



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**

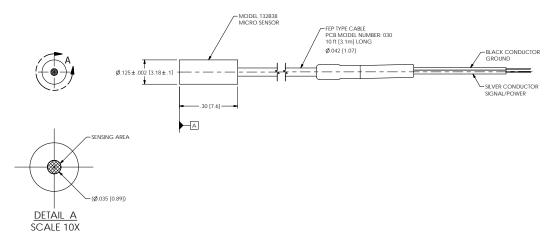
- Explosives research
- Time of arrival measurements
- Targeting
- Wind tunnel boundary layer transition

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.



pcb.com





SPECIFICATIONS			
	English	SI	
Performance			
Measurement Range	50 psi	345 kPa	
Sensitivity (±30%)	140 mV/με	20.3 mV/με	
Maximum Pressure (Dynamic)	800 psi	5516 kPa	
Resolution [2]	0.5-100000 Hz	0.5-100000 Hz	
Rise Time (Incident) [1]	3n 0.0	5.0 nE	
Rise Time (Reflected)	≤1 %	≤1.5 %	
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 20 mA		
Output Impedance	≤100 Ohm		
Output Bias Voltage	8 to 14 VDC		
Physical			
Sensing Element	Cera	Ceramic	
Housing Material	Stainless Steel		
Sealing	Ерс	Ероху	
Weight [5]	12.77	12.77 gm	
Cable Termination	10-32 Coaxial Jack		
Cable Type	030 C	030 Coaxial	

All specifications are at room temperature unless otherwise specified.

AN AMPHENOL COMPANY

## **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.

PCB PIEZOTRONICS

3425 Walden Avenue, Depew, NY 14043 USA

pcb.com | info@pcb.com

© 2021 PCB Piezotronics - all rights reserved. PCB Piezotronics is a wholly-owned subsidiary of Amphenol Corporation. Endevco is an assumed name of PCB Piezotronics of North Carolina, Inc., which is a wholly-owned subsidiary of PCB Piezotronics, Inc. Accumetrics, Inc. and The Modal Shop, Inc. are wholly-owned subsidiaries of PCB Piezotronics, Inc. IMI Sensors and Larson Davis are Divisions of PCB Piezotronics, Inc. Except for any third party marks for which attribution is provided herein, the company names and product names used in this document may be the registered trademarks or unregistered trademarks of PCB Piezotronics, Inc., PCB Piezotronics of North Carolina, Inc. (d/b/a Endevco), The Modal Shop, Inc. or Accumetrics, Inc. Detailed trademark ownership information is available at www.pcb.com/trademarkownership.

Aufgrund laufender Weiterentwicklungen sind Änderungen der Spezifikationen vorbehalten. Alle Angaben vorbehaltlich Satz- und Druckfehler.

AD-132B38-1021

