JUXTA H Series Instruction Manual

Model HC0
Output Isolator

JUXTA

1. GENERAL

The Model HC0 output Isolator is used to isolate a normalized 4 to 20 mA signal.

Accessories:

Spare fuse; 0.5A, 1 (Part number G9055ZF)
Tag number label ; 4 sheets

2. INSTALLATION AND WIRING

2.1 Installation

Since the isolator is used to detect minute signals, install it to the site with least temperature variation and least heat radiation and convection.

CAUTION

When the isolator is driven by 30V or more power supply, for the safety of operating personnel, install it so that the power supply terminals and printed circuit boards do not touch the body.

(1) When installing in the HB-16 Rack mounting enclosure, follow the instruction manual of Model HB-16.

(2) When installing directly to the instrumentation panel, prepare mounting angles referring to Figure 2. When the isolator is shielded with a metallic case, ground the case.

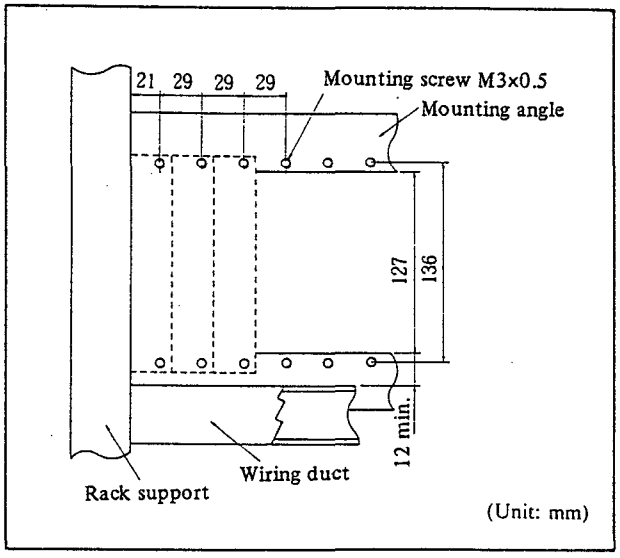

Figure 2. Direct Rack Mounting

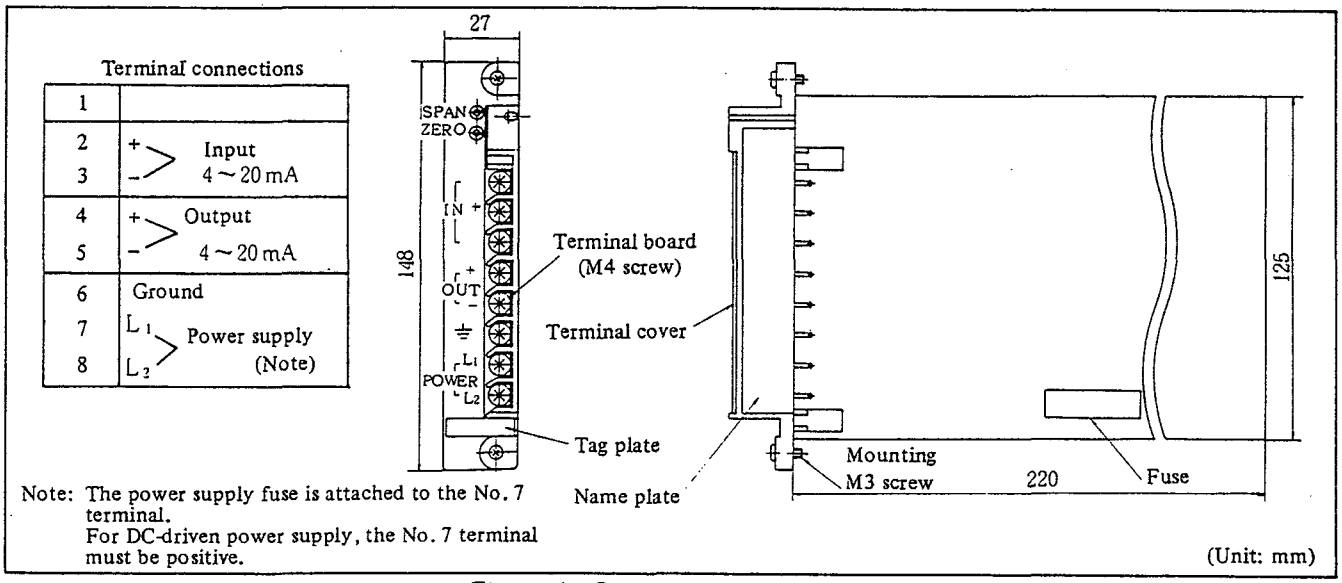

Figure 1. Component Names

IM SC-06E

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2.2 Wiring

It is recommended that flexible stranded cables and good-contact solderless terminal lugs (JIS C 2805) with least secular change should be used.

Cable for signal wiring:

Nominal cross-sectional area of conductor:
0.5 to 0.75 mm^2

Example of applicable cable:
PVC insulated flexible cord
(JIS C 3306)

2.3 Ground Wiring

A ground terminal of the isolator is isolated from signal and power supply circuits. Ground it separately or together with the isolator. Follow instructions, if any, of grounding methods of measurement and control instruments to be connected.

Grounding: Class 3 ground (up to 100 ohms)

3. OPERATION

Check Points before Power on

- Does power supply satisfy ratings?
  20 to 130V DC or 80 to 138V AC
- Is wiring correct?
  Also check instruments of both signal sources and outputs.
- Are installation ambient temperature and humidity, dust, and vibration normal?

Check all points above and switch on the power. The isolator will obtain fixed accuracy in about five minutes after the power is switched on.

4. MAINTENANCE

CAUTION

Do not touch the printed circuit board of the isolator while power is being applied.

4.1 Calibration Instruments

- Digital Multimeter 1
  (Type 2502A of Yokogawa Electric, or equivalent)
- DC Voltage/Current Standard 1
  (Type 2553 of Yokogawa Electric, or equivalent)
- Precise resistor (250 ohms, 1W) 1

The real value of the resistor must be measured in advance by Type 2502A Digital Multimeter. A resistor of up to 750 ohms can be used instead of a 250ohm-resistor.

4.2 Calibration

(1) Connect each instrument as shown in Figure 3 and warm up for about five munutes.

(2) Check input/output characteristics

Apply input signals of 4, 8, 12, 16 and 20 mA to the HC0 from the DC Voltage/Current Standard.
Confirm that the outputs of the Digital Multimeter indicate 4, 8, 12, 16 and 20 mA respectively and that accuracy of measuring ranges shall be within ±0.016mA.
(Since the HC0 provides no adjusting screw, check input/output characteristics only.)

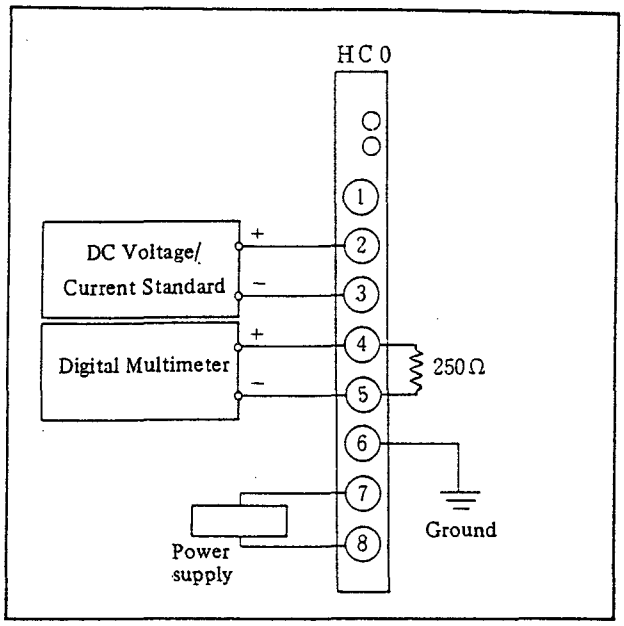

Figure 3. Connection of Calibration Instruments

4.3 Replacement of Fuse

It is recommended that a fuse should be replaced every three years for preventive maintenance. When a fuse is blown, investigate the cause and replace it with a new one. Also check the dirt inside the fuse holder and poor contact.

Turn off the power before replacing the fuse.

Subject to change without notice for grade up quality and performance.

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