

Model Number
102A05

ICP® PRESSURE SENSOR

Revision: H
ECN #: 53508

Performance	ENGLISH	SI	
Measurement Range(for ±5V output)	100 psi	690 kPa	
Useful Overrange(for ± 10V output)	200 psi	1,379 kPa	[1]
Sensitivity(± 20 %)	50 mV/psi	7.3 mV/kPa	
Maximum Pressure(step)	1 kpsi	6,900 kPa	
Maximum Pressure(Total)	15,000 psi	103,421 kPa	
Resolution	0.4 mpsi	0.0028 kPa	[2]
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	[3]
Environmental			
Acceleration Sensitivity	≤ 0.002 psi/g	≤ 0.0014 kPa/(m/s ²)	
Temperature Range(Operating)	-100 to +275 °F	-73 to +135 °C	
Temperature Coefficient of Sensitivity	≤ 0.03 %/°F	≤ 0.054 %/°C	
Maximum Flash Temperature	3,000 °F	1,650 °C	
Maximum Vibration	2,000 g pk	19,613 m/s ² pk	
Maximum Shock	20,000 g pk	196,133 m/s ² pk	
Electrical			
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 ⁸ Ohm	≥ 10 ⁸ Ohm	
Physical			
Sensing Geometry	Compression	Compression	
Sensing Element	Quartz	Quartz	
Housing Material	17-4 / 304L Stainless Steel	17-4 / 304L Stainless Steel	
Thread Adaptor Material	17-4 Stainless Steel	17-4 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	



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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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

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]Typical value.

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

[4]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: ND	Engineer: AK	Sales: RWM	Approved: RPF	Spec Number:
Date: 01/24/2023	Date: 01/24/2023	Date: 01/24/2023	Date: 01/24/2023	5960



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