



**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

### SPACE RESTRICTED, HIGH PRESSURE TRANSDUCER / TRANSMITTER

#### Models 131, 231, 331 with IB option



**\*Refer to Appendix A  
For Wiring codes\***

#### FEATURES:

- All-welded, stainless steel construction
- Exposed capillary and jam bushing for confined spaces
- State-of-the-art circuitry allows heavier diaphragm and increased fatigue life
- Standard options for every requirement

#### PRESSURE RANGES:

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

#### ACCURACY:

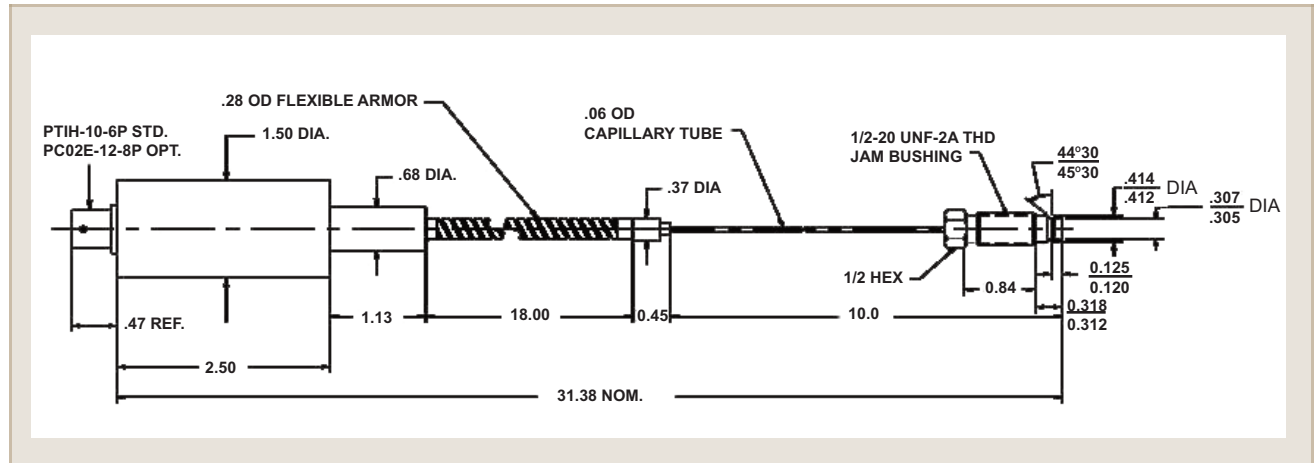
- ± 1.0% FSO, 500 psi through 3000 psi
- ± 0.25% FSO, 5000 psi through 30,000 psi

#### MODELS 131, 231, 331

The flexible tube of the product line provides the ultimate in thermal isolation for those demanding applications reaching the upper limits of 750°F. Provided with a standard 18 inch length of flexible stainless steel armored capillary tubing and approximately 10" of exposed capillary, (see outline drawing), they can be provided in shorter or longer lengths, with or without the armor, for machine geometries requiring alternative packages. Many variations are possible.

Please call the factory for free consultation on your needs.

**\* Non explosion proof diaphragm shown below**



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.

<b>Full Scale Pressure Ranges - See ordering guide</b>		
<b>Accuracy</b>	<b>Static Error Band</b>	<b>(Non-linearity, Hysteresis, Non-repeatability)</b> ±1.0% FSO(RSS) 500 through 3000 psi ±.25% FSO(RSS) 5000 through 30000 psi
<b>Material in Contact with Pressure Media</b>		15-5 PH stainless steel and hard chrome plated diaphragm surface
<b>Proof Pressure</b>		2 times full scale pressure range or 35,000 psi whichever is less
<b>Temperature Limits</b>	<b>Diaphragm</b> 750°F (400°C)	<b>Strain Gauge Housing</b> 176°F (80°C)
<b>Temperature Effects</b>		
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)
<b>Orientation Shift on Zero</b> Unit length x2 inHg, Option GJ zero and span control strongly recommended		
<b>Electricals</b>		
	<b>Model 131</b> <b>Model 231</b> <b>Model 331</b>	<b>Excitation Voltage</b> 3.5-15 Vdc 9-40 Vdc 9-36 Vdc
		<b>Output at 70° F</b> 3.33 mV/V ±2% FSO 5.0 Vdc ±2% FSO 4-20 mA ±2% FSO
Input Impedance <b>Model 131</b> Input Current <b>Model 231</b>		350 ohm, nominal 8 mA, nominal
Load Impedance <b>Model 131</b> <b>Model 332</b>		50,000 ohms minimum for less than 0.1% FSO attenuation 1350 ohms maximum, at 36 Vdc and 750 ohms at 24 Vdc
Output Current <b>Model 231</b> Zero Balance <b>Model 131</b> <b>Model 231</b> <b>Model 331</b>		2.0 mA maximum for less than 0.1% FSO attenuation 0.0 mV/V ± 5% FSO @ 70°F, 0.0 Vdc ± 5% FSO @ 70°F, 4.0 mA ± 5% FSO @ 70°F,
Range Calibration Signal		80% ± 0.5% FSO standard 100, 200 series
<b>Connections</b>		
Pressure		1/2" - 20 UNF-2A jam bushing standard
Electrical		PTIH-10-6P, standard PT06A-10-6S (SR), standard mate (not included) See options.
<b>Enclosed Materials</b>		316 stainless steel
<b>Mounting Torque</b>		500 inch pounds, maximum
<b>Identification</b>		Etched stainless steel nameplate welded to body.

### ORDERING GUIDE

Model: **X 31 IB - XX - XX / XX / XX / XX**

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

BASE MODEL	
31	Armored Flex Tubing

THREAD TYPE	
IB	1/2-20 UNF 2A Jam Bushing

PRESSURE RANGE			
RH	500 PSI	UV	2 BAR
RJ	600 PSI	UX	3 BAR
RK	750 PSI	UY	5 BAR
RM	1,000 PSI	UZ	7.5 BAR
RO	1,500 PSI	VA	10 BAR
RR	2,000 PSI	VB	15 BAR
RS	2,500 PSI	VC	20 BAR
RT	3,000 PSI	VD	30 BAR
RV	5,000 PSI	VE	50 BAR
RX	7,500 PSI	VF	75 BAR
RZ	10,000 PSI	UA	Custom
SB	15,000 PSI	UH	Custom
SD	20,000 PSI	UB	Custom
SF	30,000 PSI	UC	Custom
SZ	Custom	SZ	Custom

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

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)

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

\* Other Options Available - Consult Factory