



Pressure, Level & Temperature Transmitters & Transducers

2770 Long Road, Grand Island, NY 14072 USA

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LOW RANGE, HIGH LINE DIFFERENTIAL PRESSURE TRANSMITTER

Models 216, 316

"LB" Welded Port
Option Shown



FEATURES:

- Wet-wet DP
- High Line Pressure rating
- Compact size
- 316 SST wetted parts
- Fast frequency response

PRESSURE RANGES:

- From 0-5 to 0-2,000 in. wcd and 0-1 to 0-200 psi

LINE PRESSURE:

- 2000 psi standard, others available
- 500 psi on Welded Port option LB

ACCURACY:

- See options

Accuracy:

- (Includes Hysteresis, Non-linearity, Non-Repeatability)
- Option B Standard: $\pm 0.5\%$ FSO (RSS)
- Option C Standard: $\pm 0.2\%$ FSO (RSS)
- Option D Standard: $\pm 0.1\%$ FSO (RSS)

Base (Line) Pressure:

- 2000 psi, maximum / 3000 psi, maximum, options FP & LA, 500 psi, maximum, option LB

Static Line Shift:

- Less than $\pm 1\%$ FSO/1000 psi for ranges 0-21" wc & higher
- Less than $\pm 2\%$ FSO/1000 psi for ranges 0-20" wc & lower

Orientation Shift: (90°)

- Zero: ± 1 in wc

Resolution:

- Infinite (0.02% FSO practical minimum)

Temperature Limits:

- Compensated: $+70^\circ\text{F}$ to $+180^\circ\text{F}$
- Operating: 0°F to $+180^\circ\text{F}$
- Storage: -20°F to $+200^\circ\text{F}$
- Effect on Zero & Span: $< \pm 2.0\%$ FSO/100°F for each

Electricals:

- Supply Voltage:
 - (Model 216) 10.2-42 Vdc
 - (Model 316) 13-37 Vdc
- Output at 70°F :
 - (Model 216) 0 ± 5 Vdc FSO
 - (Model 316) 4-20 mA FSO
- Output Loading:
 - (Model 216) 3000 ohms, minimum
- Load Impedance:
 - (Model 316) 3000 ohms, minimum
- Zero Balance / Span: Adjustable to $\pm 20\%$ FSO

Mechanicals:

- Response Time: < 100 milliseconds for 90% FSO/ 70°F
- Frequency Response: Flat to 10HZ
- Stability: Less than $\pm 0.25\%$ FSO/6 months
- Silicon Oil fill

Proof Pressure at 70°F :

- 1000 psi single ended is standard / 1000 psi single ended for options FP & LA / 500 psi single ended for option LB

Burst Pressure at 70°F :

- 4000 psi is standard / 5000 psi for options FP & LA/750 psi for option LB

Weight:

- 5.4 lbs. normal (std.) / 6.5 lbs. options FP & LA/2.0 lbs. option LB

Connections:

- Pressure: 1/4" NPT (F)
- Electrical: Cable (24 AWG) 36" long

Enclosure Materials:

- 316 SST

Pressure Cavity Material:

- 316 SST and Viton O-Ring

* All 316 SST on Welded Ports. Option LB

WIRING:

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

216

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

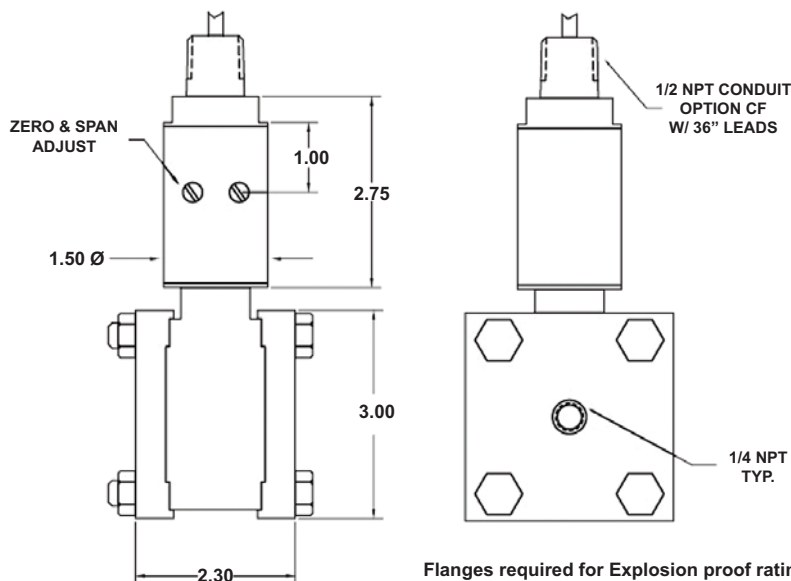
316

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

Approvals



Some options will affect dimensions. Consult factory if important.



Flanges required for Explosion proof rating

A5SL-16.00 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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Typical configurations (consult factory for more options)

MODEL

216	0-5 Vdc
316	4-20 mA
216X	0-5 Vdc FM Explosion Proof
316X	4-20 mA FM Explosion Proof
216P	0-5 Vdc FM & CSA Explosion Proof
316P	4-20 mA FM & CSA Explosion Proof

ACCURACY

B	0.5% FSO
C	0.2% FSO
D	0.1% FSO

PRESSURE RANGE

IN. WCD

WT 5	XM 150
WV 7.5	XO 200
WX 10	XQ 300
WZ 15	XS 500
XB 20	XU 750
XD 30	XW 1000
XF 50	XY 1500
XH 75	YA 2000
XK 100	SZ Non-Stand.

PSID

PC 1	PR 20
PE 2	PO 25
PG 3	PT 30
PJ 5	PX 75
PL 7.5	PZ 100
PP 15	RB 150
SZ Non-Stand.	RD 200

OPTIONS

ELECTRICAL CONNECTIONS

Note: Explosion Proof models require 1/2" NPT (M) electrical connection (CF)

AA	36" 22 AWG wire leads w/strain relief
CA	Bendix PTIH-10-6P
CB	Bendix MS3102E-14S-6P
CE	Terminal Block
CF	1/2" NPT(M) with 36" leads, Standard on Explosion Proof models
CJ	DIN 43650 Form A (Mate Included)
CL	1/2" NPT (M) conduit, 2' vented polyurethane jacket cable
CO	Al-ALY Junction Box - 1/2" NPT F Connection with terminal block
CT	Teflon jacketed cable
DE	IP-67 vented Poly cable (24 AWG)
CW	Submersible Housing w/1/2" NPT (M) & 8' poly 24 AWG non-vented cable
CZ	Alternate connector/cable/other

ALTERNATE PRESSURE PORT

FA	MS33649-4 (F)
FC	3/8" NPT (F)
FH	1/8" NPT (F)
LA	3,000 psi flanges, (std. pressure port)
LB	Integral welded process ports (500 PSI Max line & proof) 1/4" NPT F-Std.
FZ	Non-Standard Pressure Port

GENERAL

GB	Alternate Electronic Output (specify Zero & Span output values)
GE	Improved Temp. Compensation to $\pm 0.5\%$ FSO/100°F
GH	100% Shunt Calibration
GL	Cleaned for Oxygen Service
MH	3:1 Max Ranging, (Model 316 only)
MS	Bi-Directional Differential Pressure, (316 - 12 mA @ Zero PSID)
GS	0-10 Vdc FSO, (Model 216 Requires 16-42 Vdc excitation)
HL	RFI Protection
HZ	Teflon O-ring
LO	10-32 Bleed Screw both ports

NOTE:

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

Modifications may alter specs, consult factory for more information.