

# **Dynamic Pressure Sensors**

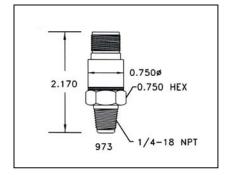
The Model 973 High Intensity Pressure Transducer is designed for the measurement of dynamic pressure events, such as explosive blasts and high-level pressure pulses in the frequency range of 2 Hz to 18KHz. This unit is designed for use in the most corrosive environments.

The unit is housed in a rugged stainless steel housing and incorporates a hastelloy diaphragm. The stainless steel MIL-style connector combined with the all-welded construction provides a true hermetic seal. The sensor's integral electronic buffer provides a low impedance output when used with constant current sources of 2 to 10mADC. *Consult the factory for customized versions of this sensor.* 

- High Pressure
- Low Output Impedance
- Wide Frequency Response
- Electrically Isolated
- Corrosion-Resistant
- Compact Size

## **Specifications**

Transfer / Electrical	973
Voltage Sensitivity	48 mV/psi +/-10%
Frequency Response	2 Hz To 18,000 Hz
Full Range Output	+/-5 V Pk into 10K Minimum
Output Impedance	50 Ohms (Nominal)
Linearity	1% / 1,000 psi (B.F.S.L.)
Output Bias Voltage	10.5 +/-1.5 VDC
Avg Temp Coeff of Sensitivity	0.03% / Deg F (Nominal)
Power Requirement <sup>1</sup>	4.0 mA DC Nominal, 18 To 30 VDC
Isolation Resistance	50 Megohms Minimum
Environmental	
Vibration Limit	100 g Max. (Sine)
Shock Limit	2,000 g Max., 0.25 mSec
Temperature Range	-40 To +250 Deg F (-40 To +121 Deg C)
Humidity <sup>2</sup>	0 To 100% R.H.
Static Pressure	8,000 psi Max. (Diaphragm)
Electromagnetic Sensitivity	2.0 psi (Equiv / 100 Gauss)
Physical	
Configuration	Double-Ended Compression
Size	0.75 ln. Dia. x 2.17 ln. L (19.0 mm Dia. x 55.0 mm L)
Weight	1.94 Oz (55 Gm)
Material	
Body:	17-7 Stainless Steel
Diaphragm:	Type C-276 Hastelloy
Electrical Interface	2-Pin Hermetic MIL-C-5015 Style Connector
Mounting	0.25-18 UNF NPT Male Thread
Operating Life	5 x 10 <sup>9</sup> Ops Full Range Pulsations



### **Output Connector Pin Functions:**

Pin A = Signal & Power Pin B = Signal & Power Return

#### NOTES:

- <sup>1</sup> Unit must be powered with 2 to 10 mA DC Current Source having a compliance voltage of 18 to 30 VDC
- <sup>2</sup> Unit is Hermetically Sealed.

# **Accessories Supplied:**

- (1) Mating Connector
- (1) Hardwood Storage Case
- (1) Standard Calibration Data

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