

SANITARY FLUSH DIAPHRAGM PRESSURE TRANSDUCER/TRANSMITTER

Models 218 & 318



FEATURES:

- Flush Diaphragm for slurry measurement and cleanability
- Wet-wet true gauge pressure measurement that does not require vented cable
- Rugged, All-welded, corrosion-resistant type 316 Stainless Steel construction
- NEMA-4X enclosure
- 3A Approved

PRESSURE RANGES:

- From 0-20" wc through 0-1000 psi
(See ordering guide)

ACCURACY:

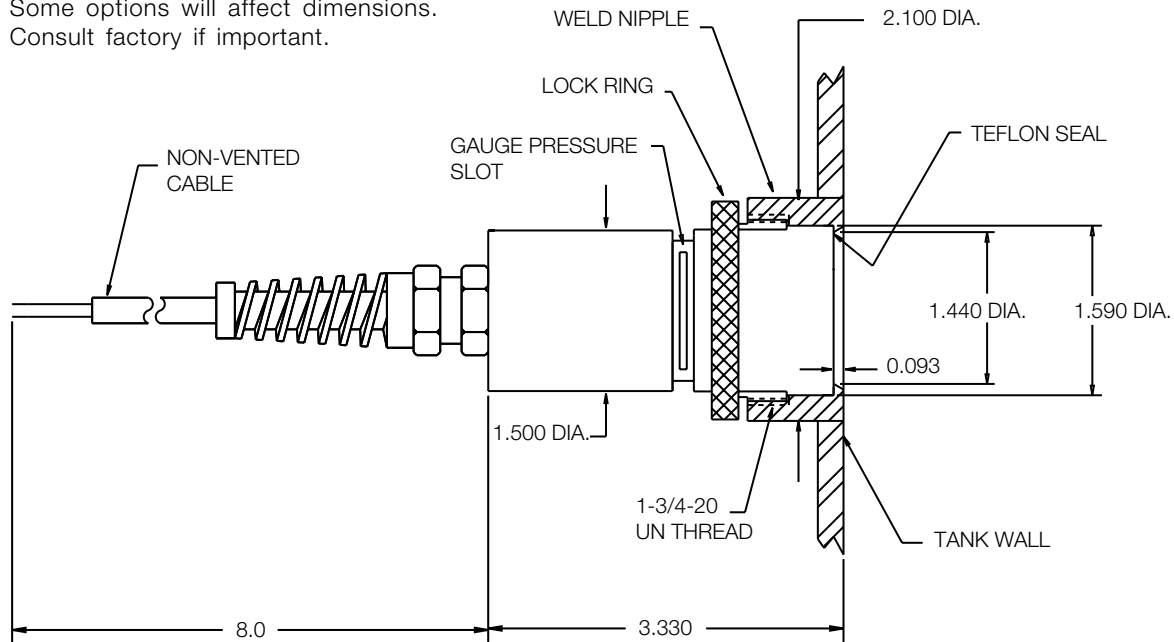
- To $\pm 0.1\%$ FSO (RSS).

MODEL	OUTPUT @ 70°F	EXCITATION
218	5.0 Vdc $\pm 2\%$ FSO	10.5-32 Vdc
318	4-20 mA $\pm 2\%$ FSO	13-37 Vdc

FLUSH DIAPHRAGM



Some options will affect dimensions.
Consult factory if important.



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" - 20 316 SS
WP18-AA-FQ	M44 - 1.25 316 SS
Lock Rings	
LR18-AA-AA	1 3/4" - 20 316 SS
LR18-AA-FQ	M44 - 1.25 316 SS
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
Indicators	
	Numerous indicators available to meet requirements
SSU	
	System set up - matching GP:50 transducer to GP:50 indicator calibration and units of measure

	218	318
A/1 Red	+ Excit.	+ Excit./Signal
B/2 Green	+ Signal	NC
C/3 White	NC	NC
D/4 Black	- Excit./Signal	- Excit./Signal
E/5 Blue	NC	NC
F/6 Brown	NC	NC
Shield	Open	Open

SPECIFICATIONS

Unless otherwise stated, these specifications are the standards to which the units are normally constructed. Alterations may be easily and readily accomplished by the standard modification code or by discussion with the factory. We invite your inquiry.

Accuracy (Non-linearity, hysteresis, RSS Non-repeatability) RSS	B ±0.5% FSO, RSS C ±0.2% FSO, RSS D ±0.1% FSO, RSS
Materials in contact with Measured fluids	Type 316 Stainless Steel
Resolution	Infinite, 0.02% FSO practical minimum
Temperature Limits Compensated Operating	30°F to +170°F 0°F to +185°F
Temperature Compensation Zero Span	Within ±2% FSO/100°F Within ±2% FSO/100°F
Orientation Shift Zero	±1 in WC, Option GJ or JH is recommended on ranges ≤ 200 in wc
Electricals Output Loading Load Impedance Zero Balance	Model 218 Model 318 Model 218 Model 318 3000 ohms minimum 1200 ohms maximum at 37 Vdc 0.0 Vdc ±5% FSO @ 70°F / Horizontal position 4.0 mA ±5% FSO @ 70°F / Horizontal position
Span	Model 218 Model 318 5 Vdc ±2% FSO @ 70°F 16 mA ±2% FSO @ 70°F
Mechanicals Proof Pressure Burst Pressure Case Materials Weight	3 times full scale pressure 5 times full scale pressure Type 316 Stainless Steel 12 oz. nominal (not including Weld Nipple)
Connections Pressure	1-3/4" - 20 UNF thread to 316 Stainless Steel Weld Nipple. (Weld Nipple not included)
Electrical Cable	NEMA-4x with molded 6 conductor, polyurethane jacket, 8' long.
Enclosure	All-welded type 316 Stainless Steel. Rated NEMA-4X. Approved 3A.
Identification	Electro etched on transducer

* See modifications on ordering guide.

ORDERING GUIDE

Ordering: Specify model, and pressure range and indicate modifications or accessories required.

Use the following codes to identify desired item.

MODEL	ACCURACY	RANGE	TYPE	OPTIONS
• —	• —	• —	• —	• / • / •

Example: 318-D-XQ-2-CA

MODEL

218 5 Vdc
318 4-20 mA

ACCURACY

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

PRESSURE RANGE

in wc		psi	
XB	20	PC	1
XC	25	PE	2
XD	30	PG	3
XF	50	PJ	5
XH	75	PL	7.5
XK	100	PN	10
XM	150	PP	15
XO	200	PR	20
XQ	300	PT	30
XS	500	PV	50
XU	750	PX	75
XW	1000	PZ	100
XY	1500	RB	150
YA	2000	RD	200
SZ	Non-stand.	RF	300
		RH	500
		RJ	600
		RK	750
		RM	1000

No reference slots, cable vented

PRESSURE TYPE

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

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 polyurethane jacket cable (only available on ranges up to an 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 Standardized Full Scale Output, (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 30°F to 180°F)
GF Expanded Temperature Range, max. 0°F to +200°F (Compensated to \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 in proximity to radio transmitter)
JH Remote Cable-Mounted Zero & Span Controls (Model 318 only)
GZ Customer Special

GP:50 reserves the right to make product improvements and amendments to the product specification stated throughout this brochure without prior notification. Please contact the factory on all critical dimensions and specifications for verification.