

DIFFERENTIAL PRESSURE TRANSDUCER/TRANSMITTER

Models 115, 215, 315





FEATURES:

- Rugged, all-welded, totally encapsulated electronics
- Leakproof. No O-ring construction
- Small size
- All stainless steel wetted parts
- Many easy-to-order options
- Base pressure to 10,000 psi (with option HM)

PRESSURE RANGES:

- From 30 to 5000 psid
- From 2 to 300 bar
- (Bi-directional available, see ordering guide.)

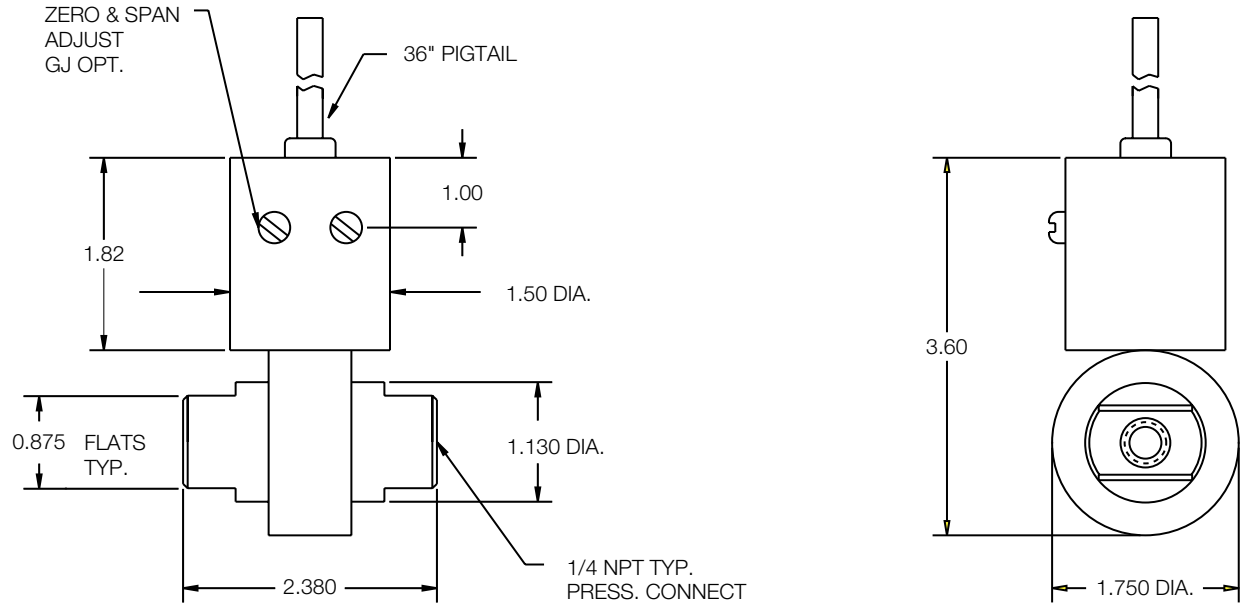
MODEL	OUTPUT @ 70°F	EXITATION
115	3 mV/V $\pm 2\%$ FSO	3.5-15 Vdc
215	0 ± 5 Vdc $\pm 2\%$ FSO	9-40 Vdc
315	4-20 mA $\pm 2\%$ FSO	9-36 Vdc
 APPROVED 215X	Explosion-Proof Class I, II, III Division I, II Groups A, B, C, D, E, F, & G	
	0- ± 5 Vdc $\pm 2\%$ FSO	10.5-32 Vdc
315X	4-20 mA $\pm 2\%$ FSO	13-36 Vdc
 CSA INTERNATIONAL APPROVED 315Z	FM and CSA Intrinsically Safe Class I, II, III, Division I, II Groups A, B, C, D, E, F, G & T4	
	4-20 mA $\pm 2\%$ FSO	9-36 Vdc

GENERAL PURPOSE

OUTLINE



Some options will affect dimensions.
Consult factory if important.



WIRING CODE

		115	215	315
A/1	Red	+ Excit.	+ Excit.	+ Excit./Signal
B/2	Green	+ Signal	+ Signal	NC
C/3	White	- Signal	NC	NC
D/4	Black	- Excit.	- Excit./Signal	- Excit./Signal
E/5	Blue	NC Option GH	NC Option GH	NC Option GH
F/6	Brown	NC Option GH	NC Option GH	NC Option GH
	Shield	Open	Open	Open

Some connector options will affect wiring.

SPECIFICATIONS

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

Base (Line) Pressure*	2000 psi maximum (10,000 psi option)
Wetted Materials *	316 Stainless Steel
Zero Shift With Base Pressure	$\leq \pm 1\%$ FSO/1000 psib
Resolution	Infinite (practical minimum of 0.02% on 115, 215 and 0.06% on 315)
Temperature Limits*	
Compensated	+70 to + 180°F
Operating	-20 to + 190°F
Storage	-65 to +250°F
Temperature Compensation*	
Zero	$\leq \pm 2\%$ FSO/100°F
Span	$\leq \pm 2\%$ FSO/100°F
Electricals	
Zero Balance*	
Model 115	0.0 mV/V $\pm 5\%$ FSO at 70°F @ 10 Vdc
Model 215	0.0 Vdc $\pm 5\%$ FSO at 70°F @ 24 Vdc
Model 315	4.0 mA $\pm 5\%$ FSO at 70°F @ 24 Vdc
Input Impedance	
Model 115	5000 ohm nominal
Input Current	
Model 215	10 mA nominal
Load Impedance	
Model 115	50,000 ohms minimum for less than 0.1% FSO attenuation.
Model 315	750 ohms maximum at 24 Vdc and 1350 ohms maximum at 36 Vdc.
Output Current	
Model 215	2.0 mA maximum for less than 0.1% FSO attenuation.
Insulation Resistance	Greater than 10 megohms at 50 Vdc and 70°F
Mechanicals	
Proof Pressure*	10 times full scale pressure range or 3000 psi, whichever is less
Burst Pressure	15 times full scale pressure range or 4000 psi, whichever is less.
Weight	16 oz. nominal.
Connections	
Pressure*	1/4" NPT (F)
Electrical*	
Cable	
Model 115, 215	36" long, 4 conductor
Model 315	36" long, 2 conductor
Enclosure Material	15-5 and 316 Stainless Steel
Mounting	Pressure Port

* See modifications on ordering guide.

ORDERING GUIDE

Ordering: Specify model, and pressure range and indicate modifications or accessories required.

Consult factory for Intrinsically Safe approved options.

MODEL

115	3 mV/V
215	0-5 Vdc
315	4-20 mA
215X	0-5 Vdc Explosion Proof
315X	4-20 mA Explosion Proof
315Z	4-20 mA Intrinsically Safe

SERIES (Accuracy)

A	1.0% FSO
B	0.5% FSO
C	0.2% FSO

PRESSURE RANGE

	psi		bar
PT	30	UL	2
PV	50	UM	3
PX	75	UN	5
PZ	100	UP	7.5
RB	150	UQ	10
RD	200	UR	15
RE	250	US	20
RF	300	UT	30
RH	500	UV	50
RJ	600	UX	75
RK	750	UY	100
RM	1000	UZ	150*
RO	1500	VA	200*
RR	2000	VB	300*
RS	2500		
RT	3000*		
RV	5000*		
RX	7500*		
SZ	Other		

*Available with option HM only

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

Use the following codes to identify desired item.

MODEL	SERIES	RANGE	OPTIONS
•	—	•	—
		•	—
			• / • / •

Example: 215-B-PV-CA/GJ

OPTIONS

AA - None (standard connector)

ALTERNATE CONNECTOR OR CABLE

Note: Explosion-proof rated models are only available with 1/2" NPT (M) Conduit Thread (Option CF)

CA Bendix PTIH-10-6P (Mate: PT06E-10-6S [SR] (not supplied))
 CB Bendix CF3102E-14S-6P (Mate: CF 3106E-14S-6S (not supplied))

CE Terminal Block

CF 1/2" NPT (M) thread with 24" potted leads

CH NEMA-4X cable, 8' polyurethane jacket cable (only available on ranges up to and including 299 PSI)

CJ DIN 43650 (includes mate)

CL 1/2" NPT (M) conduit, 2' vented polyurethane jacket cable (only available on ranges up to and including 299 PSI)

CO Junction Box (thermocouple type) and Terminal Block

CT Teflon jacketed cable, Tefzel used on submersible units (options CH, CL, DE)

ALTERNATE PRESSURE PORT

FA MS33649-4 [1/4 AN-10050, (F)]

FC 3/8" NPT (F)

FZ Non-Standard Pressure Port

GENERAL

CW Submersible non-vented sub cable (max. 500 psi external).

DE IP-67 (NEMA-6) vented polyurethane cable, neoprene grommet

GA Standardized Output to $\pm 0.5\%$ FSO

GB Alternate Full Scale, Outputs that are non-standard

GE Improved Temperature Compensation to $\pm 0.5\%$ FSO/ 100°F for Zero and Span respectively

GF Expanded Temperature Range, -20 to +200°F (Compensated to $\pm 2\%$ FSO/100°F)

GG Alternate Calibration Resistor Signal

GH Internal Calibration Resistor, set to 100% $\pm 0.5\%$ FSO

GJ Zero and Span Controls (Approximately $\pm 20\%$ FSO) Models 215 and 315 only

GK Inconel Pressure Cavity

GL Cleaned for Oxygen Service

GS 0-10 Vdc FSO, Model 215. (Requires 16-40 Vdc excitation)

HK NEMA-4X rating

HL RFI Protection (for unit in proximity to radio transmitter).

HM 10,000 psi Base Pressure Flange Girdle. (Proof pressure 10 times full scale range or 10,000 psi, whichever is less.

Burst pressure 15 times full scale range or 10,500 psi, whichever is less.)

HR ± 15 Vdc Excitation, Model 215

MD Zero and Span Controls for Explosion-Proof Units.

MS Bi-Directional Differential Pressure allows for both Positive and Negative signal

(Model 315 has a 12 mA zero)

GZ Customer special