

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 contact pulse, voltage pulse or current pulse signal from the field 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 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 on 19-inch rack panel.

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 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 Installation and removal of mounting block

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 Figs.11~13. For wiring, flexible twisted wires and good contact of durable round crimp-on terminals are recommended to be used.

● Signal wiring 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.10 for terminal arrangement.
- ② Connect input signal cable to transmitter terminals 7(+), 8(-).
(See Fig.11 : Diagram 1)

Fig.1 Rack Mounting

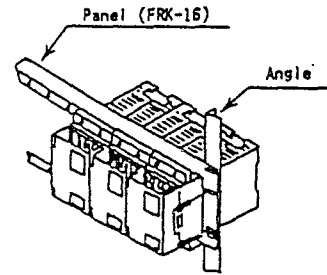


Fig.2 Wall Mounting

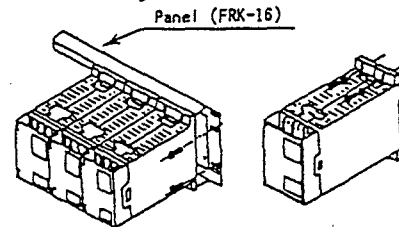


Fig.3 DIN Rail Mounting

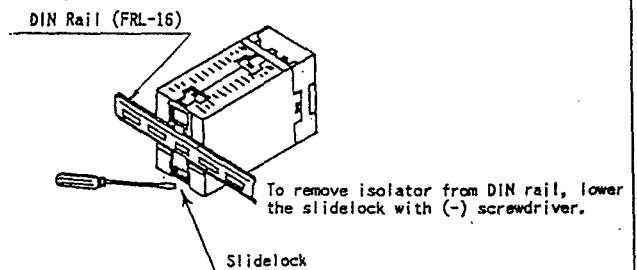


Fig.4 DIN Rail Mounting

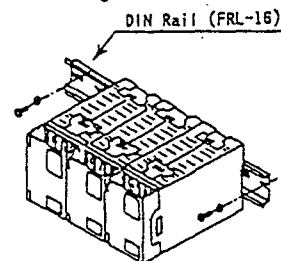
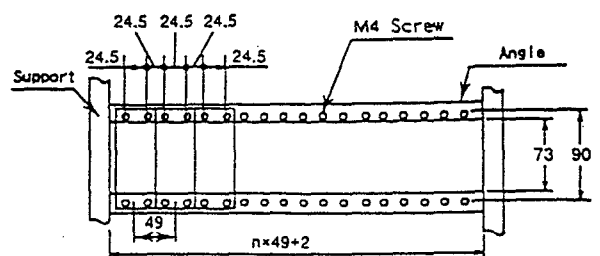


Fig.5 Angle Mounting Dimension

Unit : mm

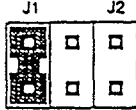


- ③ To receive dry voltage contact pulse, connect input signal cable to transmitter terminals 7(+), 8(-). (See Fig.12 : Diagram 2)
 - ④ To receive current pulse, connect input cable to transmitter terminals 4(+), 7(-). (See Fig.13 : Diagram 3)
 - ⑤ Connect transmitter output signal cable to its terminals 11(+) and 12(-).
 - ⑥ Connect 85~265V AC or 24V DC power cable to transmitter terminals 14(L+), 15(N-), 16(G).
- NOTE : Apart wiring of power and input/output cables from noise source. Otherwise, accuracy may not be warranted.

5. POWER VOLTAGE SETTING

Power voltage can be changed over 12V/24V by replacing internal jumper of transmitter. (See Fig. below)

When power voltage is 12V : Short J1
 When power voltage is 24V : Short J2



When power voltage is 12V

6. CURRENT PULSE LOAD RESISTOR AND FILTER SETTING
 Setting is made by transmitter internal switch. (See Fig.9)

Switch 1~3 : Current pulse load resistor setting

Resistance Value	1	2	3
200Ω	ON	OFF	OFF
500Ω	OFF	ON	OFF
1kΩ	OFF	OFF	ON
143Ω	ON	ON	OFF
167Ω	ON	OFF	ON
500Ω	OFF	ON	ON
143Ω	ON	ON	ON

Switch 4 : Filter setting ON/OFF

7. 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 isolator from inducement of thunder surges in power and signal cables, use arrester between transmitter and equipment installed in the field.

8. 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.

Fig.6 Mounting Block installation and removal

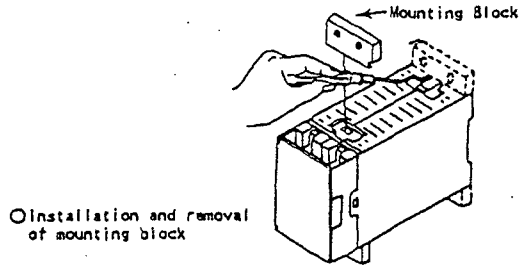


Fig.7 Rack Mounting Dimension

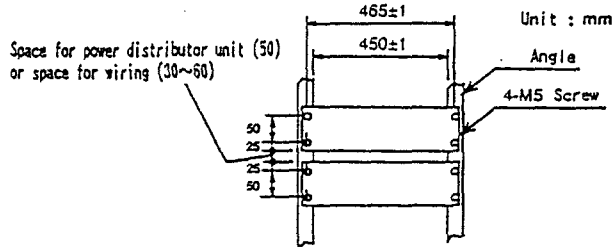


Fig.8 Panel (Wall) Mounting Dimension

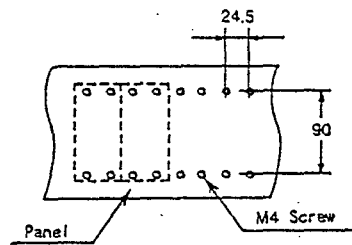


Fig.9 Setting of Current Pulse Load Resistor and Filter

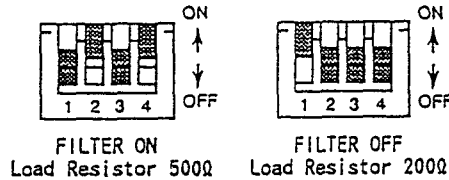


Fig.10 Terminal Arrangement

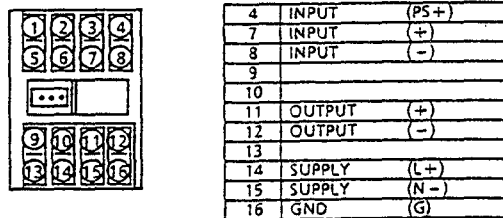


Fig.11 Wiring Diagram 1

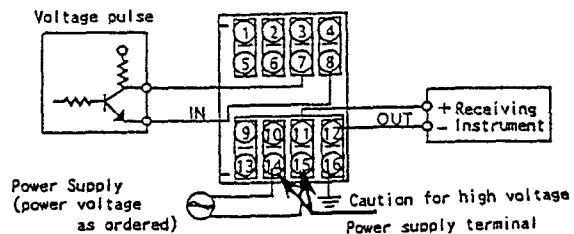
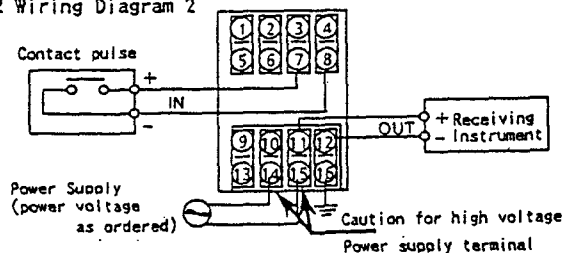


Fig.12 Wiring Diagram 2



9. CALIBRATION

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

9.1 Calibration equipment

- Pulse Generator 1
(Hewlett-Packard Model 3314A or equivalent)
- Voltmeter 1
(Yokogawa Electric Model 7551 or equivalent)
- Precision Resistor $250\Omega \pm 0.01\%$ 1W 1
(Use for current output)
- Counter 1
(Hewlett-Packard Model 5334B or equivalent)

9.2 Calibration

- ① Connect each equipment as shown in Fig.14.
- ② Input/output characteristics check
Apply input pulse signal equivalent 0, 25, 50, 75, 100% of span to transmitter through Pulse Generator.
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 Handy Terminal (JHT-100 or JHT200).
For adjustment, refer Instruction Manual of Handy Terminal.
(JHT200: IM JF81-01E, JHT-100: IM JF81-01E)

Fig.13 Wiring Diagram 3

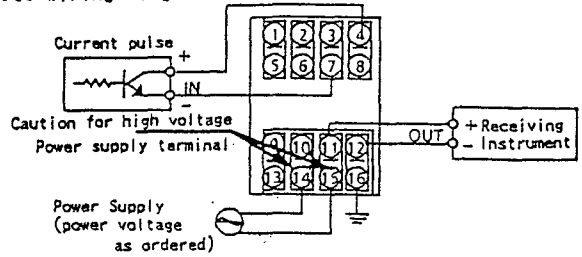


Fig.14 Wiring of Calibration Equipment

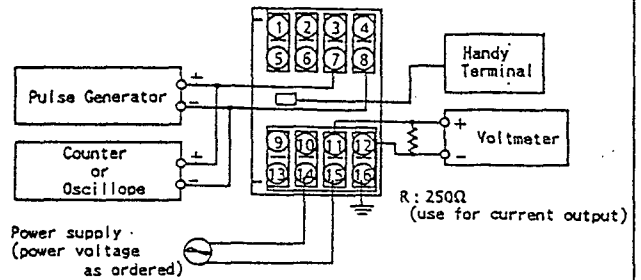
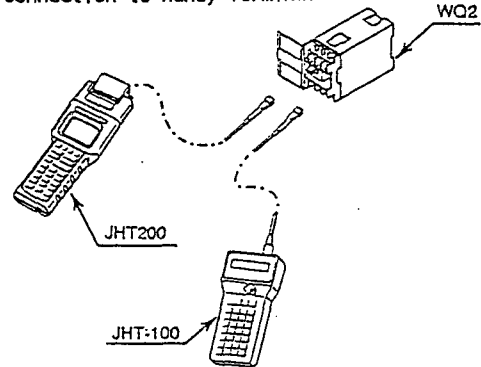


Fig.15 Connection to Handy Terminal



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

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