

MODEL 880 TRANSDUCER INSTALLATION

The Model 880 Pressure Transducer is a 2-wire, 4-20mA, compact instrument for measuring and controlling the many different media that are compatible with our sensing element. Positive, negative, and differential pressures can be measured in ranges from 0-1" WC to 0-40 PSI with a 4-20mA output. Split ranges are also available.

INSTALLATION

1. Location- The model 880 pressure transducer should be placed in as clean, dry and vibration free a location as possible.

2. Pressure Connections- The 880 pressure transducer uses 2 barbed fittings for use with 1/8" ID vinyl or rubber tubing. Attach tubing from positive pressure or higher pressure source to port marked **High (P1)** and lower or negative pressure to opposite port (**P2**). Arrange tubing to minimize stress on connections. If possible, mount with ports facing down to aid in moisture drainage.

Note: When removing tubing care should be used to avoid breaking the ports. In some cases the tubing should be cut off, rather than pulled off, especially if stiff tubing is being used.

3. Mounting- Attach the Model 880 Transducer to the mounting surface using 2 fasteners inserted through the two mounting holes located on either the side mounting flanges, or the holes at the top of the case. **Do not over-tighten.**

ELECTRICAL CONNECTIONS

All electrical connections to the 880 series transducer are made to the pluggable screw terminal block. The block is coded as follows.

- 1) "+" = Supply Positive,
- 2) "-" = Supply (or Controller) Negative.

An external power supply (V_s) delivering 14 - 36 VDC with a minimum of 30mA output is required to drive the unit. The load must meet the following requirements:

Minimum Loop Resistance (R_{Lmin}):

If $V_s < 30Vdc$, $R_{Lmin} = 0$ ohms

If $V_s > 30Vdc$, $R_{Lmin} = (V_s - 30) \times 40$ ohms

Maximum Loop Resistance (R_{Lmax}):

$R_{Lmax} = (V_s - 14) \times 50$ ohms

(Example: If $V_s = 24Vdc$, $R_{Lmax} = 500$ ohms)

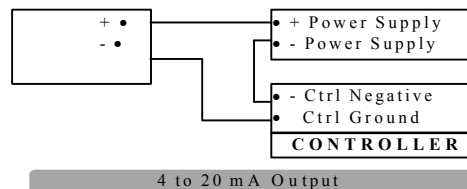
Alternatively, if R_L is known:

$V_{s,min} = R_L / (50) + 14Vdc$

$V_{s,max} = R_L / (40) + 30Vdc$

CAUTION: Do not exceed specified supply voltage.

TYPICAL 2 WIRE CONNECTION



CONVERTING 4-20mA TO 1-5 VDC

880 Series Pressure transducers with a 4-20mA current output can be easily adapted to

controllers requiring 1-5 VDC input. Insert a 250 ohm resistor between the "+" and "-" controller input terminals. This will safely convert the 4-20mA signal to 1-5VDC.

OFFSET

The offset of the 880 series transducer is factory set. If it should need adjustment upon arrival, the offset pot is located next to the ports on the end of the unit. With the transducer installed and no pressure applied place a meter in series with the negative "-" and the ground. Turn offset adjusting pot to desired reading.

CUSTOMER SERVICE

If any problems are encountered during installation please call the number below for assistance.

Call (858) 578-7887

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