



MINIATURE PRESSURE TRANSDUCER

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



Model 189
Miniature mV/V Output
Pressure Transducer

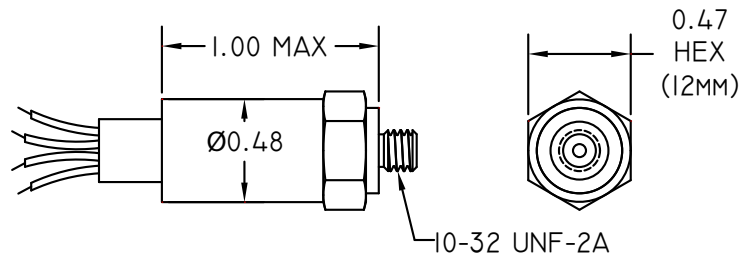
GP:50 MODEL 189

DIMENSIONAL DRAWING

All dimensions are in inches (mm)

STANDARD WIRING

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



REFERENCE SPECIFICATIONS

ELECTRICAL
<ul style="list-style-type: none">• Excitation Voltage: 5 to 15Vdc, calibrated at 10V• Output Signal: 5mV/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
<ul style="list-style-type: none">• Pressure Port: 17-4 PH stainless steel (Inconel, Hastelloy, and Monel optional)• Housing: 316 series SST
STATIC ACCURACY (INCLUDES HYSTERESIS, NON-LINEARITY & NON-REPEATABILITY)
<ul style="list-style-type: none">• Standard: $\pm 0.5\%$ FSO BFSL

MECHANICAL
<ul style="list-style-type: none">• Total Length: approx. 1", 25mm• 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
<ul style="list-style-type: none">• 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:<ul style="list-style-type: none">Zero: $\pm 1\%$ FSO /100 °F typicalSpan: $\pm 1\%$ FSO /100 °F typical
OPTIONAL VARIATIONS
<ul style="list-style-type: none">• Consult factory for available options

**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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