



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

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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.

WIRING:

A/1 RED
B/2 GREEN
C/3 WHITE
D/4 BLACK
E/5 BLUE
F/6 BROWN
SHIELD

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.

Approvals



(optional)

111	211	311
+EXC.	+EXC.	+EXC./SIGNAL
+SIGNAL	+SIGNAL	NC
-SIGNAL	NC	NC
-EXC.	-EXC./SIGNAL	-EXC./SIGNAL
NC OPT. GH	NC OPT. GH	NC OPT. GH
NC OPT. GH	NC OPT. GH	NC OPT. GH
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 at 70° F:

- $\pm 2\%$ 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**) 8mA nominal
- Load Impedance:
(**Model 111**) 50,000 ohms min. for less than 0.1% FSO attenuation.
(**Model 311**) 1350 ohms max. at 36 Vdc & 750 ohms max. at 24 Vdc.
- Output Current:
(**Model 211**) 2.0 mA max. for less than 0.1% FSO attenuation Turndown.
(**Model 311**) Option GR - 5:1 (3:1 for ranges ≤ 15 PSI)

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.

AS5L-11.00 Rev C

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.



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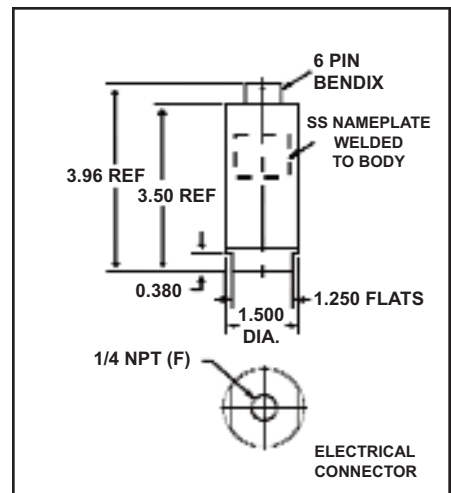
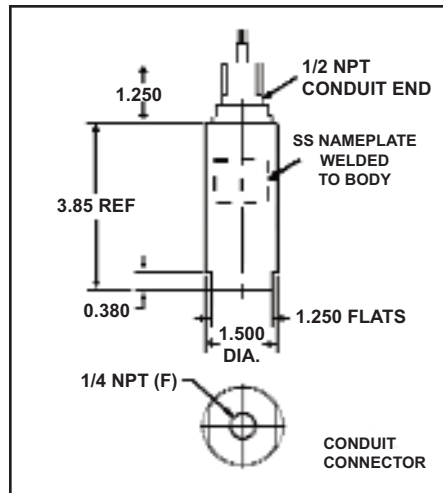
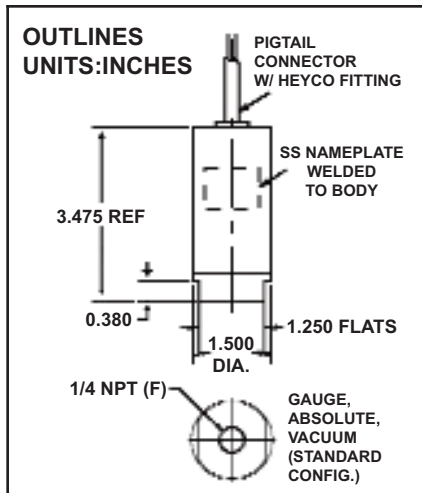
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INDUSTRIAL GRADE PRESSURE TRANSDUCER

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 (hermetic) (0-100 psig & higher)	
7	Gauge (non-hermetic seal) (0-300 psi & higher)	
8	Elevated (suppressed zero)	
9	Other	
10	Compound (vacuum & gauge pressure)	

OPTIONS	
AA	None
ALTERNATE CONNECTOR OR CABLE	
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 cable (ranges <299 psi)
CM	Bendix PTIH-8-4P, or equal
CN	Bendix MS3102A-14S-5P, or equal
CO	Junction Box (Includes CF/ORCL)
CP	Cannon WK4-32S
CQ	Cannon WKA7-32S
CU	36" Teflon jacket cable (high temp)
CV	1/2" NPT (F) conduit thread with 36" pigtail
CZ	Other
DR	4 Pin in Turck, 7/8-16 UN THD
ALTERNATE PRESSURE 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	
DE	IP-67 (NEMA-6) vented 36" polyurethane cable, neoprene grommet
GA	Standardized output to $\pm 0.5\%$ FSO
GB	Alternate full scale outputs. Set to $\pm 2\%$ 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 $\pm 0.5\%$ FSO/100° F for zero & span.
GF	Expanded process temperature range, -65 to 250°F ($\pm 2\%$ FSO/100°F)
GG	Alternate calibration signal
GH	Internal cal resistor, set to 100% $\pm 0.5\%$ FSO unless otherwise specified.
GJ	Zero and span controls. ($\pm 20\%$ FSO, Models 211, 311)
GK	Inconel Pressure Cavity.
GL	Oxygen cleaning.
GM	Submersible Housing, w/8' Vented Submersible Polyurethane Jacket Cable, Neoprene Grommet, & 1/2" NPT (M) Conduit Thread.
GR	Ranging. (Model 311 only. See pressure code. Includes option GJ, n/a w/ option GD. Limited to B series Acc.)
GS	0-10 Vdc FSO, Model 211.
GY	316SS pressure cavity. (Option GD not available)
HE	$\pm 0.5\%$ FSO zero balance (Std. w/"D" accuracy), ranges ≥ 30 psi only
HK	NEMA 4X rating (Sealed gauge).
HL	RFI protection.
HR	± 15 Vdc excitation, Model 211.
JE	5000 ohm strain gauges (Mdl.111)
JH	Remote cable mounted Z&S controls. 3' cable on open side. Cable on closed side as required. Mdl. 311 only.
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) Mdl 311
MA	1-5 Vdc FSO.
CW	Submersible housing, 8' polyurethane non-vented cable, neoprene grommet 1/2" NPT (M) conduit (0-500 psi max external pressure)
GZ	Customer special
ME	80% Shunt Cal
MX	EMI Protection
QU	Monel Wetted Parts