



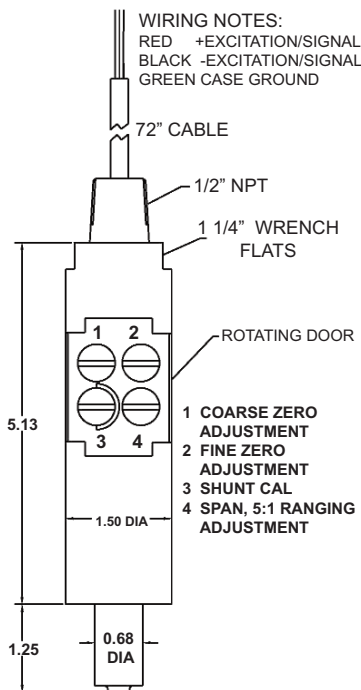
**MELT PRESSURE  
TRANSDUCERS & TRANSMITTERS**  
300 Industrial Drive, Grand Island, NY 14072 USA  
Tel. (716)775-8830 • Fax (716)775-8020 • sales@gp50.com • www.gp50.com

## Product Specification Sheet

### PLASTIC MELT PRESSURE TRANSMITTER

W/ NON-INTRUSIVE ZERO & SPAN CONTROLS FOR HAZARDOUS ENVIRONMENTS

Model 331X/331P with QE option



#### FEATURES:

- Rugged, all-welded, all stainless steel construction.
- Interchangeable with existing systems.
- Many options available, Hastelloy C-276 or Boron-Hardening
- FM Explosion-Proof (Class I, Division I, Groups A, B, C, D)
- Magnetically coupled zero & span adjustments & shunt cal switch
- Coarse Zero Adjustment, approximately  $\pm 20\%$  of upper range
- Fine Zero Adjustment, approximately  $\pm 0.5\%$  of upper range
- Span Adjustment, 5:1 Ranging optional
- Internal Calibration Resistor set to 80% standard (for 5:1 ranging option cal is 100% for lower range and 20% for upper range)

#### PRESSURE RANGES:

- From 0-500 through 0-15,000 psig (See ordering guide)

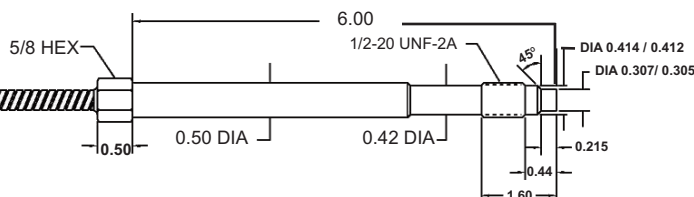
#### ACCURACY:

- (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)

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



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

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.

|  |   |   |
|--|---|---|
| <b>Accuracy</b>                                | <b>Static Error Band (Non-linearity, Hysteresis, Non-repeatability)</b><br>± 0.5% FSO(RSS) 500 through 3000 psi<br>± .25% FSO(RSS) 5000 through 15000 psi |   |
| <b>Material in Contact with Pressure Media</b> | 15-5 PH stainless steel and hard chrome plated diaphragm surface.<br>Diamond, Boron and Titanium Nitride coatings optional.                               |   |
| <b>Proof Pressure</b>                          | 2 times full scale pressure range or 35,000 psig whichever is less  |   |
| <b>Temperature Limits</b>                      | Diaphragm<br>750°F (400°C)  | Strain Gauge Housing<br>176°F (80°C)  |
| <b>Temperature Effects</b>                     | From Diaphragm<br><b>Zero</b> - 15 psi/100°F  | From Strain Gauge Housing<br><b>Zero / Span</b> - Less than ± 1.0% FSO/100°F (± 2.0% FSO/100°C) |
| <b>Electricals</b>                             | <b>Excitation Voltage</b><br>9-36 Vdc   | <b>Output at 70° F</b><br>4-20 mA ±2%   |
| (Model 331X)                                   |   |   |
| Zero Balance<br>(Model 330/331)                | 4.0 mA ±5% FSO at 70°F  |   |
| Load Impedance<br>(Model 330,331)              | 1350 ohms max. at 36 Vdc & 750 ohms at 24 Vdc   |   |
| <b>Range Calibration Signal</b>                | 20% at upper range, 100% at lower range   |   |
| <b>Connections</b>                             | Pressure<br>1/2" - 20 UNF-2A thread for standard (M18 x 1.5 metric thread optional)<br>Electrical<br>1/2" NPT (M) thread with 72" cable, 18 AWG wires     |   |
| <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 3X X QE - 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 |

| THREAD TYPE |  |
|-------------|--|
| QE          | Magnetically coupled, hermetically sealed zero & span controls |

| 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    |

| 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 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)  |

| CONNECTOR OPTIONS |                                    |
|-------------------|------------------------------------|
| Blank             | 1/2" NPT (M) Thread with 72" Leads |
| CF                | 1/2" NPT (M) Thread with 36" Leads |

\* Other Options Available - Consult Factory