

1. PRECAUTION

Please read through this Manual before use of the transmitter 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.

● **Model number and specifications check**
Check to see model number and specifications on the plate attached to front face of the transmitter are as ordered.

● **Contents of the instruction manual**
This instruction manual provides instructions on handling, external wiring and safety use of the load cell transmitter.

2. GENERAL

This compact plug-in type load cell transmitter supplies bridge voltage to load cell (distortion gage) etc. It receives mV signal from load cell and converts it into isolated DC current or DC voltage signal. Bridge voltage is possible to variable 2~10V DC through trimmer. If optional remote sensing function is designated, bridge voltage supplying to bridge circuit can be supplied more accurately.

As for transmitter with remote sensing function, supply voltage would be 2~6V DC.

Accessories :

Spacer (use for DIN rail mounting) 1
Tag Number Label 2

3. MOUNTING METHOD

JUXTA M Series Transmitters can be mounted either on wall or DIN rail.

3.1 Wall Mounting

Remove the stoppers of transmitter and pull out the main body from socket as shown in Fig.1. Then fix the socket on the wall with M4 screws and mount the main body. Take installation gap between transmitters for close mounting as shown in Fig. 3

3.2 DIN rail mounting

Insert DIN rail into the upper of the DIN rail groove on rear of socket of the transmitter and fix the rail with slidelock at the lower of the transmitter as shown in Fig.2. Install furnished spacer so as transmitter would be mounted with 5mm gap.

3.3 Duct Installation

Install ducts, if necessary, aperting from top and bottom face of the transmitter more than 20mm.

4. EXTERNAL WIRING

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

See Fig.4 for terminal arrangement and Fig.5 for wiring.

Wiring should be done to M3.5 screw terminals of the socket.

Use round crimp-on terminals for connection to terminals.

● Signal cable having more than 0.5mm² and power cable having more than 1.25mm² of nominal cross-sectional area of conductor are recommended to be used.

FIG.1 WALL MOUNTING

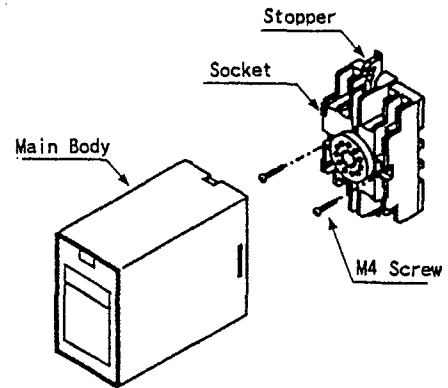


FIG.2 DIN RAIL MOUNTING

When remove the transmitter from DIN Rail, lower the slidelock with (-) screwdriver

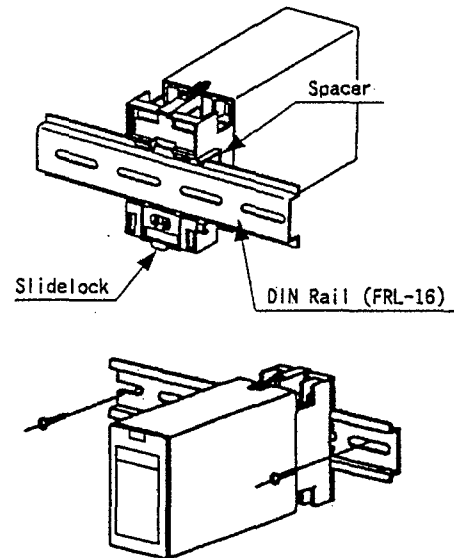
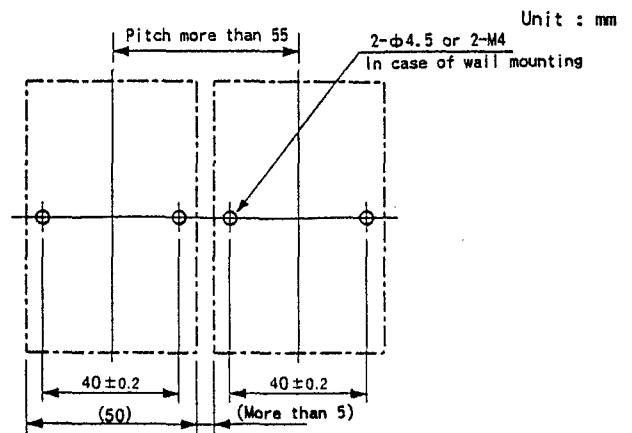


FIG.3 MOUNTING DIMENSION



4.1 Wiring

- ① Connect input signal cable to 5(+), 6(-) of transmitter.
- ② Connect bridge voltage to 3(+), 11(-).
- ③ In case of transmitter with remote sensing function, connect detective voltage to 4(+), 10(-).
- ④ Connect output signal cable to 1(+), 2(-).
- ⑤ Connect power cable to 7(L+), 8(-N) and ground to 9(GND).

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

5. INSTALLATION PLACE 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 To protect transmitter from inducement of thunder surges in power and signal cables, use arrester between the transmitter and equipment installed in the field.

6. SAFETY USE

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

CAUTION

- When install the main body, fix it to the socket with stoppers (upper and lower) after inserting it into socket.
 - Following items should be checked before power on. Use of the transmitter by ignoring the specifications may cause overheating and burning.
 - (a) Voltage of power supply and input signal be applied to the transmitter should meet with required specifications.
 - (b) External wiring to terminals should be connected correctly (See Article 4).
 - Do not use the transmitter in such dangerous places where exist inflammable and explosive gas or steam.
 - On terminals 7, 8 shown in Fig.5, high voltage of 85~132V AC or 170~264V AC is applied during power on in case use of AC power supply and 85~150V DC is applied in case use of DC power supply. Please do not touch terminals.
- ⚠ Transmitters with power supplies of 85~132V AC/85~150V DC or 170~264V AC include these voltages internally. Be careful for electric shock touching the parts other than adjustment trimmer by hand or driver when doing adjustment of zero/span after opening front cover.

7. MAINTENANCE

Carry out the following calibration after warmup the transmitter for more than 10~15 minutes to satisfy its specified performance.

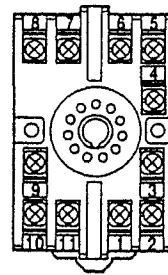
7.1 Calibration equipment

- Voltage/Current Generator 1
(Yokogawa Type 7651 or equivalent)
- Voltmeter 1
(Yokogawa Type 7562 or equivalent)
- Precision Resistor 250Ω±0.01% 1W 1
(when current output)
- Precision Resistor 120Ω±0.01% 1

7.2 Calibration

- ① Connect each equipment as shown in Fig.6
- ② Input/output characteristic check
Use Voltage/Current Generator and apply input signals corresponding 0%, 25%, 50%, 75%, 100% of input span to the transmitter. Check to see

FIG. 4 TERMINAL ARRANGEMENT & TERMINAL CONNECTION



1	OUTPUT (+)
2	OUTPUT (-)
3	EXC (+)
4	SIN * (+)
5	INPUT (+)
6	INPUT (-)
7	SUPPLY (L+)
8	SUPPLY (N-)
9	GND
10	SIN * (-)
11	EXC (-)

*Do not wire to 4(SIN+), 10(SIN-) in case remote sensing function is not used

FIG. 5 WIRING

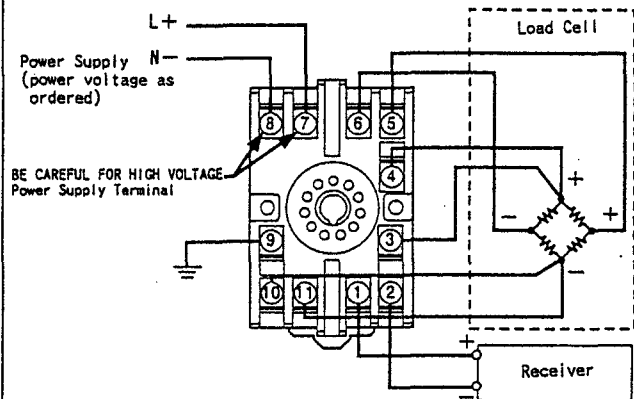
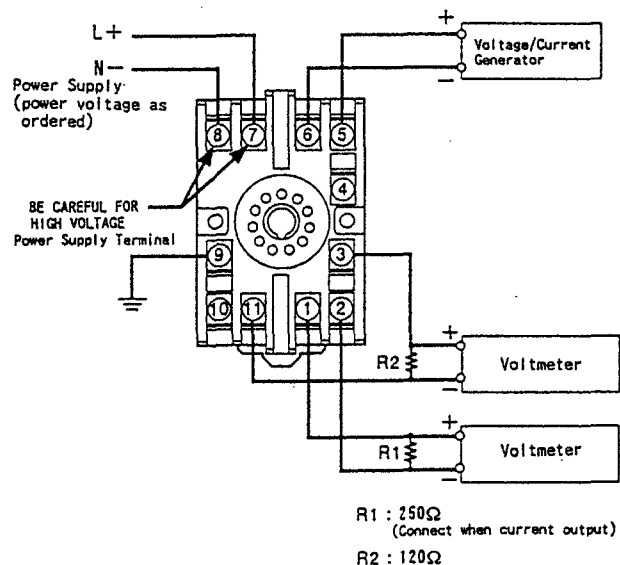


FIG. 6 WIRING OF CALIBRATION EQUIPMENT



corresponding output voltages are 0%, 25%, 50%, 75%, 100% respectively and are within specified accuracy rating. R is used for current output.

- If output signal is out of accuracy rating range, adjust it using span and zero adjust trimmer on front face of the transmitter. (See Fig.1)

③ Applied voltage check

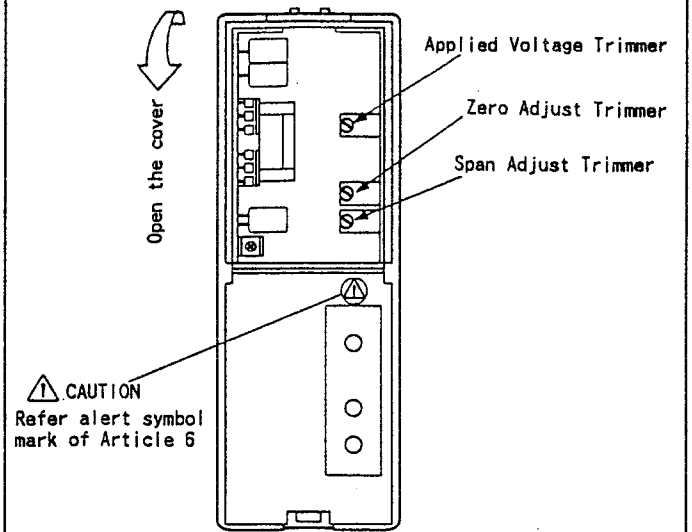
Check to see applied voltage is more than 8V by making R2 at 120Ω and turn applied voltage trimmer to the right.

7.3 Output adjustment through front adjust trimmer

In case output signal is out of accuracy rating range, following adjustment should be done by referring Fig.7 after opening the front cover.

- ① Adjust 0 point through zero adjust trimmer.
- ② Adjust 100% point through span adjust trimmer.
- ③ In case adjustment cannot be made through span adjust trimmer, place span adjust trimmer at middle and adjust applied voltage through applied voltage trimmer so as 100% point would be almost coincided. Repeat again ① ②.

FIG. 7 FRONT ADJUST TRIMMER



Note : The front door may sometimes be detached by rough handling. Re-install it when it is detached.

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

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