NOVA SENSOR

Application Spotlight

MEMS Pressure Sensor Solutions – Industrial Applications

Overview

NovaSensor is a leader in the design and fabrication of MEMS Pressure Sensors and the inventor of SenStable® Processing Technology providing an excellent stability of its sensors. NovaSensor MEMS Pressure Sensors are known for their accuracy, reliability, and miniature size. Our sensors offer best-in-class performance for Industrial, Healthcare, and Transportation Applications.

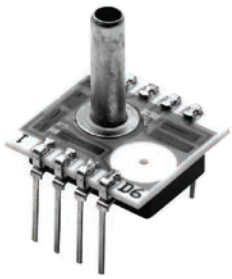
NPI Series Media-Isolated Sensors

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.

NPC Series Low and Medium Pressure Sensors

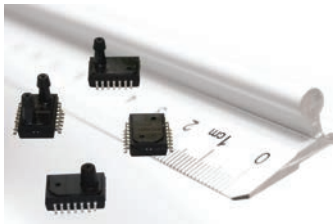
The **NPC Series** of Low and Medium Pressure Sensors provide a cost-effective solution for applications that require compensated performance over a wide temperature range.



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.

NPA Series Pressure Sensors

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" H_2O (500 Pa). Various port configurations are available to measure absolute, gauge, and differential pressure. Versions are offered with either analog or digital output.

NPH Series Medium Pressure Sensors

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.

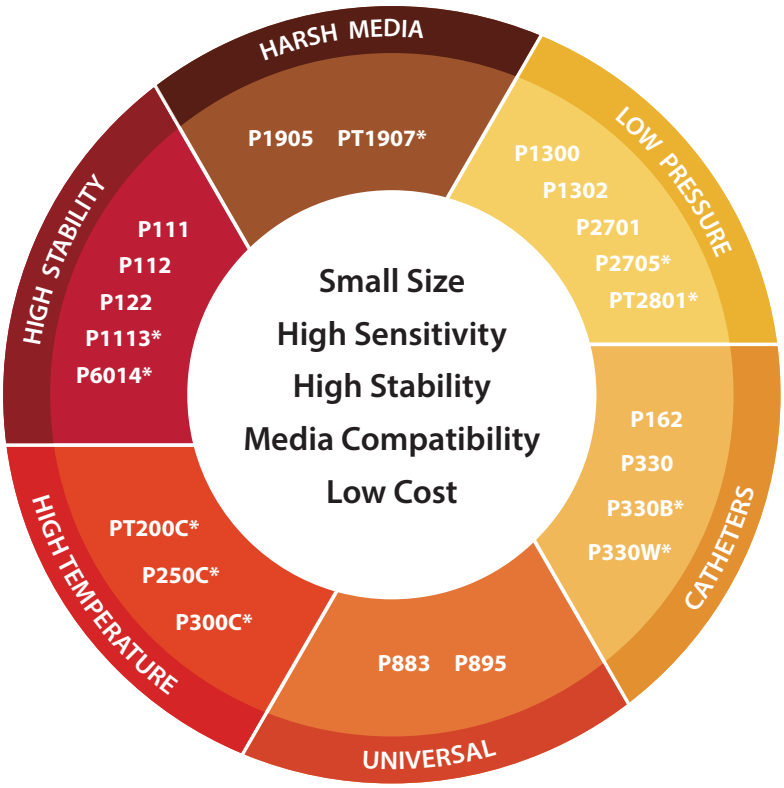
They are available in gauge, absolute and differential pressure versions in several pressure ranges from 10" H_2O to 100 psi (2.5 kPa to 700 kPa). The temperature compensation is provided by laser-trimmed resistors. The sensors are compatible with non-corrosive gases and dry air.

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" H_2O) 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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