



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 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
- Explosion-Proof ratings available
- Internal Calibration Resistor set to 80% ± 0.5% FSO
- Zero and Span controls, approximately ± 20% FSO (2XX, 3XX only)

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)

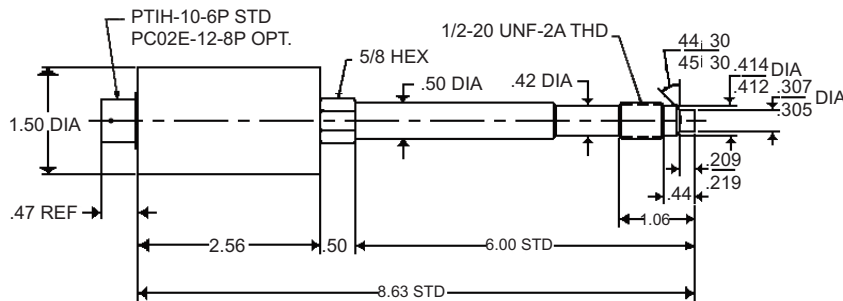
WIRING CODE

PTIH-10-6P	130, 131	230, 231	330, 331
A/1	+ SIGNAL	+ SIGNAL	+ EXC./SIG.
B/2	- SIGNAL	- SIGNAL*	- EXC./SIG.
C/3	+ EXC.	+ EXC.	NC
D/4	- EXC.	- EXC.*	NC
E/5	CALIBRATE	CALIBRATE	CALIBRATE
F/6	CALIBRATE	CALIBRATE </td <td>CALIBRATE</td>	CALIBRATE

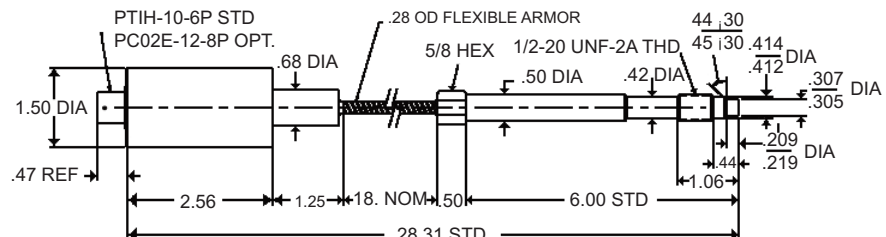
PC02E-12-8P	130, 131	230, 231	330, 331
A/1	+ EXC.	+ EXC.	+ EXC./SIGNAL
B/2	+ SIGNAL	+ SIGNAL	NC
C/3	- EXC.	- EXC.*	NC
D/4	- SIGNAL	- SIGNAL*	- EXC./SIGNAL
E/5	CAL. (Common)	CAL. (Common)	CALIBRATE
F/6	CAL. (Int. Res.)	CAL. (Int. Res.)	CALIBRATE
G/7	NC	NC	NC
H/8	CAL. (Ext. Res.)	CAL. (Ext. Res.)	NC

PIGTAIL	330, 331	
RED	+ EXC./SIGNAL	* -Signal and - Excitation are common to each other.
BLACK	- EXC./SIGNAL	
SHIELD	NC	

MODEL 30



MODEL 31



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.



Pressure, Level & Temperature Transmitters & Transducers

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 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	Diaphragm 750°F (400°C), 1000°F available with NaK fill 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 (± 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 (Model 130/131) 50,000 ohms minimum for less than 0.1% FSO attenuation. (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
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.

MODEL	
130/131	3.33 mV/V
230/231	5 Vdc
330/331	4-20 mA
230X/231X	5 Vdc
330X/331X	4-20 mA
330Z/331Z	4-20 mA
PRESSURE RANGE	
(PSI)	(BAR)
RH 500	RX 7500
RJ 600	RZ 10000
RK 750	SB 15000
RM 1000	SD 20000
RO 1500	SF 30000
RR 2000	SZ Other
RS 2500	
RT 3000	
RV 5000	
UV 50	VF 750
UX 75	UA 1000
UY 100	UH 1400
UZ 150	UB 1500
VA 200	UC 2000
VB 300	
VC 350	
VD 500	
VE 700	

ORDERING GUIDE:

Use the following codes to identify desired item.

MODEL	RANGE	OPTIONS
•	-	•/•/•

Example: 331-RV-CF/GP

OPTIONS	
AA	None (standard connector PTIH-10-6P)
ALTERNATE CONNECTOR OR CABLE	
CC	Bendix PC02E-12-8P, [Mate: PC06A-12-8S-(SR), not included]
CD	Cannon WK6-32S, [Mate: WK6-21C, not included]
CF	1/2" NPT(M) thread with 36" potted leads
CZ	Alternate Connector/ Cable/ Other
ALTERNATE PRESSURE PORT	
FB	M18 X 1.5 Metric Thread
FG	M14 X 1.5 Metric Thread
FZ	Non-Standard Pressure Port
GENERAL	
GB	Alternate Electronic Output - specify zero and 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)
QJ	NaK Fill for 750°F max. applications
GW	NaK Fill with Inconel diaphragm and stem for 1000°F max. applications
GV	Silicone Oil Fill. (Increases Thermal Shift) Consult factory
GX	Mineral Oil Fill. (Increases Thermal Shift) Consult factory
JW	Titanium Nitride-Coated Diaphragm & Threads
JA	100 ohm RTD., 3 - wire, provided with no external cal. & 8 - pin standard connector
GZ	Customer Special
MO	Gentran Wiring
MP	Barber-Colman Wiring
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
MT	Non-standard Armored Capillary Tube (50" max)