Model Number 121A44

ICP® PRESSURE SENSOR

Revision: D ECN #: 55309

Performance Measurement Range(for ±5V output)	ENGLISH 50 psi	SI 344.8 kPa	
Sensitivity(± 15 %)	100 mV/psi	14.5037 mV/kPa	
Maximum Pressure	8 kpsi	55.16 MPa	[1]
Resolution	0.5 mpsi	0.003 kPa	[2]
Resonant Frequency	≥ 60 kHz	≥ 60 kHz	
Rise Time(Reflected)	≤ 4 µ sec	≤ 4 µ sec	
Low Frequency Response(- 5 %)	0.5 Hz	0.5 Hz	
Non-Linearity	≤ 2.0 % FS	≤ 2.0 % FS	[3]
Environmental			
Acceleration Sensitivity	0.025 psi/g	$0.018 \text{kPa/(m/s}^2)$	[2]
Temperature Range(Operating)	-65 to +250 °F	-54 to +121 ℃	
Electrical			
Output Polarity(Positive Pressure)	Positive	Positive	
Discharge Time Constant(at room temp)	≥ 1.0 sec	≥ 1.0 sec	
Excitation Voltage	22 to 28 VDC	22 to 28 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	< 100 Ohm	< 100 Ohm	
Output Bias Voltage	10 to 15 VDC	10 to 15 VDC	
Electrical Isolation	≥ 10 ⁸ Ohm	≥ 10 ⁸ Ohm	
Physical			
Sensing Geometry	Compression	Compression	
Sensing Element	Quartz	Quartz	
Housing Material	316L Stainless Steel	316L Stainless Steel	
Diaphragm	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	2-Pin MIL-C-5015	2-Pin MIL-C-5015	
Weight	2.7 oz	75.6 gm	
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OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

[1] Due to high sensitivity, the static pressure should be applied and removed very slowly. Rate should prevent more than 10 Volt change in output until Output Bias Voltage returns to normal (approximately 15 times discharge time constant).

[3]Zero-based, least-squares, straight line method.

[4] See PCB Declaration of Conformance PS059 for details.

SUPPLIED ACCESSORIES:

Model PCS-1 Calibration of dynamic pressure sensors at 100% full scale, max 15 kpsi range.

Entered: ND Engineer: RPF Sales: DPC Approved: RPF Spec Number: Date: 10/25/2024 Date: 10/25/2024 Date: 10/25/2024 Date: 10/25/2024 36688



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All specifications are at room temperature unless otherwise specified. In the interest of constant product improvement, we reserve the right to change specifications without notice. ICP® is a registered trademark of PCB Piezotronics, Inc.