



Dynamic Pressure Sensors

Model 765M20 765M22

The Models 765M20 and 765M22 High Intensity Acoustic Sensors (Microphones) are designed for the measurement of gas-borne sound in industrial applications. These sensors have been constructed for use in corrosive environments that are compatible with the type 316 stainless steel diaphragm. The miniature 10-32 fused-glass coaxial connector, when combined with all-welded construction, provides a true hermetic seal.

Electrically, these devices comprise sensing elements of piezoceramic material in a balanced and floating configuration to provide enhanced rejection of electrical noise associated with many industrial environments. Optimum performance is achieved when used with a true differential input amplifier.

Consult the factory for customized versions of this sensor.

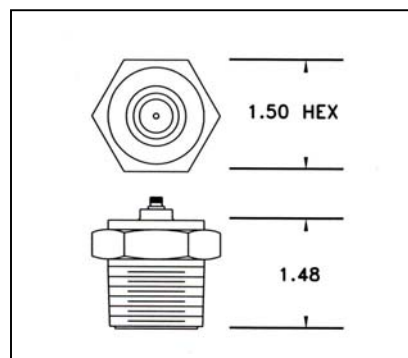
- High Sensitivity
- Choice of Sensitivities
2200 or 1200 pC/psi
- High Temperature To
+500 Deg F
- Electrically Isolated

Specifications

	765M20	765M22
Transfer / Electrical		
Charge Sensitivity	2200 pC/psi +/-10%	1200 pC/psi +/-10%
Frequency Response	2 Hz To 8,000 Hz	
Dynamic Range	0.28 x 10 ⁻⁴ to 10 psi (191 dB SPL Max.)	
Avg Temp Coeff of Sensitivity	0.08% / Deg F Nominal	
Transducer Capacitance	11,000 pF +/-10%	6,300 pF +/-10%
Insulation Resistance	100 Megohms Min., 50 VDC Test	
Isolation Resistance	100 Megohms Min., 50 VDC Test	
Dielectric Strength	550 Vrms, 60 Hz, Element to Housing	
Environmental		
Vibration Limit	100 g Max. (Sine)	
Shock Limit	1,000 g Max., 0.25 mSec	
Temperature Range	-10 To +500 Deg F (-23 To +260 Deg C)	
Humidity ¹	0 To 100% R.H.	
Static Pressure	3,000 psi Max. (Diaphragm)	
Electromagnetic Sensitivity	0.005 g (Equiv / 100 Gauss)	
Physical		
Configuration	Balanced Floating Compression	
Size	1.50 In. Hex. x 1.48 In. H (38.1 mm Hex x 37.6 mm H)	
Weight	7.5 Oz (212 Gm)	
Material	Type 316 Stainless Steel	
Body & Diaphragm	Type 316 Stainless Steel	
Electrical Interface	Isolated 10-32 Coaxial Connector	
Mounting	Standard 1 In. NPT Male Thread	

NOTES:

¹ With Connector Mated or Protected, Unit is Hermetically Sealed.



Accessories Supplied:

- (1) Low Noise Cable Assembly (3M) (300 pF)
- (1) Hardwood Storage Case
- (1) Standard Calibration Data

Columbia Research Laboratories, Inc. 1925 Mac Dade Blvd. Woodlyn, PA 19094 USA
Phone: 1.800.813.8471 / Fax: 610.872.3882 / email: sales@columbiaresearchlab.com