



# HAZARDOUS LOCATIONS PRESSURE TRANSMITTER

**Models 111, 211, 311**

## FEATURES:

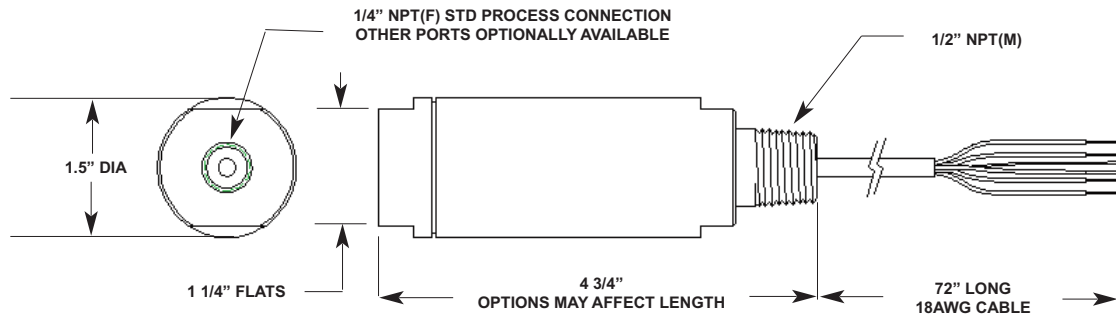
- Approved Intrinsically Safe, Div2/Zone 2, Explosion Proof (Factory Sealed, conduit seal not required)
- mA, VDC, and mV outputs available
- Rugged, all-welded stainless steel construction
- Compact design

## PRESSURE RANGES:

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

## ACCURACY:

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



## WIRING CODE

Standard wiring, alternate wiring available.  
 Shunt polarity not applicable for relay contacts only when switched with a semiconductor.

PIN/WIRE	111X,P	211X,P	311X,P, N, AN, GN	311Z,AI,GI,EC
A/1 RED	+ EXC.	+ EXC.	+ EXC./SIGNAL	+ EXC./SIGNAL
B/2 GREEN	+ SIGNAL	CASE GND	CASE GND	-
C/3 WHITE	- SIGNAL	+ SIGNAL	-	-
D/4 BLACK	- EXC.	- EXC./SIGNAL	- EXC./SIGNAL	- EXC./SIGNAL
GRN & YEL	CASE GND	-	-	-
SHIELD	-	-	-	CASE GND
E/5 BLUE	+SHUNT (OPTION)	+SHUNT (OPTION)	+SHUNT (OPTION)	+SHUNT (OPTION)
F/6 BROWN	-SHUNT (OPTION)	-SHUNT (OPTION)	-SHUNT (OPTION)	-SHUNT (OPTION)

GP:50 reserves the right to make product improvements and amendments to the product specifications stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.

A5SL-11HL.00 Rev C

**HAZARDOUS LOCATIONS**



Specifications reflect standard product, improved performance/mechanical options available. Modifications may alter specs, consult factory for more information.

<b>Pressure Format</b>	0-5 thru 0-75,000 PSIS, PSIG, PSIA, PSIV		
<b>Accuracy</b>	Non-linearity, Hysteresis, Repeatability (RSS) Option B: ±0.50% FSO Option C: ±0.20% FSO Option D: ±0.10% FSO		
<b>Zero Balance</b>	±1.0% FSO at 70°F and 24 VDC (10 VDC Model 111)		
<b>FSO (Full Scale Output)</b>	±1.0% FSO at 70°F and 24 VDC (10 VDC Model 111)		
<b>Long term Stability</b>	< ±0.25% FSO for 6 months at 70°F & 24 Vdc excitation		
<b>Resolution</b>	Infinite (practical minimum of 0.02% on 111,211 and 0.06% on 311)		
<b>Temperature Limits</b>	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 < ±2.0% FSO/100°F (< ±1.0% FSO/100°F available) Effect on Span < ±2.0% FSO/100°F (< ±1.0% FSO/100°F available)		
<b>Electricals</b>	<b>(Model 111)</b>	<b>(Model 211)</b>	<b>(Model 311)</b>
Excitation Voltage	3.5-15 Vdc	10.5-32 Vdc	9-36 Vdc
Output Current	N/A	N/A	4-20 mA ±0.1% FSO at 70°F
Load Impedance	50KΩmin. (<0.1% FSI attenuation)	1350Ωmax-36 Vdc	750Ω max-24 Vdc
Input Impedance (111)/Input Current (211)	350Ω nominal	8mA nominal	
Insulation Resistance	Greater than 10 megohms at 50 Vdc and 70°F		
<b>Mechanicals</b>	Proof Pressure 2 times FSPR (50-15k psi) or 22,000 psi, whichever is less Burst Pressure 5 times FSPR (or URL) or 22,500 psi, whichever is less Pressure Response Less than 5 ms 10% to 90%		
<b>Wetted Materials</b>	316 & 15-5 PH SST		
<b>Enclosure</b>	304 SST		

**ORDERING GUIDE:**

MODEL	APPROVAL	ACCURACY	PRESSURE RANGE	PRESSURE TYPE	OPTIONS
●	+	●	+	●	+/●/●

**MODEL**

- 111 3 mV/V
- 211 0-5 Vdc
- 311 4-20 mA

**APPROVAL**

- AN ATEX/IEC Zone 2 (IEC pending)
- I FM/CSA Intrinsic Safety with shunt cal. (311 only)
- N FM/CSA Div/Zone 2
- X FM Explosion Proof
- P FM/CSA Explosion Proof
- Z FM/CSA Intrinsic Safety (311 only)
- AI ATEX/IEC Intrinsic Safety (311 only)
- EC CE marking (311 only)
- GI ATEX/IEC/FM/CSA Intrinsic Safety (311 only)
- GN ATEX/IEC/FM/CSA Div/Zone 2 (IEC pending)

**ACCURACY**

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

**PRESSURE RANGE (PSI)**

- |          |           |             |                  |
|----------|-----------|-------------|------------------|
| 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 (not available with explosion proof units)
- 3 Absolute
- 4 Vacuum (P has Sealed Gauge Reference)
- 6 Sealed Gauge/hermetic for explosion proof units
- 7 Sealed Gauge/non-hermetic for IS units
- 8 Elevated/Supressed Zero (P has SG ref.)
- 10 Compound range (requires SZ option) (P has SG ref.)

**OPTIONS** (Consult factory for more options not listed)

**ELECTRICAL CONNECTIONS (X/P - 1/2NPT only)**

- AA STD: X/P/N/AN/GN - 1/2" NPT(M) w/ 36", conductor 18AWG cable
- AA STD: Z/I/AI/GI/EC - NEMA 4X with 36" cable
- CC Bendix PC02E-12-8P [Mate PC06A-12-8S-(SR) not included]
- CD Cannon WK6-32S [Mate WK6-21C not included]
- CZ Special Connector/Cable/Other

**PRESSURE PORTS**

- 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 (311Z, I, AI, GI, N, AN, GN only, for X/P models see MD option)
- GK Inconel wetted parts
- GP Hastelloy C-276 wetted parts
- GR 3:1 rangeability for ≤30PSI  
5:1 rangeability for >30PSI  
0-10 Vdc output (14.2-32 Vdc excitation)
- GS 316 SS wetted parts
- GY Improved zero balance (±0.5% FSO)
- HE RFI protection (X, P, Z only - std. on I, AI, GI, N, AN, GN, EC approvals)
- HL Quick response (211X/P only)
- JJ Type 316L wetted parts (not avail. with GD option)
- JV Voltage surge protection (not avail. on 111/311/111/AI/GI/N/AN/GN)
- MD Zero and Span controls (X/P only)