

## How to Order Valves



## Plug-in

VQC4 1 0 0 - - - 1 - - -

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

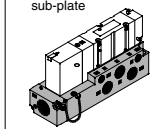
## Type of actuation

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

# Base Mounted

## Plug-in Unit

# VQC4000 Series



The EX250/500 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

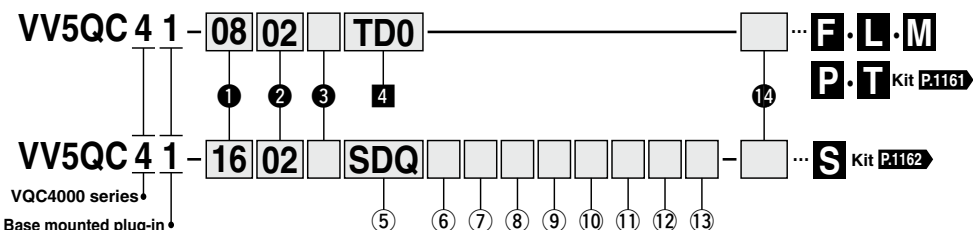
Refer to page 1166 for details on manifolds that support safety communication (PROFIsafe).

### How to Order Manifold

#### S kit

The selectable items vary for each series. Select from the applicable item numbers in the table below.

| Series          | Item number (Refer to pages 1160, 1161 and 1162) |
|-----------------|--|
| EX600           | 1, 2, 3, 5, 8, 9, 10, 11                         |
| EX245           | 1, 2, 3, 5, 6, 7, 11                             |
| EX250           | 1, 2, 3, 5, 9, 11, 12, 13, 14                    |
| EX500, 260, 126 | 1, 2, 3, 5, 9, 11                                |



#### 1 Valve stations

|     |           |
|-----|-----------|
| 01  | 1 station |
| ... | ...       |

The maximum number of stations differs depending on the electrical entry. (Refer to 5)

Note) In the case of compatibility with the S kit/At-Interface, the maximum number of solenoids is as shown below, so please be careful of the number of stations.

8 in/8 out: Maximum 8 solenoids  
4 in/4 out: Maximum 4 solenoids



D side Stations-1-2-3-4-5-6-7-8-n U side

\* Stations are counted from station 1 on the D-side.

#### 2 Cylinder port size

|     |                            |     |                   |
|-----|----------------------------|-----|-------------------|
| C6  | With ø6 One-touch fitting  | N11 | For ø3/8"         |
| C8  | With ø8 One-touch fitting  | 02  | 1/4               |
| C10 | With ø10 One-touch fitting | 03  | 3/8               |
| C12 | With ø12 One-touch fitting | B   | Bottom ported 1/4 |
| N7  | For ø1/4"                  | CM  | Mixed             |
| N9  | For ø5/16"                 |     |                   |

#### 3 Thread type

|     |      |
|-----|------|
| Nil | Rc   |
| F   | G    |
| N   | NPT  |
| T   | NPTF |

#### 6 With or without I/O modules (Enter EX245-compliant S kit only.)

|     |                    |
|-----|--------------------|
| Nil | Without I/O module |
| Y   | With I/O module    |

#### 7 Number of I/O modules (Enter EX245-compliant S kit only.)

|     |   |
|-----|---|
| Nil | Without I/O module<br>(Without SI Unit) |
| 1   | 1 station                               |
| ... | ...                                     |
| 8   | 8 stations                              |

#### 8 End plate type (Enter only for EX600-compliant S kit.)

|     |   |
|-----|---|
| Nil | Without end plate   |
| 2   | M12 power supply connector, B-coded                           |
| 3   | 7/8 inch power supply connector                               |
| 4   | M12 power supply connector IN/OUT, A-coded, Pin arrangement 1 |
| 5   | M12 power supply connector IN/OUT, A-coded, Pin arrangement 2 |

Note) Without SI Unit, the symbol is nil.  
\* The pin layout for "4" and "5" pin connector is different.

#### 10 I/O Unit stations (Enter only for EX600-compliant S kit.)

|     |            |
|-----|------------|
| Nil | None       |
| 1   | 1 station  |
| ... | ...        |
| 9   | 9 stations |

Note 1) Without SI Unit, the symbol is nil.  
Note 2) SI Unit is not included in I/O Unit stations.  
Note 3) When I/O Unit is selected, it is shipped separately, and assembled by customer. Refer to the attached operation manual for mounting method.  
Note 4) Refer to page 1196 for details about the enclosure.  
Note 5) Indicate the I/O unit part numbers, following the ordering example on page 1164.

#### 11 Number of input blocks (Enter only for S kit compliant with EX250.)

|     |                       |
|-----|-----------------------|
| Nil | Without SI Unit (SDO) |
| 0   | Without input block   |
| 1   | With 1 input block    |
| ... | ...                   |
| 4   | With 4 input blocks   |
| ... | ...                   |
| 8   | With 8 input blocks   |

#### 12 Input block type (Enter only for S kit compliant with EX250.)

|     |                     |
|-----|---------------------|
| Nil | Without input block |
| 1   | M12, 2 inputs       |
| 2   | M12, 4 inputs       |
| 3   | M8, 4 inputs        |

#### 13 Input block COM (Enter only for S kit compliant with EX250.)

|     |   |
|-----|---|
| Nil | PNP sensor input or without input block |
| N   | NPN sensor input                        |

#### 14 Option

|                    |  |
|--------------------|--|
| Nil                | None   |
| K                  | Special wiring specifications (except for double wiring) |
| N                  | With name plate (available for T kit only)               |
| S <sup>Note)</sup> | Direct EXH outlet with built-in silencer                 |

Note) The silencer is built into the R port passage of the end plate and the silenced air is exhausted from the R port.  
\* When two or more symbols are specified, indicate them alphabetically.  
Example: -KNS

Refer to the **Web Catalog** and the Operation Manual for the details of EX600 Integrated-type (For I/O) Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

## 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<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2)          | 4 | 3-position exhaust center<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2)  |
|   | 2-position double (Metal)<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2)  | 5 | 3-position pressure center<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2) |
| 2 | 2-position double (Rubber)<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2) | 6 | 3-position double check<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2)    |
|   | 3-position closed center<br>(A) (B)<br>4, 2<br><br>5 13<br>(R1) (P) (R2)   |   |  |

## (B) Seal type

|   |             |
|---|-------------|
| 0 | Metal seal  |
| 1 | Rubber seal |

## (C) Function

|                        |                          |
|------------------------|--------------------------|
| Nil <sup>Note 1)</sup> | Standard (0.95 W)        |
| Y                      | Low wattage type (0.4 W) |
| R <sup>Note 2)</sup>   | 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 <sup>Note)</sup> |
| 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<br>(Tool required)<br>  |
| B   | Push-turn locking type<br>(Tool required)<br> |
| C   | Turn locking type (Manual)<br>                |

# Base Mounted Plug-in Unit

EX260 Safety Communication Protocol (PROFIsafe)

# VQC4000 Series



RoHS

## Using the safety communication protocol

Refer to the EX260 Web Catalog for details on units that support the safety communication protocol. When using a manifold valve within an ISO 13849-compliant safety system, the device needs to be considered from both the pneumatic circuit and the electric side.

Devices (including valves) need to be selected based on whether their functions are in line with the safety level of the equipment as a whole.

The use of valves that have been validated as being compliant with ISO 13849-2 may be required.

For details on valves that have been validated, please contact SMC.

In addition, refer to "Safety Instructions" for precautions on model selection.

Refer to page 1160 for details on manifolds that support Fieldbus and Industrial Ethernet.

## How to Order Manifolds

VV5QC 4 1 - 16 02 SFP N -

VQC4000 series •

Base mounted plug-in •

1 2 3 4 5 6

### 1 Valve stations

| Symbol | Stations    | Note  |
|--------|-------------|---|
| 01     | 1 station   | Double wiring (Note 1)  |
| :      | :           |   |
| 12     | 12 stations |   |
| 01     | 1 station   | Special wiring spec. (Note 2)<br>(Up to 24 solenoids available) |
| :      | :           |   |
| 16     | 16 stations |   |

Note 1) Double wiring: 2-position single, double, and 3-position valves can be used on all manifold stations.

Use of a 2-position single solenoid will result in an unused control signal.

If this is not desired, order with a specified layout.

Note 2) Special wiring spec.: Indicate "K" for an option. Indicate the wiring specifications on the manifold specification sheet. (Note that 2-position double, and 3-position valves cannot be used where single wiring has been specified.)

### 2 Cylinder port size

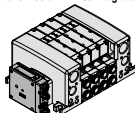
|     |                            |     |                   |
|-----|----------------------------|-----|-------------------|
| C6  | With ø6 One-touch fitting  | N11 | For ø3/8"         |
| C8  | With ø8 One-touch fitting  | 02  | 1/4               |
| C10 | With ø10 One-touch fitting | 03  | 3/8               |
| C12 | With ø12 One-touch fitting | B   | Bottom ported 1/4 |
| N7  | For ø1/4"                  | CM  | Mixed             |
| N9  | For ø5/16"                 |     |                   |

### 3 Thread type

|     |      |
|-----|------|
| Nil | Rc   |
| F   | G    |
| N   | NPT  |
| T   | NPTF |

### 4 Kit type/Electrical entry/Cable length

**S** Kit  
Serial transmission: EX260 integrated-type (for output)



SI Unit: EX260

IP67 compliant

| Symbol | Protocol        | Number of outputs | Communication connector | Stations         |
|--------|-----------------|-------------------|-------------------------|------------------|
| SD0A   | Without SI unit |                   |                         | 1 to 12 stations |
| SFP    | PROFIsafe       | 32                | M12                     | stations         |

### 5 SI unit output polarity

| SI unit output polarity | EX260 integrated-type (for output) serial transmission system |
|-------------------------|---|
|                         | PROFIsafe   |
| N                       | Negative common   |
|                         | ○   |

Note) Positive common (NPN) type is not applicable.

### 6 Option

|          |   |
|----------|---|
| Nil      | None  |
| K        | Special wiring spec. (Except double wiring) |
| S (Note) | Direct EXH outlet with built-in silencer    |

Note) The silencer is built into the R port passage of the end plate and the silenced air is exhausted from the R port.

\* When two or more symbols are specified, indicate them alphabetically.  
Example: -KS

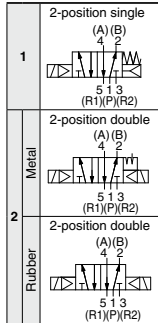
## How to Order Valves

For details on valves that have been validated, please contact SMC.

## How to Order Valves

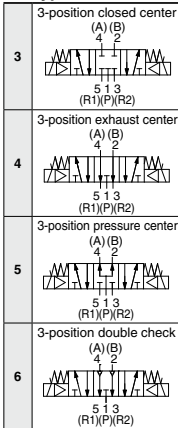
## Plug-in

VQC5 1 0 0 - 5 1 -



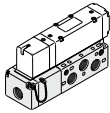
Note) For double check type, refer to the **Web Catalog** of the VQ4000/5000 series.

## Type of actuation



## Body

**0:** Plug-in sub-plate



## Seal

|          |             |
|----------|-------------|
| <b>0</b> | Metal seal  |
| <b>1</b> | Rubber seal |

## Function

|                     |                          |
|---------------------|--------------------------|
| <b>Nil</b> (Note 1) | Standard (0.95 W)        |
| <b>Y</b>            | Low wattage type (0.4 W) |
| <b>R</b> (Note 2)   | External pilot           |

Note 1) When the power is energized continuously, refer to "Specific Product Precautions 1" on page 1232.

Note 2) For details about external pilot type, refer to the **Web Catalog** of the VQ4000/5000 series.

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

## Thread type

|            |      |
|------------|------|
| <b>Nil</b> | Rc   |
| <b>N</b>   | NPT  |
| <b>T</b>   | NPTF |
| <b>F</b>   | G    |

## Port size

|            |                                  |
|------------|----------------------------------|
| <b>Nil</b> | Without sub-plate (For manifold) |
| <b>04</b>  | 1/2                              |

## Porting specifications

|            |               |
|------------|---------------|
| <b>Nil</b> | Side ported   |
| <b>B</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

|            |  |
|------------|--|
| <b>Nil</b> | Yes  |
| <b>E</b>   | Without light, with surge voltage suppressor |

## Coil voltage

|          |        |
|----------|--------|
| <b>5</b> | 24 VDC |
| <b>6</b> | 12 VDC |



[Option]

## How to Order Sub-plates

VQ5000 - PW - 04 -

## Porting specifications

|            |               |
|------------|---------------|
| <b>Nil</b> | Side ported   |
| <b>B</b>   | Bottom ported |

## Port size

|           |     |
|-----------|-----|
| <b>04</b> | 1/2 |
|-----------|-----|

Note) For bottom ported, port size is 1/2 only.

## CE/UKCA-compliant

|            |                   |
|------------|-------------------|
| <b>Nil</b> | —                 |
| <b>Q</b>   | CE/UKCA-compliant |

## Thread type

|            |      |
|------------|------|
| <b>Nil</b> | Rc   |
| <b>N</b>   | NPT  |
| <b>T</b>   | NPTF |
| <b>F</b>   | G    |

## Replacement of pilot valve assembly (Voltage)

- Refer to page 1230 for pilot valve assembly part numbers.
- Refer to page 1233 for replacement method.

# Base Mounted

## Plug-in Unit



# VQC5000 Series

### S kit

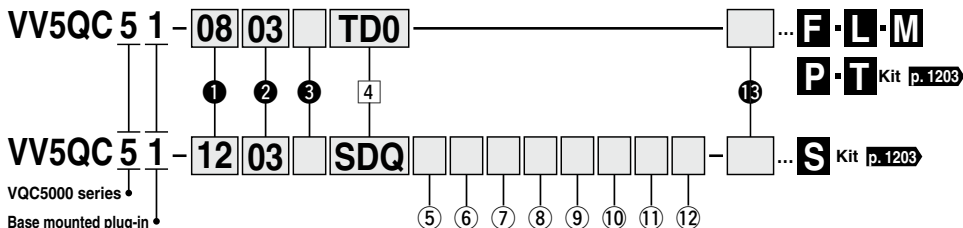
The selectable items vary for each series. Select from the applicable item numbers in the table below.

| Series        | Item number (Refer to pages 1202 and 1203) |
|---------------|--|
| EX600         | ①, ②, ③, ④, ⑦, ⑧, ⑨, ⑩                     |
| EX245         | ①, ②, ③, ④, ⑤, ⑥, ⑩                        |
| EX250         | ①, ②, ③, ④, ⑧, ⑩, ⑪, ⑫, ⑬                  |
| EX500,260,126 | ①, ②, ③, ④, ⑧, ⑩                           |

The EX250/500 series is to be discontinued. When designing new equipment and facilities, consider using another series (EX260/EX600) instead.

Refer to page 1206 for details on manifolds that support safety communication (PROFIsafe).

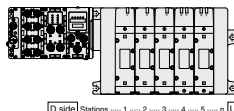
## How to Order Manifold



### ① Valve stations

|     |           |
|-----|-----------|
| 01  | 1 station |
| ... | ...       |

The maximum number of stations differs depending on the electrical entry. (Refer to ④.)  
 Note) In the case of compatibility with the S kit/As-Interface, the maximum number of solenoids is as shown below, so please be careful of the number of stations.  
 8 in/8 out: Maximum 8 solenoids  
 4 in/4 out: Maximum 4 solenoids



\* Stations are counted from station 1 on the D-side.

### ② Cylinder port size

|    |                   |
|----|-------------------|
| 03 | 3/8               |
| 04 | 1/2               |
| B  | Bottom ported 1/2 |
| CM | Mixed             |

### ③ Thread type

|     |      |
|-----|------|
| Nil | Rc   |
| F   | G    |
| N   | NPT  |
| T   | NPTF |

### ④ Input block type

(Enter only for S kit compliant with EX250.)

|     |                     |
|-----|---------------------|
| Nil | Without input block |
| 1   | M12, 2 inputs       |
| 2   | M12, 4 inputs       |
| 3   | M8, 4 inputs        |

### ⑤ Input block COM

(Enter only for S kit compliant with EX250.)

|     |   |
|-----|---|
| Nil | PNP sensor input or without input block |
| N   | NPN sensor input                        |

### ⑥ Option

|     |  |
|-----|--|
| Nil | None   |
| K   | Special wiring specifications (except for double wiring) |
| N   | With name plate (available for T kit only)               |

### ⑦ With or without I/O modules (Enter EX245-compliant S kit only.)

|     |                    |
|-----|--------------------|
| Nil | Without I/O module |
| Y   | With I/O module    |

### ⑧ Number of I/O modules (Enter EX245-compliant S kit only.)

|     |                                      |
|-----|--------------------------------------|
| Nil | Without I/O module (Without SI Unit) |
| 1   | 1 station                            |
| ... | ...                                  |
| 8   | 8 stations                           |

### ⑨ End plate type

(Enter only for EX600-compliant S kit.)

|     |   |
|-----|---|
| Nil | Without end plate   |
| 2   | M12 power supply connector, B-coded                           |
| 3   | 7/8 inch power supply connector                               |
| 4   | M12 power supply connector IN/OUT, A-coded, Pin arrangement 1 |
| 5   | M12 power supply connector IN/OUT, A-coded, Pin arrangement 2 |

Note) Without SI Unit, the symbol is nil.  
 \* The pin layout for "4" and "5" pin connector is different.

### ⑩ I/O Unit stations

(Enter only for EX600-compliant S kit.)

|     |            |
|-----|------------|
| Nil | None       |
| 1   | 1 station  |
| ... | ...        |
| 9   | 9 stations |

Note 1) Without SI Unit, the symbol is nil.  
 Note 2) SI Unit is not included in I/O Unit stations.  
 Note 3) When I/O Unit is selected, it is shipped separately, and assembled by customer. Refer to the attached operation manual for mounting method.  
 Note 4) Refer to page 1195 for details about the enclosure.  
 Note 5) Indicate the I/O unit part numbers, following the ordering example on page 1204.

### ⑪ Number of input blocks

(Enter only for S kit compliant with EX250.)

|     |                       |
|-----|-----------------------|
| Nil | Without SI Unit (SD0) |
| 0   | Without input block   |
| 1   | With 1 input block    |
| ... | ...                   |
| 4   | With 4 input blocks   |
| ... | ...                   |
| 8   | With 8 input blocks   |

### ⑫ SI Unit output polarity

| SI Unit output polarity | EX250 integrated-type (for I/O) serial transmission system |              |              |
|-------------------------|--|--------------|--------------|
|                         | DeviceNet®   | AS-Interface | EtherNet/IP™ |
| Nil + COM               | —  | —            | —            |
| N - COM                 | ○  | ○            | ○            |

| SI Unit output polarity | EX260 integrated-type (for output) serial transmission system |            |             |         |          |          |              |                    |
|-------------------------|---|------------|-------------|---------|----------|----------|--------------|--------------------|
|                         | PROFINET  | DeviceNet® | PROFIBUS DP | CC-Link | EtherCAT | PROFINET | EtherNet/IP™ | Extended POWERLINK |
| Nil + COM               | —   | —          | —           | —       | —        | —        | —            | —                  |
| N - COM                 | ○   | ○          | ○           | ○       | ○        | ○        | ○            | ○                  |

| SI Unit output polarity | EX500 Gateway Decentralized System 2 (128 points) |   |
|-------------------------|---|---|
|                         | —   | — |
| Nil + COM               | —   | — |
| N - COM                 | ○   | ○ |

| SI Unit output polarity | EX600 integrated-type (for I/O) serial transmission system (Fieldbus system) |             |         |              |          |                                       |                                   |                 |
|-------------------------|--|-------------|---------|--------------|----------|---------------------------------------|-----------------------------------|-----------------|
|                         | DeviceNet®   | PROFIBUS DP | CC-Link | EtherNet/IP™ | PROFINET | EtherNet/IP™ compatible wireless base | PROFINET compatible wireless base | Wireless remote |
| Nil + COM               | ○  | ○           | ○       | ○            | ○*2      | ○                                     | ○                                 | ○               |
| N - COM                 | ○  | ○           | ○       | ○            | ○        | ○                                     | ○                                 | ○               |

\*1 Leave the box blank for without SI Unit (SD0□, SD60).

\*2 Positive common is not available for PROFINET (OPC UA).

Refer to the **Web Catalog** and the Operation Manual for the details of EX600 Integrated-type (For I/O) Serial Transmission System. Please download the Operation Manual via our website, <https://www.smcworld.com>

# VQC5000 Series

## How to Order Valves

VQC5 1 0 0 - 5 - - 1

VQC5000 series • (A) (B) (C) (D) (E) (F)

### (A) Type of actuation

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

### (B) Seal type

|   |             |
|---|-------------|
| 0 | Metal seal  |
| 1 | Rubber seal |

### (C) Function

|     |                          |
|-----|--------------------------|
| Nil | Standard (0.95 W)        |
| Y   | Low wattage type (0.4 W) |
| R   | External pilot           |

Note 1) When the power is energized continuously, refer to "Specific Product Precautions 1" on page 1232.

Note 2) For details about external pilot type, refer to the [Web Catalog](#) of the VQ4000/5000 series.

\* When multiple symbols are specified, indicate them alphabetically.

### (D) Coil voltage

|   |        |
|---|--------|
| 5 | 24 VDC |
| 6 | 12 VDC |

Note) S kit is only available for 24 VDC.

### (E) Light/Surge voltage suppressor

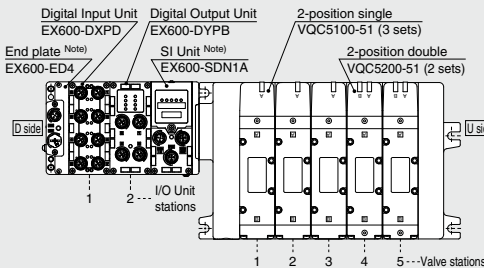
|     |  |
|-----|--|
| Nil | Yes  |
| E   | Without light, with surge voltage suppressor |

### (F) Manual override

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

## How to Order Manifold Assembly

### Example (VV5QC51-SD6□)



VV5QC51-0503SD6Q4N2...1 set (S kit 5-station manifold base part number)  
 \*VQC5100-51...3 sets (2-position single part number)  
 \*VQC5200-51...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.

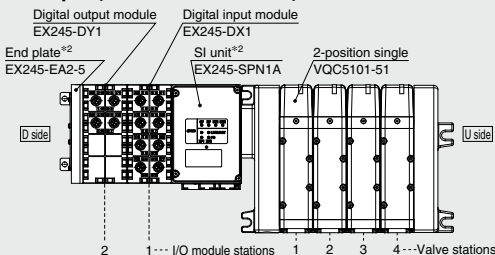
Note) Do not enter the SI Unit part number and the end plate part number together.

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\*1

### Example (VV5QC51-SDAAN□)



VV5QC51-0404SDAANY2...1 set (S kit 4-station manifold base part no.)  
 \*VQC5101-51...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.

\*2 Do not enter the SI Unit part number and the end plate part number together.

\*1 The EX245/250 I/O module (block) station arrangement is numbered starting from the SI unit side.

# Base Mounted Plug-in Unit

EX260 Safety Communication Protocol (PROFIsafe)

# VQC5000 Series



## Using the safety communication protocol

Refer to the EX260 Web Catalog for details on units that support the safety communication protocol. When using a manifold valve within an ISO 13849-compliant safety system, the device needs to be considered from both the pneumatic circuit and the electric side.

Devices (including valves) need to be selected based on whether their functions are in line with the safety level of the equipment as a whole.

The use of valves that have been validated as being compliant with ISO 13849-2 may be required.

For details on valves that have been validated, please contact SMC.

In addition, refer to "Safety Instructions" for precautions on model selection.

Refer to page 1202 for details on manifolds that support Fieldbus and Industrial Ethernet.

## How to Order Manifolds

VV5QC51-1203 SQA-  
VQC5000 series  
Base mounted plug-in

1 2 3 4 5 6

### 1 Valve stations

|     |             |
|-----|-------------|
| 01  | 1 station   |
| ... | ...         |
| 12  | 12 stations |

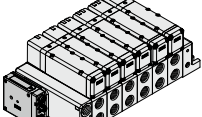
### 2 Cylinder port size

|    |                   |
|----|-------------------|
| 03 | 3/8               |
| 04 | 1/2               |
| B  | Bottom ported 1/2 |
| CM | Mixed             |

### 3 Thread type

|     |      |
|-----|------|
| Nil | Rc   |
| F   | G    |
| N   | NPT  |
| T   | NPTF |

### 4 Kit type/Electrical entry/Cable length

|                       |  |                  |                         |                       |
|-----------------------|--|------------------|-------------------------|-----------------------|
| <b>S</b>              | <b>Kit</b>   |                  |                         |                       |
|                       | Serial transmission: EX260 integrated-type (for output)                            |                  |                         |                       |
|                       |  |                  |                         |                       |
| SI Unit: <b>EX260</b> |  |                  |                         | <b>IP67 compliant</b> |
| Symbol                | Protocol   | Number of output | Communication connector | Stations              |
| <b>SD0</b>            | Without SI unit  |                  |                         | 1 to 12 stations      |
| <b>SFP</b>            | PROFIsafe  | 32               | M12                     |                       |

### 5 SI unit output polarity

|                         |   |
|-------------------------|---|
| SI unit output polarity | EX260 integrated-type (for output) serial transmission system |
|                         | PROFIsafe   |
| N                       | Negative common   |
|                         | ○   |

Note) Positive common (NPN) type is not applicable.

### 6 Option

|     |   |
|-----|---|
| Nil | None  |
| K   | Special wiring spec. (Except double wiring) |

## How to Order Valves

For details on valves that have been validated, please contact SMC.