



WET/WET DIFFERENTIAL PRESSURE TRANSDUCER  
MODEL PR-285

- \* SENSOR AND ELECTRONICS ENVIRONMENTALLY SEALED IN HOUSING
- \* CAN WITHSTAND 300 PSIG STATIC PRESSURE
- \* 0-20" WCD TO 0-300" WCD OPERATING RANGES

THE PR-285 LOW DIFFERENTIAL PRESSURE TRANSDUCER IS DESIGNED TO MEASURE VERY LOW DIFFERENTIAL PRESSURE GENERATED BY ANNUBAR, VENTURI AND OTHER LIQUID FLOW MEASUREMENT DEVICES. THE UNIT IS CAPABLE OF MEASURING VERY LOW DIFFERENTIAL PRESSURE (0-20" WATER COLUMN) AND, AT THE SAME TIME, CAN WITHSTAND UP TO 300 PSIG SYSTEM STATIC PRESSURE. STATIC PRESSURE IS TRANSMITTED THROUGH ISOLATOR DIAPHRAGMS AND SILICONE FILL FLUID TO A SENSING DIAPHRAGM LOCATED IN THE ELECTRONICS HOUSING. THE SENSING DIAPHRAGM IS A STRETCHED-SPRING ELEMENT THAT DEFLECTS IN RESPONSE TO DIFFERENTIAL PRESSURE ACROSS IT. ITS DISPLACEMENT IS PROPORTIONAL TO THE DIFFERENTIAL PRESSURE. THE POSITION OF THE SENSING DIAPHRAGM IS DETECTED BY CAPACITOR PLATES ON BOTH SIDES OF THE SENSING DIAPHRAGM, THE DIFFERENTIAL CAPACITANCE BETWEEN THE SENSING DIAPHRAGM AND THE CAPACITOR PLATES IS CONVERTED ELECTRONICALLY TO 4-20mA SIGNAL.

SPECIFICATIONS;

ACCURACY; 0.25% INCLUDES COMBINED EFFECTS OF LINEARITY, HYSTERESIS AND REPEATABILITY

SUPPLY VOLTAGE; 12-36VDC

OUTPUT; 4-20mA

MEDIA COMPATABILITY; LIQUID /GASES COMPATIBLE TO 316L STAINLESS STEEL

PORT CONNECTIONS; 1/8" NPT

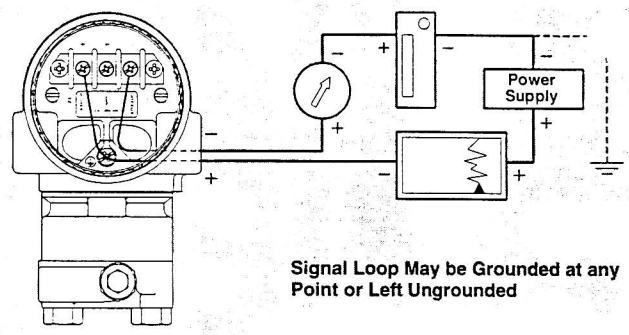
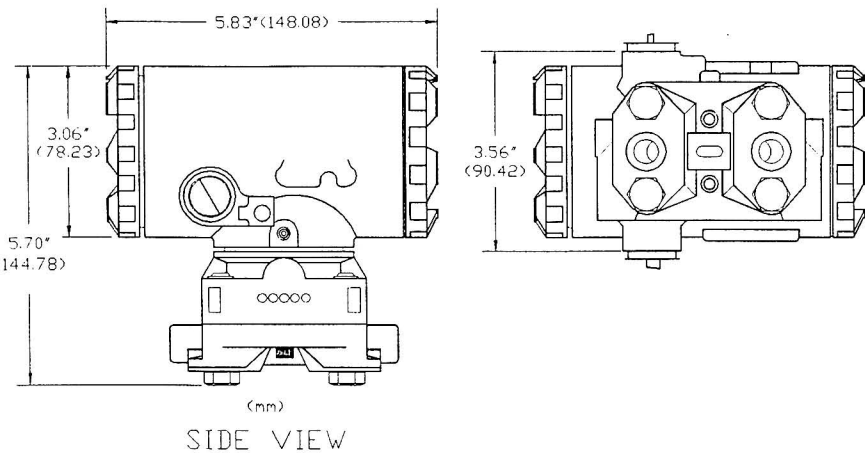
ELECTRICAL CONNECTION; 1/2-14 NPT CONDUIT CONNECTION

ORDERING INFORMATION PR-285

PRESSURE RANGES

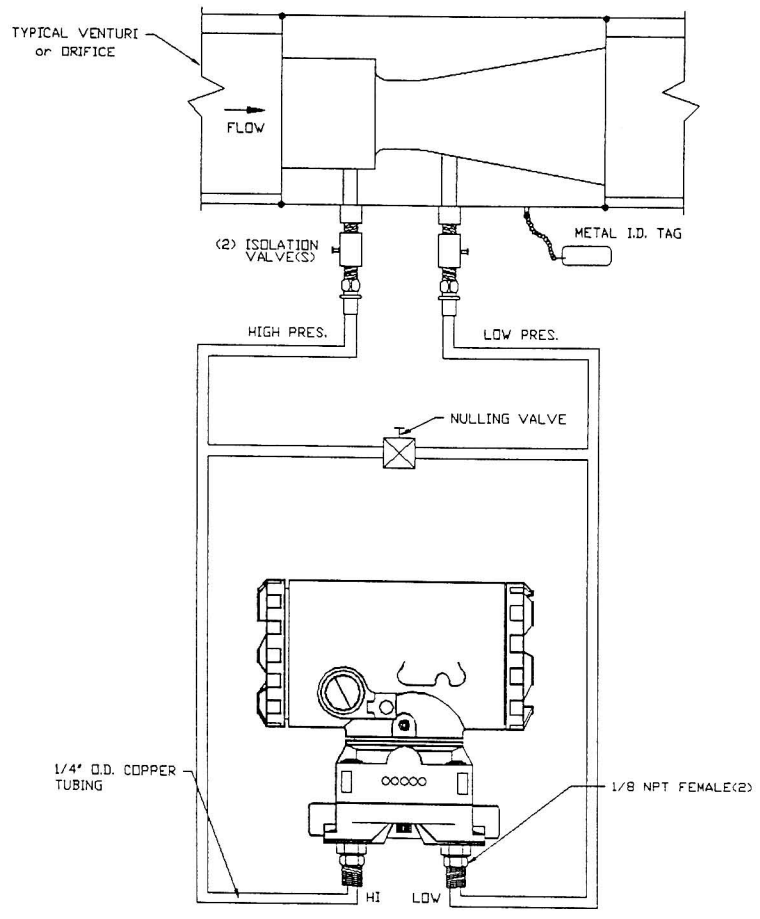
- 1) 0-20" WCD
- 2) 0-50" WCD
- 3) 0-100" WCD
- 4) 0-200" WCD
- 5) 0-300" WCD
- 6) 0-25 KPa
- 7) 0-50 KPa
- 8) 0-75 KPa
- 11) CUSTOM

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4-20ma OUTPUT

TYPICAL INSTALLATION



START-UP:

- 1) OPEN NULLING VALVE
- 2) OPEN (1) ISOLATION VALVE
- 3) OPEN OTHER ISOLATION VALVE
- 4) CLOSE NULLING VALVE
- 5) CRACK AND BLEED AIR OUT OF LINES, ONE AT A TIME, TIGHTEN WHEN DONE

OPERATING TIPS:

- 1) IF OUTPUT HAS EXCESSIVE PULSATION, PLEASE EXTEND COPPER TUBING
- 2) IF NECESSARY, LOOSEN FITTING AT UNIT TO BLEED TRAPPED AIR

**WARNING**

DO NOT INSTALL WITHOUT NULLING VALVE

IF SYSTEM STATIC PRESSURE EXCEEDS 200% CALIBRATION RANGE, START-UP WITHOUT NULLING VALVE MAY DAMAGE UNIT.

NOTE: Sensing element (PR-2B5) should be mounted below the level of fluid being sensed, similar to this drawing.