



## SANITARY FLUSH DIAPHRAGM PRESSURE TRANSMITTER Models 218, 318



74-03  
Cert no. 668

### FEATURES:

- Flush Diaphragm for slurry measurement & cleanability
- Wet - wet true gauge pressure measurement that does not require vented cable
- Rugged, All-welded, corrosion-resistant type 316 SST construction
- NEMA-4X enclosure
- Complies with 3A standard 74-03

### PRESSURE RANGES:

- From 0-30" wc through 0-1000 psi

### ACCURACY:

- From  $\pm 0.5\%$  FSO to  $\pm 0.1\%$  FSO (RSS)

### WIRING:

	218	318
A/1 RED	+EXC.	+EXC./SIGNAL
B/2 GREEN	+SIGNAL	NC
C/3 WHITE	NC	NC
D/4 BLACK	-EXC./SIGNAL	-EXC./SIGNAL
E/5 BLUE	NC	NC
F/6 BROWN	NC	NC
SHIELD	OPEN	OPEN

### Accuracy:

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

- **Series A:**  $\pm 0.5\%$  FSO (RSS)
- **Series B:**  $\pm 0.2\%$  FSO (RSS)
- **Series C:**  $\pm 0.1\%$  FSO (RSS)

### Resolution:

- Infinite, 0.02% FSO practical minimum

### Wetted Parts:

- Type 316 SST

### Temperature Limits:

- Compensated: 30° F to +170° F
- Operating: 0° to +185° F

### Temperature Compensation:

- Effect on Zero / Span: Within  $\pm 2\%$  FSO/100°F for each

### Orientation Shift:

- Zero:  $\pm 1$  in WC, Option GJ or JH is recommended on ranges  $\leq 200$  in WC

### Span:

- **(Model 218):** 5 Vdc  $\pm 2\%$  FSO at 70° F
- **(Model 318):** 16 mA  $\pm 2\%$  FSO at 70° F

### Enclosure:

- All-welded type 316 SST. Rated NEMA-4x. (3A 74-03 compliant)

### Electricals:

- Excitation Voltage:  
**(Model 218)** 10.5-32 Vdc  
**(Model 318)** 13-37 Vdc
- Output at 70° F:  
**(Model 218)** 5.0 Vdc  $\pm 2\%$  FSO  
**(Model 318)** 4-20 mA  $\pm 2\%$  FSO
- Zero Balance:  
**(Model 218)** 0.0 mV/V  $\pm 5\%$  FSO at 70° F Horizontal position  
**(Model 318)** 4.0 mA  $\pm 5\%$  FSO at 70° F Horizontal position
- Load Impedance:  
**(Model 318)** 1200 ohms max. at 37 Vdc
- Output Loading:  
**(Model 218)** 3000 ohms min.

### Mechanicals:

- Proof Pressure: 3 X full scale pressure
- Burst Pressure: 5 X full scale pressure
- Case Materials: Type 316 Stainless Steel
- Weight: 12 oz. nominal (not including Weld Nipple)
- Identification: Etched on transducer

### Connections:

- Pressure: 1-3/4" - 20 UNF thread to 316 SST Weld Nipple (Weld Nipple not included)
- Electrical Cable: NEMA-4x with molded 6 conductor, polyurethane jacket, 8' long.

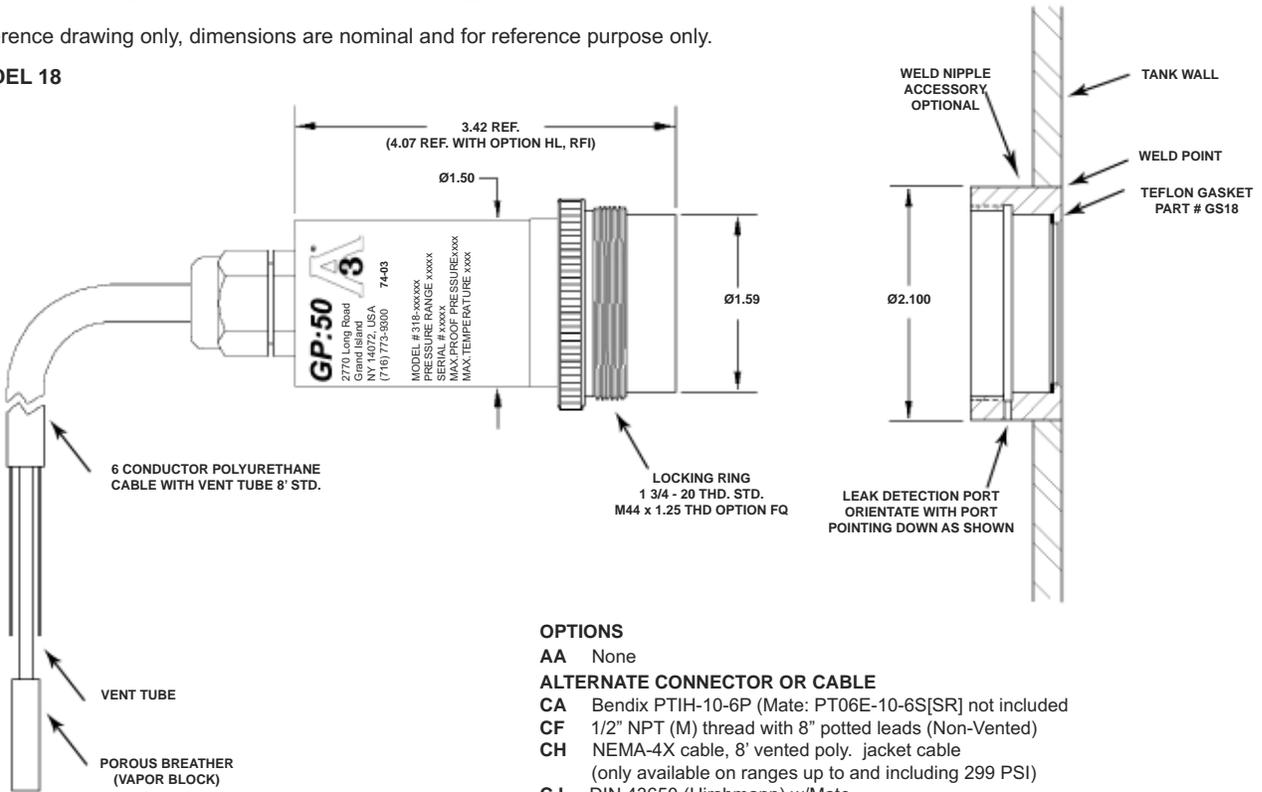
A5SL-18.00 Rev D



# Pressure, Level & Temperature Transmitters & Transducers

Reference drawing only, dimensions are nominal and for reference purpose only.

## MODEL 18



### OPTIONS

AA None

### ALTERNATE CONNECTOR OR CABLE

- CA Bendix PTIH-10-6P (Mate: PT06E-10-6S[SR]) not included
- CF 1/2" NPT (M) thread with 8" potted leads (Non-Vented)
- CH NEMA-4X cable, 8' vented poly. jacket cable (only available on ranges up to and including 299 PSI)
- CJ DIN 43650 (Hirshmann) w/Mate
- CL 1/2" NPT (M) conduit, 2' vented polyurethane jacket cable (Ranges 0-299 PSI)
- CT Teflon jacketed cable, Tefzel used on submersible units (Options CH, CL, CW, DE, GM)
- CZ Alternate Connector/Cable/Other

### ALTERNATE PRESSURE PORT

- FQ M44 X 1.25 Metric thread
- FZ Non-standard pressure port

### GENERAL

- DE IP-67 (NEMA-6) vented polyurethane jacket cable, neoprene grommet.
- CW Submersible housing, 8' non-vented polyurethane jacket cable, neoprene grommet, 1/2" NPT (M) conduit.
- GA Stand. Full Scale Output, (FSO = (Full Scale Reading) - (Zero Reading)  $\pm 0.5\%$  FSO)
- GB Alternate Electronic Output (Specify Zero & Span output values)
- GE Improved Temperature Compensation to  $\pm 0.5\%$  FSO/100°F for Zero & Span Respectively, (from 30°F to 180°F)
- GF Expanded process temperature range, -65 to 250°F ( $\pm 2\%$  FSO/100°F)
- GJ Add Zero & Span Controls. (Approx.  $\pm 20\%$  FSO adjustment)
- GK Inconel Diaphragm and Diaphragm Housing
- GM Submersible housing w/8' Std Cable
- GP Hastelloy Diaphragm and Diaphragm Housing
- GS 0-10 Vdc FSO, Model 218. (Requires 16 - 32 Vdc excitation)
- HL RFI Protection (for unit proximity to radio transmitter)
- JH Remote Cable-Mounted Zero and Span Controls (Model 318 only)
- GZ Customer special

### MODEL 18 ACCESSORIES

#### Weld Nipples

- WN18-AA-AA-2.1 1-3/4" - 20 316 SS 2.1" OD
- WN18-AA-FQ-2.1 M44 - 1.25 316 SS 2.1" OD
- WN18-AA-AA-2.5 1-3/4" - 20 316 SS 2.5" OD
- WN18-AA-FQ-2.5 M44 - 1.25 316 SS 2.5" OD

#### Weld Plugs

- WP18-AA-AA 1-3/4" - 20 316SS
- WP18-AA-FQ M44 - 1.25 316SS

#### Lock Rings

- LR18-AA-AA 1-3/4" - 20 316SS
- LR18-AA-FQ M44 - 1.25 316SS

### Calibration / Test Fixture

- CTF18-AL-AA Aluminum 1/3/4" - 20 X 1/4" NPTF
- CTF18-AL-FQ Aluminum M44 - 1.25 X 1/4" NPTF

### Face Seal

- GS18 Teflon gasket - Model 18

### NOTE:

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

Modifications may alter specs, consult factory for more information.

### MODELS

- 218 5 Vdc
- 318 4-20 mA

### ACCURACY (SERIES)

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

### PRESSURE RANGE (PSI) \* No reference slots, cable vented

PC 1	PP 15	RB 150
PE 2	PR 20	* RD 200
PG 3	PT 30	* RF 300
PJ 5	PV 50	* RH 500
PL 7.5	PX 75	* RJ 600
PN 10	PZ 100	* RK 750
		* RM 1000

### IN WC

XD 30	XK 100	XU 750
XF 50	XM 150	XW 1000
XH 75	XO 200	XY 1500
	XQ 300	YA 2000
	XS 500	SZ Non-Standard

### PRESSURE TYPE

- 2 Gauge
- 3 Absolute (Ranges  $\geq 0-5$  psia)
- 4 Vacuum
- 8 Elevated
- 10 Compound

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