Instruction Manual

Model PF1
P/E Transducer

JUXTA

1. INSPECTION

This instrument has been thoroughly tested at the factory before shipment. When you receive it, visually inspect it for damage and check the accessories.

1.1 Model number and specification check

Check to see if the model number and specifications on the nameplate are as ordered.

1.2 Contents of instruction manual

This instruction manual provides instructions on mounting, external wiring and maintenance.

2. GENERAL

This instrument receives pneumatic pressure signal and converts it into DC voltage or current signal proportional to input signal.

3. MOUNTING METHOD

Fix terminal board on the wall as shown in Fig.1. Then fix the main body on the terminal board. Terminal board can be detached by removing 2 screws of main body.
P/E and E/P transducers can be mix-mounted on air supply unit (PPU).
Install air supply unit on terminal board as shown in Fig. 3. Set O-ring between terminal board and air supply unit. Then fix the main body on the terminal board.

4. AUTOMATIC SEALING

When main body of the transducer is removed from the terminal board, air will be sealed automatically by closing a valve of terminal board.

5. PIPING

Connect pipe for input pneumatic signal 20~100kPa (0.2 ~1.0 kgf/cm²) to the inlet of the terminal board. Pipe has Rc 1/4 (PT 1/4) male screw.

CAUTION

Fastening torque of pipe is 2±0.5 N·m.

6. EXTERNAL WIRING

Connect wires to the terminals of terminal board. Flexible twisted wire and good contact of durable round crimp-on terminal (JIS C2805) are recommended to be used.

Fig.1

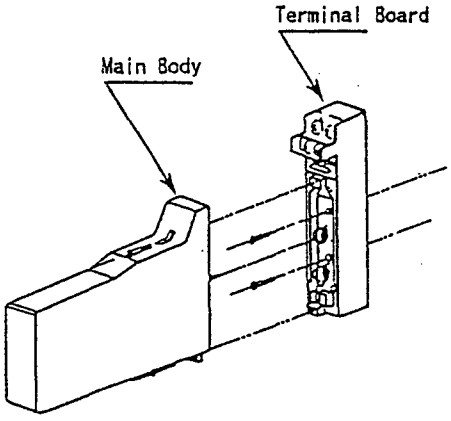


Fig.2
Panel Cut Drawing

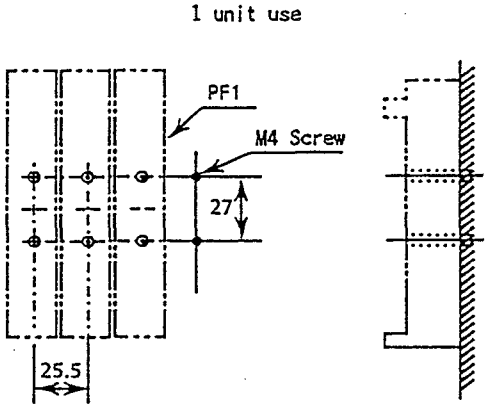
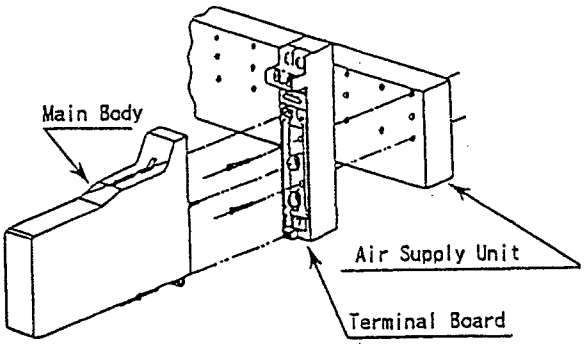


Fig.3



6.1 Signal cable
Nominal cross-sectional area of conductor:
0.5~0.75mm²
Example of suitable cable:
Twisted vinyl cord (VSF) (JIS C 3306)

6.2 Power cable
Nominal cross-sectional area of conductor:
1.25~2.00mm²
Example of suitable cable:
Twisted 600V vinyl cord (IV) (JIS C 3307)

6.3 Wiring
① See Fig.4 for terminal arrangement.
② Connect output signal to terminals 3(+) and 4(-) of the transducer.
③ Connect 24V DC power cables to terminals 1(+) and 2(-) of the transducer.

7. ITEMS TO BE CHECKED BEFORE TURNING THE POWER SWITCH ON
① Make sure that 24V DC power cables of the transducer are connected to the correct polarities (+) and (-).
② Check that external wiring to the terminal board is correct.
③ Check that the mounting, ambient temperature, humidity, dust and vibration are normal.
Check the above items before turning on power.
Transducer needs 5 minutes warmup to meet with its specified accuracy level.

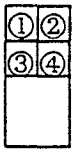
8. MAINTENANCE

CAUTION
Carry out the following calibration after warming up the transducer for more than 5 minutes.

8.1 Calibration equipment
- Pneumatic pressure generator (Yokogawa Model 2656 or equivalent) : 1
- Voltmeter (Yokogawa Model 7562 or equivalent) : 1
- Precision resistor 250Ω±0.01% 1W : 1

8.2 Calibration
① Connect each equipment as shown in Fig. 6.
② Input/output characteristics check
Use pneumatic pressure generator and apply pneumatic input signals of 0, 25, 50, 75, 100% of input span to the transducer. Make sure that the corresponding output signals are 0, 25, 50, 75, and 100% of output span respectively and are within accuracy rating range.
- If output signal is out of specified tolerance, adjust it by span and zero adjust trimmer on front face of the transducer.

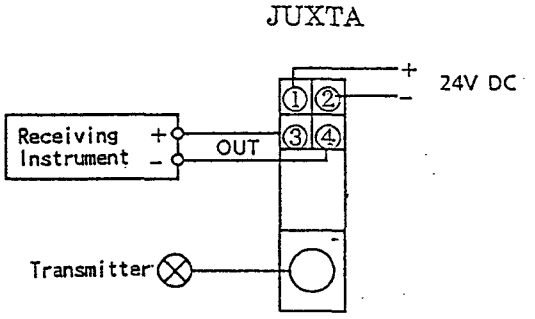
Fig.4



Terminal	
1	SUPPLY +
2	SUPPLY -
3	OUTPUT +
4	OUTPUT -

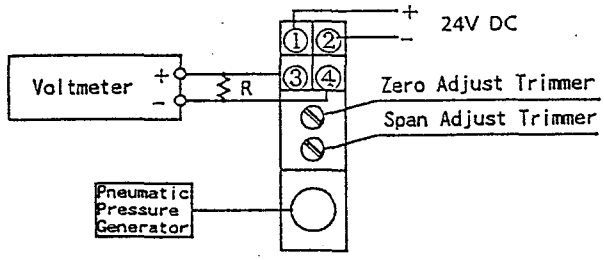
Terminal Arrangement

Fig.5



Wiring Diagram

Fig.6



R : 250Ω (Set when 4~20mA DC output)

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

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