



CV Series Precautions 1

Be sure to read this before handling the products.
Applicable Series: CVJ5, CVJ3

Manual Operation

Warning

1. Since the devices in connection are operated by manual override, make sure that there is no danger.

■ Non-locking push type (Standard type)

Push in the direction the arrow indicates.



Solenoid Valve for 200/220 VAC Specifications

Warning

1. Grommet-type and L/M plug connector-type solenoid valves for AC specifications have built-in rectifier circuits in the pilot valves and drive the DC coil.

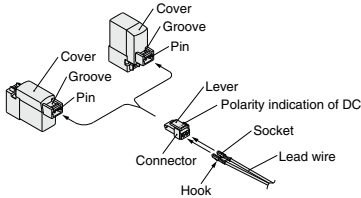
The rectifier circuit in the pilot valve for 200/220 VAC specifications generates heat when the valve is energized. The outside surface may, depending on the energizing conditions, become very hot, so please do not touch the valve, as this may result in burns.

Plug Connector

Caution

1. Connector installation and removal

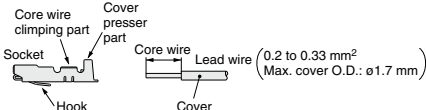
- To install the connector, squeeze the lever and the connector body with your fingers, slide the connector straight over the pin, and lock it in place by pushing the tab of the lever into the groove in the cover.
- To remove the connector, press the lever with your thumb to disengage the tab from the groove, and pull the connector straight out.



2. Crimping the lead wire into the socket

Peel approximately 3.2 to 3.7 mm of insulation from the tip of the lead wire, make sure that the ends of the core wire are even, insert the wire into the socket, and crimp it with a crimping tool. At this time, make sure that the insulation of the lead wire does not enter the area in which the core wire is crimped. Use a special crimping tool.

(Please contact SMC for details on the special crimping tool.)



Plug Connector

Caution

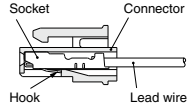
3. Installation and removal of the sockets containing lead wires

• Installation:

Insert the sockets into the square holes of the connector (marked + and -, respectively), pinch the lead wires to push them in entirely, allowing the hook on each socket to engage with the seat of the connector, thus locking the socket in place. (Because the hook is open, it locks automatically when the socket is pushed in.) Then, lightly pull on the lead wires to verify that the sockets have been properly locked.

• Removal:

To pull the sockets out of the connector, use a rod with a small tip (approximately 1 mm) to press the hook of the socket and pull the lead wire out. To reuse the socket, expand the hook outward.



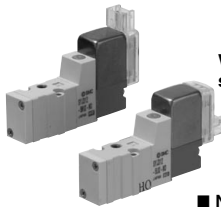
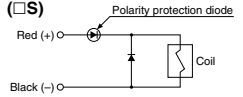
Surge Voltage Suppressor

Caution

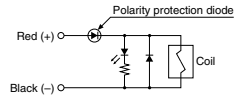
For DC:

Grommet type, L/M plug connector type

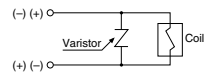
■ Standard type (With polarity) With surge voltage suppressor (□S)



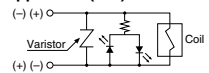
With light/surge voltage suppressor (□Z)



■ Non-polar type With surge voltage suppressor (□R)



With light/surge voltage suppressor (□U)



- Please correctly connect the lead wires to the + (positive) and - (negative) points on the connector when using the standard type. (For non-polar types, the lead wires can be connected in any order.)
- Because standard types with voltage specifications other than 24 and 12 VDC do not have polarity protection diodes, be careful not to mistake the polarity when connecting lead wires.
- If the lead wires are connected beforehand, the red wire is +, and the black wire is -.



CV Series Precautions 2

Be sure to read this before handling the products.
Applicable Series: CVM5, CVM3, MVGQ

Surge Voltage Suppressor

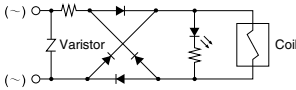
⚠ Caution

For AC:

(S option is not available since the voltage surge is suppressed by the rectifier.)

Grommet, L/M plug connector

With indicator light (□Z)



Selection

⚠ Warning

1. Please confirm product specifications

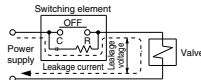
The products in this catalog are designed to be used with compressed air systems. Do not use them if pressure or temperature exceed specifications, since this may cause damage and/or malfunctions. (Refer to the specifications.)

2. Long-term continuous energization

- When valves are energized continuously for a long time, it may cause performance deterioration of solenoid valves and service life shortage, and adversely affect peripheral devices, due to temperature rise caused by the heat generation of coil.

3. Voltage leaking

When a resistor is used along with the switching element and a C-R element is used for protecting the switching element (surge voltage protector), be aware that there is an increase in leaked voltage when the leakage current flows through the resistor or the C-R element. Residual leaked voltage must be kept as follows.



For DC coil

3% of the rated voltage or below.

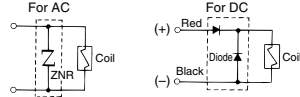
For AC coil

8% of the rated voltage or below.

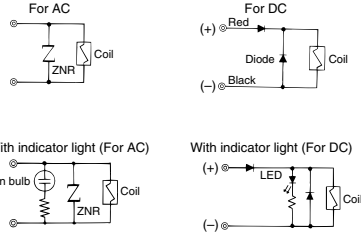
Light/Surge Voltage Suppressor

⚠ Caution

Grommet type

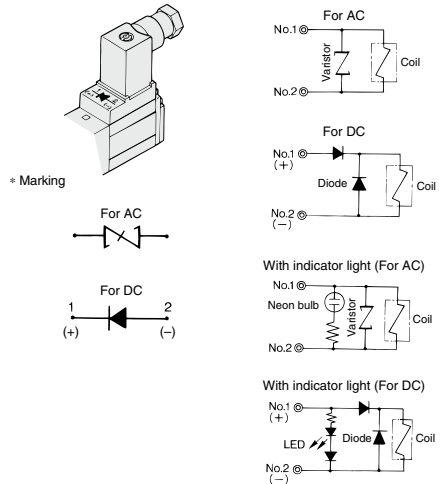


L/M plug connector type



In the case of DC wiring, connect the wires by matching their polarities to the + and - marks. If the lead wires are connected beforehand, the red wire is +, and the black wire is -.

DIN terminal



In the case of DC wiring, connect terminal no. 1 of the connector to the positive + side, and terminal no. 2 to the negative - side. (Refer to the marks on the terminal board.)

CVQ

CVQM

CVJ□

CVM□

CV3

CVS1

MVGQ

D-□

-X□



CV Series Precautions 3

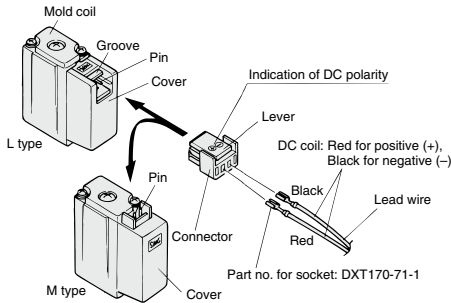
Be sure to read this before handling the products.
Applicable Series: CVM5, CVM3, MVGQ

Plug Connector

⚠ Caution

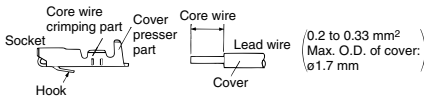
1. Connector installation and removal

- To install the connector, squeeze the lever and the connector body with your fingers, slide the connector straight over the pin, and lock it in place by pushing the tab of the lever into the groove in the cover.
- To remove the connector, press the lever with your thumb to disengage the tab from the groove, and pull the connector straight out.



2. Crimping the lead wire into the socket

- Peel approximately 3.2 to 3.7 mm of insulation from the tip of the lead wire, make sure that the ends of the core wire are even, insert the wire into the socket, and crimp it with a crimping tool. At this time, make sure that the insulation of the lead wire does not enter the area in which the core wire is crimped. Use a special crimping tool. (Crimping tool: model no. DX170-75-1)



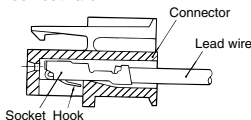
3. Installation and removal of the sockets containing lead wires

• Installation:

Insert the sockets into the square holes of the connector (marked + and -, respectively), then pinch the lead wires to push them in entirely, allowing the hook on each socket to engage with the seat of the connector, thus locking the socket in place. (Because the hook is open, it locks automatically when the socket is pushed in.) Then, lightly pull on the lead wires to verify that the sockets have been properly locked.

• Removal:

To pull the sockets out of the connector, use a rod with a small end (approximately 1 mm) to press the hook of the socket and pull the lead wire out. To reuse the socket, expand the hook outward.



Selection

⚠ Warning

1. Please confirm product specifications

The products in this catalog are designed to be used with compressed air systems. Do not use them if pressure or temperature exceed specifications, since this may cause damage and/or malfunctions. (Refer to the specifications.)

2. Long-term continuous energization

- When valves are energized continuously for a long time, it may cause performance deterioration of solenoid valves and service life shortage, and adversely affect peripheral devices, due to temperature rise caused by the heat generation of coil.