

## MINIATURE PRESSURE TRANSDUCER

### MODEL 189

#### FEATURES:

- Miniature design for space constraint applications
- Thermally compensated from 0 to 80C
- 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



Model 189  
Miniature mV/V Output  
Pressure Transducer

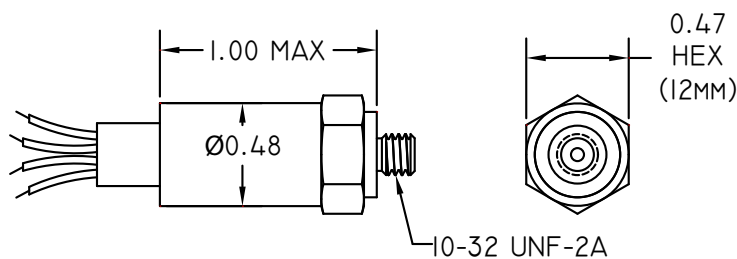
# GP:50 MODEL 189

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### STANDARD WIRING

COLOR	MODEL 189
RED	+EXC
BLACK	-EXC
YELLOW	+SIG
WHITE	-SIG



## REFERENCE SPECIFICATIONS

<b>ELECTRICAL</b> <ul style="list-style-type: none"> <li>• Excitation Voltage: 5 to 15Vdc, calibrated at 10V</li> <li>• Output Signal: 5mV/V</li> <li>• Bridge Impedance: 2500 Ω</li> <li>• Zero Balance: 1% FSO at 70 °F</li> <li>• Span Balance: 1% FSO at 70 °F</li> <li>• 6' 30AWG Cable</li> </ul>	<b>MECHANICAL</b> <ul style="list-style-type: none"> <li>• Total Length: approx. 1", 25mm</li> <li>• Weight: Approx. 12 gm</li> <li>• Process Connection: 10-32 UNF-2A</li> <li>• Proof Pressure: 2X range</li> <li>• Burst Pressure: 5X or 10,000 PSI max recommended for 10-32 UNF-2A thread</li> <li>• Torque Installation: 34 in-lbs</li> </ul>
<b>MATERIALS OF CONSTRUCTION</b> <ul style="list-style-type: none"> <li>• Pressure Port: 17-4 PH stainless steel (Inconel, Hastelloy, and Monel optional)</li> <li>• Housing: 316 series SST</li> </ul>	<b>PRESSURE RANGES</b> <p>0-100 PSI to 0-5000 (0-7 bar to 0-345 bar)</p>
<b>STATIC ACCURACY (INCLUDES HYSTERESIS, NON-LINEARITY &amp; NON-REPEATABILITY)</b> <ul style="list-style-type: none"> <li>• Standard: ±0.5% FSO BFSL</li> </ul>	<b>THERMAL SPECIFICATIONS</b> <ul style="list-style-type: none"> <li>• Operating Ambient: -320 °F to +385 °F (-60 °C to +130 °C)</li> <li>• Compensated: 32 °F to +176 °F (0°C to +80 °C)</li> <li>• Effect on Zero/Span: <ul style="list-style-type: none"> <li>Zero: ±1% FSO /100 °F typical</li> <li>Span: ±1% FSO /100 °F typical</li> </ul> </li> </ul>
	<b>OPTIONAL VARIATIONS</b> <ul style="list-style-type: none"> <li>• Consult factory for available options</li> </ul>

**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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