



INDUSTRIAL GRADE PRESSURE TRANSDUCER

Models 111, 211, 311

Custom Engineered to fit your application



For Intrinsically Safe and Explosion Proof approvals, please see our Models 111, 211, 311 Hazardous Loc. Data Sheet.

Approvals



(optional)

FEATURES:

- Rugged, welded, SST construction
- Strain gauge technology
- High accuracy, $\pm 0.5\%$ FSO standard, $\pm 0.1\%$ FSO optional
- Resistant to pressure spike
- Small package size

PRESSURE RANGES:

- 0-5 thru 0-20,000 PSI
- PSIG, PSIS, PSIA, PSIV & Compound ranges available.

WIRING:

	111	211	311
A/1 RED	+EXC.	+EXC.	+EXC./SIGNAL
B/2 GREEN	+SIGNAL	+SIGNAL	NC
C/3 WHITE	-SIGNAL	NC	NC
D/4 BLACK	-EXC.	-EXC./SIGNAL	-EXC./SIGNAL
E/5 BLUE	NC OPT. GH	NC OPT. GH	NC OPT. GH
F/6 BROWN	NC OPT. GH	NC OPT. GH	NC OPT. GH
SHIELD	OPEN	OPEN	OPEN

Output at 70° F:

- **Model 111:** 3 mV/V - 3.5-15 Vdc excitation
- **Model 211:** 0-5 Vdc - 9.0-40 Vdc excitation
- **Model 311:** 4-20 mA - 9.0-36 Vdc excitation

Accuracy:

Static error band includes Hysteresis, Non-linearity, Non-Repeatability

- Option B: $\pm 0.5\%$ BFSL
- Option C: $\pm 0.2\%$ BFSL
- Option D: $\pm 0.1\%$ BFSL

Resolution: Infinite (Practical minimum of 0.02% on 111, 211 & 0.06% on 311)

Zero Balance and FSO:

- $\pm 2\%$ FSO at 70° F for each

Range Calibration:

- **Model 111:** Resistance value provided on calibration card for 100% FSO

Insulation Resistance:

- > 10 megohms at 50 Vdc & at 70° F

Temperature Limits:

- Compensated: -0 to 180° F
- Operating: -20° F to 190° F
- Storage: -65° F to +250° F
- Effect on Zero & Span: $< \pm 2.0\%$ FSO/100° F at FSPR and/or URL

Standard Connections:

- Process Connection: 1/4" NPT (F)
- Electrical Connection: 36" long Belden 8723, 24 AWG, 4 conductor cable (or equivalent)

Electricals:

- Input Impedance: (**Model 111**) 350 ohm nominal, full bridge
- Input Current: (**Model 211**) 5mA nominal
- Load Impedance: (**Model 111**) 50,000 ohms min. for less than 0.1% FSO attenuation. (**Model 211**) 2,000 ohms max. for less than 0.1% FSO attenuation. (**Model 311**) 1,350 ohms max. at 36 Vdc & 750 ohms max. at 24 Vdc.

Mechanicals:

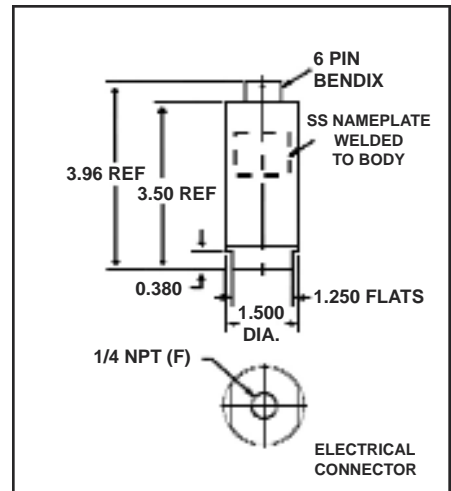
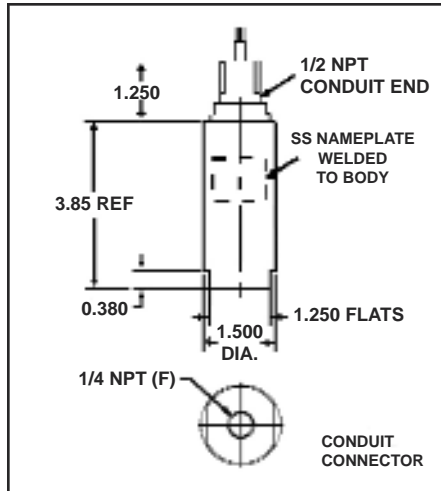
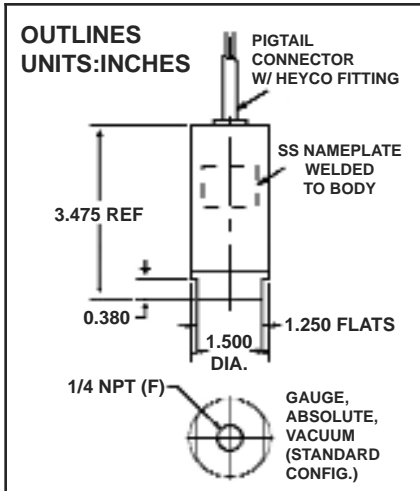
- Proof Pressure: 2 X FSPR (or URL) or 22,500 psi, whichever is less.
- Burst pressure: Gauge/SG/Absolute - 5 X FSPR (or URL) or 23,000 psi, whichever is less.
- Vacuum: 5 X FSPR in gauge
- Pressure Response: Less than 5 ms 10% to 90%
- Weight: 10 oz. nominal, options may increase weight
- Wetted Material: 316 & 17-4 PH SST
- Enclosure Material: 316 SST
- Mounting: Pressure port

Unless otherwise stated, these specifications are the standards to which the units are normally constructed. Upgrades or alterations may be easily and readily accomplished by the standard option code or by discussion with the factory. We invite your inquiry.



INDUSTRIAL GRADE PRESSURE TRANSDUCER

Models 111, 211, 311



MODEL (Signal)		
111	3 mV/V	
211	5 Vdc	
311	4 - 20 mA	
SERIES (Accuracy)		
B	0.5% FSO (Standard)	
C	0.2% FSO	
D	0.1% FSO	
RANGE (PSI)		
PJ 5	PX 75	RO 1500
PL 7.5	PZ 100	RR 2000
PN 10	RB 150	RS 2500
PP 15	RD 200	RT 3000
PQ 3-15	RE 250	RV 5000
PR 20	RF 300	RW 0-6000
PS 3-27	RH 500	RX 7500
PO 25	RJ 600	RZ 10,000
PT 30	RK 750	SB 15,000
PV 50	RM 1000	SD 20,000
	SZ	Other
Model 311 w/option GR only		
TG	0-5 through 0-15	
TJ	0-6 through 0-30	
TL	0-20 through 0-100	
TN	0-60 through 0-300	
TP	0-200 through 0-1000	
TR	0-600 through 0-3000	
TT	0-1000 through 0-5000	
PRESSURE TYPE		
2	Gauge (Direct, 0-299 psi and lower)	
3	Absolute	
4	Vacuum	
6	Sealed gauge (Absolute ref) ≤300 PSI	
7	Sealed gauge (local reference) >300 PSI	
8	Elevated (suppressed zero)	
9	Other	
10	Compound (vacuum & gauge pressure)	

OPTIONS	
ELECTRICAL CONNECTION	
AA	36" 22 AWG wire leads w/strain relief
CA	Bendix PTIH-10-6P
CB	Bendix CF3102E-14S-6P
CC	Bendix PC02E-12-8P
CD	Cannon WK6-32S
CE	Terminal Block
CF	1/2" NPT(M) thread with 36" leads
CG	MS3102R-14S-6S
CH	Vented cable, 8' long (NEMA 4 termination)
CJ	DIN 43650 (includes mate)
CK	Lumberg RSF-3/12 mm
CL	1/2" NPT (M) w/36" vented Poly cable (24 AWG)
CM	Bendix PTIH-8-4P, or equal
CN	Bendix MS3102A-14S-5P, or equal
CO	AA Junction Box (Includes CF or CL)
CP	Cannon WK4-32S
CQ	Cannon WKA7-32S
CT	36" Teflon jacket cable (high temp)
CU	1/2" NPT (F) conduit thread with 36" pigtail
CZ	Other
DE	IP-67 vented Poly cable (24 AWG)
DR4	4-Pin mini fast, 7/8-16 THD, Nickel Pltd.
PROCESS CONNECTION	
AA	1/4" NPT F (Std port)
FA	MS33649-4 (1/4 AN-10050, female)
FC	3/8" NPT (F)
FD	MS33656-4 (7/16-20 UNF-3A)
FH	1/8" NPT (F)
FJ	1/4" NPT (M)
FL	1/8" NPT (M)
FM	Autoclave Type F-250-C, 9/16-18(F)
FN	1/2" NPT (M)
FO	1/4" BSPP (M)
LC	1/4" VCR fitting (female nut)
LG	SAE-4 (F) O-ring seal thread
LH	SAE-6 (M) O-ring seal straight thread (w/O-ring)
LP	1/4" BSPP (F)
LT	SAE-4 (M) O-ring seal straight thread (w/O-ring)
FE	Bullet nose for submersible option GM, 316 SS
LD	Tapered inlet, sludge level
LJ	Tapered inlet w/ standoff plate
LX	1-1/2" tube size Tri-Clover fitting
LY	2" tube size Tri-Clover fitting
FZ	Other

GENERAL	
GA	Standardized output to ±0.5% FSO
GB	Alternate full scale outputs. Set to ±2%FSO
GC	Special calibration of a standard range (i.e. 5-10 point).
GD	Pressure overload 10X rated range, or 22,5000 psi, whichever is less. Not available with GM, CW, GY, GF, GP, HX, JP, GR. Burst pressure 15x rated range or 23,000 psi, whichever is less.
GE	Improved temp comp to ±0.5% FSO/100° F for zero & span.
GG	Alternate shunt cal (specify on SO)
GH	100% ±0.5% Internal Shunt Cal
GJ	Zero & span adjusts (±10% FSO, 211 & 311 only)
GK	Inconel wetted parts
GL	Oxygen cleaning.
GM	Submersible Housing, w/8' Vented Submersible Polyurethane Jacket Cable, Neoprene Grommet, & 1/2" NPT (M) Conduit Thread.
GR	Field rangeable option via Zero & span adjust (311 only, includes GJ, only B accuracy, not w/GD)
GS	0-10 Vdc FSO, (Model 211) (15 VDC Min Excitation)
GY	316SS pressure cavity. (Option GD not available)
HE	±0.5% FSO zero balance (Std. w/"D" accuracy), ranges ≥ 30 psi only
HK	36" Poly Cable NEMA-4X Rating
HL	RFI protection.
HR	±15 Vdc excitation, (Model 211)
JE	5000 ohm strain gauges (Model 111)
JJ	Fast response (500 microsecond, Model 211)
JK	Barometric pressure, 23-35" Hga
JS	Internal damping as specified by customer.
JV	Voltage surge protection (lighting resistance) Model 311
MA	1-5 Vdc FSO
CW	Submersible housing w/1/2" NPT M & 8' poly 24 awg non-vented cable (500 psi max)
ME	80% Shunt Cal
MX	EMI Protection
QU	Monel Wetted Parts
<p>19 Waterman Ave, Toronto, Ont. M4B1Y2 Ph#416-445-5500 Fax#416-445-1170 Toll Free:1-800-465-1600 Email:sales@intertechnology.com Website:www.intertechnology.com</p>	