



# Dynamic Pressure Sensors

## Model P-742

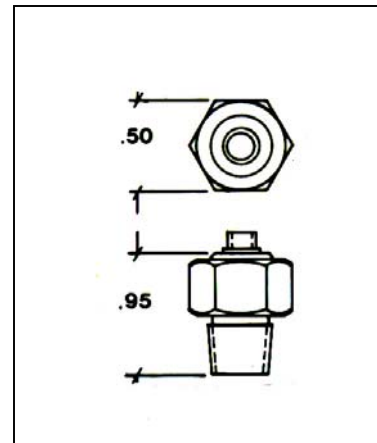
The Columbia Model P-742 High Intensity Acoustic Sensor (Microphone) is designed for the measurement of high level dynamic pressure events, including high intensity sound pressure levels, over a frequency range of 2 to 10KHz. It may be used at temperatures up to +150 Degrees C.

The all-welded case construction of the Model P-742 provides the advantages of very high natural frequency and exceptional mechanical isolation along with extreme ruggedness. This flush diaphragm device conveniently mounts with a 1/8" male pipe thread. *Consult the factory for customized versions of this sensor.*

- **Fast Pressure Variations, Surges & Dynamic Blasts**
- **High Pressure (10,000 psi)**
- **9 pC/psi Sensitivity**

### Specifications

	<b>P-742</b>
<b>Transfer / Electrical</b>	
Charge Sensitivity	9 pC/psi
Pressure Range	10,000 psi
Pressure Overload (without damage)	10,000 psi Max.
Frequency Response	2 To 20,000 Hz
Resonant Frequency	100 KHz
Amplitude Linearity	+/-2%
Capacitance	75 pF
Output Resistance	1 x 10 <sup>10</sup> Ohms
Grounding	Case Grounded
<b>Environmental</b>	
Temperature Range (Less than +/-10% Variation)	-65 To +300 Deg F (-54 To +150 Deg C)
Humidity <sup>1</sup>	0 To 100% R.H.
<b>Physical</b>	
Size	0.50 In. Hex. x 0.95 In. H (12.7 mm Hex x 24.1 mm H)
Weight	0.6 Oz (17 Gm)
Material	
Body & Diaphragm	Type 316 Stainless Steel
Electrical Interface	#10-32 Coaxial Thread
Mounting	1/8 In. NPT Male Thread



#### NOTES:

<sup>1</sup> With Connector Mated or Protected, Unit is Hermetically Sealed.

#### Accessories Supplied:

- (1) Cable Assembly, LNHT-3 Ft.
- (1) Hardwood Storage Box
- (1) Standard Calibration Data.