### **ICP® PRESSURE SENSOR** 121A41 Performance **ENGLISH** SI Measurement Range(for ±5V output) 100 psi 689.5 kPa Sensitivity(± 15 %) 50 mV/psi 7.25 mV/kPa 55.16 MPa Maximum Pressure 8 kpsi [1] Resolution 4 mpsi 0.028 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 °C See Manual Hazardous Area Approval See Manual 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 < 100 Ohm < 100 Ohm Output Impedance Output Bias Voltage 10 to 15 VDC 10 to 15 VDC Electrical Isolation ≥ 10<sup>8</sup> Ohm ≥ 10<sup>8</sup> Ohm Physical Compression Sensing Geometry 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

2-Pin MIL-C-5015

2.7 oz

2-Pin MIL-C-5015

75.6 gm

# **OPTIONAL VERSIONS**

Revision: D

ECN #: 54975

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: AJA    | Sales: RWM       | Approved: RPF    | Spec Number: |
|------------------|------------------|------------------|------------------|--------------|
| Date: 07/16/2024 | Date: 07/16/2024 | Date: 07/16/2024 | Date: 07/16/2024 | 38020        |



AN AMPHENOL COMPANY

3425 Walden Avenue, Depew, NY 14043

**Model Number** 

Electrical Connector

Weight

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.