



## SMART RANGEABLE HAZARDOUS LOCATION PRESSURE TRANSMITTER



Model BR411, 411XP  
Smart Rangeable Pressure Transmitter

### MODEL BR411, 411XP

#### FEATURES:

- 4-20 mA with digital HART protocol
- 0-15 PSI thru 0-100K PSI (0-1 thru 6,895 BAR)
- 5:1 turndown ratio
- Secondary containment for oil services
- Submersible version
- FM, CSA explosion-proof versions

#### APPLICATIONS:

- Offshore rigs and pumping platforms
- Oil and gas/chemical pipeline and processing
- Marine and shipboard service
- Submersible level

#### PRODUCT OVERVIEW:

GP:50 Model 411, 411X/P for Blue Ribbon Corporation is a SMART rangeable pressure transmitter incorporating a 4-20 mA output with digital HART protocol. Units are offered with both CSA and FM approval options, as well as a variety of process and electrical connections. Improved accuracy provides for a stable measurement throughout the total compensated temperature range.

#### FIELD OPTIONS:

- 5:1 turndown ratio for most ranges
- Multiple pressure and temperature outputs
- Exotic wetted materials
- Submersible level option
- Alternate process connections
- Optional 4-20 mA temperature output



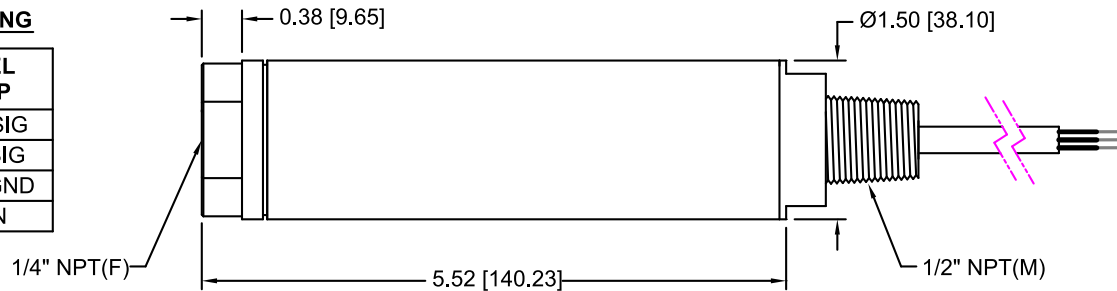
# SMART RANGEABLE HAZARDOUS LOCATION PRESSURE TRANSMITTER

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### STANDARD WIRING

WIRE	MODEL 411X/P
RED	+EXC/SIG
BLK	-EXC/SIG
GRN	CASE GND
SHIELD	OPEN



## REFERENCE SPECIFICATIONS

ELECTRICAL	MECHANICAL
<ul style="list-style-type: none"> <li>• <b>Supply Voltage:</b> 12-36 Vdc</li> <li>• <b>Output Signal:</b> Two wire 4-20 mA with digital HART protocol (optional 4-20 mA temperature output)</li> <li>• <b>Input Impedance:</b> 250 <math>\Omega</math> at 17 Vdc</li> <li>• <b>Insulation Resistance:</b> Better than 10 M<math>\Omega</math> at 50 Vdc</li> <li>• <b>Circuit Protection:</b> RFI/EMI, reverse polarity (voltage transients above 45 V to 20 A at 0.02 milliseconds)</li> <li>• <b>Resolution:</b> 12-bit</li> <li>• <b>Frequency Response:</b> From 0.07 to 40 sec (software adjustable)</li> <li>• <b>Connection:</b> 1/2" NPT M conduit with 6-ft 18 AWG multi conductor cable</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Process Connection:</b> 0-5 thru 0-15K PSI (0-0.3 thru 0-1,035 BAR), PSIV: 1/4" NPT (F) 0-20K thru 0-50K PSI (0-1,380 thru 0-3,450 BAR): Autoclave type F-250-C 0-60K thru 0-75K PSI (0-4,135 thru 0-5,170 BAR): Autoclave type F-312-C150</li> <li>• <b>Proof Pressure:</b> 0-15K (1,035 BAR) PSI 1.5X FSO 20K-100K (6,894 BAR) PSIG 1.2X FSO</li> <li>• <b>Burst Pressure:</b> 0-15K 3X FSO 20K-100K (6,894 BAR) PSIG 1.5X FSO or 125K PSIG (8,618 BAR), whichever is less</li> <li>• <b>Long-term Stability:</b> 0.25% FSPR over six months</li> <li>• <b>Approximate Weight:</b> &lt;24 oz (0.7 kg)</li> <li>• <b>Enclosure:</b> IP67</li> </ul>
<b>MATERIALS OF CONSTRUCTION</b> <ul style="list-style-type: none"> <li>• <b>Wetted Parts:</b> 17-4 PH stainless steel (Optional Inconel 718, K12X, or 13-8 Monel)</li> <li>• <b>Housing:</b> 316 stainless steel</li> </ul>	<b>THERMAL SPECIFICATIONS</b> <ul style="list-style-type: none"> <li>• <b>Compensated:</b> 0 to +170 °F (-18 °C to +77 °C)</li> <li>• <b>Operating Ambient:</b> -40 °F to +185 °F (-40 °C to +85 °C)</li> <li>• <b>Effect on Zero/Span (1:1):</b> <math>\pm 0.25\%</math> FSO/100 °F</li> <li>• <b>At 5:1 Ranging:</b> <math>\pm 0.50\%</math> FSO/100 °F</li> </ul>
<b>STATIC ACCURACY (BFSL) (HYSTERESIS, NON-LINEARITY &amp; REPEATABILITY @ +70 °F)</b> Standard: $\pm 0.25\%$ FSO Improved: $\pm 0.1\%$ FSO Zero Balance and FSO: $\pm 0.5\%$ FSO at +70 °F	
<b>PRESSURE RANGES</b> <ul style="list-style-type: none"> <li>• 0-15 PSI thru 0-100K PSIS, PSIA, PSIV, PSIG (1 BAR V thru 6,895 BAR)</li> <li>• <b>Range Adjustments:</b> 5:1 for ranges 0-5 PSI thru 0-100K PSI (0.3 BAR thru 6,895 BAR)</li> </ul>	

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.

