

## Piezoelectric Pressure Sensor Type G-5



This sensor is designed for monitoring dynamic pressure and quasistatic pressure up to 250bar. The sensors patented sensing element, with Crystal Match™ technology, enables exceptional signal qualities over the entire temperature range. The industrial grown single-crystal GaPO<sub>4</sub> guarantees constant sensitivity and an excellent performance. The exceptional small size (M5x0.5 thread) and the high temperature resistance up to 400°C make the sensor suitable for a wide range of applications.

### BENEFITS

- compact design
- High temperature stability (400°C / 752°F)
- High natural frequency
- Virtually constant sensitivity over the entire lifetime

### SPECIFICATIONS

|                                    |   |
|------------------------------------|---|
| Operating principle                | Piezoelectric, charge output  |
| Sensing element                    | GaPO <sub>4</sub> (gallium phosphate)                                       |
| Dynamic measuring range            | 0 ... 250 bar, (0 ... 3625 psi)   |
| Overload pressure                  | 300 bar, (4350 psi)   |
| Sensitivity                        | 16 pC/bar, (1.1 pC/psi)   |
| Linearity                          | ≤ 0.3% (0...250 bar, 0...3625 psi)  |
| Operating temperature (continuous) | -50 °C ... +400 °C, (-58 °F ... +688 °F)                                    |
| Sensitivity coefficient            | -2.1*10 <sup>-4</sup> °C <sup>-1</sup>                                      |
| Internal insulation resistance     | > 10 <sup>13</sup> Ω (25 °C / 77 °F), > 10 <sup>9</sup> Ω (400 °C / 752 °F) |
| Acceleration sensitivity (typ.)    | axial ≤ 1 mbar/g (0.014 psi/g), radial ≤ 0.15 mbar/g (0.002 psi/g)          |
| Shock resistance                   | >2000 g   |
| Natural Frequency                  | 130 kHz   |
| Capacitance (nominal)              | 7 pF pole/ground  |
| Mounting torque                    | 1,5 Nm  |
| Housing material                   | stainless steel, hermetically welded  |

