



## Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

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### ULTRA HIGH DIFFERENTIAL PRESSURE TRANSMITTER

### Models 114, 214, 314



#### FEATURES:

- Rugged
- No fill
- Intrinsically Safe

#### PRESSURE RANGES:

- From 500 to 0-20,000 psid

#### ACCURACY:

- From  $\pm 1.0\%$  FSO to  $\pm 0.2\%$  FSO (RSS)  
(See specifications)

#### WIRING:

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

#### 114

+EXC.  
+SIGNAL  
-SIGNAL  
-EXC.  
NC OPTION GH  
NC OPTION GH  
OPEN

#### 214

+EXC.  
+SIGNAL  
NC  
-EXC./SIGNAL  
NC OPTION GH  
NC OPTION GH  
OPEN

#### 314

+EXC./SIGNAL  
NC  
NC  
-EXC./SIGNAL  
NC OPTION GH  
NC OPTION GH  
OPEN

#### Accuracy:

Static error band (Includes Hysteresis, Non-linearity, Non-Repeatability)

- Series A:  $\pm 1.0\%$  FSO (RSS)
- Series B:  $\pm 0.5\%$  FSO (RSS)
- Series C:  $\pm 0.2\%$  FSO (RSS)

#### Full Scale Differential Pressure Ranges:

- $\pm 500, 600, 750, 1000, 1500, 2000, 2500, 3000, 5000, 7500, 10K, 15K, 20K$  psid

#### Static Line Pressure:

- 5X differential pressure range or 22,500 psi, whichever is less.

#### Temperature Limits:

- Compensated: 0° F to +180° F
- Operating: -20° F to +190° F
- Storage: -65° F to +250° F

#### Temperature Compensation:

- Zero & Span:  $\pm 2.0\%$  FSO/ 100° F

#### Full Scale Output (Span) High Side (at 0 psid):

- (Model 114) 3.0 mV/V  $\pm 2\%$  at 70° F
- (Model 214) 5.0 Vdc  $\pm 2\%$  at 70° F
- (Model 314) 16.0 (4-20mA)  $\pm 2\%$  at 70° F

#### Zero Shift with Line Pressure:

- Less than  $\pm 1.0\%$  FSO/1000 psid

#### Electricals:

- Excitation Voltage:
  - (Model 114) 3.5-15 Vdc
  - (Model 214) 9-40 Vdc
  - (Model 314 & Model 314Z) 9-36 Vdc
- Output at 70° F:
  - (Model 114) 3 mV/V  $\pm 2\%$  FSO
  - (Model 214) 5.0 Vdc  $\pm 2\%$  FSO
  - (Model 314) 16.0 (4-20mA)  $\pm 2\%$  FSO
  - (Model 314Z) 4-20mA  $\pm 2\%$  FSO
- Zero Balance:
  - (Model 114) 0.0 mV/V  $\pm 5\%$  FSO at 70° F
  - (Model 214) 0.0 Vdc  $\pm 5\%$  FSO at 70° F
  - (Model 314) 4.0 mA  $\pm 5\%$  FSO at 70° F
- Range Calibration Signal: Shunt resistance value provided on calibration card for 100% FSO. (Standard on Model 114)

#### Mechanicals:

- Proof Pressure: 5 x rated Differential Pressure Range, or 22,500 psi, whichever is less.
- Burst Pressure: 10 x rated Differential Pressure Range, or 22,500 psi, whichever is less.

#### Pressure Connections:

1/4" NPT (F)  
Electrical Connections: 6 conductor cable, 24 AWG 36" long, stand. optional connectors available.

Identification: Imprinted SST nameplate welded to body

Wetted Materials: Types 316 and 17-4 PH SST

Enclosure Materials: 316 SST

A5SL-14.00 Rev B



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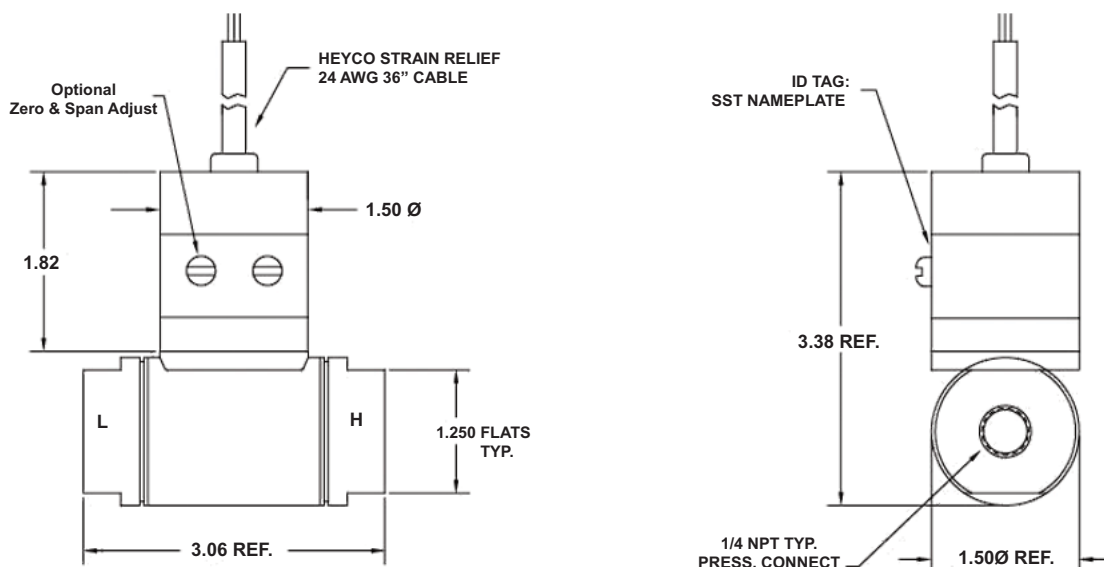
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## ULTRA HIGH DIFFERENTIAL PRESSURE TRANSMITTER

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#### Typical configurations

(consult factory for more options)

#### MODELS

<b>114</b>	3 mV/V
<b>214</b>	5 Vdc
<b>314</b>	4 - 20 mA
<b>314Z</b>	4 - 20 mA (Intrinsically Safe)

#### ACCURACY (Series)

<b>A</b>	±1.0% FSO (RSS)
<b>B</b>	±0.5% FSO (RSS)
<b>C</b>	±0.2% FSO (RSS)

#### PRESSURE RANGE (PSID)

<b>RH</b>	500	<b>RT</b>	3000
<b>RJ</b>	600	<b>RV</b>	5000
<b>RK</b>	750	<b>RX</b>	7500
<b>RM</b>	1000	<b>RZ</b>	10,000
<b>RO</b>	1500	<b>SB</b>	15,000
<b>RR</b>	2000	<b>SD</b>	20,000
<b>RS</b>	2500	<b>SZ</b>	Other

#### NOTE:

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

Modifications may alter specs, consult factory for more information.

#### OPTIONS

<b>AA</b>	None
<b>ALTERNATE CONNECTOR OR CABLE</b>	
<b>CA</b>	Bendix PTIH-10-6P (Mate: PT06E-10-6S [SR] not included)
<b>CB</b>	MS3102E-14S-6P
<b>CD</b>	Cannon WK6-32S (Mate WK6-21C not supplied)
<b>CE</b>	Terminal Block
<b>CF</b>	1/2" NPT (M) thread with 36" potted leads
<b>CJ</b>	DIN 43650 (includes mate) (Hirschmann type)
<b>CK</b>	Lumberg RSF-3/12 mm
<b>CM</b>	Bendix PTIH-8-4P, or equal
<b>CO</b>	Junction Box (thermocouple type) with terminal block
<b>CP</b>	Cannon WK4-32S
<b>CW</b>	Summersible housing, 8' polyurethane jacket non-vented cable, neoprene grommet & 1/2" NPT(M) Conduit fitting (0-500 psi max. for non-vented units only.)
<b>CZ</b>	Alternate Connector/Cable/Other
<b>HK</b>	NEMA-4X w/24" Cable

#### PRESSURE PORT

<b>FA</b>	MS33649-4 (1/4" AN-10050, female)
<b>FC</b>	3/8" NPT (F)
<b>FD</b>	MS33656-4 (7/16-20 UNF-3A, for 1/4" tube)
<b>FH</b>	1/8" NPT (F)
<b>FJ</b>	1/4" NPT (M)
<b>FL</b>	1/8" NPT (M)
<b>LG</b>	SAE-4 (F) O-ring seal thread
<b>LH</b>	SAE-6 (M) O-ring seal straight thread (with O-ring)
<b>LP</b>	1/4" BSPP (F)
<b>LT</b>	SAE-4 (M) O-ring seal straight thread (with O-ring)
<b>FZ</b>	Other

#### GENERAL

<b>GA</b>	Standardized output to ±0.5% FSO
<b>GB</b>	Alternate outputs. Specify zero and span
<b>GE</b>	Improved temp. compensation to ±0.5% FSO/ 100°F for zero & span respectively
<b>GG</b>	Alternate shunt calibration signal
<b>GH</b>	Internal shunt calibration resistor set to 100 ±0.5% FSO (N/A with 314Z)
<b>GJ</b>	Add zero and span controls
<b>GK</b>	Inconel Pressure cavity
<b>GS</b>	0-10 Vdc FSO, (Required 16-32 Vdc exc.)
<b>HL</b>	RFI protection (for unit in proximity to radio transmitter)
<b>MA</b>	1-5 Vdc FSO
<b>GZ</b>	Customer special