Application Spotlight

MEMS Pressure Sensor Solutions – Industrial Applications

Overview


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<th>NPI Series Media-Isolated Sensors</th>
<th>NPC Series Low and Medium Pressure Sensors</th>
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<td>The NPI Series of Media-Isolated Sensors are designed to operate in hostile environments while providing outstanding sensitivity, high linearity, and low hysteresis. The piezoresistive sensor chip is housed in a fluid-filled cylindrical cavity and isolated from measured media by a stainless steel diaphragm and body. The modular design allows for variety of pressure port modules, which are hermetically welded to the die carrier.</td>
<td>Packaged in a dual in-line configuration, the NPC Series is intended for printed circuit board mounting. Optional various pressure port and lead configurations give superior flexibility in low profile applications where pressure connection orientation is critical.</td>
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<th>NPA Series Pressure Sensors</th>
<th>NPH Series Medium Pressure Sensors</th>
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<td>The NPA Series of Pressure Sensors is provided in a miniature size as a cost-effective solution for applications that require calibrated performance. Packaged in SOIC 14 pin surface mount, the NPA Series is offered in a range of pressure ratings starting from 2” H₂O (500 Pa). Various port configurations are available to measure absolute, gauge, and differential pressure. Versions are offered with either analog or digital output.</td>
<td>The NPH Series of Medium Pressure Sensors offer reliability at a low cost and small size. An IC sensor chip is housed in a standard TO-8 electrical package that is PCB-mountable. They are available in gauge, absolute and differential pressure versions in several pressure ranges from 10” H₂O to 100 psi (2.5 kPa to 700 kPa). The temperature compensation is provided by laser-trimmed resistors. The sensors are compatible with non-corrosive gases and dry air.</td>
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Amphenol
Advanced Sensors
MEMS Pressure Die Solutions

For customers who want complete control over packaging and signal conditioning, NovaSensor offers MEMS Pressure Sensor Die. Die products are typically delivered as sawn wafers on tape, but other options are available. Sensor Die are 100% electrically-tested and visually inspected before delivery.

**Manufactured Die Products**
- P883 – universal pressure die (5…15,000 psi)
- P111, P112 – medium pressure die
- P122 – high pressure die
- P1905 – backside absolute pressure die for aggressive environment (harsh media)
- P1300, P1302 – low pressure die products
- P2701 – high-performance low pressure die
- P2705 – small-size low pressure die
- P162, P330 – catheter pressure die
- P330B – catheter pressure die with solder bumps

**Future Products**
- PT1907 – integrated pressure and temperature harsh media sensor die (DV samples)
- P330W – catheter sub-assembly, including P330B sensor die with long wires (PV samples)
- PT200C – pressure and temperature sensor die with operating temperature up to 200°C (DV samples)
- P250C, P300C – pressure sensor die with operating temperature range up to 250°C, 300°C
- P1113 – high stability medium pressure die (PV samples)
- P6014 – high stability low pressure and temperature die (PV samples)

NovaSensor MEMS Pressure Die are best-in-class, providing extraordinary performance and long-term stability. Available as gauge (differential) or absolute pressure, with standard operating temperatures of -40°C to +125°C (+140°C for some products), and pressure ranges from 500 Pa (2” H₂O) to 100 MPa (15,000 PSI), our die products are widely recognized by industry experts. NovaSensor holds also ISO 9001 and ISO/TS 16949 Quality Certifications.

**Markets:**
- Industrial Process Control
- Aerospace
- Military
- Automotive
- Medical
- Consumer Electronics

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**Amphenol Advanced Sensors**

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