



## HIGH-ACCURACY PRESSURE TRANSDUCER

### MODEL 241 / 341



Model 241 / 341  
High-Accuracy Pressure Transducer

#### FEATURES:

- High accuracy to  $\pm 0.05\%$  FSO
- High thermal stability  $\pm 0.25\%$  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  $\pm 0.05\%$  FSO, with a total thermal error of 0.20% FSO over the compensated temperature range.

#### FIELD OPTIONS:

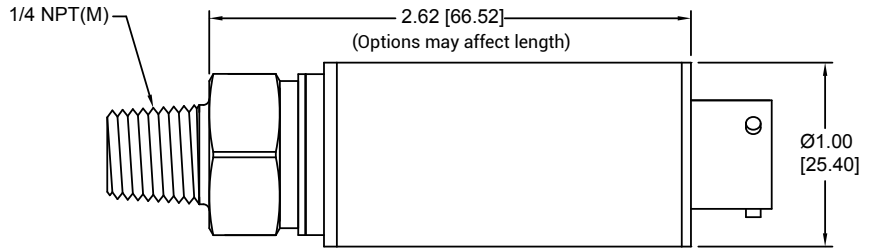
- Optional zero and span adjustment
- Shunt calibration for active line testing without a pressure source
- Comprehensive list of process and electrical connections for existing application retrofits

# GP:50 MODEL 241 / 341

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

MODEL 241 WIRING		MODEL 341 WIRING	
PIN/WIRE	DESCRIPTION	PIN/WIRE	DESCRIPTION
A/1/RED	+EXC	A/1/RED	+EXC
B/2/GRN	+SIG	B/2/BLK	-EXC/SIG
C/3/-	N/C	C/3/-	N/C
D/4/BLK	-EXC/SIG	D/4/BLU	PROGRAM GND
E/5/BRN	N/C or SHUNT	E/5/BRN	N/C or SHUNT
F/6/ORG	PROGRAM	F/6/ORG	PROGRAM



## REFERENCE SPECIFICATIONS

<p><b>ELECTRICAL</b></p> <ul style="list-style-type: none"> <li>• <b>Supply Voltage:</b> 9 to 32 Vdc (some options may affect this)</li> <li>• <b>Output Signal:</b> (Model 241) 0 to 5 Vdc (Model 341) 4-20 mA</li> <li>• <b>Load Resistance:</b> (Model 241) 100K <math>\Omega</math> min. (Model 341) 1150 <math>\Omega</math> max. at 32 Vdc</li> <li>• <b>Circuit Protection:</b> Reverse polarity protected Output may be grounded indefinitely Over voltage protection to 1kV for &lt;1ms</li> <li>• <b>Response Time:</b> &lt;4 msec typical</li> <li>• <b>Connection:</b> PTIH-10-6P</li> </ul> <p><b>MATERIALS OF CONSTRUCTION</b></p> <ul style="list-style-type: none"> <li>• <b>Wetted Parts:</b> <math>\leq 2,000</math> PSI: 316L SST w/silicon oil fill (Other fill available), Hastelloy optional &gt;2,000 PSI: 17-4 PH SST, Inconel 718, 316L SS optional</li> <li>• <b>Housing:</b> 300 series SST</li> </ul> <p><b>STATIC ACCURACY (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ +70 °F)</b></p> <ul style="list-style-type: none"> <li>• <math>\pm 0.10\%</math> and <math>\pm 0.05\%</math> FSO</li> <li>• Zero Balance and FSO: <math>\pm 0.5\%</math> FSO @ 70 °F</li> </ul>	<p><b>MECHANICAL</b></p> <ul style="list-style-type: none"> <li>• <b>Process Connection:</b> 1/4" NPT (M) (consult factory for complete list of options)</li> <li>• <b>Proof Pressure:</b> 2X FSO or 22.5K PSI max. (1,551 BAR) (varies by pressure range)</li> <li>• <b>Burst Pressure:</b> 5X FSO or 22.5K PSI max. (1,551 BAR)</li> <li>• <b>Random Vibration:</b> 25 G RMS (20 to 2000 Hz)</li> <li>• <b>Shock:</b> 100G peak for 11 msec, 1/2 Sine</li> </ul> <p><b>PRESSURE RANGES</b></p> <ul style="list-style-type: none"> <li>• 0-30" WC thru 20K PSI (1,379 BAR) Gauge, Vacuum, Absolute, Sealed Gauge (both hermetic and non-hermetic)</li> </ul> <p><b>THERMAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>• <b>Compensated:</b> 0 °F to +180 °F (-18 °C to +82 °C)</li> <li>• <b>Effect on Zero/Span:</b> <math>\pm 0.5\%</math> FSO/100 °F each (<math>\pm 1.0\%</math> FSO/100 °F from -40 to 185 °F / (-40 °C to +85 °C))</li> <li>• <b>Operating Temp:</b> -40 °F to +250 °F (-40 °C to +121 °C)</li> <li>• <b>Storage Temp:</b> -40 °F to +250 °F (-40 °C to +121 °C)</li> </ul> <p><b>Improved performance options:</b></p> <ul style="list-style-type: none"> <li>• <b>Expanded Ranges:</b> -40 °F to +250 °F (-40 °C to +121 °C)</li> <li>• <b>Improved Performance:</b> <math>\pm 0.20\%</math> FSO/100 °F (-40 °F to +250 °F (-40 °C to +121 °C))</li> </ul>
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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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