Model Number ICP® PRESSURE SENSOR 111A23 Performance **ENGLISH** SI 68,950 kPa Measurement Range(for ±5V output) 10,000 psi Sensitivity(± 0.05 mV/psi) 0.5 mV/psi 0.07 mV/kPa 103,420 kPa Maximum Pressure 15,000 psi Resolution 0.2 psi 1.4 kPa [1] ≥ 400 kHz Resonant Frequency ≥ 400 kHz Rise Time(Reflected) ≤ 1.5 µ sec ≤ 1.5 µ sec Low Frequency Response(- 5 %) 0.0005 Hz 0.0005 Hz Non-Linearity ≤ 2.0 % FS ≤ 2.0 % FS [2] Environmental Acceleration Sensitivity 0.002 psi/g $0.0014 \text{ kPa/(m/s}^2)$ [1] Temperature Range(Operating) -100 to +275 °F -73 to +135 ℃ Temperature Coefficient of Sensitivity ≤ 0.03 %/°F ≤ 0.054 %/°C 2,000 g pk Maximum Vibration 19,600 m/s² pk 196,000 m/s² pk Maximum Shock 20,000 g pk Electrical Output Polarity(Positive Pressure) Positive Positive Discharge Time Constant(at room temp) ≥ 1,000 sec ≥ 1,000 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 Physical Sensing Geometry Compression Compression Sensing Element Quartz Ouartz Housing Material 17-4 Stainless Steel 17-4 Stainless Steel Diaphragm Invar Invar Welded Hermetic Welded Hermetic Sealing 10-32 Coaxial Jack **Electrical Connector** 10-32 Coaxial Jack Weight 0.21 oz 6.0 am

OPTIONAL VERSIONS

Revision: L

ECN #: 54949

[5]

[5][6]

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 [5]

E - Emralon coating Coating Electrical Isolation Emralon Emralon 10⁸ Ohm Electrical Isolation 10^8 Ohm Supplied Accessory: Model 065A08 Isolation ring 0.250" OD x 0.218" ID x 0.027" thk anodized

Supplied Accessory: Model 065A22 Isolation Seal, .250" OD x .218" ID x .015", Torlon or Vespel (3)

[5][4] J - Ground Isolated Electrical Isolation(50 V)

10⁸ Ohm 10⁸ Ohm

N - Negative Output Polarity [5] **S** - Stainless Steel Diaphragm Diaphragm

316L Stainless Steel 316L Stainless Steel [5][6] W - Water Resistant Cable

WM - Water Resistant Cable

NOTES:

[1]Typical.

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

[3] See PCB Declaration of Conformance PS023 for details.

[4]Used with optional mounting adaptor.

[5] For sensor mounted in thread adaptor, see adaptor installation drawing for supplied accessories and pressure limitations.

[6] Clamp nut installed prior to cable attachment

SUPPLIED ACCESSORIES:

Model 060A03 Clamp nut, 5/16-24-2A thd, 1/4" hex, stainless steel (1)

Model 060A05 Clamp nut M7 x 0.75-6g thd (1)

Model 065A02 Seal ring, sensor flush mount, 0.248" OD x 0.219" ID x 0.015" thk, brass (3)

Model 065A05 Seal sleeve sensor recess mount 0.248" OD x 0.221" ID x 0.240" thk 17-4 (1)

Model PCS-1AZ Sensitivity calibration at 100% and 10% of sensor range

Entered: ND	Engineer: AJA	Sales: RWM	Approved: RPF	Spec Number:
Date: 06/26/2024	Date: 06/26/2024	Date: 06/26/2024	Date: 06/26/2024	5713



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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