



Pressure, Level & Temperature Transmitters & Transducers

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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 $+180^\circ\text{F}$
- Operating: -20°F to $+190^\circ\text{F}$
- Storage: -65°F to $+250^\circ\text{F}$

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

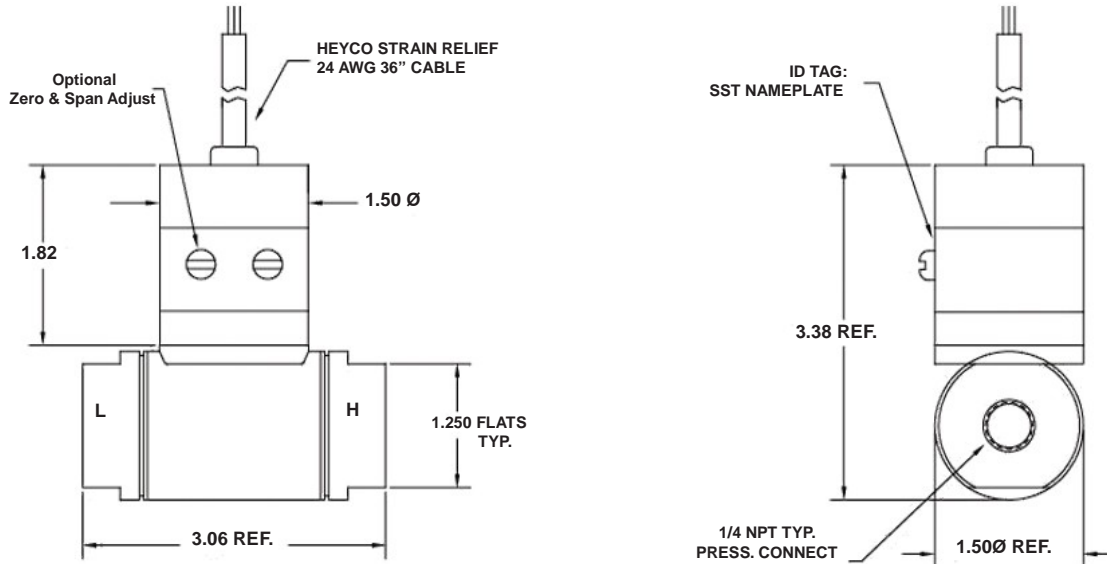
Enclosure Materials: 316 SST

A5SL-14.00 Rev B



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Typical configurations (consult factory for more options)

MODELS

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

ACCURACY (Series)

A	±1.0% FSO (RSS)
B	±0.5% FSO (RSS)
C	±0.2% FSO (RSS)

PRESSURE RANGE (PSID)

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

NOTE:

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

Modifications may alter specs, consult factory for more information.

OPTIONS

AA	None
ALTERNATE CONNECTOR OR CABLE	
CA	Bendix PTIH-10-6P (Mate: PT06E-10-6S [SR] not included)
CB	MS3102E-14S-6P
CD	Cannon WK6-32S (Mate WK6-21C not supplied)
CE	Terminal Block
CF	1/2" NPT (M) thread with 36" potted leads
CJ	DIN 43650 (includes mate) (Hirschmann type)
CK	Lumberg RSF-3/12 mm
CM	Bendix PTIH-8-4P, or equal
CO	Junction Box (thermocouple type) with terminal block
CP	Cannon WK4-32S
CW	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.)
CZ	Alternate Connector/Cable/Other
HK	NEMA-4X w/24" Cable

PRESSURE PORT

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

GENERAL

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