



MELT PRESSURE TRANSDUCERS & TRANSMITTERS

Product Specification Sheet

PLASTIC MELT PRESSURE TRANSDUCER/TRANSMITTER

Models: 130, 230, 330 (RIGID)

131, 231, 331 (FLEXIBLE)

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)



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

FEATURES:

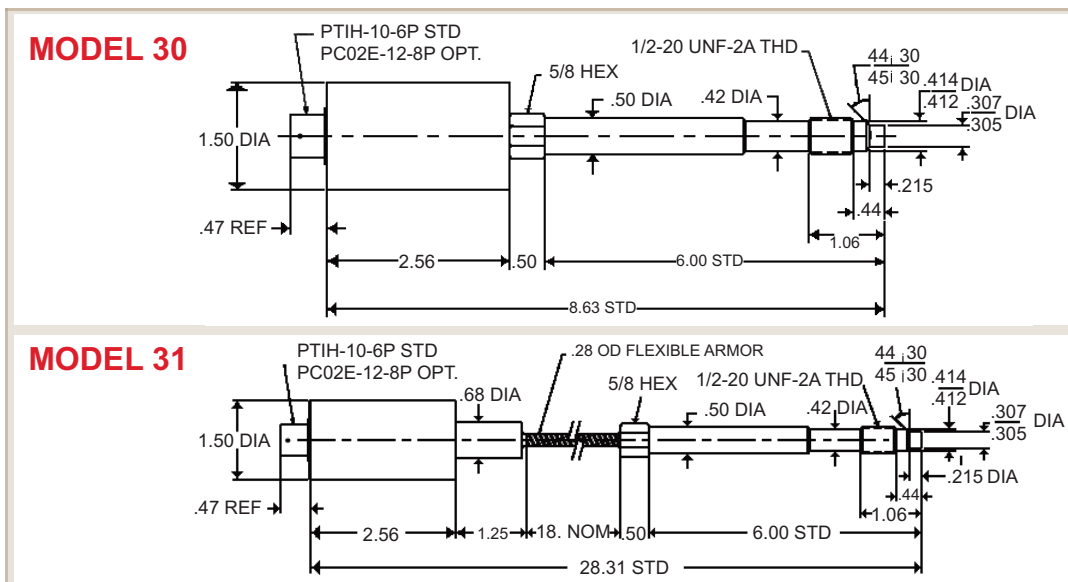
- Rugged, all-welded, all stainless steel construction.
- Interchangeable with existing systems.
- Many options available, Hastelloy C-276 or Boron-Hardening
- Explosion-Proof ratings available
- Internal Calibration Resistor set to 80% \pm 0.5% FSO
- Zero & Span controls, approximately \pm 20% FSO (2XX, 3XX only)

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)



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.

Full Scale Pressure Ranges - See ordering guide			
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 diaphragm, Armoloy coated (hard amond, Boron or Titanium Nitride coatings optional)			
Proof Pressure	2 times full scale pressure range or 35,000 psi whichever is less		
Temperature Limits	Diaphragm - 750°F (400°C), 1000°F available with NaK fill		Strain Gauge Housing - 176°F (80°C)
Temperature Effects	From Diaphragm: Zero - 15 psi/100°F From Strain Gauge Housing: Zero / Span - Less than ±1.0% FSO/100°F (±2.0% FSO/100°C)		
Electricals			
Excitation Voltage	Output at 70° F (*Amplified Output)		
(Model 130/131)	3.5-15 Vdc	3.33* mV/V ± 2%	
(Model 230/231)	9-40 Vdc	5.0 Vdc ±2%	
(Model 330/331)	9-36 Vdc	4-20 mA ±2%	
Zero Balance			
(Model 130/131)	0.0 mV/V ±5% FSO at 70°F		
(Model 230/231)	0.0 Vdc ±2% FSO at 70°F		
(Model 330/331)	4.0 mA ±2% FSO at 70°F		
Input Impedance	Input Current		
(Model 130/131)	350 ohm, nominal	(Model 230/231)	8 mA nominal
Load Impedance	50,000 ohms minimum for less than 0.1% FSO attenuation.		
(Model 130/131)	1350 ohms max. at 36 Vdc & 750 ohms 24 Vdc		
(Model 330/331)			
Output Current	2.0 mA maximum for less than 0.1% FSO attenuation.		
(Model 230/231)	80% ±0.5% FSO standard		
Range Ca. Signal			
Connections			
Pressure - 1/2" - 20 UNF-2A thread for standard (M18 x 1.5 metric thread optional)			
Electrical - PTIH-10-6P, standard			
PT06A-10-6S (SR), standard mate (not included) See options.			
Enclosed Materials			
316 stainless steel			
Mounting Torque			
500 inch pounds, maximum			
Identification			
Etched stainless steel nameplate welded to body.			

ORDERING GUIDE

Model: X 3X - 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

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)
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)
QJ	Nak Fill (750°F Max)
GW	Nak Fill with Inconel Diaphragm (1000°F max)
GV	Silicon Oil Fill (500°F Max)
GX	Mineral Oil Fill (500°F Max)

* Other Options Available - Consult Factory

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