

SANITARY FLUSH DIAPHRAGM PRESSURE TRANSDUCER/TRANSMITTER

Models 181, 281, 381



FLUSH DIAPHRAGM

FEATURES:

- All welded, stainless steel rated NEMA 4X.
- No fluid fill.
- Compatible with all systems.

PRESSURE RANGES:

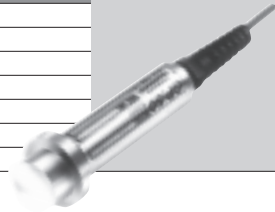
- From 0-100 psig to 0-20,000 psig)
(See ordering guide.)

APPLICATIONS:

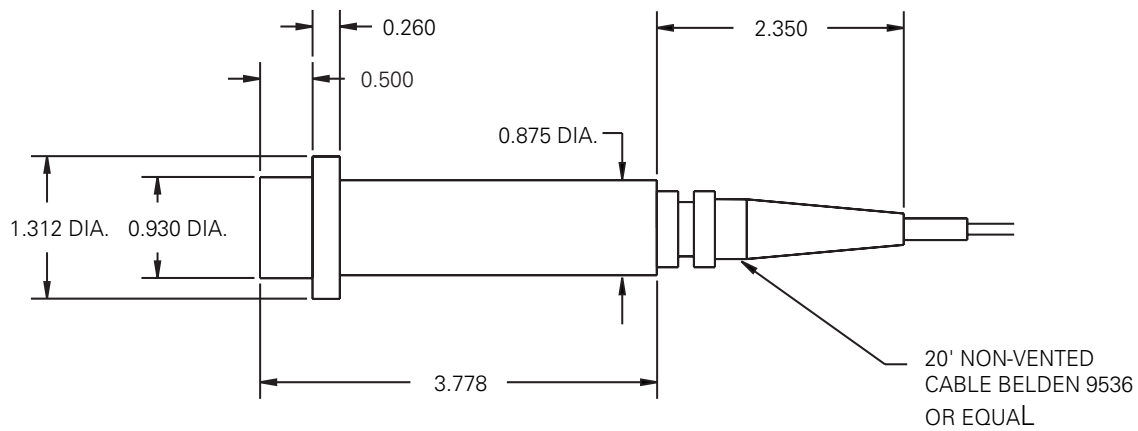
- Homogenizer Pressure
- Slurries
- Viscous Materials

MODEL	OUTPUT @ 70°F	EXITATION
181	3 mV/V \pm 2% FSO*	3.5-15 Vdc
281	0 \pm 5 Vdc \pm 2% FSO	9-40 Vdc
381	4-20 mA \pm 2% FSO	9-36 Vdc

OUTLINE



Some options will affect dimensions.
Consult factory if important.



WIRING CODE

WIRING CODE

		181	281	381
A/1	Red	+ Excit.	+ Excit.	+ Excit./Signal
B/2	Green	+ Signal	+ Signal	NC
C/3	White	- Signal	NC	NC
D/4	Black	- Excit.	- Excit./Signals	- Excit./Signal
E/5	Blue	NC Option GH	NC Option GH	NC Option GH
F/6	Brown	NC Option GH	NC Option GH	NC Option GH
	Shield	Open	Open	Open

* * - Signal and - Excitation are common to each other.

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 (Static error band includes non-linearity, hysteresis, non-repeatability)	± 0.5% FSO (RSS)
Materials in contact with Measured fluids*	Type 15-5 ph stainless steel.
Temperature Limits** Compensated Operating	0°F to + 180°F -20°F to + 200°F
Temperature Compensation** Zero Span	Less than ±2.0% FSO/100°F Less than ±2.0% FSO/100°F
Electricals Input Impedance, Model 181 Load Impedance, Model 181 Input Current, Model 281 Output Current, Model 281 Load Impedance, Model 381	5000 ohm, nominal 50,000 ohm minimum, for less than 0.1% FSO attenuation 10mA, nominal. 2.0 mA maximum for less than 0.1% FSO attenuation 1350 ohms maximum at 36 Vdc and 750 ohms maximum at 24 Vdc
Zero Balance Model 181 Model 281 Model 381	0.0 mV/V ± 5% FSO at 70°F @ 10 Vdc 0.0 Vdc ± 5% FSO at 70°F @ 24 Vdc 4.0 mA ± 5% FSO at 70°F @ 24 Vdc
Range Calibration Signal** Model 181 Model 213,313	Resistance value provided on calibration card for 100% FSO. NC. See option GH
Insulation Resistance	Greater than 1000 megaohms at 50 Vdc and 70°F
Resolution	Infinite (practical minimum of 0.02% on 111, 211 and 0.06% on 311)
Mechanicals Proof Pressure Burst Pressure Weight Fatigue Life	3 times full scale pressure or 22,500 psi, whichever is less. 5 times full scale pressure or 23,000 psi, whichever is less. 6 oz. nominal. Infinite when operated at less than maximum pressure range.
Enclosure	All welded type 316 stainless steel. Rated NEMA-4X. Approved 3A.
Identification	Etched stainless steel nameplate welded to body
Connections Pressure Electrical** Cable	Flush diaphragm with gasket (included). 20' Belden 9536, 6 conductor (or equivalent).

* See modifications on ordering guide.

SPECIFICATIONS

ORDERING GUIDE

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

Use The Following Codes To Identify Desired Item.

MODEL	RANGE	OPTIONS
•	—	• / • / •

Example
381-RV-CA

MODEL

181 3 mV/V
281 0-5 Vdc
381 4-20 mA

PRESSURE RANGE

psig

PZ	100	RR	2,000
RB	150	RT	3,000
RD	200	RV	5,000
RF	300	RX	7,500
RH	500	RZ	10,000
RK	750	SB	15,000
RM	1,000	SD	20,000
RO	1,500	SZ	Other

OPTIONS

AA - None (standard connector)

ALTERNATE CONNECTOR OR CABLE

CA Bendix PTIH-10-6P (Mate: PT06E-10-6S [SR] not included)
CZ Alternate Connector/Cable/Other.

GENERAL

GA Standardized Output to $\pm 0.5\%$ FSO.
GB Alternate full scale output (FSO).
GE Improved Temperature Compensation to $\pm 0.5\%$ FSO/100°F for Zero + Span respectively.
GF Expanded Temperature Range, -20°F to 200°F (Compensated to $\pm 2.0\%$ FSO/100°F).
GH Internal Calibration Resistor, set to 100% $\pm 0.5\%$ FSO.
GS 0-10 Vdc FSO, Model 281. Requires 16-40 Vdc excitation.
JH Remote cable-mounted Zero & Span Controls. 3' cable on open side. Cable on closed side as required. Model 380 only.
GZ Customer special.

GP:50 New York Ltd. 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.

INTERTECHNOLOGY
1-800-465-1600 INC.

1 Scarsdale Road
Don Mills, ON M3B 2R2

Tel: 416-445-5500
Fax: 416-445-1170

E-Mail: sales@intertechnology.ca
Website: www.intertechnology.com

GP:50