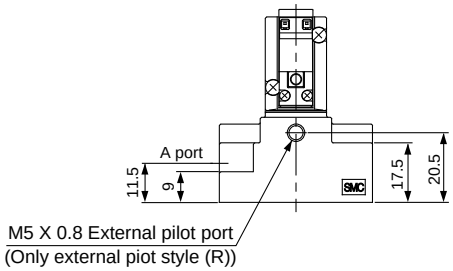


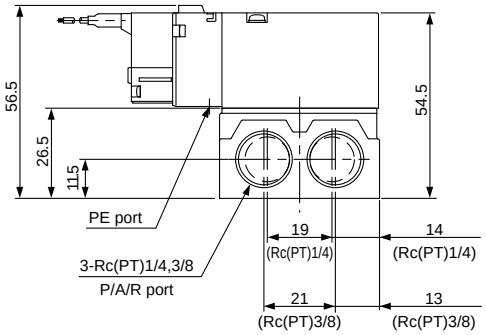
VQZ300

Valve single unit

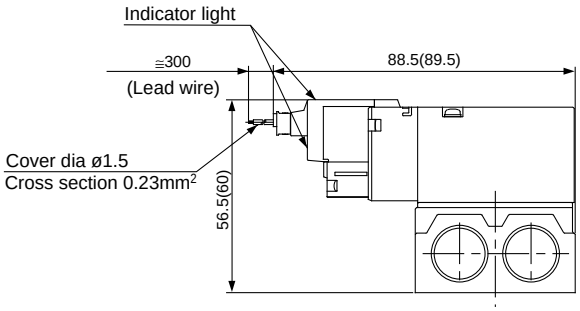
Grommet (G): VQZ3□5(R)-□G□- $^{02}_{03}$





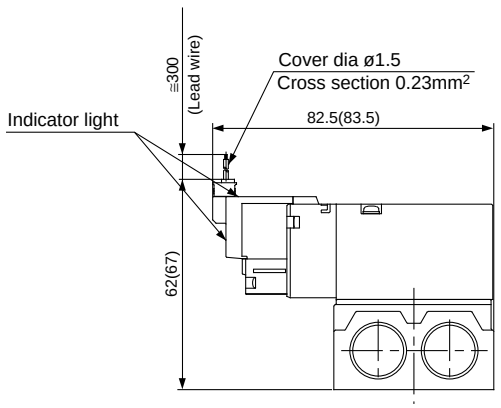


L plug connecter (L): VQZ3□5(R)-□L□- $^{02}_{03}$



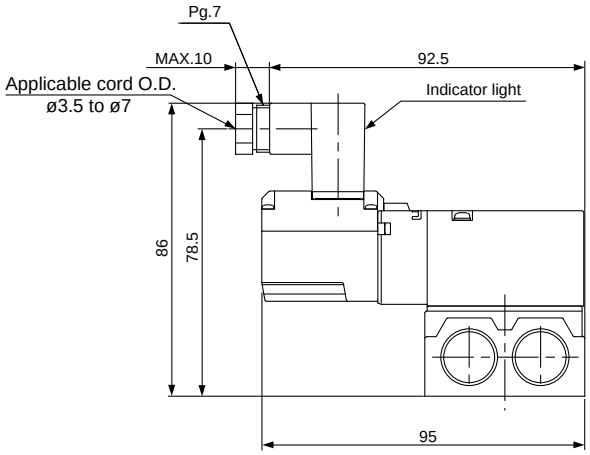
〈 〉: AC

M plug connecter (M): VQZ3□5(R)-□M□- $^{02}_{03}$



〈 〉: AC

DIN terminal (Y): VQZ3□5(R)-□Y□- $^{02}_{03}$



3 Port Solenoid Valve

VQZ100/200/300

Manifold Connecter Kit

How to Order Manifold VQZ100

VV3QZ 1 5 — 08 C6 C — D

Series

1	VQZ100

Manifold style

5	Base mounted

Stations

02	2 stations
⋮	⋮
20	20 stations

Port size{2(A)Port}

C3	One-touch fitting for ø3.2	For lateral piping
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	
M5	M5 thread (Changeable style)	
CP (1)	With port plug	For top piping
CM (2)	Mixture port	—

Note 1) In case of CP port plug is attached on all 2(A) port. Valve on manifold is top piping.
Note 2) Specify the mixture port(including top and side piping) on the maifold specification form.
Note 3) Refer to p.2.10-38 for inch size One-touch fittings.

Kit

C	Connector

Option

—	None
D	DIN rail mounting (DIN rail standard length)
DO*	DIN rail mounting (Without DIN rail)
R	External pilot

* Order DIN rail separately. Refer to p.2.10-37 for DIN rail model number.

How to Order Valve VQZ100

VQZ 1 1 5 □ — 5 M □ — □

Series

1	VQZ100 Body width 10mm

Configuration

1	N.C.

Body style

5	Base mounted

Function

Symbol	Specification	DC	AC
—	Standard	(1.0W) ○	○ (3)
K (1)	High pressure	(1.0W) ○	—
Y	Low wattage	(0.5W) ○	—
R (2)	External pilot	○	○

Note 1) Option
Note 2) Refer p.2.10-38 for details about external pilot specification.
Note 3) Refer p.2.10-26 for power consumption of AC type.
Note 4) When specifying more than one option,indicate them alphabetically.

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 and/or special voltage, consult SMC.

Electrical entry

Symbol	Electrical entry	Light and surge suppressor
G	Grommet (DC spacification)	Without
L	L plug connector with lead wire	With
LO	L plug terminal Without connecter	
M	M plug connector with lead wire	
MO	M plug terminal Without connecter	

Note) Standard lead wire length: 300mm.

Manual override

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

Port size

CP	With port plug	Lateral piping
C3	One-touch fitting for ø3.2	Top piping
C4	One-touch fitting for ø4	
C6	One-touch fitting for ø6	
M5	M5 thread	

How to Order Manifold VQZ200/300

VV3QZ [2] [5] — [08] [C6] [C] — [D]

Series

2	VQZ200
3	VQZ300

Manifold type

5	Base mounted

Stations

02	2 stations
⋮	⋮
20	20 stations

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	—	○
01	Rc(PT)1/8	○	—
02	Rc(PT)1/4	—	○
CM(1)	Mixture port	○	○

Note 1) Specify port mixture/with port plug by means of manifold specification sheet. Port mixture and port plug are available only for One-touch fitting type.

Note 2) Refer to p.2.10-38 for inch-size One-touch fittings.

Kit

C	Connector

Option

—	None
D	DIN rail mounting (DIN rail standard length)
DO*	DIN rail mounting (Without DIN rail)
R	External pilot specification

* Order DIN rail separately. Refer to p.2.10-37 for DIN rail model number

How to Order Valve VQZ200/300

VQZ [2] [1] [5] [ ] — [5] [M] [ ]

Series

2	VQZ200 Body width15mm
3	VQZ300 Body width18mm

Configuration

1	N.C. Metal seal
2	N.O. Metal seal
3	N.C. Rubber seal
4	N.O. Rubber seal

Body style

5	Base mounted

Function

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

Note 1) Option

Note 2) Refer to p.2.10-38 for details about external pilot specificaton.

Note 3) Refer to p.2.10-26 for power consumption of AC type.

Note 4) When specifying more than one option, indicate them alphabetically.

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 and/or special voltage, consult SMC.

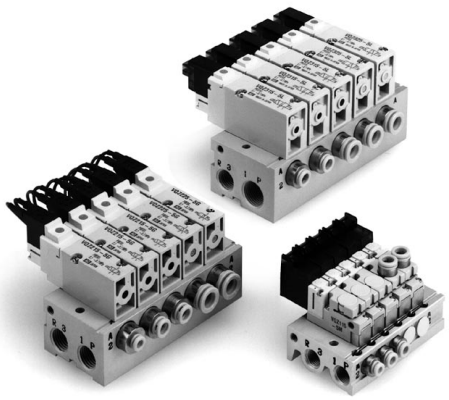
Electrical entry

Symbol	Electrical entry	Light and surge voltage suppressor
G	Grommet (DC specification)	Without
L	L plug connector with lead wire	With
LO	L plug terminal without connector	
M	M plug connector with lead wire	
MO	M plug terminal without connector	
Y	DIN terminal	Without
YO	DIN terminal without connector	
YZ	DIN terminal	With
YOS	DIN terminal without connecter	With (Without light)

Note) Standard lead wire length: 300mm.

Manual override

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

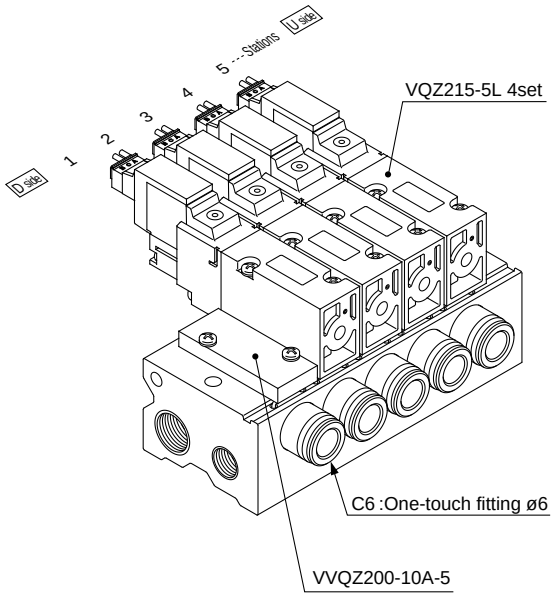


Specification

Series	Base model	Piping specification			Applicable valve	Applicable station	Manifold base weight (g) (1)
		Piping	Port size				
			1(P), 3(R)	2(A)			
VQZ100	**VV3QZ15-□□□**	Side · Top	Rc(PT) 1/8	C3 (for ø3.2) C4 (for ø4) C6 (for ø6) M5 (M5 thread)	**VQZ1□5**	2 to 20	2 stations:83 Additional station:19
VQZ200	**VV3QZ25-□□□**	Side	Rc(PT) 1/4	C4 (for ø4) C6 (for ø6) C8 (for ø8) Rc(PT)1/8	**VQZ2□5**	2 to 20	2 stations:126 Additional station:38
VQZ300	**VV3QZ35-□□□**	Side	1(P)port Rc(PT)3/8 3(R)port Rc(PT)1/4	C6 (for ø6) C8 (for ø8) C10 (for ø10) Rc(PT)1/4	**VQZ3□5**	2 stations:209 Additional station:60	

Note 1) Threaded port style.

How to Order Manifold Assembly (Example)



VV3QZ25-05C6C ···· 1 set (C kit 5 stations manifold base)
＊ VVQZ200-10A-5 ··· 1 set (Blank plate assembly)
＊ VQZ215-5L ····· 4 sets (Single solenoid)

＊ Prefix "＊" mark to valves etc.to be assembled on the manifold.

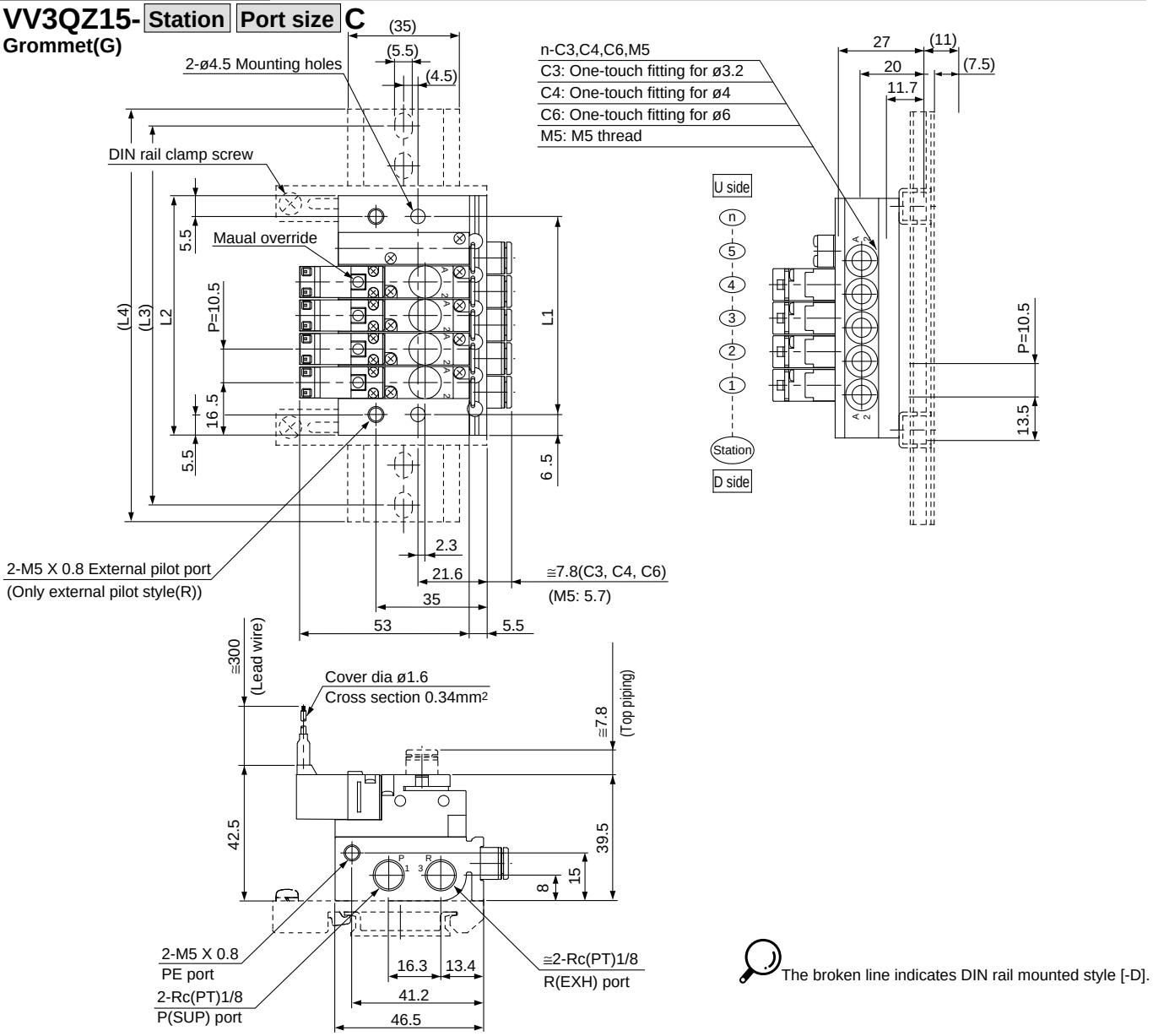
Write sequentially from the 1st station on the D side.

Add the suffix valve and option part numbers to the manifold base number.
Part numbers written collectively can be complicated, thus specify by using a manifold specification form.

Dimensions: VQZ100

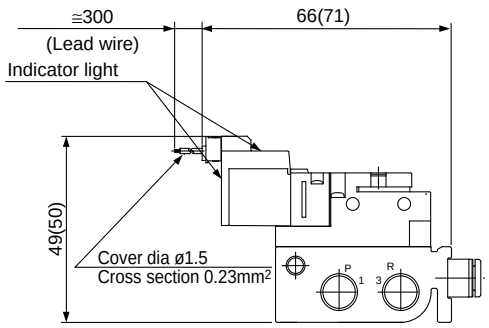
VV3QZ15- Station Port size C

Grommet(G)



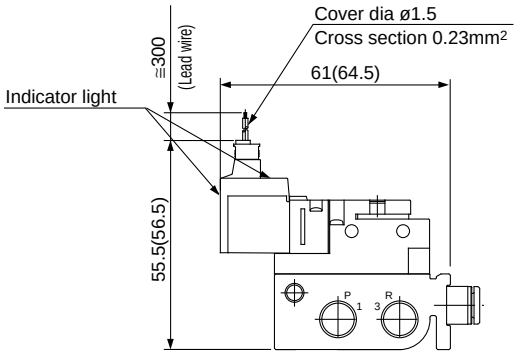
The broken line indicates DIN rail mounted style [-D].

L plug connector (L)



〈 〉: AC

M plug connector (M)



〈 〉: AC

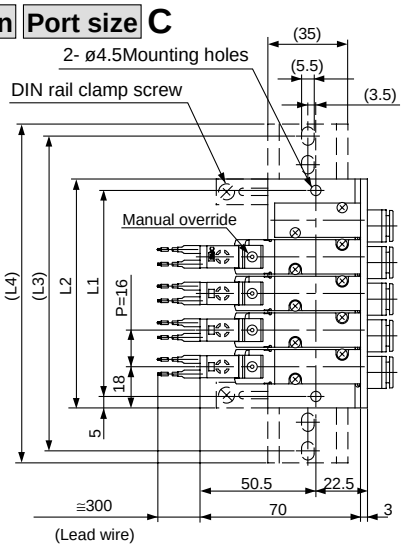
Dimensions Equation L1=10.5n+9.5 L2=10.5n+22.5 n: Station (Max.20)

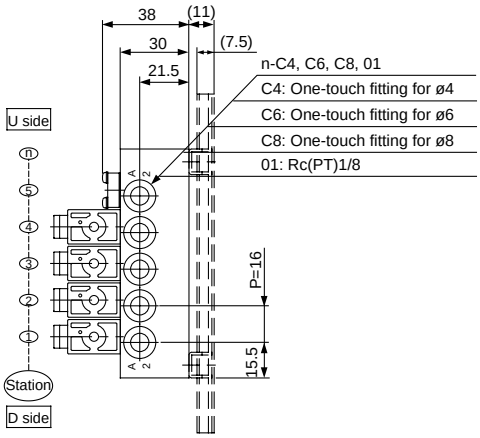
L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5	146	156.5	167	177.5	188	198.5	209	219.5
L2	43.5	54	64.5	75	85.5	96	106.5	117	127.5	138	148.5	159	169.5	180	190.5	201	211.5	222	232.5
L3	75	75	87.5	100	112.5	125	137.5	137.5	150	162.5	175	187.5	200	200	212.5	225	237.5	250	262.5
L4	85.5	85.5	98	110.5	123	135.5	148	148	160.5	173	185.5	198	210.5	210.5	223	235.5	248	260.5	273

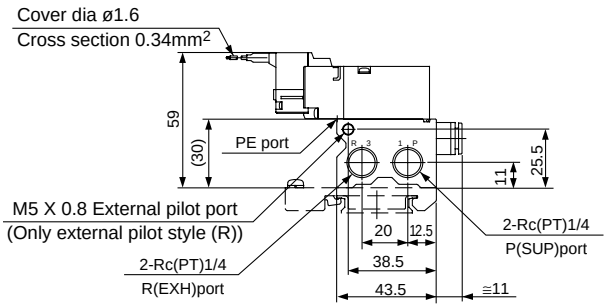
Dimensions: VQZ200

VV3QZ25- Station Port size C

Grommet (G)

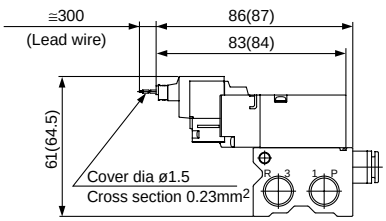






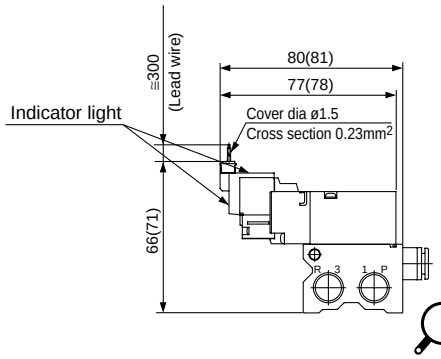
The broken line indicates DIN rail mounted style [-D].

L plug connector (L)



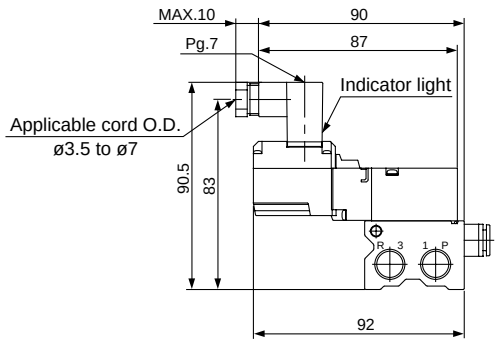
〈 〉: AC

M plug connector (M)



〈 〉: AC

DIN terminal (Y)



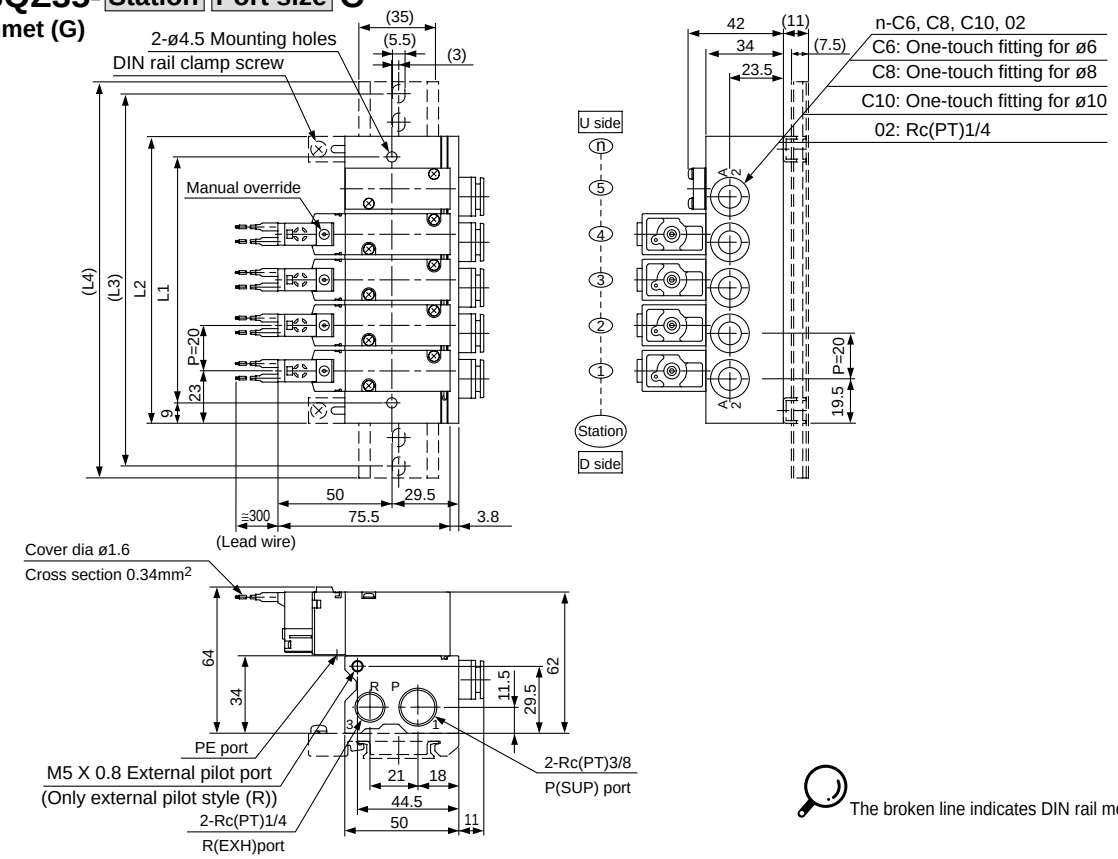
Dimensins Equation L1=16n+10 L2=16n+20 n: Station (Max.20)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	42	58	74	90	106	122	138	154	170	186	202	218	234	250	266	282	298	314	330
L2	52	68	84	100	116	132	148	164	180	196	212	228	244	260	276	292	308	324	340
L3	75	87.5	112.5	125	137.5	162.5	175	187.5	200	225	237.5	250	275	287.5	300	312.5	337.5	350	362.5
L4	85.5	98	123	135.5	148	173	185.5	198	210.5	235.5	248	260.5	285.5	298	310.5	323	348	360.5	373

VQZ300

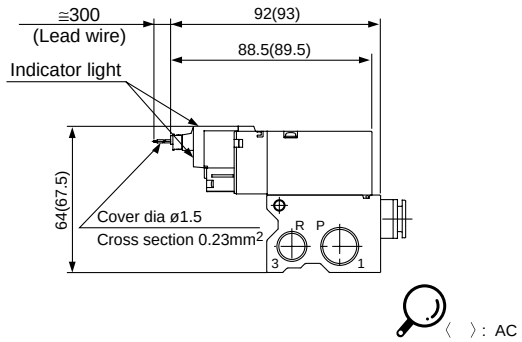
VV3QZ35- Station Port size C

Grommet (G)



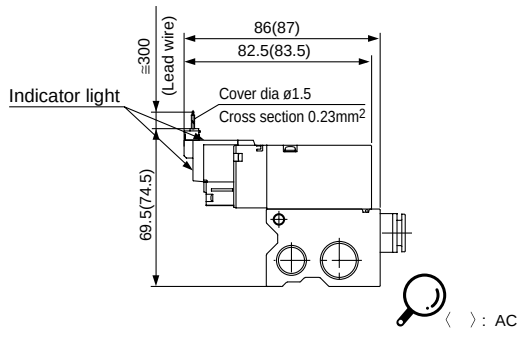
The broken line indicates DIN rail mounted style [-D].

L plug connector (L)



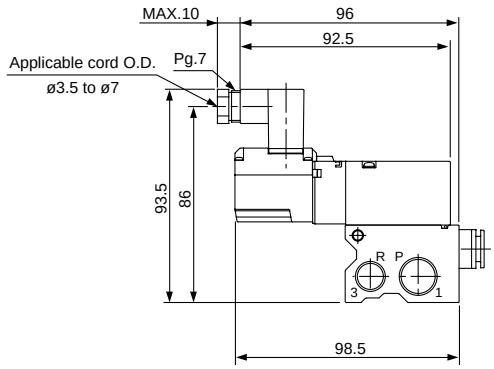
〈 〉: AC

M plug connector (M)



〈 〉: AC

DIN terminal (Y)



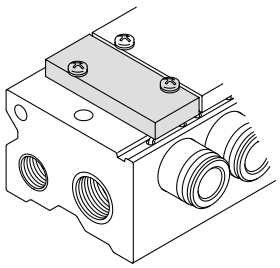
Dimensions Equation L1=20n+8 L2=20n+26 n: Stations (Max.20)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	48	68	88	108	128	148	168	188	208	228	248	268	288	308	328	348	368	388	408
L2	66	86	106	126	146	166	186	206	226	246	266	286	306	326	346	366	386	406	426
L3	87.5	112.5	137.5	150	175	187.5	212.5	237.5	250	275	287.5	312.5	337.5	350	375	387.5	412.5	437.5	450
L4	98	123	148	160.5	185.5	198	223	248	260.5	285.5	298	323	348	360.5	385.5	398	423	448	460.5

Manifold Options

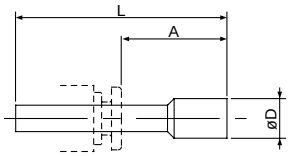
Blank plate
VVQZ100-10A-5
VVQZ200-10A-5
VVQZ300-10A-5

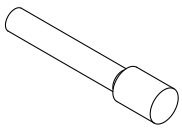
This is used when removing the valve for maintenance, or reserving a valve mounting space on the manifold for future use.



Blank plug
KQP-23-X19
KQP-04-X19
KQP-06-X19
KQP-08-X19
KQP-10-X19

Color: White





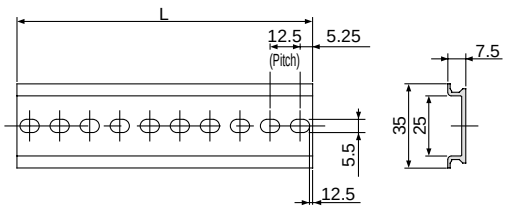
Dimensions (mm)

One-touch fitting ød	Part No.	A	L	D
3.2	**KQP-23-X19**	16	31.5	3.2
4	**KQP-04-X19**	16	32	6
6	**KQP-06-X19**	18	35	8
8	**KQP-08-X19**	20.5	39	10
10	**KQP-10-X19**	22	43	12

DIN rail
AXT100-DR-□

∗ Enter suffix the number from DIN rail dimensions table below.
Refer to the manifold dimensions drawings for the L dimension.

To order a manifold with DIN rail already attached, insert "D" at the end of the manifold part number. The DIN rail is approximately 30mm longer than the length of manifold.



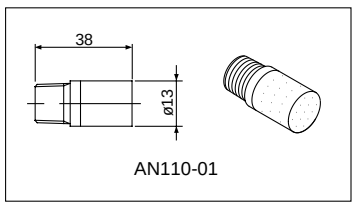
L dimensions L=12.5n+10.5

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L	23	35.5	48	60.5	73	85.5	98	110.5	123	135.5	148	160.5	173	185.5	198	210.5	223	235.5	248	260.5

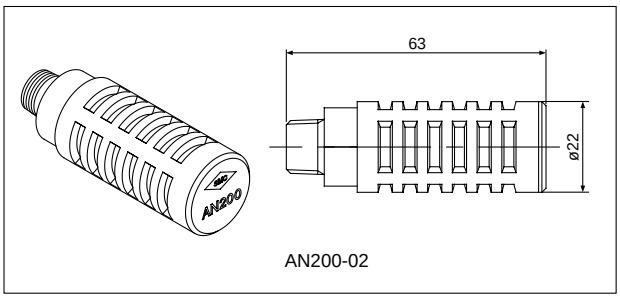
No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
L	273	285.5	298	310.5	323	335.5	348	360.5	373	385.5	398	410.5	423	435.5	448	460.5	473	485.5	498	510.5

EXH port silencer

Silencer is installed in the EXH port.



AN110-01



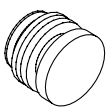
AN200-02

Dimensions

Model	Silencer P/N
VQZ100	AN110-01
VQZ200	AN200-02
VQZ300	AN200-02

Port plug
VVQZ100-CP

This is used when changing piping location.(Side or Top)



Series VQZ Base Mounted
Option

External Pilot Specification

The external pilot specification must be used when the operating pressure is below the minimum operating pressure 0.1 to 0.2MPa or when valve is being used for a vaccum application.
For the external pilot valve, an "R" should be attached to the valve and the manifold part number. (See the below.)

Example/Valve

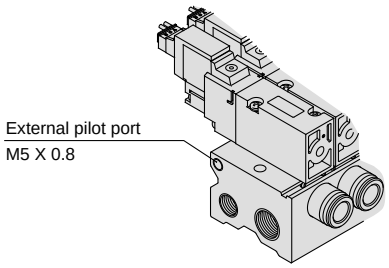
VQZ215R—5M—02

R: External pilot specification

Example/Manifold

VV3QZ25—06C6C—R

R: External pilot specification



Pressure specifications

Series		VQZ100 (2)	VQZ200 VQZ300		
External pilot (1) pressure range	Metal seal	—	0.1 to 0.7MPa		
	Rubber seal (VQZ100: Poppet)	0.2 to 0.7MPa	0.15 to 0.7MPa	0.1 to 0.7MPa	0.2 to 0.7MPa
Operating press range (1)		Vacuum to 0.7MPa			

Note 1) In case of the high pressure style, the upper limit of max. operating pressureand external pressure range is 1MPa.
Note 2) If VQZ100 is applied in vacuum, vacuum from P port. When finishing the vacuum application, supply pressure from R port. Make sure that the supply pressure is less than half of the external pilot pressure.

Inch Size One-touch Fittings and Optional Thread

Manifolds are available with inch size One-touch fittings for the cylinder ports.

How to Order Manifold

VV3QZ15—08 N7 T C

T: Thread (Cylinder ports and P, R ports)

—	Rc(PT)
N	NPT
T	NPTF
F	G(PF)

N7: Cylinder ports

Symbol		N1	N3	N7	N9	N11	NM (1)	M5	01	02
Tube O.D. (Inch)		ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø3/8"	Mix	M5	1/8	1/4
Cylinder port	VQZ100	●	●	●	—	—	●	●	—	—
	VQZ200	—	●	●	●	—	●	—	●	—
	VQZ300	—	—	●	●	●	●	—	—	●

Note1) Mixing One-touch fittings and thread types is impossible except for VQZ100.
Note2) Millimeter size One-touch fittings (C□) are also available.

Optional Thread <Rc(PT) is standard. style>

Sub-bases and manifolds with NPT, NPTF or PF type threads are available.

How to Order Valve with Sub-base

VQZ215 — 5M — 02 T

T: Thread (Cylinder ports and P/R ports)

—	Rc(PT)
N	NPT
T	NPTF
F	G(PF)

Dust Tight/Jet Proof (IP65)

Optional IP65 model is available on valves with DIN connector electrical entry.

How to Order Valve
(Applicable to VQZ200/300 rubber style)

VQZ335—5YZB W—03

W: IP65 rated

—	No (Standard)
W (1)	IP65 rated

Note 1) The pilot exhaust of the IP65 valves is common with main valve exhaust. (The standerd valve has an individual exhaust for the pilot valve.)

Replacement Parts

One-touch Fitting Assembly (For cylinder port)

Series \ Fitting size	C3	C4	C6	C8	C10	M5 (VQZ100 only)
VQZ100	VVQ1000-50A-C3	VVQ1000-50A-C4	VVQ1000-50A-C6	—	—	VVQ1000-50A-M5
VQZ200	—	VVQ1000-51A-C4	VVQ1000-51A-C6	VVQ1000-51A-C8	—	—
VQZ300	—	—	VVQ2000-51A-C6	VVQ2000-51A-C8	VVQ2000-51A-C10	—

Note) Order is acceppted from 10 pcs. unit.

<Plug connector assembly>

DC (+COM)
· Single
AXT661-14A- □
· Latching
AXT661-13A- □
DC (-COM)
· Latching
AXT661-13AN- □
100V, 110V AC
· Single
AXT661-31A- □
· Latching
AXT661-32A- □
200V, 220V AC
· Single
AXT661-34A- □
· Latching
AXT661-35A- □
Only connector and sockets (3 pcs.)
AXT661-12A

Lead wire length

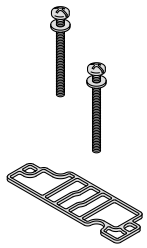
—	300mm
6	600mm
10	1000mm
20	2000mm
30	3000mm

Standard wire length of valve with plug connector is 300mm.
When requiring valve with a 600mm length lead wire specify the model number of the valve without plug connector and the plug connector assembly.

<Gasket and screw assembly>

	Part No.
VQZ100	VQZ100-GS-5
VQZ200	VQZ200-GS-5
VQZ300	VQZ300-GS-5

Note) Above part number consists of 10 units with one gasket and two screws. Orders are accepted in 10 pcs.units.



<Pilot valve assembly>

VQ11 1 □ — 5 G

Series

0	VQZ100
1	VQZ1000/2000/3000

Function

Symbol	Specification	DC	AC
—	Standard	(1.0W) ○	○
K (1)	High pressure (Metal seal only)	(1.0W) ○	—
Y	Low wattage	(0.5W) ○	—
L (3)	Latching	(1.0W) ○	○

Note 1) Option
Note 2) When specifying more than one option, please indicate them alphabetically.
Note 3) K (High pressure) and Y(Low wattage) are not available.
Electrical entry: L/M plug connector only.

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

*Consult SMC when requiring grommet, AC specification and others.

Electrical entry

G	Grommet (DC specification)
L (1)	L plug connector with lead wire
LO (1)	L plug terminal without connector
M (1)	M plug connector with lead wire
MO (1)	M plug terminal without connector
Y (2)	DIN terminal
YO (2)	DIN terminal without connecter
YZ (2)	DIN terminal
YOS (2)	DIN terminal without connecter

Note 1) L, LO, M and MO are attached light and surge voltage suppressors as standard.
Note 2) DIN is applicble to VQZ 200 and 300.
Note 3) Electrical entry of pilot valve for VQZ100(L and M) is opposite side of valve body part number.

Valve style	Pilot valve style
VQZ115□-□L□	**VQ110□-□M□**
VQZ115□-□M□	**VQ110□-□L□**

<Sub-plate>

Model	Sub-plate part No.
VQZ100	VQZ100-S-01(R) (1)
VQZ200	VQZ200-S- 01[Rc1/8] 02[Rc1/4]
VQZ300	VQZ300-S- 02 [Rc1/4] 03 [Rc3/8]

Note 1) Symbol "R" indicates an external pilot. The part No. is common to the external pilot and internal pilot style except for VQZ100.