

Model Number
103B12

ACOUSTIC ICP® PRESSURE SENSOR

Revision: A
ECN #: 20134

	ENGLISH	SI	
Performance			
Measurement Range (± 5 V output)	10 psi	190.7 dB	
Useful Overrange (± 10 V output)	20 psi	196.7 dB	[1]
Sensitivity (± 15 %)	500 mV/psi	72.5 mV/kPa	
Maximum Pressure	250 psi	1724 kPa	
Resolution	0.06 mpsi	86.3 dB	
Resonant Frequency	≥ 13 kHz	≥ 13 kHz	
Rise Time	≤ 25 μ sec	≤ 25 μ sec	
Low Frequency Response (-5 %)	5 Hz	5 Hz	
Non-Linearity	≤ 2.0 % FS	≤ 2.0 % FS	[2]
Environmental			
Acceleration Sensitivity	≤ 0.0005 psi/g	≤ 0.0035 kPa/(m/s ²)	
Temperature Range (Operating)	-100 to 250 °F	-73 to 121 °C	
Temperature Coefficient of Sensitivity	≤ 0.2 %/°F	≤ 0.36 %/°C	
Maximum Flash Temperature	1000 °F	538 °C	
Maximum Shock	1000 g pk	9807 m/s ² pk	
Electrical			
Output Polarity (Positive Pressure)	Positive	Positive	
Discharge Time Constant (at room temp)	≥ 0.1 sec	≥ 0.1 sec	
Excitation Voltage	20 to 30 VDC	20 to 30 VDC	
Constant Current Excitation	2 to 20 mA	2 to 20 mA	
Output Impedance	≤ 100 ohms	≤ 100 ohms	
Output Bias Voltage	7 to 13 VDC	7 to 13 VDC	
Physical			
Sensing Element	Ceramic	Ceramic	
Housing Material	Stainless Steel	Stainless Steel	
Diaphragm	316L Stainless Steel	316L Stainless Steel	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Weight	0.11 oz	3.15 gm	

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.

M - Metric Mount
Supplied Accessory : Model 060A24 Clamp nut M14 x 1.25-6G thd 11 mm hex 17-4 SS material (1)

NOTES:

- [1] For +10 volt output, minimum 24 VDC supply voltage required. Negative 10 volt output may be limited by output bias.
- [2] Zero-based, least-squares, straight line method.
- [3] See PCB Declaration of Conformance PS023 for details.

SUPPLIED ACCESSORIES:

- Model 060A10 Clamp nut 1/2-20-2A thd 7/16" hex (1)
- Model 065A66 Adhesive Mounting Ring (3)
- Model 160-0242-00 O-ring .250x.375(2-0100) (3)

Pressure Sensor, ICP®, Acoustic

Entered: <i>BLS</i>	Engineer: <i>J.P.K.</i>	Sales: <i>DPC</i>	Approved: <i>MEM</i>	Spec Number:
Date: <i>6-30-04</i>	Date: <i>7, 04</i>	Date: <i>7/6/04</i>	Date: <i>7/6/04</i>	24856



[3]

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.

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