HIGH-ACCURACY PRESSURE TRANSDUCER

MODEL 241 / 341

Model 241 / 341
High-Accuracy Pressure Transducer

FEATURES:

- High accuracy to ±0.05% FSO
- High thermal stability +/-0.25% FSO/100 °F
- -40 to +250 °F compensation
- Compact, lightweight, all stainless steel design
- Less than 4 millisecond response time

APPLICATIONS:

- Dynamometer testing
- Transmission testing
- Brake testing
- Hydraulic & Pneumatic valve testing
- Jet engine testing
- Emission test stands

PRODUCT OVERVIEW:

Model 241/341 from GP:50 is our most accurate pressure transducer. It is designed specifically for aerospace and automotive test stand applications. More than 25 years of field expertise went into the design of a pressure transducer for exceptional reliability. The compact, corrosion-resistant, all-welded stainless steel design of the Model 241/341 offers ease of installation within space constrained environments. Static accuracy is available to ±0.05% FSO, with a total thermal error of 0.20% FSO over the compensated temperature range.

FIELD OPTIONS:

- Optional zero and span adjustment
- Shunt calibration for active line testing without a pressure source
- Comprehensive list of process and electrical connections for existing application retrofits

DIMENSIONAL DRAWING

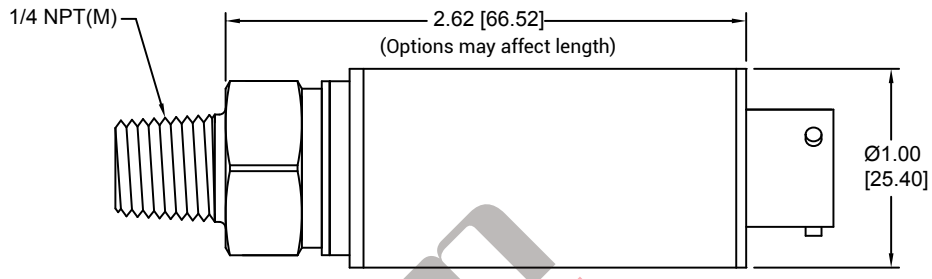
All dimensions are in inches (mm)

MODEL 241 WIRING

PIN/WIRE	DESCRIPTION
A/1/RED	+EXC
B/2/GRN	+SIG
C/3/-	N/C
D/4/BLK	-EXC/SIG
E/5/BRN	N/C or SHUNT
F/6/ORG	PROGRAM

MODEL 341 WIRING

PIN/WIRE	DESCRIPTION
A/1/RED	+EXC
B/2/BLK	-EXC/SIG
C/3/-	N/C
D/4/BLU	PROGRAM GND
E/5/BRN	N/C or SHUNT
F/6/ORG	PROGRAM



REFERENCE SPECIFICATIONS

ELECTRICAL

- **Supply Voltage:** 9 to 32 Vdc (some options may affect this)
- **Output Signal:**
  (Model 241) 0 to 5 Vdc
  (Model 341) 4-20 mA
- **Load Resistance:**
  (Model 241) 100K Ω min.
  (Model 341) 1150 Ω max. at 32 Vdc
- **Circuit Protection:**
  Reverse polarity protected
  Output may be grounded indefinitely
  Over voltage protection to 1kV for <1ms
- **Response Time:** <4 msec typical
- **Connection:** PTIH-10-6P

MATERIALS OF CONSTRUCTION

- **Wetted Parts:**
  ≤2,000 PSI: 316L SST w/silicon oil fill (Other fill available), Hastelloy optional
  >2,000 PSI: 17-4 PH SST, Inconel 718, 316L SS optional
- **Housing:** 300 series SST

STATIC ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)

- ±0.10% and ±0.05% FSO
- Zero Balance and FSO: ±0.5% FSO @ 70 °F

MECHANICAL

- **Process Connection:** 1/4" NPT (M)
  (consult factory for complete list of options)
- **Proof Pressure:** 2X FSO or 22.5K PSI max. (1,551 BAR)
  (varies by pressure range)
- **Burst Pressure:** 5X FSO or 22.5K PSI max. (1,551 BAR)
- **Random Vibration:** 25 G RMS (20 to 2000 Hz)
- **Shock:** 100G peak for 11 msec, ½ Sine

PRESSURE RANGES

- 0-30" WC thru 20K PSI (1,379 BAR) Gauge, Vacuum, Absolute, Sealed Gauge (both hermetic and non-hermetic)

THERMAL SPECIFICATIONS

- **Compensated:** 0 °F to +180 °F (-18 °C to +82 °C)
- **Effect on Zero/Span:** ±0.5% FSO/100 °F each
  (±1.0% FSO/100 °F from -40 to 185 °F / (-40 °C to +85 °C)
- **Operating Temp:** -40 °F to +250 °F (-40 °C to +121 °C)
- **Storage Temp:** -40 °F to +250 °F (-40 °C to +121 °C)

Improved performance options:
- **Expanded Ranges:** -40 °F to +250 °F (-40 °C to +121 °C)
- **Improved Performance:**
  ±0.20% FSO/100 °F (-40 °F to +250 °F (-40 °C to +121 °C))

Standard configurations shown.
Please consult factory for other options.