



**MELT PRESSURE
TRANSDUCERS & TRANSMITTERS**

300 Industrial Drive, Grand Island, NY 14072 USA
Tel. (716)775-8830 • Fax (716)775-8020 • 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% ± 0.5% FSO (Explosion Proof model only)
- Zero and Span controls, approximately ± 20% FSO

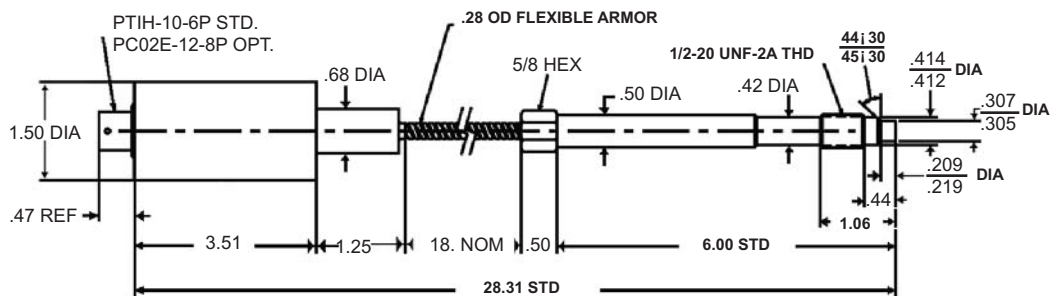
PRESSURE RANGES:

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

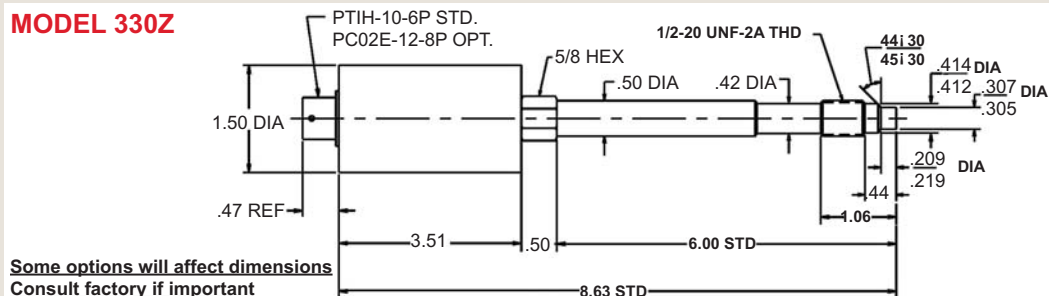
ACCURACY:

- (Non-Linearity, Hysteresis, Non-repeatability)
- ±0.25% FSO, RSS (0-5000 psi & higher)
- ±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.



MELT PRESSURE TRANSDUCERS & TRANSMITTERS

300 Industrial Drive, Grand Island, NY 14072 USA
Tel. (716)775-8830 • Fax (716)775-8020 • sales@gp50.com • www.gp50.com

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	Zero - 8 psi/100°F per inch of stem and capillary Zero Span - Less than ±1.0% FSO/100°F (±2.0% FSO/100°C)		
Electricals	Excitation Voltage	9-40 Vdc	Output at 70° F
	(Model 230/231)	9-36 Vdc	5.0 Vdc ±2%
	(Model 330/331)		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	8 mA nominal	Output Current	2.0 mA maximum for less than 0.1% FSO attenuation.
(Model 230/231)			
Load Impedance	1350 ohms max. at 36 Vdc & 750 ohms 24 Vdc		
(Model 330/331)			
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

Model: X 3X X - XX - XX / XX / XX / XX / XX

ELECTRICAL OUTPUT	
1	3.33 mV/V
2	0-5 Vdc
3	4-20 mA

BASE MODEL	
0	Rigid Stem Only
1	Rigid Stem and Flex

HAZARDOUS APPROVAL	
X	FM Explosion Proof
P	FM & CSA Explosion Proof
Z	FM & CSA Intrinsically Safe

PRESSURE RANGE			
RH	500 PSI	UV	50 BAR
RJ	600 PSI	UX	75 BAR
RK	750 PSI	UY	100 BAR
RM	1,000 PSI	UZ	150 BAR
RO	1,500 PSI	VA	200 BAR
RR	2,000 PSI	VB	300 BAR
RS	2,500 PSI	VC	350 BAR
RT	3,000 PSI	VD	500 BAR
RV	5,000 PSI	VE	700 BAR
RX	7,500 PSI	VF	750 BAR
RZ	10,000 PSI	UA	1,000 BAR
SB	15,000 PSI	UH	1,400 BAR
SD	20,000 PSI	UB	1,500 BAR
SF	30,000 PSI	UC	2,000 BAR
SZ	Custom	SZ	Custom

CONNECTOR OPTIONS	
Blank	6-Pin Bendix (PTIH-10-6P) - Standard for Intrinsically Safe transducers
Blank	1/2" NPT (M) Thread with 72" Leads - Standard for Explosion Proof transducers
CC	8-Pin Bendix (PCO2E-12-8P)
CF	1/2" NPT (M) Thread with 36" Leads

CAPILLARY TUBE LENGTH	
Blank	18 Inch (457.2mm) Flex
HS	9 Inch (228.6mm) Flex
HY	12 Inch (304.8mm) Flex
HV	24 Inch (609.6mm) Flex
GT	30 Inch (762mm) Flex

RIGID STEM LENGTH	
Blank	6 Inch (152.4mm) Rigid Stem
HJ	1 3/16 Inch (30.2mm) Rigid Stem
HD	3 Inch (76.2mm) Rigid Stem
HU	4 Inch (101.6mm) Rigid Stem
GO	9 Inch (228.6mm) Rigid Stem
GN	12.5 Inch (317.5mm) Rigid Stem
HT	24 Inch (609.6mm) Rigid Stem

DIAPHRAGM OPTIONS	
Blank	15-5 PH Armoloy Coated Diaphragm
GP	Hastelloy C-276 Diaphragm & Threads
GQ	Boron Hardened Diaphragm
JW	Titanium Nitride Coated Diaphragm & Threads
QS	Diamond Coating (DLC)

FILL TYPES	
Blank	Mercury (Standard - Included)
GV	Silicon Oil Fill (500°F Max)
GX	Mineral Oil Fill (500°F Max)

* Other Options Available - Consult Factory