

Unit Manifold Valve

Compact Direct Operated 3 Port Solenoid Valve

Series VV061



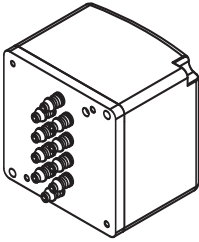
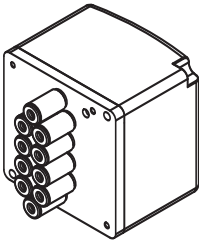
How to Order

VV061-08 40-5 H-

Valve stations

| Symbol | Stations |
|--------|------------|
| 04 | 4 stations |
| 08 | 8 stations |

1/2/3 port size

| Symbol | Port size |
|--------|--|
| 40 | Barb fitting (Applicable tubing $\phi 4/\phi 2.5$)  |
| C2 | $\phi 2$ one-touch fitting  |

Note) The applicable tube of the barb fitting shows the tube outside diameter/inside diameter.

Rated voltage

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

Coil specifications

| | |
|-----|--|
| Nil | Standard (With light/surge voltage suppressor) |
| T | With power-saving circuit (Continuous duty type) |

If the coil will be continuously energized for a long period, be sure to choose the coil with power-saving circuit. (See the back page 2 for details.)

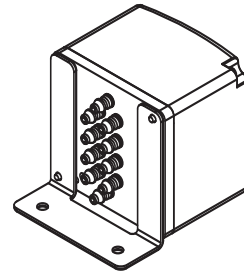
Note 1) Both the standard coil and the coil with power-saving circuit have light/surge voltage suppressor.

Note 2) The wiring specification is positive common only.

Bracket

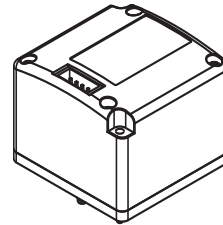
Nil: Without bracket
(2 mounting screws M2 x 27 are included.)

F: With bracket

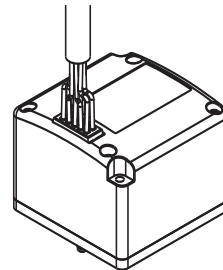


Connector cable

Nil: Without connector cable



C1: With connector cable (Length 300 mm)
C2: With connector cable (Length 600 mm)
C3: With connector cable (Length 1000 mm)



Operating pressure range

| | |
|---|-------------------------------|
| H | Standard (0 to 0.7 MPa) |
| L | High flow type (0 to 0.3 MPa) |

Series VV061



Unit Manifold Specifications

| | | | |
|---|-----------------------|-------------------------|---------------|
| Fluid | | Air | |
| Operating pressure range (MPa) | Standard | 0 to 0.7 | |
| | High flow type | 0 to 0.3 | |
| Vacuum specification (MPa) | Standard | 1(P) port | 3(R) port |
| | | -100 kPa to 0.6 | -100 kPa to 0 |
| | High flow type | -100 kPa to 0.2 | -100 kPa to 0 |
| Ambient and fluid temperature (°C) | | -10 to 50 (No freezing) | |
| Response speed (ms) ^{Note 1)} | | 10 ms or less | |
| Max. operating frequency (Hz) | | 20 | |
| Lubrication | | Not required | |
| Mounting orientation | | Unrestricted | |
| Impact/Vibration resistance (m/s²) ^{Note 2)} | | 150/30 | |
| Enclosure | | Dustproof | |

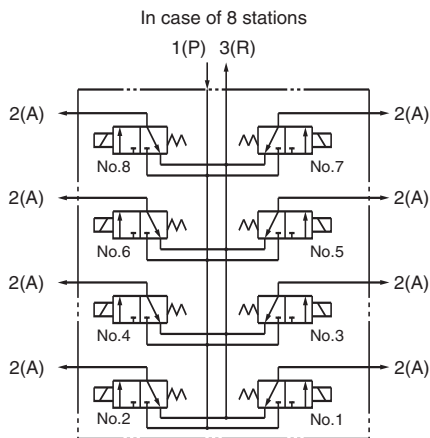
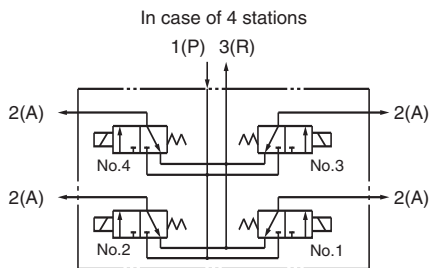
Note 1) Based on dynamic performance test, JIS B8374-1981. (Standard type: Coil temperature 20°C, at rated voltage.)

Note 2) Impact resistance: No malfunction occurred when it is tested with a drop tester in the axial direction and at the right angles to the main valve and armature in both energized and de-energized states every once for each condition. (Value in the initial state)

Vibration resistance: No malfunction occurred in one sweep test between 45 and 2000 Hz. Test was performed to axis and right angle directions of the main valve and armature when pilot signal is ON and OFF. (Value in the initial state)

The impact/vibration resistance is 50/10 [m/s²] for the manifold with a power-saving circuit (0.23 W).

Symbol



Solenoid Specifications

| | | |
|---|--|--------|
| Coil rated voltage | 12, 24 VDC | |
| Allowable voltage fluctuation ^{Note)} | Standard | 24 VDC |
| | Power-saving type | 12 VDC |
| Power consumption (W) | Standard: 0.55 | |
| | With power-saving circuit (Continuous duty type): 0.23 | |
| Surge voltage suppressor | Diode | |
| Indicator light | LED | |

Note) The voltage fluctuation should be within the above range because the internal circuit can cause voltage drop.

Flow Characteristics

| Type | Effective area (mm ²) | |
|----------------|-----------------------------------|-----------|
| | 1(P)→2(A) | 2(A)→3(R) |
| Standard | 0.07 | 0.11 |
| High flow type | 0.16 | 0.21 |

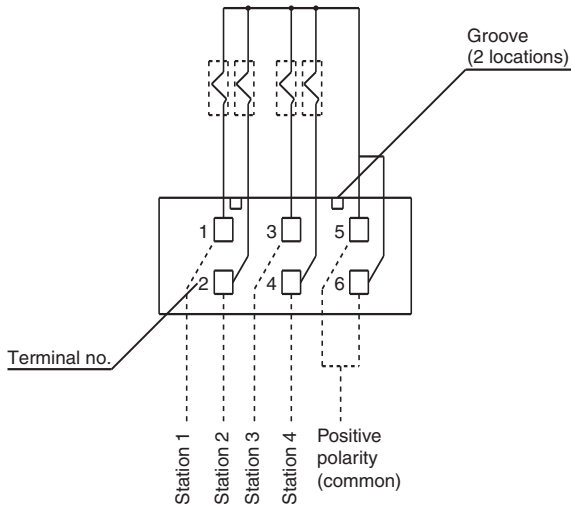
Weight

| Stations | Port size | Weight (g) ^{Note)} |
|------------|----------------------|-----------------------------|
| 4 stations | Barb fitting | 47 (56) |
| | ø2 one-touch fitting | 53 (62) |
| 8 stations | Barb fitting | 75 (85) |
| | ø2 one-touch fitting | 84 (94) |

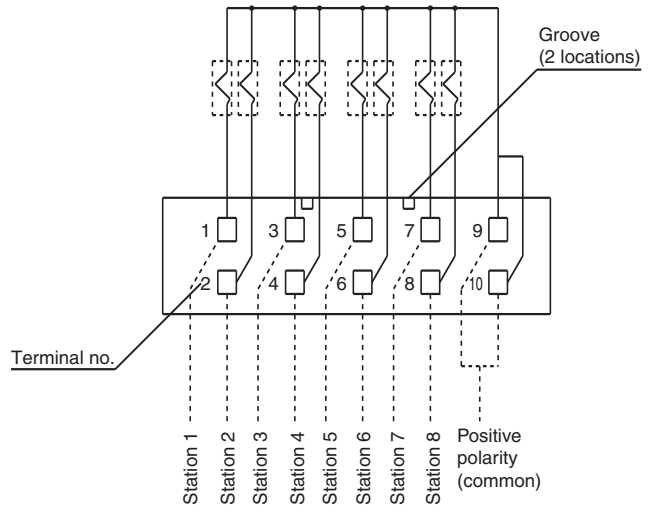
Note) (): values with bracket

Unit Manifold Internal Wiring

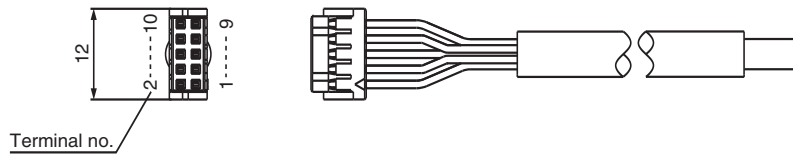
In case of 4 stations



In case of 8 stations



Connector Cable Specifications



Connector Cable Color List of Each Terminal No.

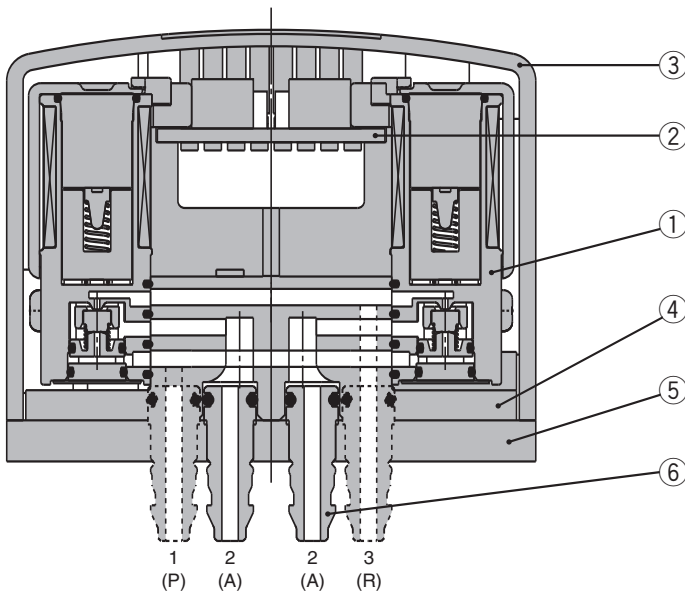
In case of 4 stations

| Terminal no. | Lead wire color |
|--------------|-----------------|
| 1 | Brown |
| 2 | Red |
| 3 | Orange |
| 4 | Yellow |
| 5 | Green |
| 6 | Blue |

In case of 8 stations

| Terminal no. | Lead wire color |
|--------------|-----------------|
| 1 | Brown |
| 2 | Red |
| 3 | Orange |
| 4 | Yellow |
| 5 | Green |
| 6 | Blue |
| 7 | Purple |
| 8 | Gray |
| 9 | White |
| 10 | Black |

Construction



Component Parts

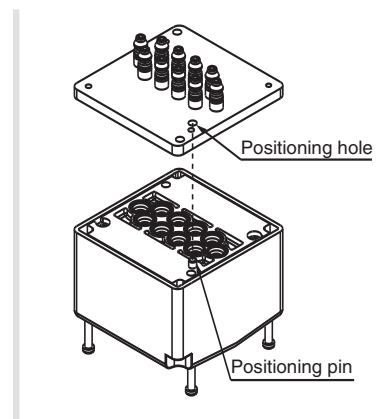
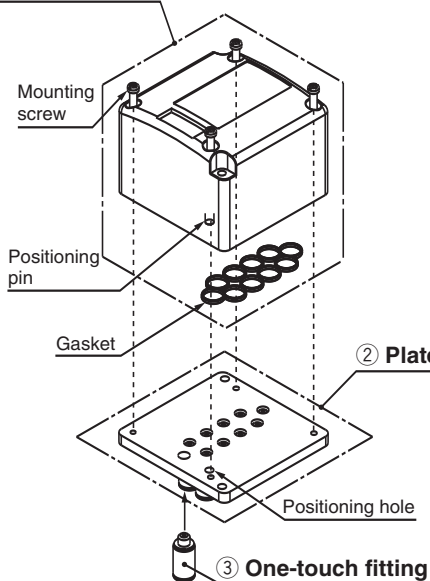
| No. | Description | Material | Note |
|-----|----------------|----------|---|
| 1 | Solenoid valve | — | Unit assembly |
| 2 | PCB assembly | — | |
| 3 | Cover | Resin | (4 mounting screws M2 x 27 L are included.) |
| 4 | Base | Resin | |
| 5 | Plate | Aluminum | Plate assembly |
| 6 | Barb fitting | Aluminum | |

Note) As this drawing shows the internal construction, it is different from the actual product.

Series VV061

Replacement Parts

① Unit assembly



How to Mount Unit Assembly

Fit the positioning pin on the unit assembly to the positioning hole on the plate, and assemble them.

⚠ Caution

Tightening torque: 0.12 N·m

① Unit Assembly Part No.

VV061-08 00-5 H

Valve stations

| Symbol | Stations |
|--------|------------|
| 04 | 4 stations |
| 08 | 8 stations |

1/2/3 port size

| Symbol | Port size |
|--------|------------------------|
| 00 | Without plate assembly |

Rated voltage

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

Coil specifications

| | |
|-----|--|
| Nil | Standard (With light/surge voltage suppressor) |
| T | With power-saving circuit (Continuous duty type) |

* If the coil will be continuously energized for a long period, be sure to choose the coil with power-saving circuit.

Operating pressure range

| | |
|---|-------------------------------|
| H | Standard (0 to 0.7 MPa) |
| L | High flow type (0 to 0.3 MPa) |

* 4 mounting screws (M2 x 27 L) and one gasket are included.

② Plate Assembly Part No.

| Stations | Fitting | Barb fitting | One-touch fitting |
|------------|---------|---------------------------|--|
| 4 stations | | PV060-10-8A | PV060-10-10A |
| 8 stations | | PV060-10-7A | PV060-10-9A |
| Note | | Barb fitting is included. | One-touch fitting is mounted on the plate. |

③ Fitting Part No.

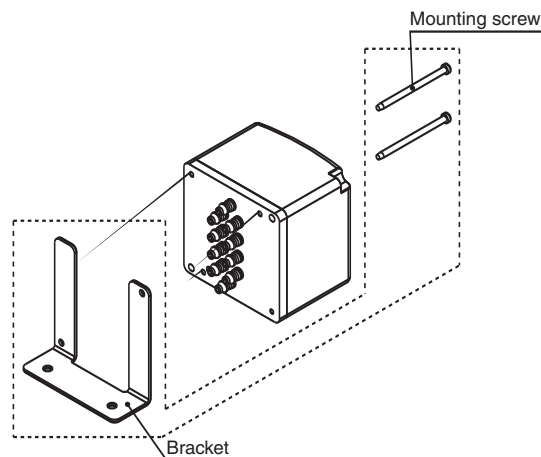
If only the fitting is needed, order with one of the part numbers below.

| Description | Barb fitting | One-touch fitting |
|-------------|--------------|-------------------|
| Part no. | PV060-73-1A | KJS02-M3 |

* The minimum ordering quantity is 10 pcs.

④ Bracket Assembly Part No.

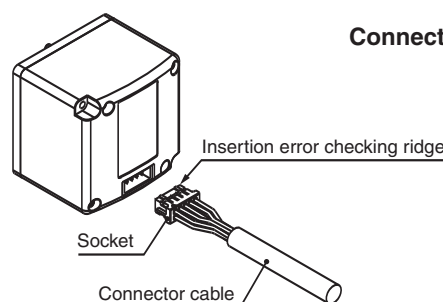
| Description | Part no. |
|--------------------------|---------------------------------------|
| Bracket (for 4 stations) | PV060-80-2A (Mounting screw included) |
| Bracket (for 8 stations) | PV060-80-1A (Mounting screw included) |



⑤ Connector Cable Part No.

For 4 stations **PV060-40-4A-** []

For 8 stations **PV060-40-3A-** []

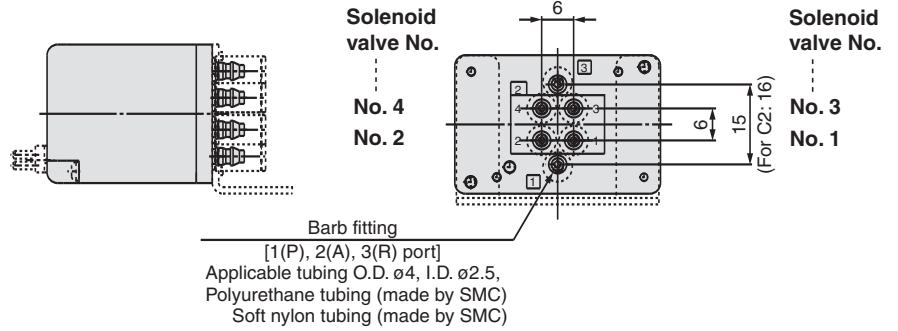
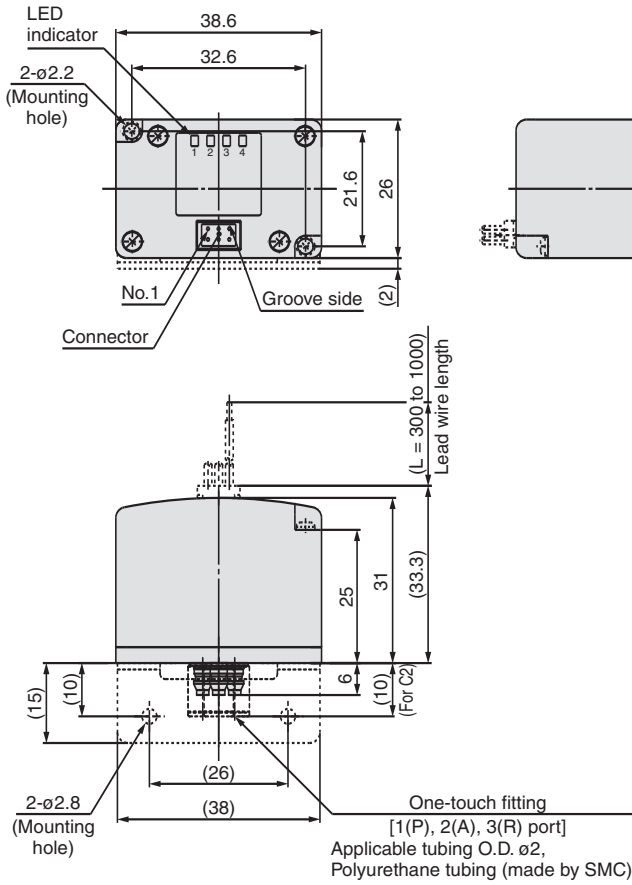


Connector cable length

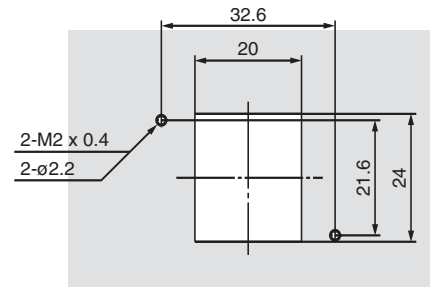
| | |
|-----|---------|
| Nil | 300 mm |
| 6 | 600 mm |
| 10 | 1000 mm |

Dimensions

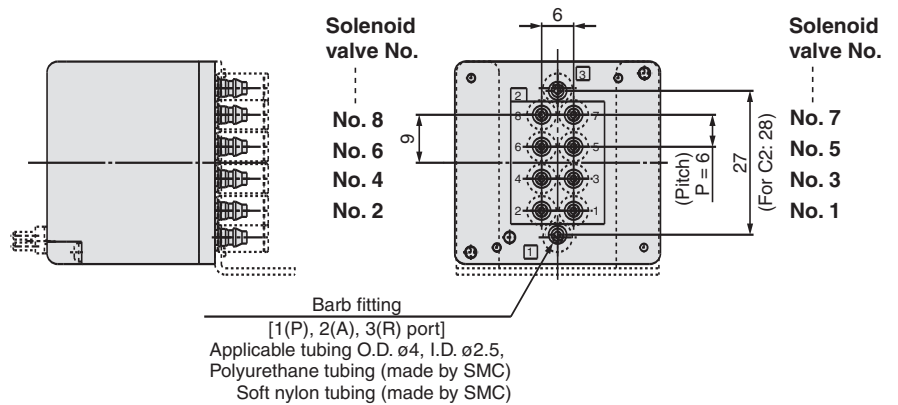
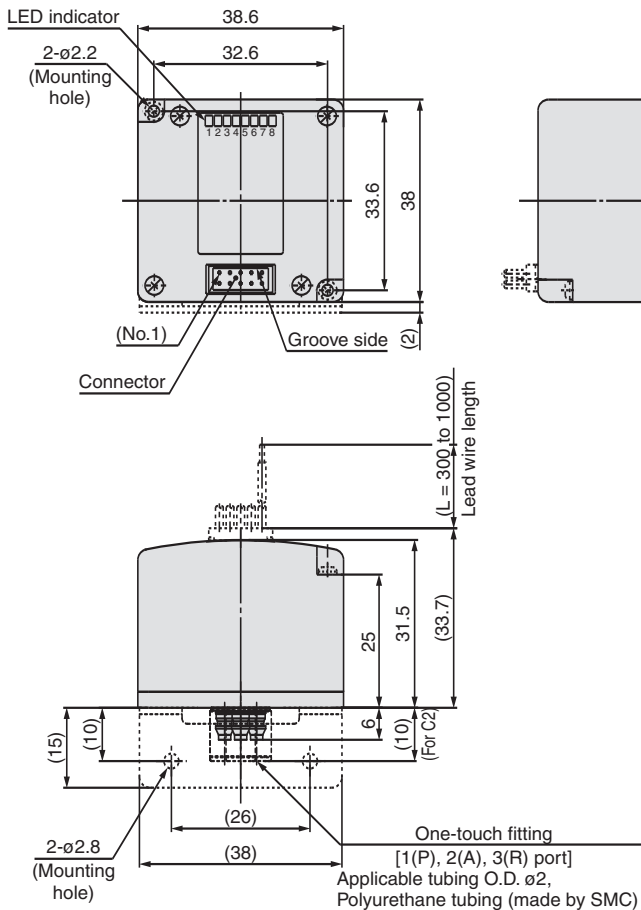
VV061-04



Cut dimension for panel mount (mounting surface)



VV061-08



Cut dimension for panel mount (mounting surface)

