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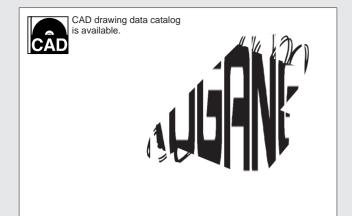
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# VALVES GENERAL CATALOG

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### **Handling Instructions and Precautions**

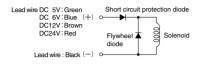


### Solenoid

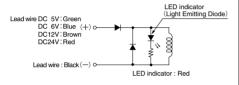
### Internal circuit

DC5V, DC6V, DC12V, DC24V

### Standard solenoid (Surge suppression)



# Solenoid with LED indicator (Surge suppression) Order code: -PSL, -PLL



Cautions: 1. Do not apply megger between the lead wires.

- The DC solenoid will not short circuit even if the wrong polarity is applied, but the valve will not operate.
- 3. Leakage current inside the circuit could result in failure of the solenoid valve to return, or in other erratic operation. Always use it within the range of the allowable leakage current. If circuit conditions, etc. cause the leakage current to exceed the maximum allowable leakage current, consult us.

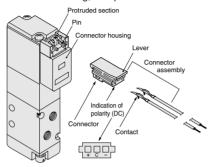


### Plug connector

### Attaching and removing plug connector

Use fingers to insert the connector into the pin, push it in until the lever claw latches onto the protruded section of the connector housing, and complete the connection.

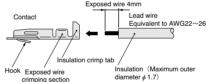
To remove the connector, squeeze the lever along with the connector, lift the lever claw up from the protruded section of the connector housing, and pull it out.



\* Illustration shows the 110 series.

### Crimping of connecting lead wire and contact

To crimp lead wires into contacts, strip off 4mm [0.16in.] of the insulation from the end of the lead wire, insert it into the contact, and crimp it. Be sure to avoid catching the insulation on the exposed wire crimping section.



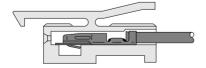
Cautions: 1. Do not pull hard on the lead wire.

 Always use a dedicated tool for crimping of connecting lead wire and contact.
 Contact: Model 702062-2M
 Manufactured by Sumiko Tech, Inc.
 Crimping tool: Model F1-702062
 Manufactured by Sumiko Tech, Inc.

### Attaching and removing contact and connector

Insert the contact with lead wire into a plug connector  $\square$  hole until the contact hook latches on and is secured to the plug connector. Confirm that the lead wire cannot be easily pulled out.

To remove it, insert a tool with a fine tip (such as a small screwdriver) into the rectangular hole on the side of the plug connector to push up on the hook, and then pull out the lead wire.



Cautions: 1. Do not pull hard on the lead wire. It could result in defective contacts, breaking wires, etc.

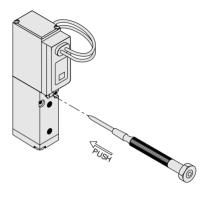
If the pin is bent, use a small screwdriver, etc. to gently straighten out the pin, and then complete the connection to the plug connector.



### Manual override

### Non-locking type

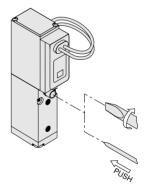
To operate the manual override, press it all the way down. The valve works the same as in an energized state as long as the manual override is pushed down, and returns to the rest position upon release.



### Locking protruding type

Use a small screwdriver to turn the adjusting knob several times in the clockwise direction, and lock the manual override in place. When locked, turning the adjusting knob several times in the counterclockwise direction releases a spring on the manual override, returns it to the original position, and releases the lock.

For the locking protruding type, when the adjusting knob is not turned, this type acts just like the non-locking type, the valve is energized as long as the manual override is pushed down, and it returns to the rest position upon release.



Cautions: 1. The 010 series valves are internal pilot type solenoid valves. As a result, the manual override cannot switch the main valve without air supplied from the the 1(P) port.

- Always release the lock of the locking protruding type manual override before commencing normal operation.
- Do not attempt to operate the manual override with a pin or other object having an extremely fine tip. It could damage the manual override button.
- Do not turn the adjusting knob more than needed. It could result in defective operation.



# Recommended fittings

### 010-4E1

| 0.0             |                   |                                |                                |
|-----------------|-------------------|--------------------------------|--------------------------------|
| Parts           | Connection port   | 4(A), 2(B) port                | 1(P) port                      |
| Quick fitting   |                   | TS3-M3M<br>TL3-M3M<br>TLL3-M3M | TS3-M3M<br>TL3-M3M<br>TLL3-M3M |
| TAC fitting     | For urethane tube | BF4BU-M3<br>BF3BU-M3           | BF4BU-M3<br>BF3BU-M3           |
| TAC fitting     | For nylon tube    | BF4-M3<br>BF3.2-M3             | BF4-M3<br>BF3.2-M3             |
| Muffler (for re | eference)         | _                              | _                              |

# A010-4E1-25

| Connection port Parts   | 4(A), 2(B) port                | 1(P) port                      | 3, 5(R) port                   |
|-------------------------|--------------------------------|--------------------------------|--------------------------------|
| Quick fitting           | TS3-M3M<br>TS4-M3M<br>TSH4-M3M | TS3-M3M<br>TS4-M3M<br>TSH4-M3M | TS3-M3M<br>TS4-M3M<br>TSH4-M3M |
| Muffler (for reference) | _                              | _                              | KM-03                          |