M O D E L IXdp T R A N S D U C E R

1. GENERAL:
A failure resulting in injury or damage may be caused by excessive overpressure, excessive vibration or pressure pulsation, excessive instrument temperature, corrosion of the pressure containing parts, or other misuse. Consult Ashcroft Inc., Stratford, Connecticut, USA before installing the pressure transducer body, and is not a suitable ground.

DESCRIPTION:
The Industrial Low Pressure Differential Transducer consists of a silicon diaphragm supported between two layers of metalized glass. The Si-Glass technology combines the inherent high sensitivity of a variable capacitance transducer using a micro-machined, single-crystal diaphragm which provides excellent stability and repeatability.

The transducer should be used with clean, dry air or other non-corrosive gases. Both unidirectional (e.g. 0.1 in. W.C.) and bidirectional (e.g. ±5.0 in. W.C.) pressure ranges are offered as well as a wide selection of output signals.

The storage temperature limits of the transducer are -40° to 210°F. The unit can operate between -20° and 185°F and is temperature compensated between 0 and 180°F. For units with FM Approval Please see schematic diagram 718041.

INSTALLATION:
The unit should be mounted with #8 or #10 screws threads in the cable (if supplied) is not connected to the transducer body, and is not a suitable ground.

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MOUNTING:
The unit should be mounted with 4#8 or #10 screws through the mounting holes provided (see Fig. 1). Easy access to the covers may be a consideration when mounting. The transducer can be mounted in any orientation with virtually no effect on calibration. Any minor zero pressure offsets that are encountered can be adjusted using the zero adjust potentiometer. (See the Calibration section for more details on the zeroing procedure.)
INSTRUCTION SHEET

MODEL IXLdp TRANSUDER

Figure 1.
General Dimensions (INCHES)

LOAD LIMITATION 4-20mA OUTPUT ONLY

Figure 2. Loop Supply Voltage vs. Loop Resistance

V_{\text{max}} = 12 + (0.022A \times R_L)
R_L = R_S + RW
R_L = Loop Resistance (ohms)
R_S = Sense Resistance (ohms)
RW = Wire Resistance (ohms)

INCLUDES A 10% SAFETY FACTOR

Figure 3. Correct 4-20mA Output Wiring

Figure 4. Voltage Output Wiring

Hazards Area Specific Guidelines:
1. Do not open unit when energized.
2. Do not disconnect equipment unless area is known to be non-hazardous.

FM Installation Notes:
SEE DRAWING 71B241-1

Intrinsically-Safe Entity Barrier Parameters:
Definition of Entity Concept: The entity concept allows interconnection of intrinsically safe apparatus to associated apparatus not specifically examined in such combination. The criteria for interconnection is that the voltage and current which intrinsically-safe apparatus can receive and remain intrinsically-safe, considering faults, must be equal to or greater than the voltage and current levels which can be delivered by the associated apparatus, considering faults and applicable factors. In addition, the maximum unprotected capacitance and inductance of the IS apparatus, including the interconnecting wiring, must be equal to or less than the capacitance and inductance which can be safely connected to the associated apparatus.

The "entity parameters" were broadened to allow IXLdp users the freedom to apply the IXLdp into a wider array of applications. Additionally, the inclusion of a "nonincendive" rating gives our customers the ability to choose an intrinsically safe barrier from any barrier manufacturer meeting the below ratings.

DIMENSIONAL TOLERANCES
UNLESS OTHERWISE SPECIFIED

FRACTIONS    DECIMALS    ANGLES

3 PLACE DECIMAL: .000
.007
2 PLACE DECIMAL: .00
.015
1 PLACE DECIMAL: .0
.030

ANGLE:
1 deg
5 deg
10 deg
2 deg
15 deg
3 deg
4 deg
60 deg
90 deg
180 deg