



## ULTRA HIGH PRESSURE TRANSMITTER Models 112, 212, 312



### FEATURES:

- Rugged, all-welded, encapsulated electronics
- Leakproof, integral pressure cavity & sensor
- Many standard easy-to-order options

### PRESSURE RANGES:

- From 0-20,000 psi to 0-150,000 psi
- From 0-1500 bar to 0-10,000 bar

### ACCURACY:

- Accuracies to 0.2% FSO (RSS)  
(Non-linearity, Hysteresis, Non-repeatability)

### Accuracy:

(Includes Hysteresis, Non-linearity, Non-Repeatability)

- Series B (Std):  $\pm 0.5\%$  FSO RSS
- Series C:  $\pm 0.2\%$  FSO RSS

### Zero Balance & FSO:

- $\pm 1.0\%$  FSO at 70°F for each

### Long Term Stability:

- $< \pm 0.25\%$  FSO for 6 months at 70°F

### Resolution:

- Infinite (.02% practical minimum)

### Temperature Limits:

- Compensated: 0° F to +180° F
- Operating: -20° F to +190° F
- Storage: -65° F to +250° F
- Effect on Zero & Span: Within  $\pm 2\%$  FSO/100°F for each.

### Electricals:

- Excitation Voltage:
  - (Model 112) 3.5-15 Vdc
  - (Model 212) 9-40 Vdc
  - (Model 312) 9-40 Vdc
- Output at 70° F (FSO):
  - (Model 112) 3.0 mV/V  $\pm 2\%$
  - (Model 212) 5.0 Vdc  $\pm 2\%$
  - (Model 312) 4-20 mA  $\pm 2\%$
- Input Current: (Model 212) 8 mA, nominal
- Load Impedance:
  - (Model 112) 50,000 ohms min. for less than 0.1% FSO attenuation
  - (Model 312) 1350 ohms max. at 36 Vdc & 750 ohms at 24 Vdc
- Output Current: (Model 212) 2.0 mA max. for less than 0.1% FSO attenuation
- Range Calibration Signal: Resistance value provided on calibration card for 100% FSO
- Insulation Resistance: Greater than 10 megohms at 50 Vdc and 70°F
- Cable: 24 AWG - 36" long

### Mechanicals:

- Proof Pressure: 1.2 X full scale pressure or 160,000 psi, whichever is less.
- Burst Pressure: 2 X full scale pressure or 180,000 psi, whichever is less.
- Case material: Types 15-5 PH & 316 SST
- Weight: 12 oz., nominal

### Connections:

- Pressure Ranges: 20,000 to 60,000 psi - autoclave type F-250-C  
75,000 to 150,000 psi - autoclave type F312-C150

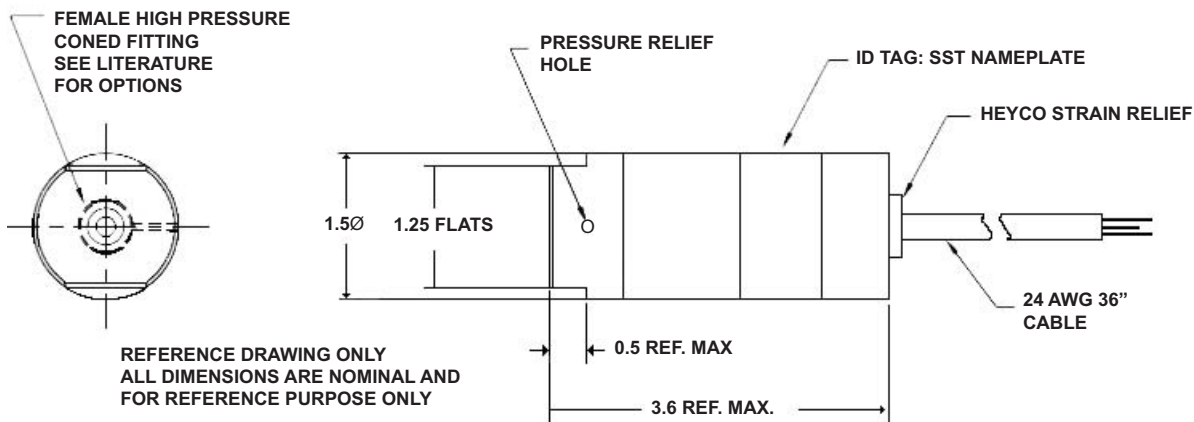
### Wetted Materials:

- 0-20,000 to 60,000 psi - 17-4 stainless steel
- 0-61,000 to 0-150,000 psi - Vascomax 300

### WIRING:

	112	212	312
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 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 options will affect dimensions. Consult factory if important.



A5SL-12.00 Rev B



## ULTRA HIGH PRESSURE TRANSMITTER

### Models 112, 212, 312

Typical configurations (consult factory for more options)

#### MODEL:

**112** 3 mV/V  
**212** 0-5 Vdc  
**312** 4-20 mA  
**312Z** 4-20 mA (Intrinsically Safe)

#### ACCURACY:

**B** 0.5% FSO  
**C** 0.2% FSO

#### PRESSURE RANGE:

(PSI)	(BAR)
<b>SD</b> 20,000	<b>UB</b> 1500
<b>SE</b> 25,000	<b>UC</b> 2000
<b>SF</b> 30,000	<b>UD</b> 3000
<b>SH</b> 50,000	<b>UE</b> 5000
<b>SI</b> 60,000	<b>UG</b> 10,000
<b>SK</b> 75,000	
<b>SM</b> 100,000	
<b>SO</b> 150,000	
<b>SZ</b> Non-std.	

#### PRESSURE PORT:

**FM** F-250-C std. on 20k-60k psi Autoclave Engineering type.  
**IC** F-375-C, 3/4-16 (F) thread Autoclave Engineering type.  
**ID** F-312-C150, 5/8-18 (F) thread Autoclave Engineering type std. on ranges above 75k.  
**FZ** Non-standard port

#### OPTIONS

**AA** None (standard connector)

#### ALTERNATE CONNECTOR OR CABLE

**CA** Bendix PTIH-10-6P (Mate PT06E-10-6S [SR], not supplied)  
**CB** Bendix CF3102E-14S-6P (Mate CF3106E-14S-6S, not supplied)  
**CC** Bendix PCO2E-12-8P (Mate:PCO6A-12-8S-[SR] not supplied)  
**CD** Cannon WK6-32S (Mate WK6-21C not supplied)  
**CE** Terminal Block  
**CF** 1/2" NPT Male Thread with 24" potted leads  
**CG** MS3102A-14S-6S (mate: MS3106F-14S-6P not supplied)  
**CJ** DIN 43650 (includes mate)  
**CO** Junction Box (thermocouple type) and terminal block  
**CZ** Alternate Connector/Cable/Other

#### ALTERNATE PRESSURE PORT

**IC** F-375-C, 3/4-16(F) thread autoclave engineering type  
**ID** F-312-C150, 5/8-18(F) thread autoclave engineering type  
**FZ** Non-standard port

#### GENERAL

**GA** Standardized FSO = (Full scale reading) - (Zero reading)  $\pm 0.5\%$  FSO  
**GB** Alternate Electronic Output (Specify Zero and Span output Values)  
**GE** Improved Temperature. Compensation to  $\pm 0.5\%$  FSO/100°F for Zero & Span respectively, from 0°F to 180°F.  
**GF** Expanded process temperature range, -65 to 250°F ( $\pm 2.0\%$  FSO/100°F)  
**GG** Alternate shunt calibration signal (specify percentage FSO)  
**GH** Internal shunt calibration resistor, set to 100%  $\pm 0.5\%$  FSO  
**GJ** Add Zero and Span Controls. (Approximately  $\pm 20\%$  FSO adjustment)  
**GS** 0-10 Vdc FSO, Model 212 only (Requires 14.5-32 Vdc excitation)  
**HE**  $\pm 0.5\%$  FSO zero balance  
**HL** RFI Protection (for unit in proximity to radio transmitter)  
**HR**  $\pm 15$  Vdc Excitation, Model 212  
**GZ** Customer special

#### NOTE:

Specifications reflect standard product, improved performance / mechanical options available.

Modifications may alter specs, consult factory for more information.