

### 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 unified output signals proportional to temperature. It has features of AC/DC use power supply, isolated dual outputs, selective functions of 1~5V DC/4~20mA DC output signals and UP/DOWN burnouts through one touch select switch. Linearizer is equipped as standard. (See Fig.2)

Accessories:

- Spacer ..... 1  
(Use for DIN rail mounting)
- Tag Number Label ..... 2

### 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.4. (Refer Fig.4 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.3.

Use furnished spacer and take 5mm gap between transmitters.

#### 3.3

If 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.

See Fig.5 for terminal arrangement.

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

● Signal cable should has more than 0.5mm<sup>2</sup> and power cable should has more than 1.25mm<sup>2</sup> of nominal cross-sectional area of conductor.

#### 4.1 Wiring

- ① Connect input signal cable to transmitter terminals 4(+) and 6(-).
- ② Connect Output-1 signal cable to 1(+), 2(-) and Output-2 signal cable to 10(+), 11(-).

Fig.1 Wall Mounting

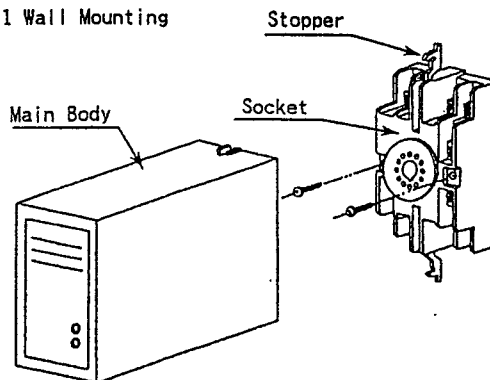


Fig.2 Select Switch.

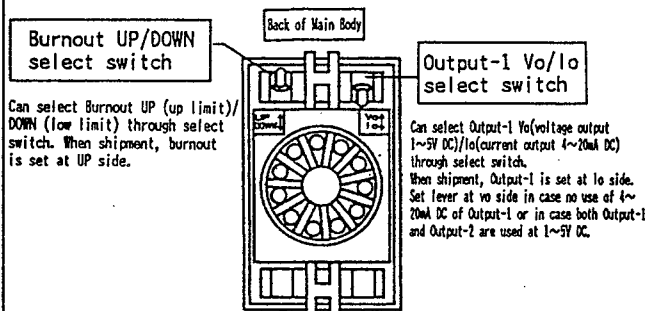
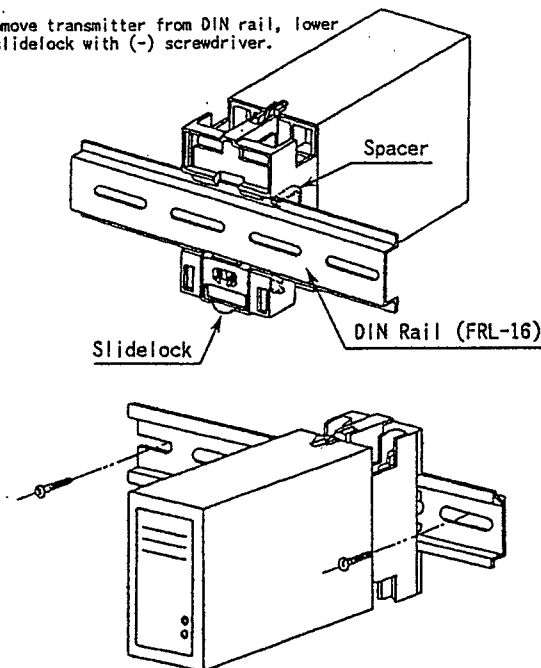


Fig.3 DIN Rail Mounting

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



- ③ Connect power cable to transmitter terminals 7(L+), 8(N-), 9(GND).

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

## 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.

## 7. MAINTENANCE

10~15 minutes warm up is required to satisfy the specifications of the instrument.

### 7.1 Calibration Equipment

- Voltage/current generator 1  
(Yokogawa Model 7651 or equivalent)
- Voltmeter 1  
(Yokogawa model 7562 or equivalent)
- Precision resistor 250Ω ±0.01% 1W 1

### 7.2 Calibration

- ① Connect each equipment as shown in Fig.7.
- 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 accuracy rating range. Connect R in case of current output.
- If output signal is out of tolerance, adjust it through span and zero adjustment trimmer on front face of transmitter.
- In case calibration is done at either one side of Output-1 or Output-2, calibration of other output side is made simultaneously. Carry out calibration at output side presently used.

Fig.4 Mounting Dimension

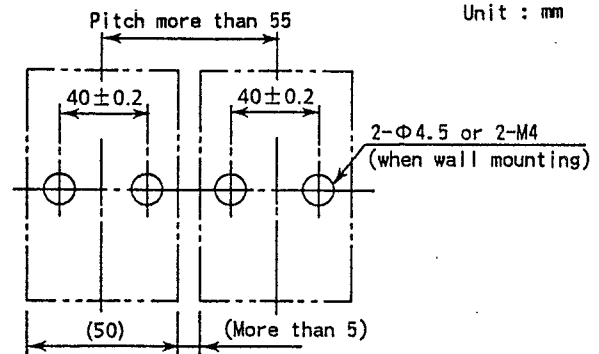
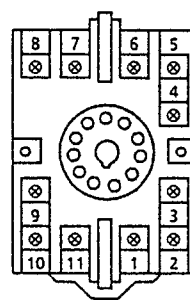


Fig.5 Terminal Arrangement



TML	
1	OUTPUT ① +
2	OUTPUT ① -
3	
4	INPUT +
5	
6	INPUT -
7	SUPPLY L+
8	SUPPLY N-
9	GND
10	OUTPUT ② +
11	OUTPUT ② -

Fig.6 Wiring Diagram

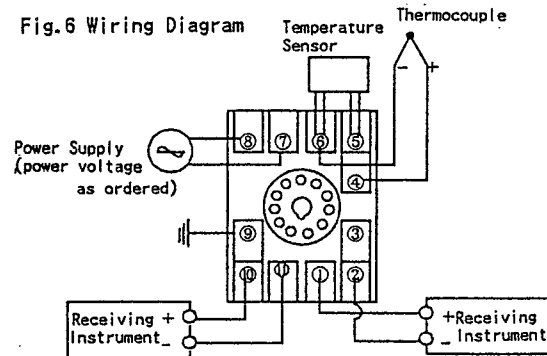
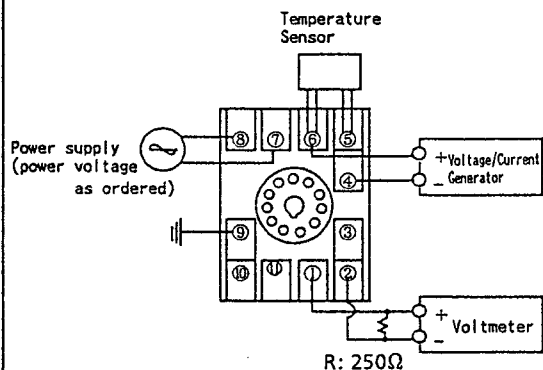


Fig.7 Wiring of Calibration Equipment



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