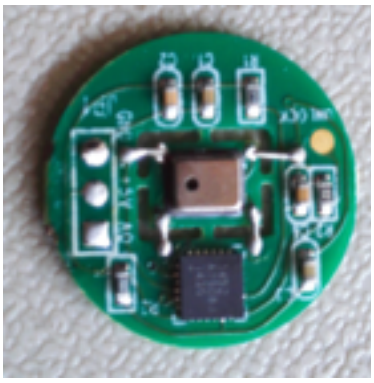
IPBD-1000 Series

The IPBD-1000 Series
FR4 Assembly
Barometric Disc



DESCRIPTION

The IPBD 1000 Series incorporates a rugged silicon MEMS pressure sensor that is designed to measure barometric pressures within a small FR4 footprint. The sensor outputs a proportional voltage from 0.5 to 4.5Vddc within barometric pressure of 800 to 1100mBar. The sensor incorporates an application specific integrated circuit (ASIC) with a full analog path that ensures a wide dynamic output can be monitored at 15kHz in high speed train applications. The sensor is highly accurate with total errors less than 0.20% TEB over a wide temperature range. The sensor is ideal for many barometric applications where high accuracy and full band are needed

APPLICATIONS

- High Speed Trains
- High Accuracy Weather Station

FEATURES

- 0.5 to 4.5Vdc Output
- Wide Temperature Range
- Highly Accurate, 0.20% TEB
- Absolute Pressures
- ±16Vdc Voltage Protection
- -Small FR4 Footprint

SPECIFICATIONS

	Min	Typical	Max	Unit
Absolute Maximum Conditions				
Supply Voltage	-16	5.0	16	V
Operating Temperature	-40		125	◦C
Overage Pressure	5			Bar
Media Compatibility	CDA, Non Ionic, Non Corrosive Gases			

business.development@AVSENSORS.COM

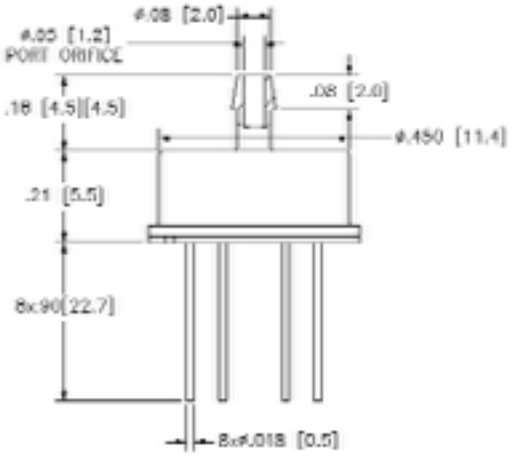
IPBD-1000 Series

SPECIFICATIONS	Min	Typical	Max	Unit	Notes
Performance Characteristics					
Supply Voltage	4.5	5.0	5.5	Vdc	1
Supply Current		3.2		mA	
Input Pressure Range	800		1100	mBar Absolute	
Output Voltage at 800mBar		0.5		Vdc	
Output Voltage at 1100mBar		4.5		Vdc	
Accuracy, Total Error Band	-0.20	0.12	0.20	%FSS	2
Compensated Temperature Range	-20		50	°C	

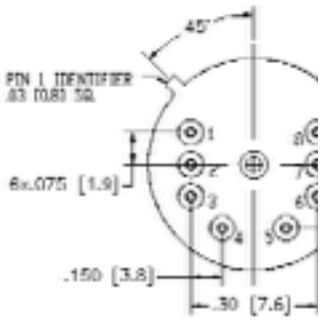
Reference Conditions: Vsupply: 5.00Vdc, Ta=25◦C. .

1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. Total errors over the Input Pressure Range and within the Compensated Temperature Range. Errors include calibration errors, hysteresis, pressure nonlinearity and temperature errors with the compensated temperature range.

MECHANICAL DIMENSIONS in [mm]



SIDE VIEW



BOTTOM VIEW

PIN NMBR	FUNCTION
8	+OUT
3	-OUT
1	+IN,+VS
0,2	-IN,-VS
4,6,7	NC

ELECTRICAL PINOUT

PART NUMBERING

Series	Port Style	Pressure Range	Options

IPBD-1000 Series

IPBD	10= FR4 Disc	00= 800-1100 01= 600-1100 02= 800-1300 04= 600-1300	-C4 = 4M Cable

Part Number Example: IPBD 1001 600-1100 mBar, FR4 Disc, no cable

WARRANTY

AVsensors pressure sensors have a limited one-year warranty to the original purchaser. AVsensors will repair or replace, at its option, without charge those items it finds defective. This is the buyer s sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall AVsensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing, however, we assume no responsibility for its use.