



BLUE RIBBON CORP.

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INTRINSICALLY SAFE PRESSURE TRANSMITTER MODELS BR311Z, I, GI, AI



Approvals



Pressure Format:

- 0-5 thru 0-75,000 PSIS, PSIG, PSIA, PSIV

Accuracy:

(Includes Hysteresis, Non-linearity, Non-Repeatability)

- Option B: $\pm 0.50\%$ FSO RSS
- Option C: $\pm 0.20\%$ FSO RSS
- Option D: $\pm 0.10\%$ FSO RSS

Zero Balance & FSO:

- $\pm 1.0\%$ FSO at 70°F for each

Long Term Stability:

- $< \pm 0.20\%$ FSO for 6 months at 70°F

Temperature Limits:

- Compensated: 0 to 180°F
- Operating: -40°F to 190°F (-40°F to 176°F for Intrinsically Safe units)
- Storage: -65°F to 250°F
- Effect on Zero & Span: $< \pm 2.0\%$ FSO/100°F
 ($< \pm 1.0\%$ FSO/100°F available)

Electricals:

- Excitation Voltage:
 (Model 311Z) 9-36 Vdc
 (Model 311 I/AI/GI/AI) 10-28 Vdc
- Output Current: 4-20 mA $\pm 0.1\%$ FSO at 70°F
- Load Impedance: 750 Ω max-24 Vdc
- Insulation Resistance: Greater than 10 megohms at 50 Vdc and 70°F

Mechanicals:

- Proof Pressure: 2 X FSPR (50-15k psi) or 22,000 psi, whichever is less
- Burst Pressure: 5 X FSPR (or URL) or 22,500 psi, whichever is less
- Pressure Response: Less than 5 ms 10% to 90%

Wetted Materials:

- 316 & 17-4 PH SST / Enclosure 316 SST

Consult factory for options / Improved performance.

FEATURES:

- FM, CSA, ATEX & IEC Intrinsically Safe
- Rugged, all-welded SST construction
- Compact design

PRESSURE RANGES:

- From 0-5 thru 0-75,000 psi

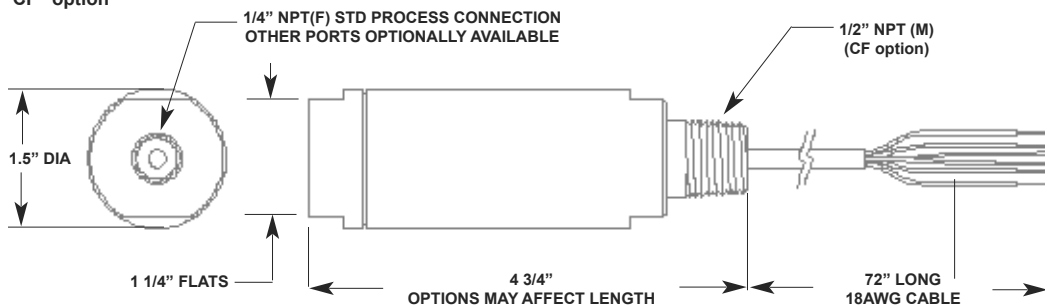
STATIC ACCURACY:

- $\pm 0.1\%$ FSO thru $\pm 0.5\%$ FSO

WIRING CODE

	BR311Z, I, GI, AI
A/1 RED	+ EXCITATION/SIGNAL
B/2 GREEN	CASE GROUND
C/3 WHITE	-
D/4 BLACK	- EXCITATION/SIGNAL
E/5 GRN & YEL	-
SHIELD WITH DRAIN IN CABLE ALTERNATE WIRING AVAILABLE	

Shown with "CF" option





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Standard Specifications listed below. Consult factory for further options, which may change the overall dimensions.

Typical configurations (consult factory for more options)

MODEL

BR311 4-20 mA

APPROVAL *See details below

I FM/CSA Intrinsic Safety
Z FM/CSA Intrinsic Safety
AI ATEX/IEC Intrinsic Safety
EC CE marking
GI ATEX/IEC/FM/CSA Intrinsic Safety

ACCURACY

B ±0.50% RSS
C ±0.20% RSS
D ±0.10% RSS

PRESSURE RANGE (PSI)

Consult factory for others

PV	0-50	RH	0-500	RT	0-3000	SH	0-50,000
PX	0-75	RJ	0-600	RV	0-5000	SK	0-75,000
PZ	0-100	RK	0-750	RX	0-7500	SZ	Special Range
RB	0-150	RM	0-1000	RZ	0-10,000		
RD	0-200	RO	0-1500	SB	0-15,000		
RE	0-250	RR	0-2000	SD	0-20,000		
RF	0-300	RS	0-2500	SF	0-30,000		

PRESSURE TYPE

(May be affected by Altitude/Barometric pressure - consult factory)

2 Gauge: < 300 PSI
3 Absolute
4 Vacuum
6 Sealed Gauge ≤ 1,000 PSI
7 Sealed Gauge > 1,000 PSI

NOTE:

Specifications reflect standard product, improved performance / mechanical options available.

Modifications may alter specs, consult factory for more information.

OPTIONS (Consult factory for more options not listed)

ELECTRICAL CONNECTIONS

Select "CF" option for 1/2" NPT (M) conduit

AA STD: 36" Pigtail (use "CF" for 1/2" conduit)
CA Bendix PTIH-10-6P (Mate PT06E-10-6S [SR], not supplied)
CC Bendix PC02E-12-8P
CF 1/2" NPT (M) conduit 72" Leads
CZ Special Connector/Cable/Other
DC M12-4 pin
DR4 4-Pin mini fast, 7/8-16 THD, Nickel Pltd.

PRESSURE PORTS

AA 1/4" NPT (F) Standard
FH 1/8" NPT (F)
FJ 1/4" NPT (M)
FL 1/8" NPT (M)
FM F-250-C Autoclave
FN 1/2" NPT (M)
LF 1/2" NPT (F)

GENERAL

GC Special calibration run (ie. 5 or 10 point)
GD 10X overpressure or 22.5K psi, whichever is less [not with GY]
GE Improved temp. comp. (±1.0% FSO/100°F zero and ±1.0% span)
GF Expanded process temperature range, -65 to 250° F (±2% FSO/100° F)
GG Alt. shunt cal signal, not avail. w/311Z
GJ Zero & Span adjusts
GK Inconel wetted parts
GP Hastelloy C-276 wetted parts
GR 3:1 rangeability for ≤30PSI
5:1 rangeability for >30PSI
HE Improved zero balance (±0.5% FSO)

* APPROVALS AVAILABLE:

Z FM: Class I, II, III Division 1, GRPS A,B,C,D,E,F,G, T4 at Ta=80C
CSA: Exia, Class I, GRPS A,B,C,D Class II, GRPS E,F,G Class III, T4 at Ta=80C
I FM & CSA Class I, II, III Div. 1, GRPS A,B,C,0,E,F & G, Class I, Zone 0, AEx ia IIC, T5 at Ta=85C
AI ATEX CE0575 II 1 G Ex ia IIC T5
IEC Ex ia II C T5
GI FM, CSA, ATEX & IEC combined