



M O D E L 132 B 38

MICRO ICP® PRESSURE SENSOR



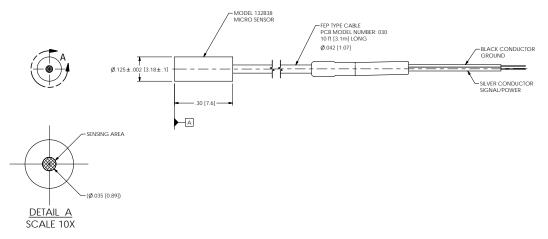
- Small size fits in wind tunnel models
- Very high frequency response
- Centered element improves accuracy

TYPICAL APPLICATIONS

- Explosives research
- Time of arrival measurements
- Targeting
- Wind tunnel boundary layer transition

For measurement of short wavelength pressure pulses, 132B38 piezoelectric ICP® micro pressure sensor features 0.5 microsecond response. The sensor's micro-second response time accurately measures pressure peaks from fast rising shock waves and very high frequency pressure phenomena. The 1mm diameter sensing element allows measurement of short wavelength incident pressure waves. A short time constant filters off the static component of wind tunnel pressure, allowing differentiation of consecutive pulses.





SPECIFICATIONS			
	English	SI	
Performance			
Measurement Range	50 psi	345 kPa	
Sensitivity (±30%)	140 mv/psi	20.3 mv/kPa	
Maximum Pressure (Dynamic)	800 psi	5516 kPa	
Resolution [2]	0.001 psi	0.007 kPa	
Rise Time (Incident) [1]	≤ 3 µ sec	≤ 3 µ sec	
Rise Time (Reflected)	≤ 0.5 µ sec	≤ 0.5 µ sec	
Low Frequency Response (-5 %)	11 kHz	11 kHz	
High Frequency Response [3][2]	1 MHz	1 MHz	
Environmental			
Temperature Range (Operating)	-13 to +175 °F	-25 to +79 °C	
Electrical			
Output Polarity (Positive Pressure)	Positive		
Discharge Time Constant (at room temp) [4]	≥ .000045 sec		
Excitation Voltage	20 to 30 VDC		
Constant Current Excitation	2 to 2	2 to 20 mA	
Output Impedance	≤ 100 Ohm		
Output Bias Voltage	8 to 14 VDC		
Physical			
Sensing Element	Ceramic		
Housing Material	Stainless Steel		
Sealing	Ероху		
Weight [5]	12.77 gm		
Cable Termination	10-32 Coaxial Jack		
Cable Type	030 Coaxial		

All specifications are at room temperature unless otherwise specified.

Product Notes

- [1] Rise time in air at Mach 1.
- [2] Typical.
- [3] High frequency response may be limited by supply current and output cable length.
- [4] Calculated.
- [5] Typical; with cable.

