



## EXPLOSION PROOF & ZONE 2/DIV 2 PRESSURE TRANSMITTER

### MODELS 111X/P, 211X/P, 311X/P & 311N/AN/GN



Models 111X/P, 211X/P,  
311X/P & 311N/AN/GN  
Explosion Proof & Zone 2/Div 2  
Pressure Transmitter

#### FEATURES:

- 0-5 PSI thru 0 to 75K PSI (75 MBAR) to 1, 034 BAR)
- FM, CSA, ATEX, & IEC approvals
- Welded, rugged construction
- Optional high overpressure protection

#### APPLICATIONS:

- Rig safety systems
- Wellhead control
- Gas pipeline
- Control panels
- Onboard transmission & engine monitoring

#### PRODUCT OVERVIEW:

Blue Ribbon Model 11X/P Explosion-proof Pressure Transducer provides a rugged solution for applications requiring hazardous approvals. The all welded, stainless steel design provides years of reliable service in some of the harshest environments.

#### APPROVALS:

- FM, FM/CSA: Class I/II/III, Div 1 Grps A-G, T6 at Ta=40C
  - Zone 2 / Division 2:
  - FM: Class I, Zone 2 AEx nC IIC T5, Class I, Div. 2, Grp. A, B, C, D Class II, Grp. E, F, G, Class III T5, Ta=80C
  - CSA: Ex nA IIC T5 Ex nL IIC T5, Class I Div. 2 Grp. A, B, C, D Class II Div. 2 Grp. E, F, G Class III T5, Ta=80C
  - ATEX: CE0575 II 3 G Ex nA IIC, Ex ic IIC T5, TA=80C
  - IEC: Ex na IIC, Ex ic IIC T5, Ta=80C
- (all Zone 2/Div 2 approvals are electrical connector dependent)  
For Intrinsically Safe Approval see 311 Z, I, GI, AI Data Sheet

#### APPROVALS



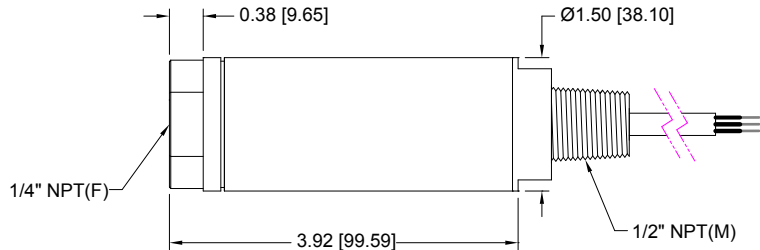
# EXPLOSION PROOF & ZONE 2/DIV 2 PRESSURE TRANSMITTER

## DIMENSIONAL DRAWING

All dimensions are in inches (mm)

### STANDARD WIRING

WIRE	MODEL 111X/P	MODEL 211X/P	MODEL 311X/P/N/AN/GN
RED	+EXC	+EXC	+EXC/SIG
GRN	+SIG	CASE GND	N/C
WHT	-SIG	+SIG	N/C
BLK	-EXC	-EXC/SIG	-EXC/SIG
GRN/YEL	CASE GND	N/C	N/C



## REFERENCE SPECIFICATIONS

### ELECTRICAL

- **Excitation Voltage:**  
(Model 111X/P) 3.5 to 15 Vdc  
(Model 211X/P) 10.5 to 32 Vdc  
(Model 311X/P) 9 to 36 Vdc  
(Model 311 N/AN/GN) 10 to 28 Vdc
- **Output Signal:**  
(Model 111) 3 mV/V  
(Model 211) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available)  
(Model 311) 4-20 mA
- **Load Impedance:**  
(Model 211) 50 Ω max. 24 Vdc  
(Model 311) 750 Ω max. 24 Vdc
- **Input Impedance:**  
(Model 111) 5K or 350 Ω nominal
- **Input Current:**  
(Model 211) 8mA nominal
- **Insulation Resistance:** > 10 MΩ at 50 Vdc and +70 °F
- **Response Time:** <5 ms 10% to 90%
- **Connection:** 1/2" NPT M conduit w/ 6ft 18 AWG multi-conductor cable

### MATERIALS OF CONSTRUCTION

- **Wetted Parts:** 17-4 PH stainless steel (Hastelloy C-276 and Inconel available, consult factory)
- **Housing:** 316 stainless steel

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

- Standard ±0.5%
- Improved ±0.2% and ±0.1%

**Zero Balance and FSO:** ±1% FSO at +70 °F

### MECHANICAL

- **Process Connection:** 1/4" NPT (F) for ranges <20 KPSI (1.4 BAR) High pressure coned fittings for ranges 20K to 75K PSI (1,379 to 5,171 BAR)
- **Proof Pressure:** 1.5X FSO ≤30K PSI, 1.2X FSO >30K PSI
- **Burst Pressure:** 2.5X FSO ≤10K PSI, 5X FSO >10K PSI and ≤30K PSI, 1.5X ≤75K PSI
- **Approximate Weight:** 1 lb (0.5 kg) nominal, options may increase weight
- **Unit designed** to meet or exceed IP67 Rating. (Some options may affect rating, consult factory)

### PRESSURE RANGES

- 0 to 5 PSI thru 0 to 75K PSI (0 to 0.3 BAR thru 0 to 5,171 BAR) (PSIG, PSIS, PSIA, PSIV & compound ranges available)

### THERMAL SPECIFICATIONS

- **Compensated:** 0 °F to +180 °F (-17.7 °C to +82 °C)
- **Operating:** -40 °F to +176 °F (-40 °C to +80 °C)
- **Storage:** -65 °F to +250 °F (-53 °C to +121 °C)
- **Effect on Zero/Span:** ±2.0% FSO/100 °F

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.

