

PLASTIC MELT PRESSURE TRANSMITTER

**w/ NON-INTRUSIVE ZERO & SPAN CONTROLS
FOR HAZARDOUS ENVIRONMENTS
Model 331X w/ QE option**



GENERAL

The GP:50 product line of melt pressure transducers and transmitters are based on the proven bonded strain gage principle successfully utilized in thousands of applications. Our unique design incorporates a heavier sensor allowing a thicker tip diaphragm, provides better linearity, and reduces costs.

The design incorporates an extremely small capillary tubing that transmits the media pressure to the strain gage sensor and mating electronics via a mechanical fill fluid. (Mercury is the standard, silicone and mineral oil are readily available depending on the application).

FEATURES:

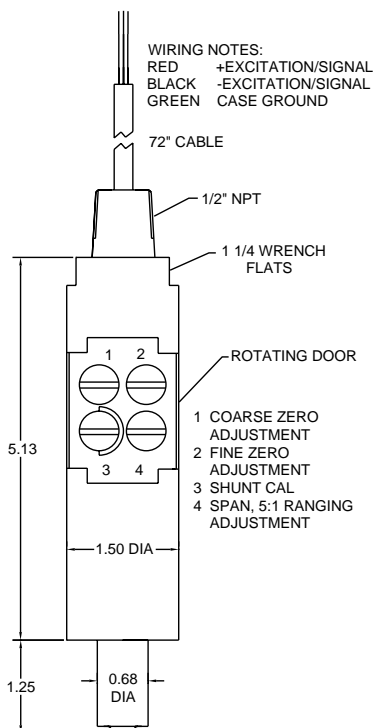
- Rugged, all-welded, all stainless steel construction.
- Interchangeable with existing systems.
- Many options available, Hastelloy C-276 or Boron - Hardening
- FM Explosion-Proof (Class I, Division I, Groups A, B, C, D)
- Magnetically coupled zero and span adjustments and shunt cal switch
- Coarse Zero Adjustment, approximately $\pm 20\%$ of upper range
- Fine Zero Adjustment, approximately $\pm 0.5\%$ of upper range
- Span Adjustment, 5:1 Ranging optional
- Internal Calibration Resistor set to 80% at upper range, 100% at lower range

PRESSURE RANGES:

- From 0-500 through 0-15,000 psi (see ordering guide)

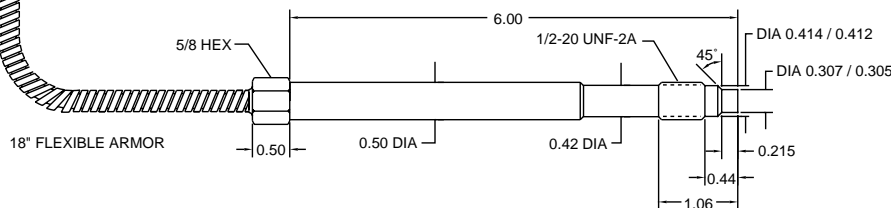
ACCURACY:

- (Non -Linearity, Hysteresis, Non-repeatability)
- $\pm 0.25\%$ FSO, RSS (0-5000 psi & higher)
- $\pm 0.5\%$ FSO, RSS (0-500 and 0-3500 psi)



MODEL	OUTPUT @ 70°F*	EXCITATION
331X	4-20 mA $\pm 2\%$	9-36 Vdc

Some options will affect dimensions. Consult factory if important.



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 (Non-linearity, Hysteresis, Non-repeatability)	$\pm 0.5\%$ FSO(RSS) 500 through 3000 psi $\pm 0.25\%$ FSO(RSS) 5000 through 15000 psi
Material in Contact with Pressure Media		15-5 PH stainless steel and hard chrome plated diaphragm surface. Diamond, Boron and Titanium Nitride coatings optional.
Proof Pressure		2 times full scale pressure range or 35,000 psi whichever is less
Temperature Limits	Diaphragm Strain Gauge Housing	750°F (400°C) 176°F (80°C)
Temperature Effects from Diaphragm	From Fill Zero From Strain Gauge Housing Zero Span	15 psi/100°F Less than $\pm 1.0\%$ FSO/100°F ($\pm 2.0\%$ FSO/100°C) Less than $\pm 1.0\%$ FSO/100°F ($\pm 2.0\%$ FSO/100°C)
Electricals	Load Impedance Model 330, 331 Zero Balance Model 330, 331 Range Calibration Signal	1350 ohms maximum, at 36 Vdc and 750 ohms at 24 Vdc 4.0 mA $\pm 5\%$ FSO @ 70°F 20% at upper range, 100% at lower range
Connections	Pressure Electrical	1/2" - 20 UNF-2A thread standard (M18 x 1.5 metric thread optional) 1/2" NPT (M) thread with 72" cable, 18 AWG wires
Enclosed Materials		316 stainless steel
Mounting Torque		500 inch pounds, maximum
Identification		Etched stainless steel nameplate welded to body.

ORDERING GUIDE

Use The Following Codes To Identify Desired Item.

MODEL	RANGE	OPTIONS
•	—	• / • / •

Example: 331X-RV-CF/GN

MODEL

331X 4-20 mA

PRESSURE RANGE

	psi		bar
RH	500	UV	50
RJ	600	UX	75
RK	750	UY	100
RM	1000	UZ	150
RO	1500	VA	200
RR	2000	VB	300
RS	2500	VC	350
RT	3000	VD	500
RV	5000	VE	700
RX	7500	VF	750
RZ	10000	UA	1000
SB	15000	SZ	Other

OPTIONS

CF 1/2" NPT(M) thread with 72" leads

GENERAL

- GB Alternate Electronic Output - specify zero and span output values
- GP Hastelloy C-276 Diaphragm and Thread
- GQ Boron-Hardened diaphragm
- GV Silicone Oil Fill. (Increases Thermal Shift) Consult factory
- GX Mineral Oil Fill. (Increases Thermal Shift) Consult factory
- QE Zero and Span Adjustments Magnetically Coupled and Hermetically Sealed
- JW Titanium Nitride-Coated Diaphragm & Threads
- GK 5:1 Ranging (will affect standard shunt calibration)

RIGID STEM

- GN 12.5" Rigid Stem
- GO 9" Rigid Stem
- HD 3" Rigid Stem
- HJ 1 3/16" Rigid Stem
- HU 4" Rigid Stem

FLEX TUBING

- GT 30" Armored Capillary Tube
- HS 9" Armored Capillary Tube
- HV 24" Armored Capillary Tube
- HY 12" Armored Capillary Tube

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.