



**MELT PRESSURE
TRANSDUCERS & TRANSMITTERS**
2770 Long Road, Grand Island, NY 14072 USA
Tel. (716)773-9300 • Fax (716)773-5019 • sales@gp50.com • www.gp50.com

Product Specification Sheet

PLASTIC MELT PRESSURE TRANSDUCER/TRANSMITTER FOR HAZARDOUS ENVIRONMENTS

Models 230X, 231X / 330X, 331X / 330Z, 331Z

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 oil, mineral oil and Nak are readily available depending on the application).



***REFER TO APPENDIX A
FOR WIRING CODES***

FEATURES:

- Rugged, all-welded, all stainless steel construction.
- Interchangeable with existing systems.
- Many options available, Hastelloy C-276 or Boron - Hardening
- FM Explosion-Proof and FM Intrinsically Safe Approved (Class I, Division I, Groups A, B, C, D)
- CSA Intrinsically Safe Approved
- Internal Calibration Resistor set to $80\% \pm 0.5\%$ FSO (Explosion Proof model only)
- Zero and Span controls, approximately $\pm 20\%$ FSO

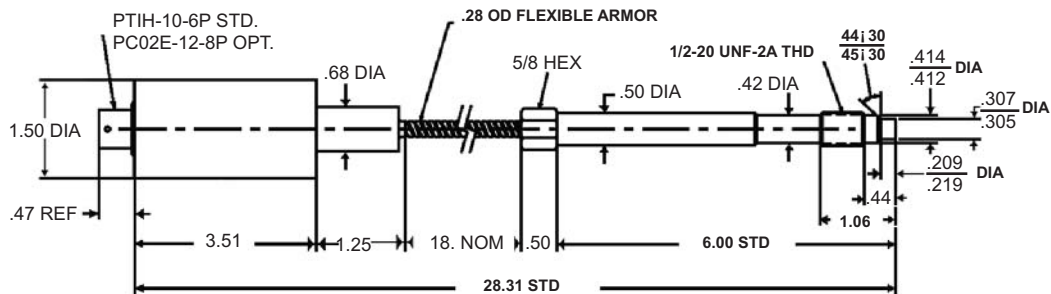
PRESSURE RANGES:

- From 0-500 through 0-30,000 psi (See ordering guide)

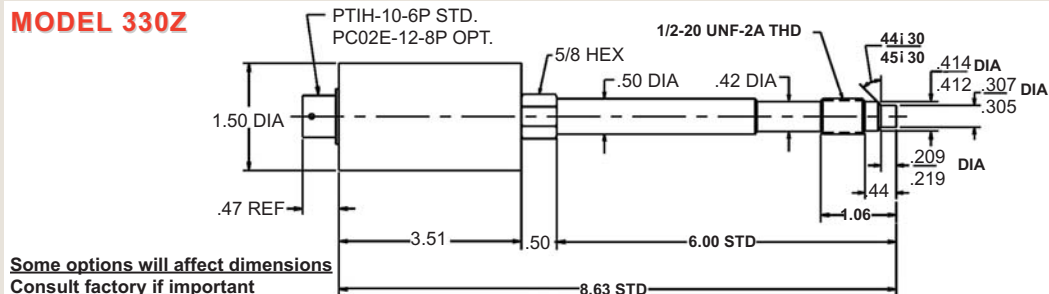
ACCURACY:

- (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 331Z



MODEL 330Z



**Some options will affect dimensions
Consult factory if important**

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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Specifications reflect standard product, improved performance/mechanical options available. Modifications may alter specs, consult factory for more information.

Accuracy	Static Error Band (Non-linearity, Hysteresis, Non-repeatability) ±0.5% FSO(RSS) 500 through 3500 psi ±.25% FSO(RSS) 5000 through 30000 psi	
Material in Contact with Pressure Media	15-5 PH stainless steel, Armoloy coated (hard chrome) Diamond, Boron or Titanium Nitride coatings optional	
Proof Pressure	2 times full scale pressure range or 35,000 psi whichever is less	
Temperature Limits	1000°F available with NaK fill	
	Diaphragm	750°F (400°C)
	Strain Gauge Housing	176°F (80°C)
Temperature Effects from Diaphragm		
From Fill		
Zero	8 psi/100°F per inch of stem and capillary	
From Strain Gauge Housing		
Zero	Less than ± 1.0% FSO/100°F (±2.0% FSO/100°C)	
Span	Less than ± 1.0% FSO/100°F	
Electricals		
	Excitation Voltage	Output at 70° F
(Model 230/231)	9-40 Vdc	5.0 Vdc ±2%
(Model 330/331)	9-36 Vdc	4-20 mA ±2%
Zero Balance		
(Model 230/231)	0.0 Vdc ±2% FSO at 70°F	
(Model 330/331)	4.0 mA ±2% FSO at 70°F	
Input Current		
(Model 230/231)	8 mA nominal	
Load Impedance		
(Model 330/331)	1350 ohms max. at 36 Vdc & 750 ohms 24 Vdc	
Output Current		
(Model 230/231)	2.0 mA maximum for less than 0.1% FSO attenuation.	
Range Ca. Signal	80% ±0.5% FSO standard 100, 200 series	
Connections		
Pressure	1/2" - 20 UNF-2A thread for standard (M18 x 1.5 metric thread optional)	
Electrical	PTIH-10-6P, standard intrinsically safe models PT06A-10-6S (SR), standard mate (not included) See options. 1/2 NPT (M) 72" leads Explosion Proof Models	
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

(X for Explosion Proof, Z for Intrinsically Safe)

MODEL

230X/231X	5 Vdc
330X/331X or 331Z	4-20 mA

PRESSURE RANGE (PSI)

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

OPTIONS

AA None (standard connector PTIH-10-6P) (330Z, 331Z) 1/2" NPT (M) thread with 72" leads (230X, 231X, 330X, 331X)

ALTERNATE CONNECTOR OR CABLE

CF 1/2" NPT(M) thread with 36" potted leads
CC PC02E-12-8P
CD WK-6-32S

GENERAL

GB Alternate Electronic Output - specify zero & span output values
GP Hastelloy C-276 Diaphragm and Thread
GQ Boron-Hardened diaphragm
GS 0-10 Vdc FSO, Model 2xx only, (Requires 16-32 Vdc excitation)
GV Silicone Oil Fill. (Increases Thermal Shift) Consult factory
GX Mineral Oil Fill. (Increases Thermal Shift) Consult factory
JW Titanium Nitride-Coated Diaphragm & Threads
MD Add Zero & Span Controls for Explosion-Proof models
QB Custom Plate

RIGID STEM

GN 12.5" Rigid Stem
GO 9" Rigid Stem
HD 3" Rigid Stem
HJ 1 3/16" Rigid Stem
HT 24" 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