

Series VQZ100/200/300

VQZ200/300 / How to Order Manifold



Made to Order
(For details, refer to page 34.)

VV3QZ **2** **2** - **08** **C** - **□** - **□**

Series

2	VQZ200
3	VQZ300

Manifold type

2	Body ported
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Stations

02	2 stations
⋮	⋮
20	20 stations

Kit type

C	Connector
---	-----------

CE compliant

Nil	—
Q	CE marked

Option

Nil	None
D	DIN rail mounting (With standard DIN rail length)
D0 ^{Note)}	DIN rail mounting (Without DIN rail)

Note) Order DIN rail separately.
For DIN rail part no., refer to page 14.

Note) For 1(P), 3(R) of optional thread type, refer to page 15.

VQZ200/300 / How to Order Valve

VQZ **2** **1** **2** **□** - **5** **M** **□** **□** **1** - **□** - **□**

Series

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

Type of actuation

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

Body type

2	Body ported
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Function

Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	Note 3) ○
B ^{Note 1)}	High speed response type	(0.9 W) ○	—
K ^{Note 1)}	High pressure type (Metal seal type only)	(0.9 W) ○	—
R ^{Note 1, 2)}	External pilot type	○	○
BR ^{Note 1, 2)}	High speed response/External pilot type	(0.9 W) ○	—
KR ^{Note 1, 2)}	High pressure/External pilot type (Metal seal type only)	(0.9 W) ○	—

Note 1) Option
Note 2) For details on external pilot type, refer to page 15.
Note 3) For AC specification power consumption, refer to page 3.



Caution
Use standard (DC) specification for continuous duty.

Coil voltage

1	100 VAC (50/60 Hz)
2	200 VAC (50/60 Hz)
3	110 VAC [115 VAC] (50/60 Hz)
4	220 VAC [230 VAC] (50/60 Hz)
5	24 VDC
6	12 VDC

IP65 compliant

Nil	—
W ^{Note)}	Compliant

Note) VQZ200/300 DIN terminal rubber seal only (except external pilot).
For details on IP65 enclosure, refer to page 15.

CE compliant

Nil	—
Q	CE marked

Note) AC-type models that are CE compliant have DIN terminals only.

Port size [2(A) port]

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

Note) For inch size one-touch fittings and optional thread type, refer to page 15.

Manual override

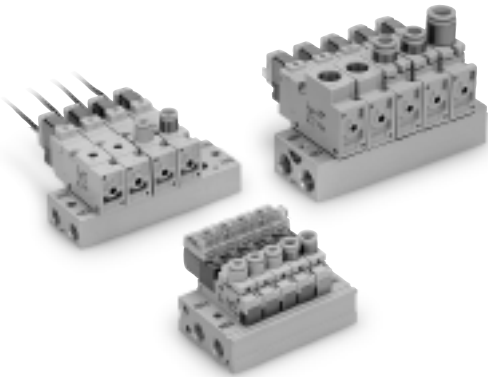
Nil	Non-locking push type (Tool required)
B	Locking type (Tool required)

Electrical entry

Symbol	Electrical entry	Light/surge voltage suppressor
G	Grommet (DC specification)	None
L	L-type plug connector with lead wire	Yes
LO	L-type plug connector without connector	
M	M-type plug connector with lead wire	
MO	M-type plug connector without connector	
Y	DIN terminal	None
YO	DIN terminal without connector	
YZ	DIN terminal	Yes
YS ^{Note 2)}	DIN terminal (DC specification)	Yes
YOS ^{Note 2)}	DIN terminal without connector (DC specification)	(Without light)

Note 1) Standard lead wire length: 300 mm
Note 2) For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Manifold Specifications



Series	Base model	Piping specifications		Applicable solenoid valve	Applicable stations	Manifold base weight (g)
		Piping direction	Port size			
			1(P), 3(R)	2(A)		
VQZ100	VV3QZ12-□□□	Top	Rc 1/8	C3 (for ø3.2) C4 (for ø4) C6 (for ø6) M5 (M5 thread)	VQZ115	2 to 20 stations 2 stations: 83 Addition per station: 19
VQZ200	VV3QZ22-□□□	Top	Rc 1/8	C4 (for ø4) C6 (for ø6) M5 (M5 thread)	VQZ2□2	2 to 20 stations 2 stations: 68 Addition per station: 20
VQZ300	VV3QZ32-□□□	Top	Rc 1/4	C6 (for ø6) C8 (for ø8) C10 (for ø10) Rc 1/4	VQZ3□2	2 to 20 stations 2 stations: 114 Addition per station: 37

How to Order Manifold Assembly (Example)

VV3QZ22-05C 1 set (C kit 5-station manifold base part no.)

* **VVQZ200-10A-2** ... 1 set (Blanking plate assembly part no.)

* **VQZ212-5M1-C6** ... 4 sets (N.C. type part no.)

→ The asterisk denotes the symbol for assembly. Prefix it to the part nos. of the solenoid valve, etc.

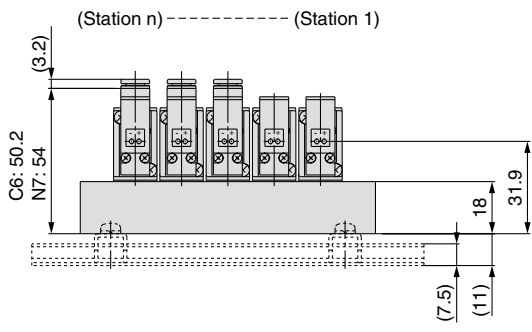
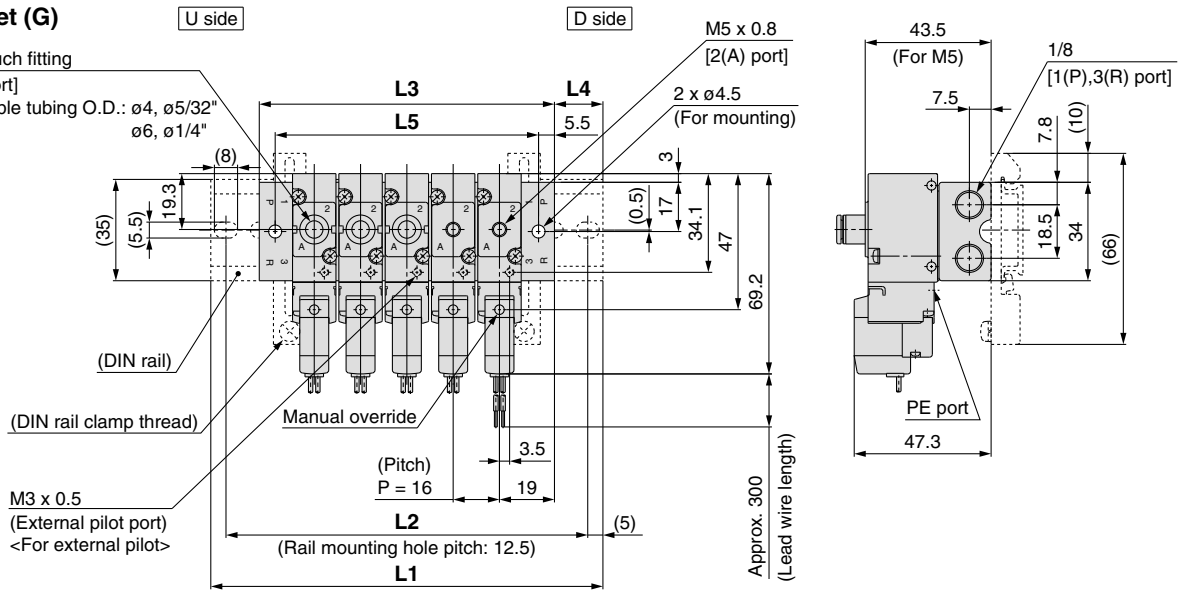
→ Enter in order starting from the first station on the D side.

Add the valve and option part number under the manifold base part number.
When entry of part numbers becomes complicated, indicate by the manifold specification sheet.

Dimensions: VQZ200

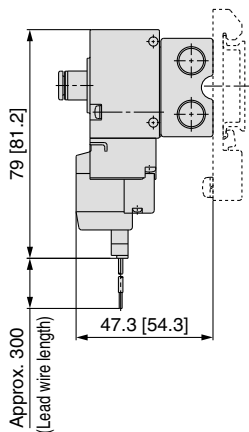
VV3QZ22- Stations C

Grommet (G)



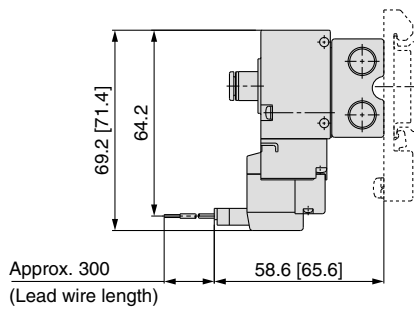
The dashed lines indicate the DIN rail mounting [-D].

L-type plug connector (L)



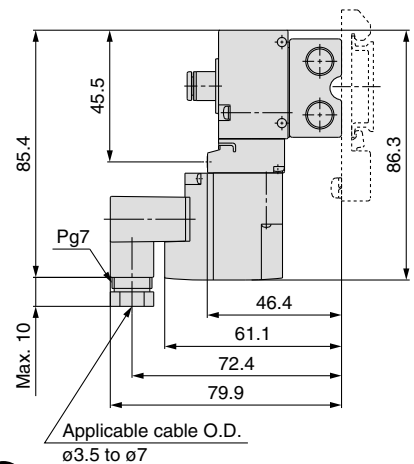
Unless otherwise indicated, dimensions are the same as Grommet (G).
[]: AC

M-type plug connector (M)



Unless otherwise indicated, dimensions are the same as Grommet (G).
[]: AC

DIN terminal (Y)



Unless otherwise indicated, dimensions are the same as Grommet (G).

Dimensions

Formula: $L5 = 16n + 11$ $L3 = 16n + 22$ n: Stations (Max. 20 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	85.5	110.5	123	135.5	148	173	185.5	198	223	235.5	248	260.5	285.5	298	310.5	335.5	348	360.5	373
L2	75	100	112.5	125	137.5	162.5	175	187.5	212.5	225	237.5	250	275	287.5	300	325	337.5	350	362.5
L3	54	70	86	102	118	134	150	166	182	198	214	230	246	262	278	294	310	326	342
L4	16	20.5	18.5	17	15	19.5	18	16	20.5	19	17	15.5	20	18	16.5	21	19	17.5	15.5
L5	43	59	75	91	107	123	139	155	171	187	203	219	235	251	267	283	299	315	331

Series VQZ100/200/300

Dimensions: VQZ300

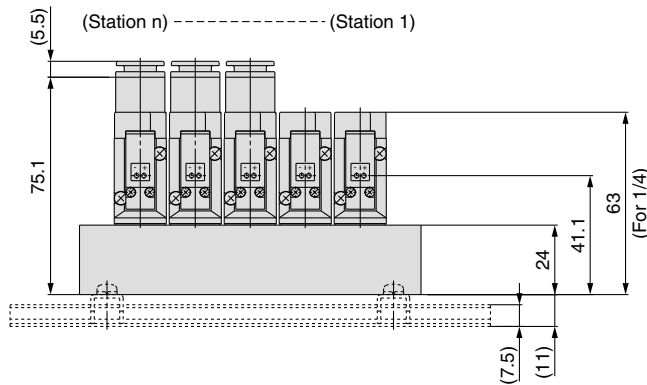
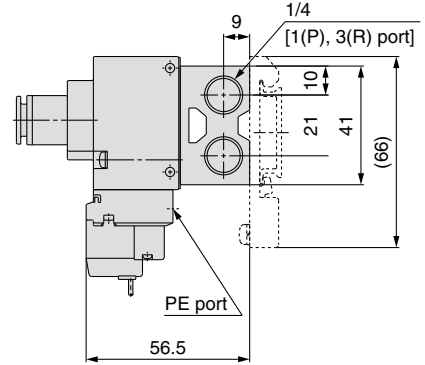
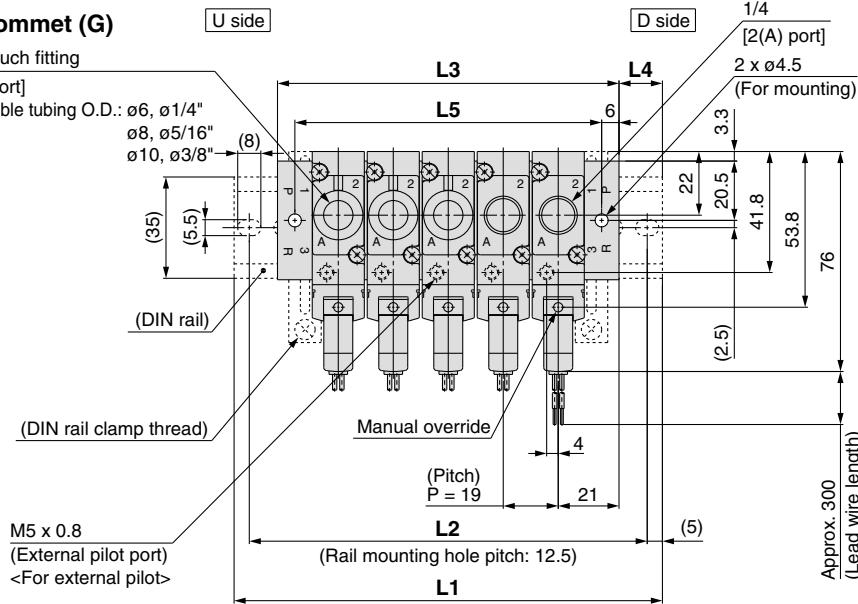
VV3QZ32- Stations C

Grommet (G)

One-touch fitting

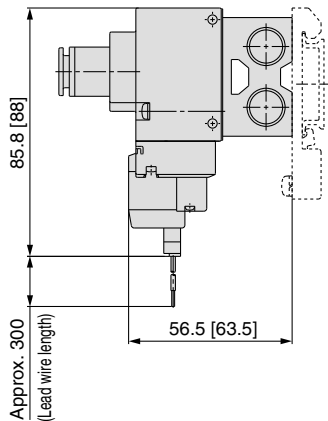
[2(A) port]

Applicable tubing O.D.: $\phi 6$, $\phi 1/4"$
 $\phi 8$, $\phi 5/16"$
 $\phi 10$, $\phi 3/8"$



The dashed lines indicate the DIN rail mounting [-D].

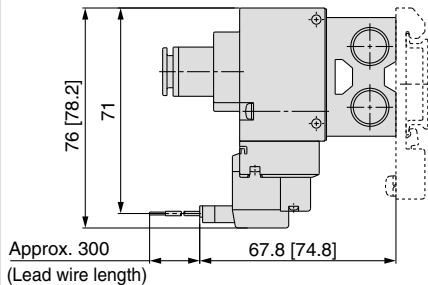
L-type plug connector (L)



Unless otherwise indicated, dimensions are the same as Grommet (G).

[] : AC

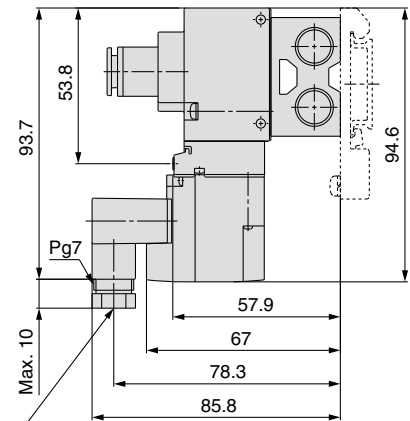
M-type plug connector (M)



Unless otherwise indicated, dimensions are the same as Grommet (G).

[] : AC

DIN terminal (Y)



Unless otherwise indicated, dimensions are the same as Grommet (G).

Dimensions

Formula: $L5 = 19n + 11$ $L3 = 19n + 23$ n : Stations (Max. 20 stations)

L \ n	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L1	98	110.5	135.5	148	173	198	210.5	235.5	248	273	285.5	310.5	323	348	360.5	385.5	398	423	435.5
L2	87.5	100	125	137.5	162.5	187.5	200	225	237.5	262.5	275	300	312.5	337.5	350	375	387.5	412.5	425
L3	61	80	99	118	137	156	175	194	213	232	251	270	289	308	327	346	365	384	403
L4	18.5	15.5	18.5	15	18	21	18	21	17.5	20.5	17.5	20.5	17	20	17	20	16.5	19.5	16.5
L5	49	68	87	106	125	144	163	182	201	220	239	258	277	296	315	334	353	372	391

Manifold Options

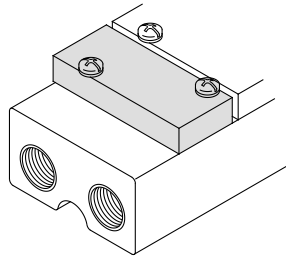
Blanking plate assembly

VVQZ100-10A-5 (for VQZ100)

VVQZ200-10A-2 (for VQZ200)

VVQZ300-10A-2 (for VQZ300)

It is used by attaching on the manifold block for being prepared for removing a valve for maintenance reasons or planning to mount a spare valve, etc.



Blanking plug

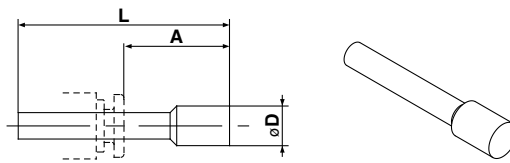
KQ2P-23

KQ2P-04

KQ2P-06

KQ2P-08

KQ2P-10



Dimensions

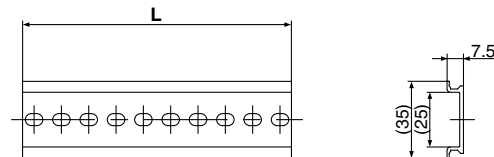
Applicable fitting size ød	Model	A	L	D
3.2	KQ2P-23	16	31.5	3.2
4	KQ2P-04	16	32	6
6	KQ2P-06	18	35	8
8	KQ2P-08	20.5	39	10
10	KQ2P-10	22	43	12

DIN rail

AXT100-DR-□

* As for □, enter the number from the DIN rail dimensions table.
For L dimension, refer to the dimensions of each kit.

Each manifold can be mounted on a DIN rail.
Insert "D" at the end of the manifold part number.
The DIN rail is approximately 30 mm longer than the length of manifold.



L Dimension

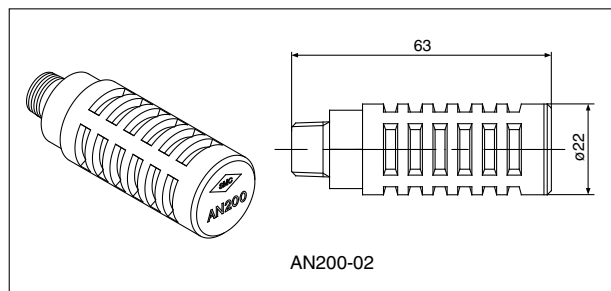
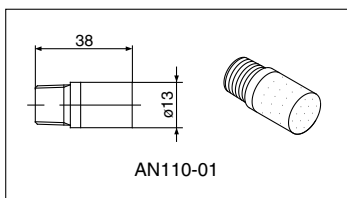
$$L = 12.5n + 10.5$$

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
L dimension	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 dimension	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

Silencer (for manifold EXH port)

Silencer is installed in the manifold EXH port.



Dimensions

Model	Silencer part no.
VQZ100	AN110-01
VQZ200	AN110-01
VQZ300	AN200-02



For a silencer to be mounted in a single valve unit, refer to back page 4.

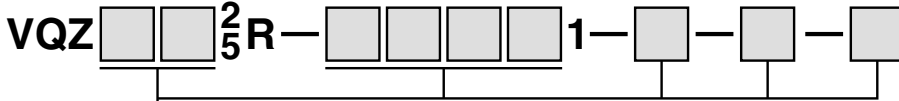
Series VQZ Body Ported

Options

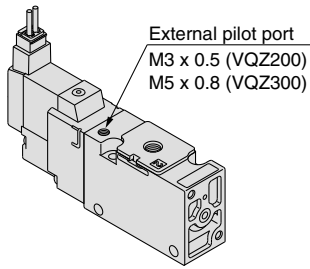
External Pilot Specification

The external pilot specification is used when the operating pressure is below the minimum operating pressure 0.1 to 0.15 MPa or when valve is used for a vacuum application. Order a valve by adding the external pilot specification [R] to the part number.

Valve Part No.



• Entry is the same as standard products.



Pressure Specifications

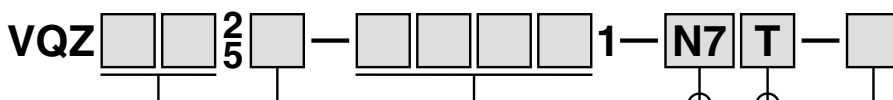
Series		VQZ100 ^{Note 2)}	VQZ200/300
External pilot pressure range	^{Note 1)} Metal seal	—	0.1 to 0.7 MPa
	Rubber seal (VQZ100: poppet)	0.2 to 0.7 MPa	0.15 to 0.7 MPa
Operating pressure range ^{Note 1)}		-100 kPa to 0.7 MPa	

Note 1) In case of the high pressure type, upper limit of max. operating pressure and external pilot pressure range is 1 MPa.
Note 2) Pump down from 1(P) port when VQZ100 series vacuum type is specified. Apply pressure from 3(R) port to relieve vacuum pressure. Set the release pressure at 50% of external pilot pressure or less.

Inch Size One-touch Fittings and Optional Threads

Inch size one-touch fittings and NPT, NPTF and G thread are available.

Valve Part No.



• Entry is the same as standard products.

		Cylinder port						
Symbol		N1	N3	N7	N9	N11	M5	O2
Applicable tubing O.D. (Inch)		ø1/8"	ø5/32"	ø1/4"	ø5/16"	ø3/8"	M5 thread	1/4 thread
2(A) port	VQZ100	●	●	●	—	—	●	—
	VQZ200	—	●	●	—	—	●	—
	VQZ300	—	—	●	●	●	—	●

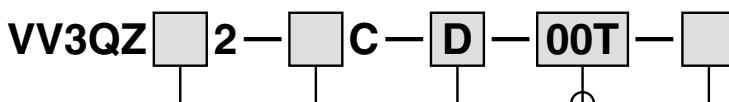
• Thread type (Cylinder port and 1(P), 3(R) ports)

Nil	Rc
N	NPT
T	NPTF
F	G

Note 1) 3(R) port of the VQZ200 is only G1/16.
Note 2) Except VQZ100

Note) Metric size one-touch fittings (□) are also available.

Manifold Part No.



• Entry is the same as standard products.

• Thread type (1(P), 3(R) ports)

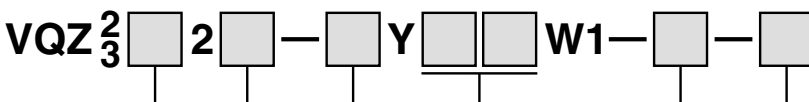
Nil	Rc
00N	NPT
00T	NPTF
00F	G

IP65 Enclosure (Based on IEC529)

DIN terminal is available with IP65 enclosure.

Valve Part No.

(Applicable to the VQZ200/300 rubber seal with the exception of the external pilot type)



• Entry is the same as standard products.

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

Replacement Parts

One-touch Fitting Assembly (for Cylinder port)

Fitting size	C3	C4	C6	C8	C10	M5 (VQZ100 only)
VQZ100/200	VVQ1000-50A-C3	VVQ1000-50A-C4	VVQ1000-50A-C6	—	—	VVQ1000-50A-M5
VQZ300	—	—	VVQ1000-51A-C6	VVQ1000-51A-C8	VVQ1000-51A-C10	—

Note) Purchasing order is available in units of 10 pieces.

<Plug connector assembly>

DC: SY100-30-4A-

100 VAC: SY100-30-1A-

200 VAC: SY100-30-2A-

Other AC voltages: SY100-30-3A-

Without lead wire: SY100-30-A
(with connector and 2 sockets only)

Lead wire length

Symbol	Length
Nil	300 mm
6	600 mm
10	1000 mm
15	1500 mm
20	2000 mm
25	2500 mm
30	3000 mm
50	5000 mm

How to Order

Include the connector assembly part number together with the part number for the plug connector's solenoid valve without connector.

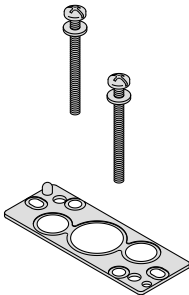
Example) In case of 2000 mm of lead wire

DC VQZ115-5LO1-M5-PR SY100-30-4A-20
AC VQZ115-1LO1-M5-PR SY100-30-1A-20

<Gasket and screw assembly>

Model	Part no.
VQZ100	VQZ100-GS-2
VQZ200	VQZ200-GS-2
VQZ300	VQZ300-GS-2

Note) Above part number consists of 10 units. Each unit has one gasket and two screws. Purchasing order is available in units of 10 pieces.



<Pilot valve assembly>



Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	○
B Note)	High speed response type (Applicable to VQZ200/300)	(0.9 W) ○	—
K Note)	High pressure type (Applicable to Metal seal type, Poppet seal type)	(0.9 W) ○	—

Note) Option

Manual override

Nil	None (Applicable to VQZ200/300)
M	Yes (Applicable to VQZ100)

Manual override (Applicable to the VQZ100)

Nil	Non-locking push type
B	Locking slotted type

Coil 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

Electrical entry

Symbol	DC	AC	Electrical entry	Light/surge voltage suppressor
G	—	—	Grommet (DC specification)	None
LU LZ	L-type plug connector with lead wire		Yes	
LOU LOZ	L-type plug connector without connector			
MU MZ	M-type plug connector with lead wire			
MOU MOZ	M-type plug connector without connector			

Note) VQZ pilot valve electrical entry (L, M) is the opposite of the how to order of valve body.

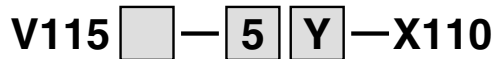
Valve model	Pilot valve model
VQZ115□-□L□1	V111□M-□M□
VQZ115□-□M□1	V111□M-□L□

<Bracket assembly>

Model	Part no.	Tightening torque (N·m) Note)
VQZ100	VQZ100-FB	0.45 to 0.55
VQZ200	VQZ200-FB	0.25 to 0.35
VQZ300	VQZ300-FB	0.25 to 0.35

Note) Tightening torque when mounting a bracket on the valve.

<DIN terminal type (Applicable to the VQZ200/300)>



Symbol	Specifications	DC	AC
Nil	Standard	(0.35 W) ○	○
B Note)	High speed response type	(0.9 W) ○	—
K Note)	High pressure type (Metal seal type only)	(0.9 W) ○	—

Note) Option

Coil 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

Electrical entry

Symbol	Electrical entry	Light/surge voltage suppressor
Y	DIN terminal	None
YO	DIN terminal without connector	
YZ	DIN terminal with light/surge voltage suppressor	Yes
YS Note)	DIN terminal with surge voltage suppressor (DC specification)	Yes (Without light)
YOS Note)	DIN terminal with surge voltage suppressor, without connector (DC specification)	

Note) For AC voltage valves there is no "S" option. It is already built-in to the rectifier circuit.

Caution

When replacing only the pilot valve assembly, use caution because it is not possible to convert to a V115 (DIN terminal) from a V111 (Grommet, L-type, M-type), or vice versa.