

Model Number  
102A05

# ICP® PRESSURE SENSOR

Revision: E  
ECN #: 39108

	<u>ENGLISH</u>	<u>SI</u>	
<b>Performance</b>			
Measurement Range(for ±5V output)	100 psi	690 kPa	[1]
Useful Overrange(for ± 10V output)	200 psi	1379 kPa	
Sensitivity(± 10 mV/psi)	50 mV/psi	7.3 mV/kPa	
Maximum Pressure(static)	1 kpsi	6900 kPa	
Resolution	2 mpsi	0.014 kPa	
Resonant Frequency	≥ 250 kHz	≥ 250 kHz	
Rise Time(Reflected)	≤ 2.0 μ sec	≤ 2.0 μ sec	
Low Frequency Response(-5 %)	0.5 Hz	0.5 Hz	
Non-Linearity	≤ 1.0 % FS	≤ 1.0 % FS	[2]
<b>Environmental</b>			
Acceleration Sensitivity	≤ 0.002 psi/g	≤ 0.0014 kPa/(m/s <sup>2</sup> )	
Temperature Range(Operating)	-100 to +275 °F	-73 to +135 °C	
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C	
Maximum Flash Temperature	3000 °F	1650 °C	
Maximum Shock	20,000 g pk	196,000 m/s <sup>2</sup> pk	
<b>Electrical</b>			
Output Polarity(Positive Pressure)	Positive	Positive	
Discharge Time Constant(at room temp)	≥ 1.0 sec	≥ 1.0 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 Ohm	<100 Ohm	
Output Bias Voltage	8 to 14 VDC	8 to 14 VDC	
Electrical Isolation	10 <sup>8</sup> Ohm	10 <sup>8</sup> Ohm	
<b>Physical</b>			
Sensing Geometry	Compression	Compression	
Sensing Element	Quartz	Quartz	
Housing Material	Stainless Steel	Stainless Steel	
Diaphragm	Invar	Invar	
Sealing	Welded Hermetic	Welded Hermetic	
Electrical Connector	10-32 Coaxial Jack	10-32 Coaxial Jack	
Weight	0.41 oz	11.6 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.

**CA** - Ablative Coating  
**H** - Hermetic Seal  
Sealing                      Welded Hermetic                      Welded Hermetic

**M** - Metric Mount  
Supplied Accessory : Model 065A40 Seal ring 0.435" OD x 0.397" ID x 0.030" thk brass (3) replaces Model 065A03

**N** - Negative Output Polarity

**S** - Stainless Steel Diaphragm  
Diaphragm                      316L Stainless Steel                      316L Stainless Steel

**W** - Water Resistant Cable

**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 065A03 Seal ring 0.435" OD x 0.377" ID x 0.030" thk brass (3)

Entered: <i>LH</i>	Engineer: <i>JK</i>	Sales: <i>KWW</i>	Approved: <i>BAM</i>	Spec Number:
Date: <i>4-26-12</i>	Date: <i>4-19-12</i>	Date: <i>4-19-12</i>	Date: <i>4-23-12</i>	<b>5960</b>



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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