Instruction Manual

Model MF1S P/E Transducer

JUXTA

1. PRECAUTION

Please read thorough 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 transducer.

2. GENERAL

This P/E Transducer receives 20~100kPa (or 0.2~1.0kgf/cm²) pneumatic pressure signal and converts it into unified 1~5V DC or 4~20mA DC signal.
Accessories:
Tag Number Label 2

3. MOUNTING METHOD

Remove the transducer from socket as shown in Fig.2. Then, fix the socket on the wall.
Take installation gap as shown in Fig.4.
(Refer Fig.4 for mounting dimensions).

4. PIPING

Connect input pneumatic pressure signal 20~100kPa (or 0.2~ 1.0kgf/cm²) pipe to pnuematic pressure inlet. Pnuematic pressure inlet has Rc1/4(PT1/4) female screw.
NOTE: Fastening torque of screw is 2±0.5N·m

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

4.1 Wiring

① Connect transducer input signal cable to terminals 1(+), 4(-).
② Connect power cable to terminals 3(L+), 6(N-).
NOTE : Apart wiring of power and input/output cables from noise source. Otherwise, accuracy may not be warranted.

Fig.1 Connection Main Body to Socket

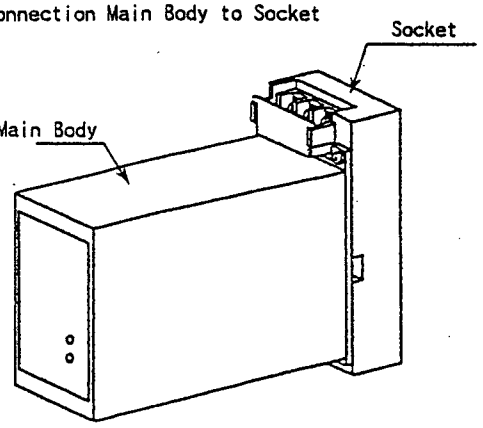


Fig.2 Wall Mounting

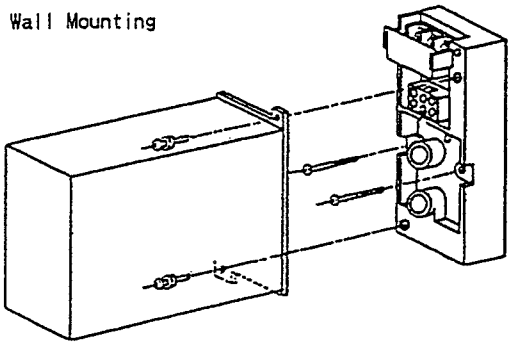


Fig.3 Back of Main Body

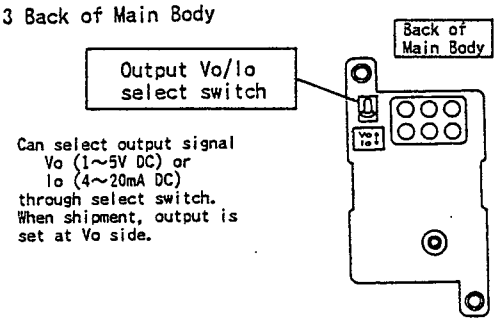
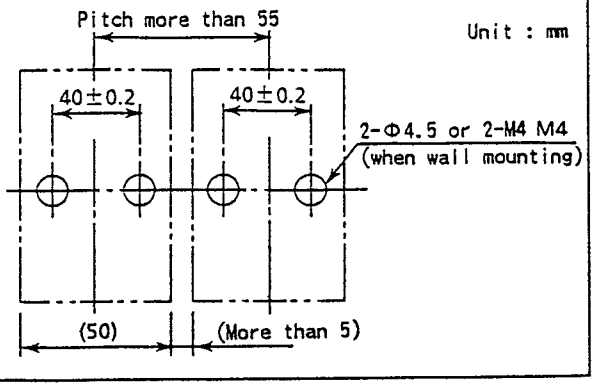


Fig.4 Mounting Dimension



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 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.

8. MAINTENANCE

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

8.1 Calibration Equipment

- Pneumatic Pressure Signal Generator 1
  (Yokogawa Model 2657 or equivalent)
- Voltmeter 1
  (Yokogawa Model 7562 or equivalent)
- Precision resistor 250Ω ±0.01% 1W 1

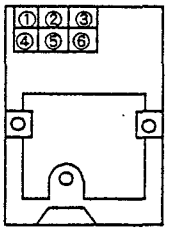
8.2 Calibration

① Connect each equipment as shown in Fig.7.

② Input/output characteristics check
Apply input signal equivalent 0, 25, 50, 75, 100% of input span to transducer through Pneumatic Pressure Signal Generator.
Check that corresponding transmitter outputs are 0, 25, 50, 75 and 100% respectively and are within ±0.2% of accuracy rating range.

- If output signal is out of tolerance, adjust it through span and zero adjustment trimmer on front face of transducer.

Fig.5 Terminal Arrangement



TML	
1	OUTPUT +
2	
3	SUPPLY (L+)
4	OUTPUT (–)
5	GND (G)
6	SUPPLY (N–)

Fig.6 Wiring Diagram

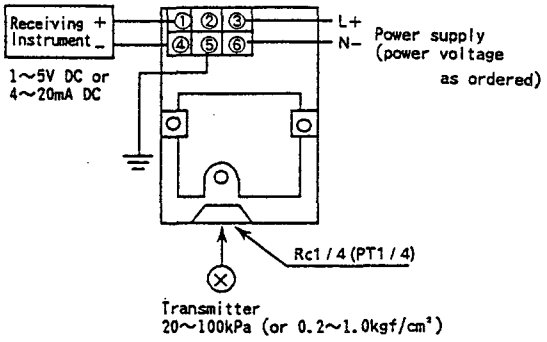
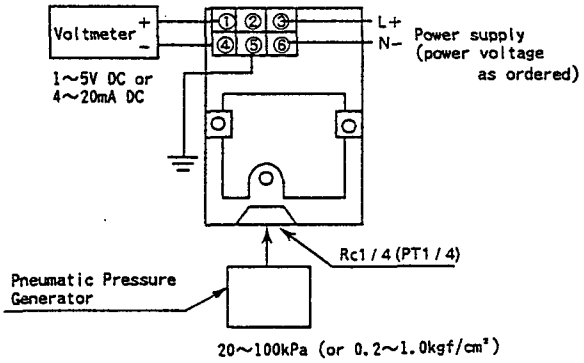


Fig.7 Wiring of Calibration Equipment



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

YOKOGAWA ◆
Yokogawa Electric Corporation

Network Solutions Business Division
2-9-32, Nakacho Musashino-shi, Tokyo, 180-8750 Japan
Phone: (81)-422-52-7179 Fax: (81)-422-52-6793