EXPLOSION PROOF & ZONE 2/DIV 2 PRESSURE TRANSMITTER



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

APPROVALS

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

FEATURES:

- 0 to 50 PSI thru 0 to 75K PSI (0.3 BAR to 5,171 BAR)
- FM, CSA, ATEX, & IEC approvals
- Welded, rugged construction
- Optional high overpressure protection
- Available in NACE MR-01-75 compliant wetted parts

APPLICATIONS:

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

PRODUCT OVERVIEW:

Blue Ribbon Model 11 Series provides a rugged solution in hazardous approved areas. The all welded, stainless steel design provides years of reliable service in some of the harshest applications.

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 I, GI, AI Data Sheet

For details of available approvals go to:
Blue Ribbon Corp Certifications

BR5SL-TX-015
REV-I

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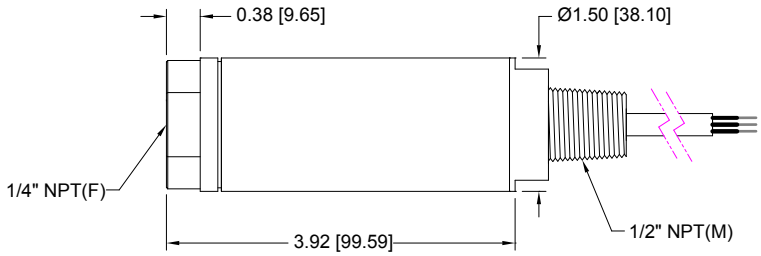
EXPLOSION PROOF & ZONE 2/DIV 2 PRESSURE TRANSMITTER

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	CASE GND
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 (Amplified Output)
  (Model 211) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available)
  (Model 311) 4-20 mA
- **Circuit Protection:**
  (211/311): RFI, EMI & Reverse polarity protected
- **Bridge Resistance:** (Model 111) 4K-6KΩ (Amplifier on output stage) (Options available)
- **Load Impedance:**
  (Model 211) 50 Ω max. 24 Vdc
  (Model 311) 750 Ω max. 24 Vdc
- **Input Current:**
  (Model 211) 8mA nominal
- **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:** 316 or 17-4 PH stainless steel (Options available, consult factory)
- **Housing:** 316 stainless steel
- **Internal Fill:** ≤1000 PSI Fomblin Oil (May contain Silicone oil fill)

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

Standard ±0.5%

Improved ±0.2% or ±0.1%

Zero & Span Balance: ±1% FSO at +70 °F

MECHANICAL

- **Process Connection:** 1/4" NPT (F) for ranges <20K PSI (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 50 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 Range:** 0 °F to +180 °F (-17.7 °C to +82 °C)
- **Operating Range:** -40 °F to +176 °F (-40 °C to +80 °C)
- **Storage Ambient:** -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.

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