



HIGH-ACCURACY PRESSURE TRANSDUCER

MODEL BR241 / 341



Model BR241 / 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:

Blue Ribbon Model 241/341 is our most accurate pressure transducer. The compact, corrosion-resistant, all-welded stainless steel design of the Model BR241/341 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

BR5SL-TX-020
REV-B

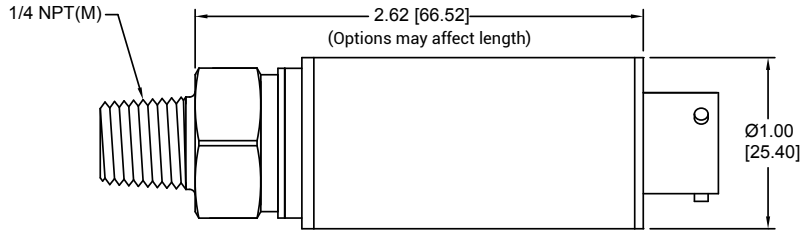
HIGH-ACCURACY PRESSURE TRANSDUCER

DIMENSIONAL DRAWING

All dimensions are in inches (mm)

MODEL BR241 WIRING		MODEL BR341 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*

*Do not connect to program pins.



REFERENCE SPECIFICATIONS

<p>ELECTRICAL</p> <ul style="list-style-type: none"> • Supply Voltage: 9 to 36 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: < 4m Sec (Typical) • Connection: PTIH-10-6P 	<p>MECHANICAL</p> <ul style="list-style-type: none"> • 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)
<p>MATERIALS OF CONSTRUCTION</p> <ul style="list-style-type: none"> • Wetted Parts: ≤ 1,000 PSI (69 BAR): 316 stainless steel > 1,000 PSI (69 BAR): 17-4 PH stainless steel • Housing: 300 series stainless steel 	<p>PRESSURE RANGES</p> <ul style="list-style-type: none"> • 0-30" WC thru 15K PSI (1,034 BAR) Gauge, Vacuum, Absolute, Sealed Gauge (both hermetic and non-hermetic)
<p>STATIC ACCURACY (HYSTERESIS, NON-LINEARITY & REPEATABILITY @ +70 °F)</p> <ul style="list-style-type: none"> • ±0.10% and ±0.05% FSO 	<p>THERMAL SPECIFICATIONS</p> <ul style="list-style-type: none"> • 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) <p>Improved performance options:</p> <ul style="list-style-type: none"> • Expanded Ranges: -40 °F to +250 °F (-40 °C to +121 °C) • Improved Performance: ±0.20% FSO over compensated range

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

