

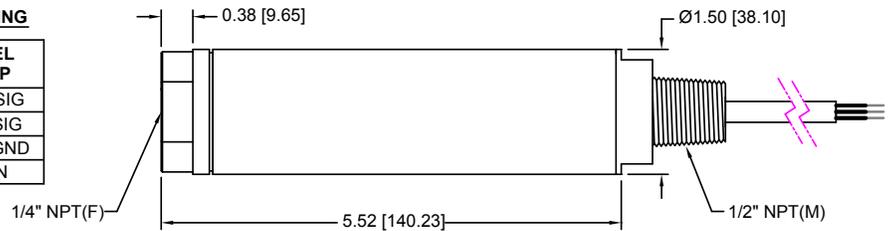
MODEL 411, 411X/P

SMART RANGEABLE HAZARDOUS LOCATION PRESSURE TRANSMITTER



STANDARD WIRING

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



Inches (mm)



**REF DIMENSIONS ONLY.
CONSULT FACTORY FOR ACTUAL DIMENSIONS.**

PRODUCT OVERVIEW:

The Model 411, 411X/P from GP:50 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.

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

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

GP:50 MODEL 411, 411X/P

REFERENCE SPECIFICATIONS

(Standard configurations shown, consult factory for other options)

ELECTRICAL	
Output Signal:	Two wire 4-20 mA with digital HART protocol
Temperature Output:	Optional 4-20mA
Excitation Voltage:	12-36 Vdc
Input Impedance:	250 Ω at 17 Vdc
Insulation Resistance:	> 10 M Ω @ 50 Vdc
Resolution:	12-bit
Frequency Response:	From 0.07 to 40 sec (software adjustable)
Circuit Protection:	RFI, EMI & Reverse polarity protected (voltage transients above 45 V to 20 A at 0.02 milliseconds)

MATERIALS OF CONSTRUCTION	
Wetted Parts:	17-4 PH stainless steel (Optional Inconel 718, K12X, or 13-8 Monel)
Housing:	316 stainless steel

ACCURACY (BFSL): Non-Linearity @ +70 °F	
Standard:	$\pm 0.25\%$ FSO
Improved:	$\pm 0.1\%$ FSO
Zero & Span Balance:	$\pm 0.5\%$ FSO at +70 °F

MECHANICAL	
Process Connection:	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
Electrical Connection:	1/2" NPT M conduit with 6-ft 18 AWG multi-conductor cable
Proof Pressure:	0-15K (1,035 BAR) PSI 1.5X FSO 20K-100K (6,894 BAR) PSIG 1.2X FSO
Burst Pressure:	0-15K 3X FSO 20K-100K (6,894 BAR) PSIG 1.5X FSO or 125K PSIG (8,618 BAR), whichever is less
Long-Term Stability:	0.25% FSPR over six months
Approximate Weight:	<24 oz (0.7 kg)
Enclosure:	IP67

PRESSURE RANGES	
	0-15 PSI thru 0-100K PSIS, PSIA, PSIV, PSIG (1 BAR V thru 6,895 BAR)
Range Adjustments:	5:1 for ranges 0-5 PSI thru 0-100K PSI (0.3 BAR thru 6,895 BAR)

THERMAL SPECIFICATIONS	
Operating Range:	-40 °F to +185 °F (-40 °C to +85 °C)
Compensated Range:	0 °F to +170 °F (-18 °C to +77 °C)
Storage Ambient:	-65 °F to +250 °F (-53 °C to +121 °C)
Effect on Zero/Span:	(1:1): $\pm 0.25\%$ FSO/100 °F (5:1): $\pm 0.50\%$ FSO/100 °F

