

1. PRECAUTION

Please read through this Manual before use the instrument for correct handling. Please keep this Manual carefully after use. This instrument has been thoroughly tested at the factory before shipment. When you receive it, visually inspect it for damage and check the accessories.

① Model number and specification check
Check to see the model number and specifications on the nameplate attached to the front face of the instrument are as ordered.

② Contents of instruction manual
This instruction manual provides instructions on handling, external wiring and safety use of transmitter.

2. GENERAL

This compact plug-in type TC transmitter receives thermoelectromotive force signal from thermocouples and converts it into DC signal proportional to temperature.

Accessories:

Spacer 1
(Use for DIN rail mounting)

3. MOUNTING METHOD

JUXTA M Series signal conditioners can be mounted on wall or DIN rail.

3.1 Wall mounting

Unlock stoppers and remove the transmitter from socket as shown in Fig.1. Then, fix the socket on the wall. Take installation gap as shown in Fig.3. (Refer Fig.3 for mounting dimensions).

3.2 DIN rail mounting

Insert DIN rail into upper section of DIN rail groove on rear of socket of transmitter and fix the rail with slidelock at the base of transmitter as shown in Fig.2.

Use furnished spacer and take 5mm gap between transmitters.

3.3

If the wiring duct is used, install it aparting more than 20mm from top face of main body.

4. EXTERNAL WIRING

CAUTION Wiring should be done after ensuring power break of each cable.

Wires should be connected to M3.5 screw terminals by referring Fig.5. For wiring, flexible twisted wires and good contact of durable round crimp-on terminals are recommended to be used.

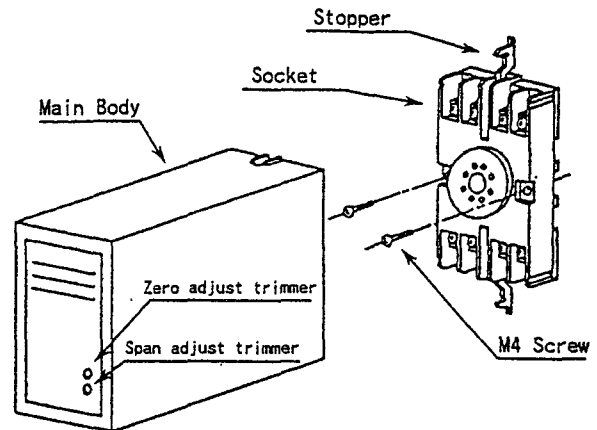
- Signal cable should have more than 0.5mm^2 and power cable should have more than 1.25mm^2 of nominal cross-sectional area of conductor.

4.1 Wiring

- ① See Fig.4 for terminal arrangement.
- ② Connect input signal cable to transmitter terminals 3(+) and 4(-).
- ③ Connect output signal cable to terminals 1(+) and 2(-).
- ④ Connect power cable to terminals 7(L+), 8(N-) and ground to 6(GND).

NOTE : Apart wiring of power and input/output cables from noise source. Otherwise, accuracy may not be warranted.

Fig.1 Wall Mounting



NOTE : Front cover may be detached by rough handling while it is opened. Re-install it when it is detached.

Fig.2 DIN Rail Mounting

To remove transmitter from DIN rail, lower the slidelock with (-) screwdriver.

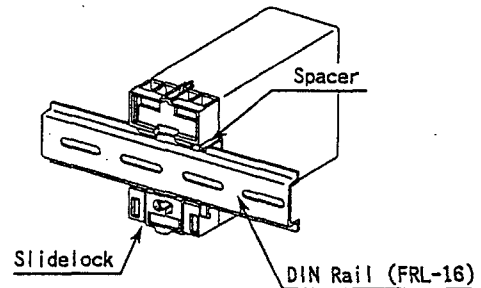
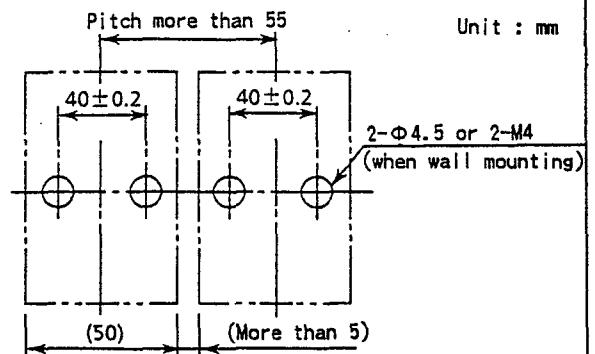


Fig.3 Mounting Dimension



5. INSTALLATION AND HANDLING

- ① Avoid installation in such environments as shock, vibration, corrosive gas, dust, water oil, solvent, direct sunlight, radiation, powerful electric and magnetic fields.
- ② In order to protect instrument from inducement of thunder surges in power and signal cables by thunder fall, use arrester between transmitter and equipment installed in the field.

6. SAFETY USE

Following caution for safety should be taken for handling of instrument. We are not responsible for damage incurred by use contrary to caution.

CAUTION

- Be sure to lock the stoppers (top and bottom) after inserting the main body into socket.
- Following items should be checked when turning power on. Use of instrument ignoring specifications may cause overheat or burning.
 - (a) Voltage of power supply and input value be applied to the instrument should meet with required specifications.
 - (b) External wiring to terminals should be connected correctly. (See preceding Article 4)
- Do not use the instrument in such dangerous places where exist inflammable and explosive gas or steam.
- As for instrument having power supply of 12~48V AC or 85~150V DC, these voltages are internally charged. Do not open front cover so as to prevent electric shock by touching components.

7. MAINTENANCE

15 minutes warm up is required to satisfy the specifications of the instrument.

NOTE

Carry out the following calibration after warm up the equipment for more than 60 minutes

7.1 Calibration Equipment

- Voltage/current generator 1
(Yokogawa Model 7651)
- Semiconductor temperature sensor 1
(Yokogawa Model 2578-25)
- Voltmeter 1
(Yokogawa model 7551 or equivalent)
- Precision resistor 250Ω ±0.01% 1W 1
(Use for current output)

7.2 Calibration

- ① Connect each equipment as shown in Fig.6.
- ② Input/output characteristics check
Apply temperature input signals equivalent 0, 25, 50, 75, 100% of span to transmitter through voltage/current generator. Check that corresponding transmitter outputs are 0, 25, 50, 75 and 100% respectively and are within ranges of accuracy rating and reference junction compensation.
R shown in Fig.6 is used for current output only.
- If output signal is out of tolerance, adjust it through span and zero adjustment trimmer on front face of transmitter.

Fig.4 Terminal Arrangement

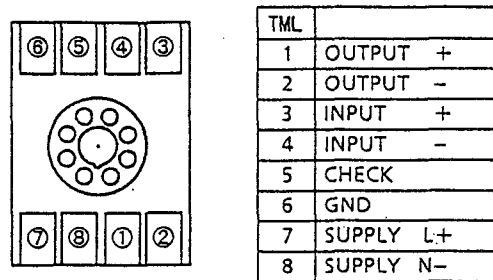


Fig.5 Wiring Diagram

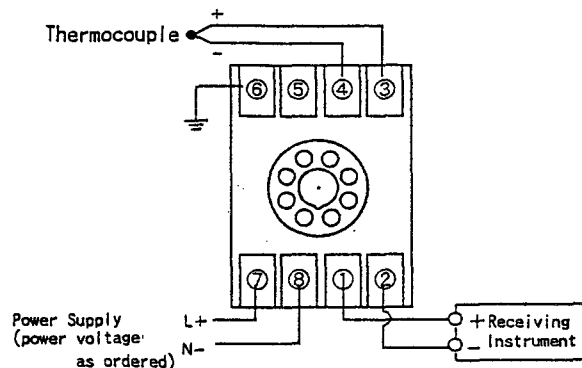
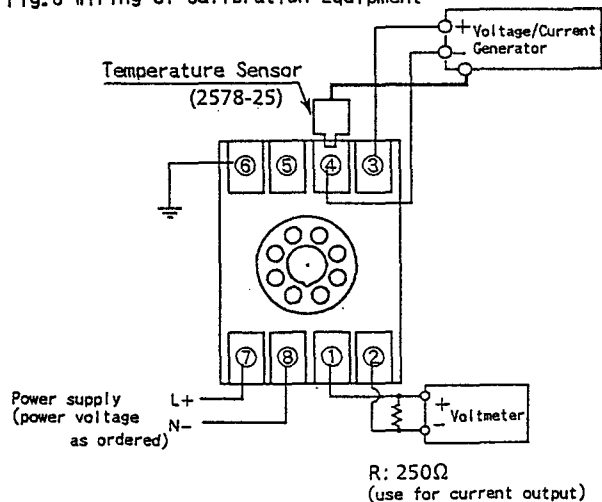


Fig.6 Wiring of Calibration Equipment



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