Instruction Manual

Model WT5A, WT5V
TC Transmitter

JUXTA

1. PRECAUTION

Please read thorough this Manaual 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 insrument are as ordered.

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

2. GENERAL

This instrument receives thermoelectromotive force signal from detector terminal and converts it into isolated current or voltage signal.

Accessories:

Mounting block	2
Tag number and range label	1 each
Mounting screw M4	4

3. MOUNTING METHOD

JUXTA signal conditioners can be mounted on racks, walls or DIN rails.

3.1 Rack mounting
Use panel (FRK-16) and install it on an angle as shown in Fig.1. This is a convenient method for high density mounting of the isolators on 19-inch rack panel. (See Fig.6)

3.2 Wall mounting
Use panel (FRK-16) to mount the transmitter as shown in Fig.2 or directly mount the single unit on the wall. (See Figs.6 and 7 for mounting dimensions.)

3.3 DIN rail mounting
Insert DIN rail into the upper section of the DIN rail groove on the rear of the transmitter and fix the rail with the slidelock at the base of the transmitter as shown in Figs.3 and 4.

3.4 Angle mounting
If the transmitter is mounted without using the panel (FRK-16), refer Fig.5 for its mounting dimension.

3.5 Mounting block installation and removal
Insert mounting block into transmitter groove as shown in Fig.4 and slide it until it is fixed with the stopper. To remove it, lift up the mounting block with (-) screwdriver.

4. EXTERNAL WIRING

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

Wires should be connected to M4 screw terminals after opening the transmitter terminal cover as shown in Fig.10. For wiring, flexible twisted wires and good contact of durable round crimp-on terminals (JIS C2805) are recommended to be used.

- Signal cable should has more than 0.5mm² and power cable should has more than 1.25mm² of nominal cross-sectional area of conductor.

4.1 Wiring

① See Fig.8 for terminal arrangement.
② Connect input signal cable to transmitter terminals 7(+) and 8(-).

Fig.1 Rack Mounting

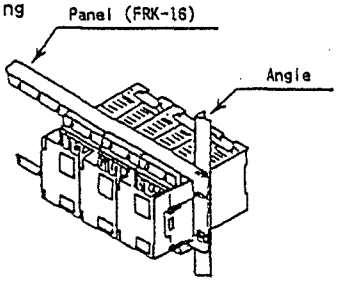


Fig.2 Wall Mounting

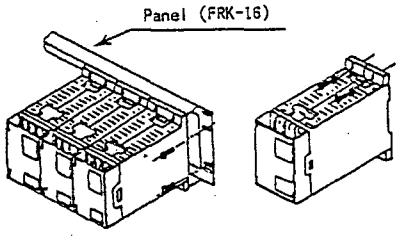


Fig.3 DIN Rail Mounting

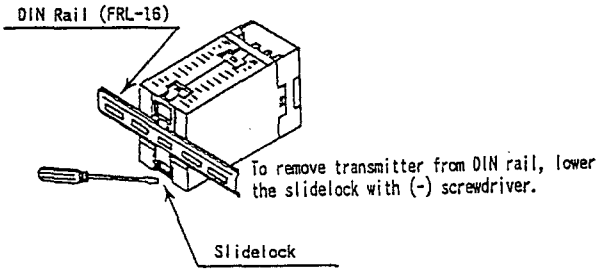


Fig.4 Mounting Block installation and removal

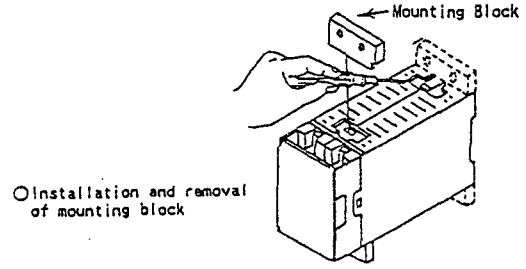
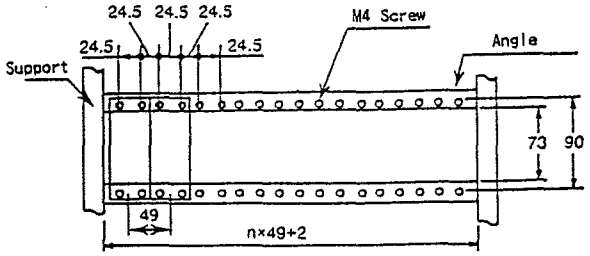


Fig.5 Angle Mounting Dimension

Unit : mm



③ Connect transmitter output signal cable to its terminals 11(+) and 12(-).
④ When use of dual outputs, connect Output-2 signal cable to 9(+), 10(-).
⑤ Connect 85~265V AC or 24V DC power cable to transmitter terminals 14(L+), 15(N-) and 16(G). (See Fig.9)
⑥ Connect RJC sensor to transmitter terminal 8(-) together with input signal cable so as metal fitting of RJC sensor to locate under input signal cable.

NOTE : Apart wiring of power and input/output cables from noise source. Otherwise, accuracy may not be warranted. Be careful for break of cable applying over power to lead cable of RJC sensor.

5. INSTALLATION AND HANDLING

① Aviod 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 taken for handling of instrument. We are not responsible for damage incurred by use contrary to caution.

CAUTION

- Following items should be checked when turing the 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.
- In case of AC power supply, high voltage of 85~264V AC is applied on 14 and 15 terminals during power on as shown in Fig.9. Do not touch terminals.

7. CALIBRATION

Carry out the following calibration after warming up the instruments for more than 10~15 minutes.

7.1 Calibration equipment

- Voltage/current generator (Yokogawa model 2553 or equivalent) 1
- Semiconductor temperature sensor (Yokogawa model 2578-25)
- Voltmeter (Yokogawa model 7551 or equivalent) 1
- Precision resistor 250Ω ±0.01% 1W 1 (Use in case of current output)

7.2 Calibration

① Connect each equipment as shown in Fig.10.
② Input/output characteristics check
Apply temperature input signals equivalent 0, 25, 50, 75, 100% of span to transmitter through voltage/current generator referring Temperature Reference Table.
Check that corresponding transmitter outputs are 0, 25, 50, 75 and 100% respectively and are within accuracy rating range.

- If output signal is out of tolerance, adjust it through Handy Terminal (JHT-100 or JHT200). For adjustment and patrameter setting, refer Instruction Manual of Handy Terminal. (JHT200: IM JF81-02E, JHT-100: IM JF01-01E)

Fig.6 Rack Mounting Dimension

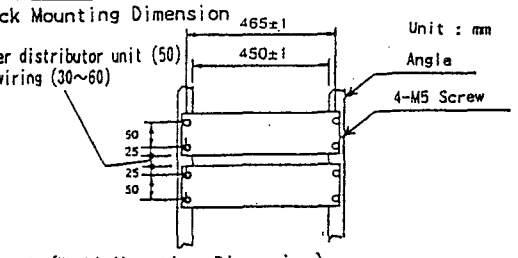


Fig.7 Panel (Wall Mounting Dimension)

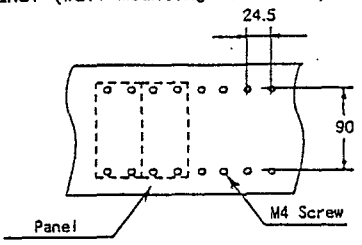
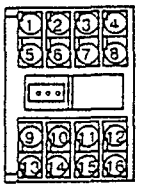


Fig.8 Terminal Arrangement



7	INPUT	(+)
8	INPUT	(-)
9	OUTPUT-2	(+)
10	OUTPUT-2	(-)
11	OUTPUT-1	(+)
12	OUTPUT-1	(-)
13		
14	SUPPLY	(L+)
15	SUPPLY	(N-)
16	GND	(G)

Fig.9 Wiring Diagram

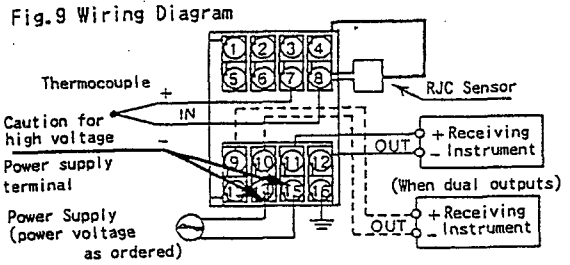


Fig.10 Wiring of Calibration Equipment

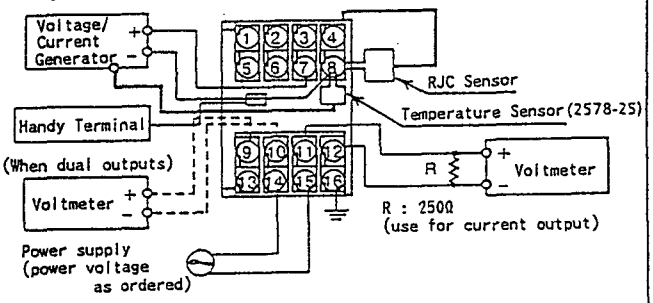
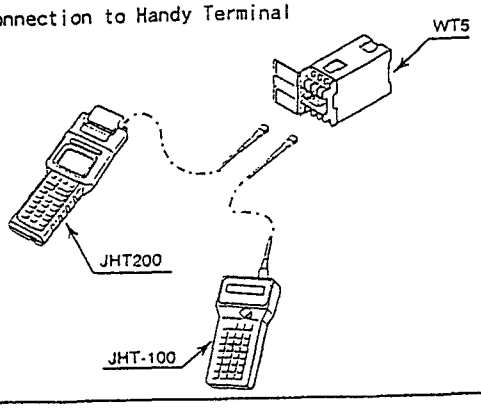


Fig.11 Connection to Handy Terminal



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

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