

How to Order Valves



Plug-in

VQC4 1 0 0 - - - 1 - - -

1	Metal	2-position single (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
		2-position double (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
		2-position double (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
2	Rubber	2-position double (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
		2-position double (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
		2-position double (A)(B) 4 2 5 1 3 (R1)(P1)(R2)

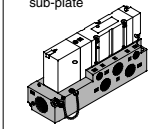
Type of actuation

3	3-position closed center (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
4	3-position exhaust center (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
5	3-position pressure center (A)(B) 4 2 5 1 3 (R1)(P1)(R2)
6	3-position double check (A)(B) 4 2 5 1 3 (R1)(P1)(R2)

Note) For double check type, refer to the **Web Catalog** of the VQ4000/5000 series.

Body

0: Plug-in sub-plate



Seal

0	Metal seal
1	Rubber seal

Function

Nil (Note 1)	Standard (0.95 W)
Y	Low wattage type (0.4 W)
R (Note 2)	External pilot

Note 1) When the power is energized continuously, refer to "Specific Product Precautions 1" on page 1192.

Note 2) For details about external pilot type, refer to the **Web Catalog** of the VQ4000/5000 series. In addition, external pilot type cannot be combined with a double check spacer.

Note 3) When multiple symbols are specified, indicate them alphabetically.

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Port size

Nil	Without sub-plate (For manifold)
02	1/4
03	3/8

Porting specifications

Nil	Side ported
B	Bottom ported

Manual override

Nil: Non-locking push type (Tool required)



B: Locking type (Tool required)



C: Locking type (Manual)



Light/Surge voltage suppressor

Nil	Yes
E	Without light, with surge voltage suppressor

Coil voltage

5	24 VDC
6	12 VDC

How to Order Sub-plates



[Option]

VQ4000 - PW - - 02 - -

Porting specifications

Nil	Side ported
B	Bottom ported (Note)

Port size

02	1/4
03	3/8

Note) For bottom ported, port size is 1/4 only.

CE/UKCA-compliant

Nil	—
Q	CE/UKCA-compliant

Thread type

Nil	Rc
N	NPT
T	NPTF
F	G

Replacement of pilot valve assembly (Voltage)

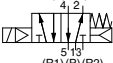
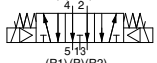
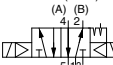
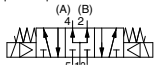
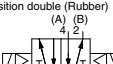
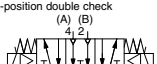
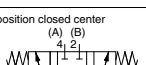
- Refer to page 1190 for pilot valve assembly part numbers.
- Refer to page 1193 for replacement method.

How to Order Valves

VQC4 **1** **0** **0** **5** **1**

VQC4000 series • (A) (B) (C) (D) (E) (F)

(A) Type of actuation

1	2-position single (A) (B)  (R1) (P) (R2)	4	3-position exhaust center (A) (B)  (R1) (P) (R2)
	2-position double (Metal) (A) (B)  (R1) (P) (R2)	5	3-position pressure center (A) (B)  (R1) (P) (R2)
2	2-position double (Rubber) (A) (B)  (R1) (P) (R2)	6	3-position double check (A) (B)  (R1) (P) (R2)
	3-position closed center (A) (B)  (R1) (P) (R2)		

(B) Seal type

0	Metal seal
1	Rubber seal

(C) Function

Nil ^{Note 1)}	Standard (0.95 W)
Y	Low wattage type (0.4 W)
R ^{Note 2)}	External pilot

Note 1) When the power is energized continuously, refer to "Specific Product Precautions 1" on page 1192.

Note 2) For details about external pilot type, refer to the **Web Catalog** of the VQ4000/5000 series. In addition, external pilot type cannot be combined with a double check spacer.

* When multiple symbols are specified, indicate them alphabetically.

(D) Coil voltage

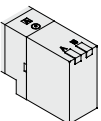
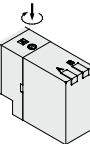
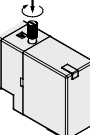
5	24 VDC ^{Note)}
6	12 VDC

Note) S kit is only available for 24 VDC.

(E) Light/Surge voltage suppressor

Nil	Yes
E	Without light, with surge voltage suppressor

(F) Manual override

Nil	Non-locking push type (Tool required) 
B	Push-turn locking type (Tool required) 
C	Turn locking type (Manual) 

VQC4000 Series

How to Order Manifold Assembly: EX600*1

Example (VV5QC41-□SD6□)

Diagram labels: Digital Input Unit EX600-DXPD, End plate (Note) EX600-ED4, Digital Output Unit EX600-DYPB, SI Unit (Note) EX600-SDN1A, VQC4100-51 (3 sets), VQC4200-51 (2 sets), 2-position single, 2-position double. Station numbering: 1... I/O Unit stations, 1 2 3 4 5... Valve stations.

VV5QC41-0502SD6Q4N2...1 set (S kit 5-station manifold base part number)
•VQC4100-51.....3 sets (2-position single part number)
•VQC4200-51.....2 sets (2-position double part number)
•EX600-DXPD.....1 set I/O Unit part number (Station 1)
•EX600-DYPB.....1 set I/O Unit part number (Station 2)
→ The asterisk denotes the symbol for assembly.
Prefix it to the part numbers of the valve etc.

• The valve arrangement is numbered as the 1st station from the D side.
• Under the manifold part number, state the valves to be mounted, then the I/O Units in order from the 1st station as shown in the figure above. If the arrangement becomes complicated, specify on a manifold specification sheet.

Note) Do not enter the SI Unit part number and the end plate part number together.

For the I/O unit part number mounted, refer to the **Web Catalog**.
• Digital Input Unit • Digital Output Unit • Digital Input/Output Unit
• Analog Input Unit • Analog Output Unit • Analog Input/Output Unit

How to Order Manifold Assembly: EX245*

Example (VV5QC41-□SDAAN□)

Diagram labels: Digital output module EX245-DY1, End plate (Note) EX245-EA2-4, Digital input module EX245-DX1, SI unit (Note) EX245-SPN1A, VQC4101-51 (4 sets), 2-position single. Station numbering: 2 1... I/O module stations, 1 2 3 4... Valve stations.

VV5QC41-04C8SDAANY2...1 set (S kit 4-station manifold base part no.)
•VQC4101-51.....4 sets (2-position single part no.)
•EX245-DX1.....1 set I/O unit part number (Station 1)
•EX245-DY1.....1 set I/O unit part number (Station 2)
→ The asterisk denotes the symbol for assembly.
Prefix it to the part numbers of the valve etc.

• The valve arrangement is numbered as the 1st station from the D side.
• Under the manifold part number, state the valves to be mounted, then the I/O module in order from the 1st station as shown in the figure above. If the arrangement becomes complicated, specify on a manifold specification sheet.

Note) Do not enter the SI Unit part number and the end plate part number together.

* The EX245/250 I/O module (black) station arrangement is numbered starting from the SI unit side.

Manifold Specifications

Series	Base model	Connection type	Piping specifications		Note 2) Applicable stations	Applicable solenoid valve	5-station weight [g]	
			Port direction	Port size Note 1)				
				1, 3 (P, R)	2, 4 (A, B)			
VQC4000	VV5QC41-□□□	■ F kit: D-sub connector ■ P kit: Flat ribbon cable ■ T kit: Terminal block box ■ S kit: Serial transmission ■ L kit: Lead wire ■ M kit: Circular connector	Side	P: 1/2 (Rc, G, NPT/NPTF) R: 3/4 (Rc, G, NPT/NPTF)	C6 (for ø6) C8 (for ø8) C10 (for ø10) C12 (for ø12) 1/4 (Rc, G, NPT/NPTF) 3/8 (Rc, G, NPT/NPTF)	(F, L, M, P kit 1 to 12 stations) T kit 1 to 10 stations S kit Note 3) 1 to 12 stations: EX250, EX245 1 to 8 stations: EX500, EX600	VQC4□00-51 VQC4□01-51	2282 ・ S kit (Without Unit) ・ Not including valve weight.
			Bottom		1/4 (Rc, G, NPT/NPTF)			

Note 1) One-touch fittings in inch sizes are also available.
Note 2) An optional specification for special wiring is available to increase the maximum number of stations.
Note 3) Depending on the protocol, there is a limit to the number of stations an S kit can be applied to. Refer to page 1162 for details.

SI Unit Part Number Table

EX600 Integrated type (For Input/Output)

Symbol	Applicable protocol	SI Unit part no.		Page
		Negative common (PNP)	Positive common (NPN)	
SD6Q	DeviceNet®	EX600-SDN1A	EX600-SDN2A	1188
SD6N	PROFIBUS DP	EX600-SPR1A	EX600-SPR2A	
SD6V	CC-Link	EX600-SMJ1	EX600-SMJ2	
SD6FA	PROFINET (IO-Link unit)	EX600-SPN3	EX600-SPN4	
SD6FB	PROFINET (OPC UA, IO-Link unit)	—	EX600-SPN31	
SD6EB	EtherNet/IP™ (IO-Link unit)	EX600-SEN7	EX600-SEN8	
SD6DA	EtherCAT (IO-Link unit)	EX600-SEC3	EX600-SEC4	
SD6WE	EtherNet/IP™ compatible wireless base ^{Note)}	EX600-WEN1	EX600-WEN2	
SD6WF	PROFINET compatible wireless base ^{Note)}	EX600-WPN1	EX600-WPN2	
SD6WS	Wireless remote ^{Note)}	EX600-WSV1	EX600-WSV2	

Note) The wireless system is suitable for use only in a country where it is in accordance with the Radio Act and regulations of that country.

EX245 Integrated type (For Input/Output)

Symbol	Compatible protocol	SI unit part no.	Page
SDAAN	PROFINET	EX245-SPN1A	1189
SDABN		EX245-SPN2A	
SDACN		EX245-SPN3A	

EX260 Integrated type (For Output)

Symbol	Applicable protocol	Number of outputs	SI Unit part no.		Communication connector	Page	
			Negative common (PNP)	Positive common (NPN)			
SQA	DeviceNet®	32	EX260-SDN1	EX260-SDN2	M12	1189	
SQB		16	EX260-SDN3	EX260-SDN4			
SNA		32	EX260-SPR1	EX260-SPR2			
SNB		16	EX260-SPR3	EX260-SPR4			
SNC	PROFIBUS DP	32	EX260-SPR5	EX260-SPR6	D-sub		
SND		16	EX260-SPR7	EX260-SPR8			
SVA		CC-Link	32	EX260-SMJ1			EX260-SMJ2
SVB			16	EX260-SMJ3			EX260-SMJ4
SDA	EtherCAT	32	EX260-SEC1	EX260-SEC2	M12		
SDB		16	EX260-SEC3	EX260-SEC4			
SFA	PROFINET	32	EX260-SPN1	EX260-SPN2	M12		
SFB		16	EX260-SPN3	EX260-SPN4			
SEA	EtherNet/IP™	32	EX260-SEN1	EX260-SEN2	M12		
SEB		16	EX260-SEN3	EX260-SEN4			
SGA	Ethernet	32	EX260-SPL1	—	M12		
SGB	POWERLINK	16	EX260-SPL3	—			
SKA	IO-Link	32	EX260-SIL1	—	M12		

EX126 Integrated type (For Output)

Symbol	Applicable protocol	SI Unit part no.	Page
SDVB	CC-Link, Positive common (NPN)	EX126D-SMJ1	1189

EX500 Gateway Decentralized System 2 (128 points)

Symbol	SI Unit part no.	Page
	Negative common (PNP)	
SDA3	EX500-S103	1188

EX500 Gateway Decentralized System (64 points)

SI Unit part no.			Page
Symbol	Negative common (PNP)		
SDA2	EX500-Q101		1188

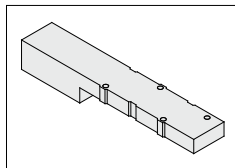
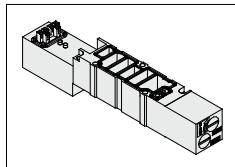
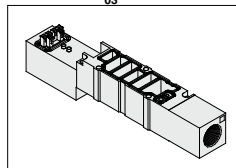
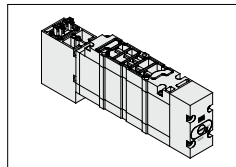
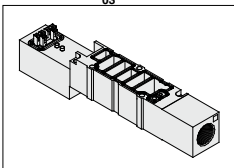
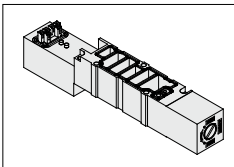
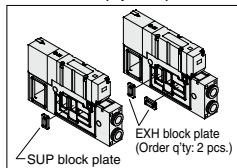
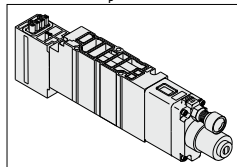
EX250 Integrated type (For Input/Output)

Symbol	Applicable protocol	SI Unit part no.	Page
SDQ	DeviceNet®, Negative common (PNP)	EX250-SDN1	1189
SDTA	AS-Interface, Negative common (PNP), (8 in/8 out, 2 power supply systems)	EX250-SAS3	
SDTB	AS-Interface, Negative common (PNP), (4 in/4 out, 2 power supply systems)	EX250-SAS5	
SDTC	AS-Interface, Negative common (PNP), (8 in/8 out, 1 power supply system)	EX250-SAS7	
SDTD	AS-Interface, Negative common (PNP), (4 in/4 out, 1 power supply system)	EX250-SAS9	
SDZEN	EtherNet/IP™, Negative common (PNP)	EX250-SEN1	

For details about the EX series (Serial Transmission System), refer to the **Web Catalog** and the Operation Manual. Please download the Operation Manual via SMC website, <https://www.smcworld.com>

Manifold Options

For details about options, refer to the **Web Catalog** of the VQ4000 series.

Blanking plate assembly
VVQ4000-10A-1Restrictor spacer
VVQ4000-20A-1Individual SUP spacer
VVQ4000-P-1- 02 03Double check spacer with residual pressure exhaust
VVQ4000-25A-1 ^{Note)}Individual EXH spacer
VVQ4000-R-1- 02 03SUP stop valve spacer
VVQ4000-37A-1SUP/EXH block plate
VVQ4000-16A (1 pc./set)Interface regulator (P, A, B port regulation)
ARBQ4000-00- 1/2-1

Note) The double check spacer with residual pressure release valve cannot be combined with external pilot type.

For replacement parts, refer to page 1190.