ULTRA HIGH-PRESSURE TRANSDUCER



Model BR112 / 212 / 312
Ultra High-Pressure Transducer

MODEL BR112 / 212 / 312

FEATURES:

- 0 to 20K PSI to 60K PSI (1,379 to 4,137 BAR): 17-4 PH SST; 61K to 150K PSI (4,206 to 10,342 BAR): Vascomax 300 (For water jets - Inconel 718)
- mV/V, Vdc & 4-20 mA outputs
- All welded, stainless steel construction
- Single piece sensor design has no welds or seals

APPLICATIONS:

- Water-jet cutting
- Oilfield wellheads
- Aseptic food processing
- Laboratory R&D
- Test stands

PRODUCT OVERVIEW:

The Model BR112/212/312 from Blue Ribbon Corp is an ultra high-pressure transducer, offered in a single piece sensor design with no welds or seals. All stainless steel construction and industry standard high pressure coned process connections are available in both English and Metric sizes.

FIELD OPTIONS:

- mV/V, Vdc & 4-20 mA output
- Zero & span adjustments
- 80% and 100% shunt calibration
- Alternate connectors & pressure ports

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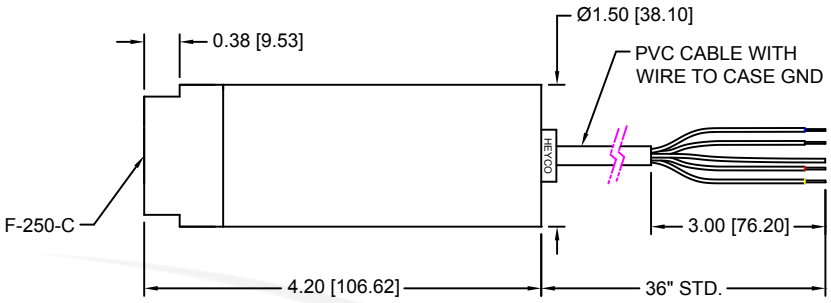
MODEL 112 / 212 / 312

DIMENSIONAL DRAWING

All dimensions are in inches (mm)

STANDARD WIRING

PIN OR WIRE COLOR	MODEL 112	MODEL 212	MODEL 312
1/A/RED	+EXC	+EXC	+EXC/SIG
2/B/GRN	+SIG	+SIG	N/C
3/C/WHT	-SIG	N/C	N/C
4/D/BLK	-EXC	-EXC/SIG	-EXC/SIG
5/E/BLU	+SHUNT (OPT)	+SHUNT (OPT)	+SHUNT (OPT)
6/F/BRN	-SHUNT (OPT)	-SHUNT (OPT)	-SHUNT (OPT)



REFERENCE SPECIFICATIONS

ELECTRICAL

- Supply Voltage:
  (Model 112) 3.5 to 15 Vdc excitation
  (Model 212) 0 to 5 Vdc: 9.0 to 40 Vdc
  0 to 10 Vdc: 13 to 40 Vdc
  (Model 312) 9.0 to 36 Vdc
- Output Signal:
  (Model 112) 3 mV/V
  (Model 212) 0 to 5 Vdc, 0 to 10 Vdc (alternate outputs available)
  (Model 312) 4-20 mA
- Zero Balance and FSO: ±1% FSO at +70 °F (+21.1 °C) for each
- Load Impedance:
  (Model 212) 50K Ω min. for <0.1% FSO attenuation
  (Model 312) 1,350 Ω max. at 37 Vdc, 750 Ω at 24 Vdc
- Input Current: (Model 212) 8 mA nominal
- Circuit Protection: RFI and EMI
- Response Time: <5 ms 10% to 90%
- Connection: 36" long, 4 conductor with 24 AWG, PVC jacketed cable

MATERIALS OF CONSTRUCTION

- Wetted Parts:
  20K PSI to 60K PSI (1,379 to 4,137 BAR): 17-4 PH stainless steel
  61K to 150K (4,206 to 10,342 BAR): Vascomax 300
  (For water jets - 718 Inconel)
- Housing: 300 series stainless steel

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

- Standard: ±0.5% FSO
- Improved: ±0.20%

MECHANICAL

- Process Connection:
  20K to 60K PSI (1,379 to 4,137 BAR): autoclave type F-250-C
  75K to 100K PSI (5,171 to 6,895 BAR): autoclave type F312-C150
- Proof Pressure: 1.2X FSO or 120K PSI (8,274 BAR), whichever is less
- Burst Pressure: 2X FSO or 120K PSI (8,274 BAR), whichever is less
- Approximate Weight: 12 oz. (0.3 kg) nominal

PRESSURE RANGES

- 0 to 20K thru 0 to 150K PSI (1,379 thru 10,342 BAR)

THERMAL SPECIFICATIONS

- Compensated: 0 °F to +180 °F (-17.7 °C to +82 °C)
- Operating: -20 °F to +190 °F (-29 °C to +88 °C)
- Storage: -65 °F to +250 °F (-53 °C to +121 °C)
- Effect on Zero/Span: ±1.0% 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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