



XPM4

Miniature Pressure Transducer

SPECIFICATIONS

- Ranges 5 to 200 bar [75 psi to 3 000 psi]
- Sealed and gauge pressure reference
- Titanium device
- Cable or connector outlet
- Linearity down to $\pm 0.35\%$ F.S.
- Customized product upon request

The **XPM4** is a miniature transducer designed to measure static and dynamic pressure under a wide variety of conditions, including hostile environments. The all-titanium construction and flush diaphragm protect the sensor against most corrosive environments.

The **XPM4** threaded construction virtually eliminates zero shifts caused by installation torque.

The **XPM4**'s sensing element is a fully temperature compensated Wheatstone bridge configuration made with high stability, micro-machined, silicon strain gauges which optimize performance.

As standard, the **XPM4** is supplied with a cable outlet, strengthened by a strain-relief spring. An electrical connector outlet can be provided (optional).

FEATURES

- Flush diaphragm design
- M4x0.7 thread
- Low Installation Torque Sensitivity
- Many options available

APPLICATIONS

- Glue dispensing systems
- Hydraulic circuits
- Explosion test benches
- Molding and forming profiles
- Robotics and effectors
- Laboratory

STANDARD RANGES

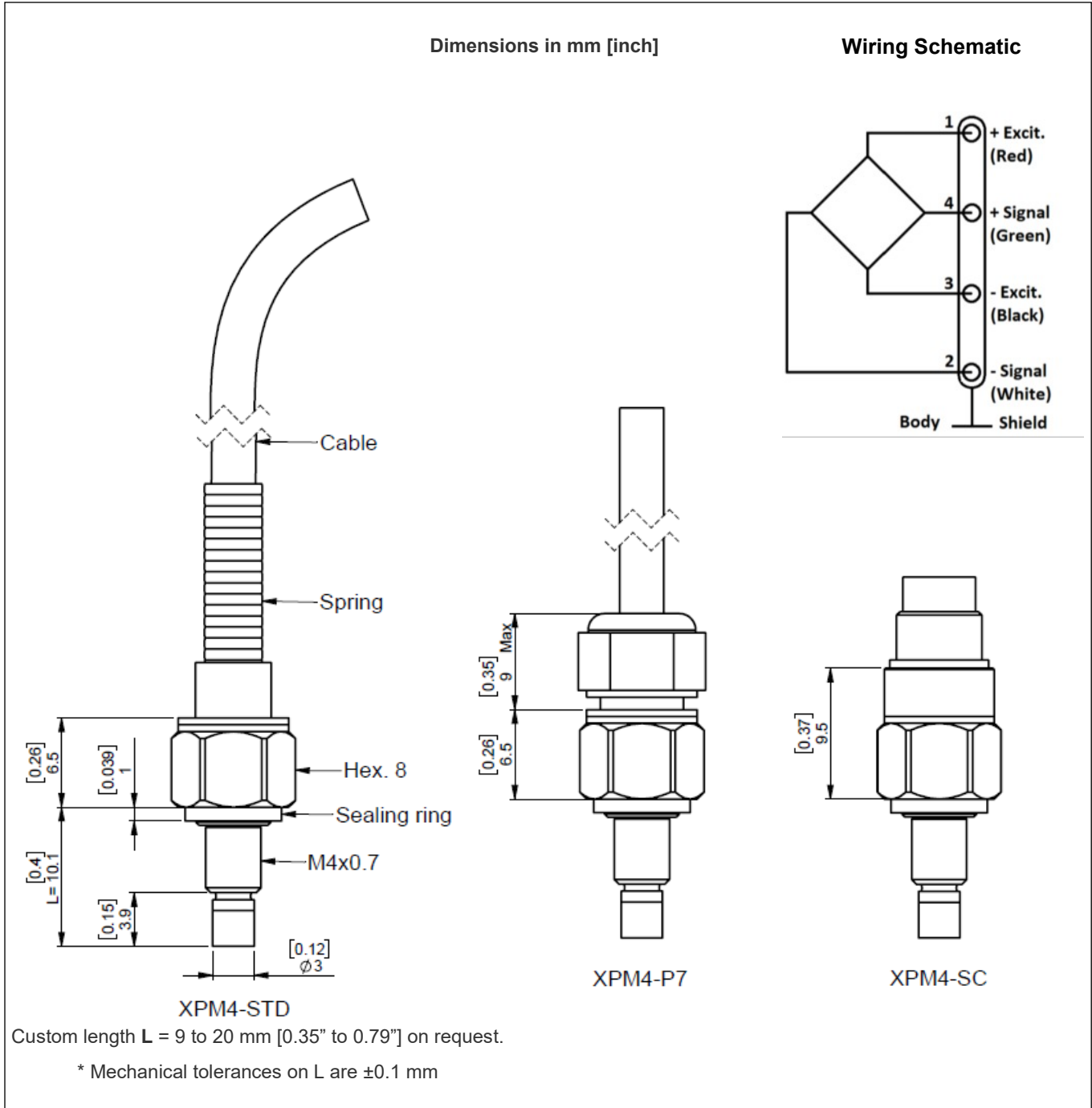
| Ranges (FS) | | Pressure Reference | | Resonant Frequency ¹ | Sensitivity "FSO" ² | Overpressure | Burst Pressure |
|-------------|------|--------------------|--------|---------------------------------|--------------------------------|------------------|------------------|
| bar | psi | Gauge | Sealed | | (for FS) | (rated pressure) | (rated pressure) |
| 5 | 75 | • | • | 249 kHz | 30 mV | 2 x FS | 5 x FS |
| 10 | 150 | • | • | 249 kHz | 60 mV | 2 x FS | 5 x FS |
| 20 | 300 | • | • | 299 kHz | 100 mV | 2 x FS | 5 x FS |
| 50 | 750 | • | • | 374 kHz | 100 mV | 2 x FS | 5 x FS |
| 100 | 1.5K | | • | 474 kHz | 100 mV | 2 x FS | 5 x FS |
| 200 | 3K | | • | 673 kHz | 100 mV | 2 x FS | 5 x FS |

- 1: Useful frequency is 20% of Resonant Frequency.
- 2: Sensitivity "FSO" is indicated as nominal value with 10Vdc supply voltage

PERFORMANCE SPECIFICATIONS (typical values at temperature 23°C)

| Parameters | Values | Notes |
|-----------------------------------|--------------------------------------------|----------------------------------------------|
| Power supply | 10 V _{DC} regulated | See V00 option for non standard |
| Zero Offset | ±10 mV | |
| Non Linearity | ±0.5%FS ±0.35%FS | FS = 5 bar or 75 psi FS > 5 bar or 75 psi |
| Hysteresis | ±0.25%FS | |
| Repeatability | ±0.2%FS | |
| Operating Temperature (OTR) | -40 to 120°C (-40 to 250°F) | |
| Compensated Temperature (CTR) | 0 to 60°C (32 to 140°F) | |
| Thermal Zero Shift in CTR | ±5%FS/50°C ±2.5%FS/50°C | FS = 5 bar or 75 psi FS > 5 bar or 75 psi |
| Thermal Sensitivity Shift in CTR | ±2%/50°C | |
| Input Impedance | 1200 Ω nom. | |
| Output Impedance | 1200 Ω nom. | |
| Ingress Protection | IP50 IP67 | Standard or SC option P7 option |
| Media – Pressure Port | Liquids and Gases compatible with Titanium | |
| Insulation resistance (at 50V dc) | 100MΩ | |

DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



Notes:

1. Recommended Tightening Torque: 1.8 N.m [15 Lbf.in] to 3 N.m [25 Lbf.in]
2. Sealing: sealing ring with FKM elastomer is supplied with the sensor (operating temperature -30 to 150°C)
3. Electrical connection: Standard = 2m shielded cable, Ø3 mm, with 4 wires (AWG30), silicone jacket
SC option = Integral connector ref. Comtronic CMR-02D-04P supplied with mating plug CMR-02-B-04S wired with 2m of cable (FMC-COM-4B-L2M)

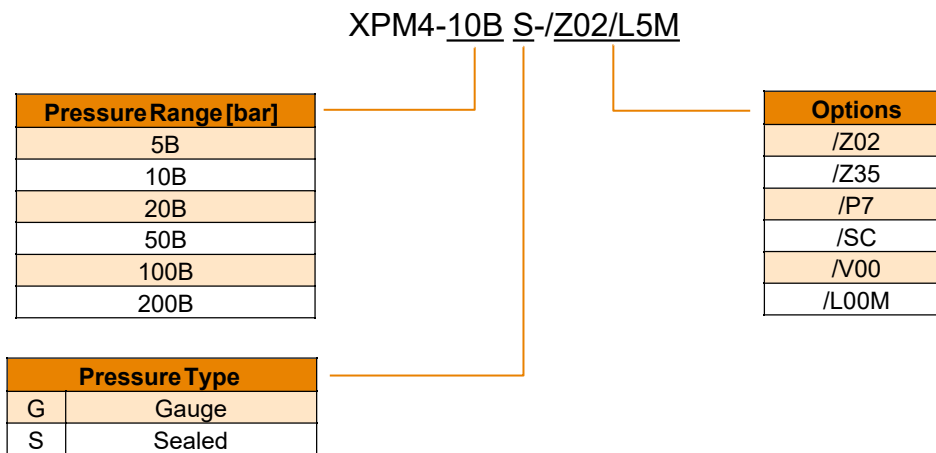
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OPTIONS

| |
|------------------------------------------------------------------------------------------------------------------------------|
| Z02: Compensation Temperature Range (CTR) = -40 to 60°C [-40 to 140°F] |
| Z35: Compensation Temperature Range = 20 to 120°C [70 to 250°F] |
| P7: IP67 protection (operating -20°C to 120°C [0°F to 250°F] – available only for Sealed Gauge versions) |
| SC: Connector output, mating plug supplied with 2 m [6.6 ft] of shielded cable, with 4 wires (AWG30), silicone jacket |
| V00: Non-standard power supply calibration, replace “00” with value in Volt (ex: V5 for 5Vdc supply voltage) |
| L00M: special cable length, replace “00” with total length in meters (ex: L5M ; L10M ;...) |

ORDERING INFO



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