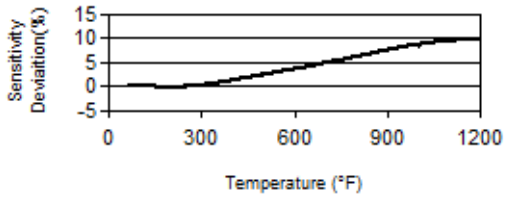
| Model Number 176A03 | CHARGE OUTPUT PRESSURE SENSOR | Revision: E<br>ECN #: 54257 |
|---|---|---|

| Performance | ENGLISH | SI | |
|---|---|---|---|
| Sensitivity(± 20 %) | 16 pC/psi | 232 pC/bar | |
| Measurement Range | 290 psi | 20 bar | |
| Maximum Pressure(Total) | 5,000 psi | 344.7 bar | |
| Resonant Frequency | ≥ 50 kHz | ≥ 50 kHz | |
| Transverse Resonance | 10 kHz | 10 kHz | [1] |
| Frequency Response(+/- 5 %) | 10 kHz | 10 kHz | [2][3] |
| Non-Linearity | ≤ 1 % FS | ≤ 1 % FS | [4] |
| **Environmental** | | | |
| Acceleration Sensitivity | 0.003 psi/g | 0.00021 bar/g | [5] |
| Acceleration Sensitivity | .007 psi/g | .00050 bar/g | [6] |
| Temperature Range(Continuous) | -94 to 1,200 °F | -70 to 650 °C | |
| Temperature Range(Connector ) | -76 to 500 °F | -60 to 260 °C | |
| Temperature Response | See Graph | See Graph | |
| Hazardous Area Approval | See Manual | See Manual | |
| Radiation Exposure Limit(Integrated Gamma Flux) | 1E8 rad | 1E8 rad | |
| Radiation Exposure Limit(Integrated Neutron Flux) | 1E10 N/cm² | 1E10 N/cm² | |
| **Electrical** | | | |
| Output Polarity | Differential | Differential | |
| Capacitance(with cable pin - pin) | 170 pF | 170 pF | [1] |
| Resistance(Pin-Pin)(Room Temp) | ≥ $10^{12}$ Ohm | ≥ $10^{12}$ Ohm | |
| Resistance(Pin-Case)(Room Temp) | ≥ $10^{12}$ Ohm | ≥ $10^{12}$ Ohm | |
| Resistance(Pin-Pin)(1200°F/650°C) | ≥ 50 kohm | ≥ 50 kohm | |
| Resistance(Pin-Case)(1200°F/650°C) | ≥ 100 kohm | ≥ 100 kohm | |
| **Physical** | | | |
| Sensing Element | UHT-12™ | UHT-12™ | |
| Sensing Geometry | Compression | Compression | |
| Housing Material | Nickel Alloy | Nickel Alloy | |
| Sealing | Welded Hermetic | Welded Hermetic | |
| Electrical Connector | 7/16-27 2-Pin | 7/16-27 2-Pin | |
| Cable Type | Overbraided Hardline | Overbraided Hardline | |
| Cable Length | 10 ft | 3.05 m | |
| Weight(with cable) | 17.6 oz | 500 gm | |

Typical Sensitivity Deviation vs Temperature




CE

UK CA [7]

Ex C SP US

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.

**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.

**NOTES:**

[1]Typical.
[2]Upper frequency response is calculated from Resonant Frequency.
[3]Low frequency response is determined by external signal conditioning electronics.
[4]Zero-based, least-squares, straight line method.
[5]Nominal.
[6]Maximum.
[7]See PCB Declaration of Conformance PS058 for details.

| Entered: ND | Engineer: RPF | Sales: DPC | Approved: RPF | Spec Number: |
|---|---|---|---|---|
| Date: 10/12/2023 | Date: 10/12/2023 | Date: 10/12/2023 | Date: 10/12/2023 | 58671 |

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