

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 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 instrument receives signal of resistance change from potentiometer and converts it into 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 rack, wall or DIN rail.

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 transmitter on 19-inch rack panel. (See Fig.7)

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 8 for mounting dimensions.)

3.3 DIN rail mounting

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

3.4 Angle mounting

If single unit is mounted without using the panel (FRK-16), refer Fig.5 for its mounting.

3.5 Mounting block installation and removal

Insert mounting block into transmitter groove as shown in Fig.6 and slide it until it is fixed with the stopper. To remove it, lift up the mounting block stopper with (-) screwdriver and slide it along the groove.

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 transmitter terminal cover as shown in Fig.10. For wiring, flexible twisted wires and good contact of durable round crimp-on terminals are recommended to be used.

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

4.1 Wiring

- ① See Fig.9 for terminal arrangement.
- ② Connect signal cable from potentiometer to transmitter terminals 4, 7, 8.

Fig.1 Rack Mounting

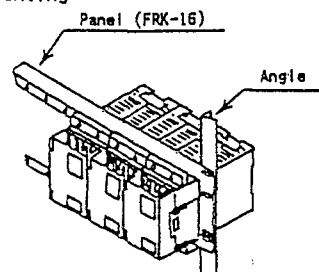


Fig.2 Wall Mounting

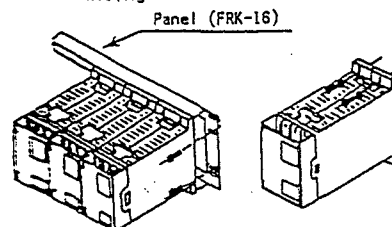


Fig.3 DIN Rail Mounting

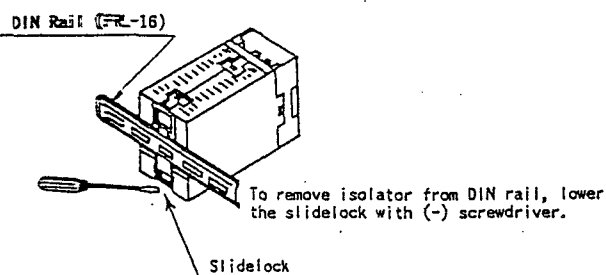


Fig.4 DIN Rail Mounting

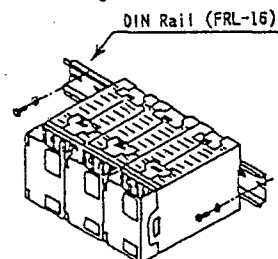
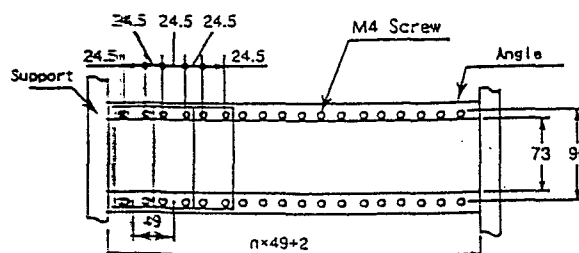


Fig.5 Angle Mounting Dimension

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.10)

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 transmitter from inducement of thunder surges in power and signal cables, 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

- Following items should be checked when turning power on. Use of instrument by ignoring the 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 would be applied to 14 and 15 terminals during power on as shown in Fig.10. Do not touch terminals when zero and span adjustment.

7. CALIBRATION

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

7.1 Calibration equipment

- Dial Variable Resistor (Yokogawa Model 2793-01 or equivalent) 2
- Voltmeter (Yokogawa model 7552A or equivalent) 1
- Precision resistor 250Ω ±0.01% 1W 1 (Use for current output)

7.2 Calibration

- ① Connect each equipment as shown in Fig.11.
- ② Input/output characteristics check
Use variable resistor in accordance with specifications (full resistance and resistance at 0% and 100% points) of potentiometer to be combined. Apply resistance equivalent 0, 25, 50, 75, 100% to transmitter changing R1 and R2 by keeping full resistance at constant. Check the 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 span and zero adjustment trimmer on front face of the transmitter.

Fig.6 Mounting Block installation and removal

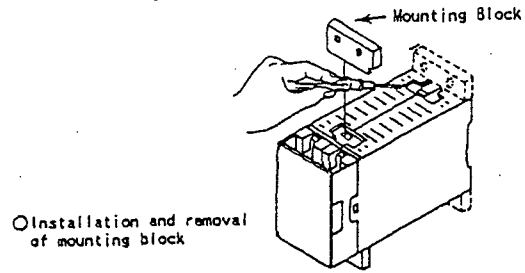


Fig.7 Rack Mounting Dimension

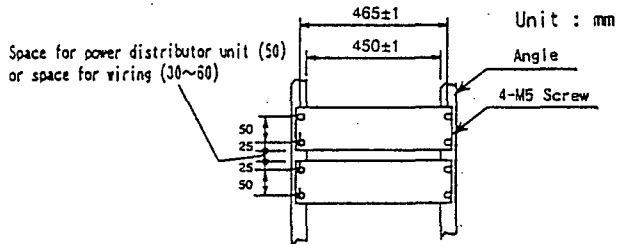


Fig.8 Panel (Wall) Mounting Dimension

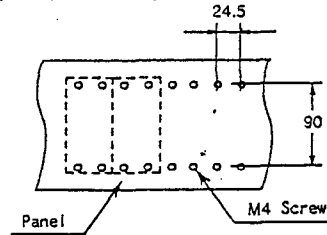
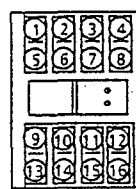


Fig.9 Terminal Arrangement



4	INPUT1 (100%)	○
5		
6		
7	INPUT2(CENTER)	○
8	INPUT3 (0%)	○
9	OUTPUT-2 (+)	
10	OUTPUT-2 (-)	
11	OUTPUT-1 (+)	
12	OUTPUT-1 (-)	
13		
14	SUPPLY (L+)	
15	SUPPLY (N-)	
16	GND	

Fig.10 Wiring Diagram

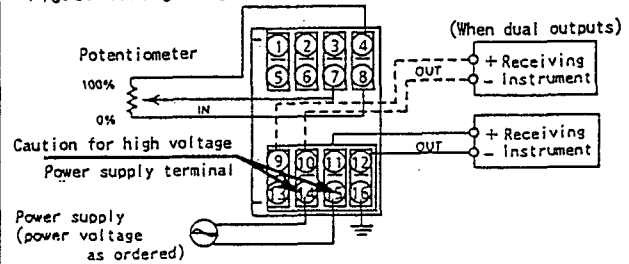
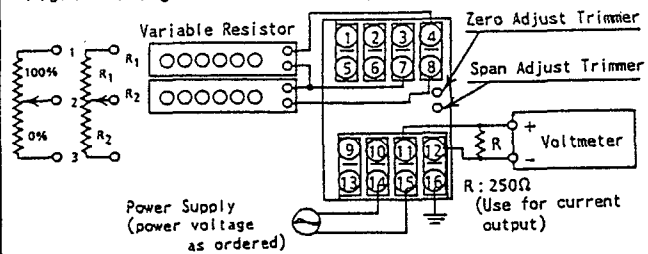


Fig.11 Wiring of Calibration Equipment



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