MODEL 189

FEATURES:

- Miniature design for space constraint applications
- Thermally compensated from 0 to 80°C
- Weight: ~12 grams (0.4 oz)
- Total length of less than 1 inch
- Operating temperature range -60 °C to 130 °C
- Static accuracy to 0.5% FSO
- Pressure Range: from 0-100 to 0-5000 PSI

APPLICATIONS:

- Automotive On-Board
- Transmission & brake test stands
- Engine dynamometers
- Robotics & Automation
- Satellites, rockets and military vehicles

PRODUCT OVERVIEW:

The Model 189 series pressure transducer is a miniature design that provides reliable measurement where space and weight are a concern. The corrosion resistant construction and compact design can handle the toughest of environments. The standard 0-10 mV/V output with an optional in-line amplifier provides, 0-5 VDC or 4-20mA analog outputs and digital protocols of CAN bus J1939 or CAN Open, RS485 or USB.

FIELD OPTIONS:

- Temperature output
- High temp version operates to 400 °F (200 °C) (Model 190)
- Optional process ports
- In-line signal conditioning
**REFERENCE SPECIFICATIONS**

**ELECTRICAL**
- **Excitation Voltage**: 5 to 15 Vdc, calibrated at 10 V
- **Output Signal**: 5 mV/V
- **Bridge Impedance**: 2500 Ω
- **Zero Balance**: 1% FSO at 70 °F
- **Span Balance**: 1% FSO at 70 °F
- **6' 30AWG Cable**

**MATERIALS OF CONSTRUCTION**
- **Pressure Port**: 17-4 PH stainless steel (Inconel, Hastelloy, and Monel optional)
- **Housing**: 316 series SST

**STATIC ACCURACY (INCLUDES HYSTERESIS, NON-LINEARITY & NON-REPEATABILITY)**
- **Standard**: ±0.5% FSO BFSL

**MECHANICAL**
- **Total Length**: approx. 1", 25 mm
- **Weight**: Approx. 12 gm
- **Process Connection**: 10-32 UNF-2A
- **Proof Pressure**: 2X range
- **Burst Pressure**: 5X or 10,000 PSI max recommended for 10-32 UNF-2A thread
- **Torque Installation**: 34 in-lbs

**PRESSURE RANGES**
- 0-100 PSI to 0-5000 (0-7 bar to 0-345 bar)

**THERMAL SPECIFICATIONS**
- **Operating Ambient**: -320 °F to +385 °F (-60 °C to +130 °C)
- **Compensated**: 32 °F to +176 °F (0°C to +80 °C)
- **Effect on Zero/Span**:
  - Zero: ±1% FSO /100 °F typical
  - Span: ±1% FSO /100 °F typical

**OPTIONAL VARIATIONS**
- Consult factory for available options

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Standard configurations shown. Please consult factory for other options.

All specifications are for reference purposes only. In the interests of continuous product improvement, all specifications are subject to change without notice. Please contact GP:50 for assistance with your application.

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