



HAZARDOUS LOCATIONS PRESSURE TRANSMITTER

Models 111, 211, 311

FEATURES:

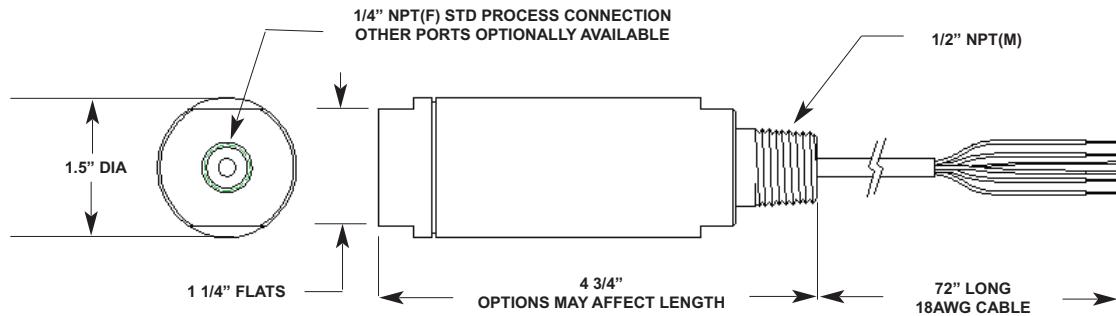
- Approved Intrinsically Safe, Div2/Zone 2, Explosion Proof (Factory Sealed, conduit seal not required)
- mA, VDC, and mV outputs available
- Rugged, all-welded stainless steel construction
- Compact design

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



Pressure, Level & Temperature Transmitters & Transducers

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

| | | | |
|--|--|--------------------------|---------------------------------|
| Pressure Format | 0-5 thru 0-75,000 PSIS, PSIG, PSIA, PSIV | | |
| Accuracy | Non-linearity, Hysteresis, Repeatability (RSS) Option B: $\pm 0.50\%$ FSO Option C: $\pm 0.20\%$ FSO Option D: $\pm 0.10\%$ FSO | | |
| Zero Balance | $\pm 1.0\%$ FSO at 70°F and 24 VDC (10 VDC Model 111) | | |
| FSO (Full Scale Output) | $\pm 1.0\%$ FSO at 70°F and 24 VDC (10 VDC Model 111) | | |
| Long term Stability | $< \pm 0.25\%$ FSO for 6 months at 70°F & 24 Vdc excitation | | |
| Resolution | Infinite (practical minimum of 0.02% on 111,211 and 0.06% on 311) | | |
| 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 $< \pm 2.0\%$ FSO/100°F ($< \pm 1.0\%$ FSO/100°F available) Effect on Span $< \pm 2.0\%$ FSO/100°F ($< \pm 1.0\%$ FSO/100°F available) | | |
| Electricals | (Model 111) | (Model 211) | (Model 311) |
| Excitation Voltage | 3.5-15 Vdc | 10.5-32 Vdc | 9-36 Vdc |
| Output Current | N/A | N/A | 4-20 mA $\pm 0.1\%$ FSO at 70°F |
| Load Impedance | 50K Ω min. ($< 0.1\%$ FSI attenuation) | 1350 Ω max-36 Vdc | 750 Ω max-24 Vdc |
| Input Impedance (111)/Input Current (211) | 350 Ω nominal | 8mA nominal | |
| Insulation Resistance | Greater than 10 megohms at 50 Vdc and 70°F | | |
| Mechanicals | 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% | | |
| Wetted Materials | 316 & 15-5 PH SST | | |
| Enclosure | 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 $\pm 0.50\%$ RSS
C $\pm 0.20\%$ RSS
D $\pm 0.10\%$ 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/II/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. ($\pm 1.0\%$ FSO/100°F zero and $\pm 1.0\%$ span)
GF Expanded process temperature range, -65 to 250° F ($\pm 2\%$ 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 ≤ 30 PSI
5:1 rangeability for > 30 PSI
0-10 Vdc output (14.2-32 Vdc excitation)
GS 316 SS wetted parts
GY Improved zero balance ($\pm 0.5\%$ FSO)
HE RFI protection (X, P, Z only - std. on I, AI, GI, N, AN, GN, EC approvals)
HL RFI protection (X, P, Z only - std. on I, AI, GI, N, AN, GN, EC approvals)
JJ Quick response (211X/P only)
JP Type 316L wetted parts (not avail. with GD option)
JV Voltage surge protection (not avail. on 111/311/II/AI/GI/N/AN/GN)
MD Zero and Span controls (X/P only)

2770 Long Road, Grand Island, NY 14072 USA

Tel. (716) 773-9300 Fax (716) 773-5019 E-mail:sales@gp50.com website:www.gp50.com