



**MELT PRESSURE  
TRANSDUCERS & TRANSMITTERS**

300 Industrial Drive, Grand Island, NY 14072 USA  
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**Product Specification Sheet**

**SMART RANGEABLE MELT PRESSURE TRANSMITTER**

**Models 430, 431 / 430X, 431X / 430P, 431P**



**FEATURES:**

- Rugged, all-welded stainless steel construction
- Interchangeable with existing systems
- HART® Communication
- Many options available, including Hastelloy C-276 or Boron Hardening

**PRESSURE RANGES:**

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

**ACCURACY:**

- (Non -Linearity, Hysteresis, Non-repeatability)
- $\pm 0.15\%$  FSO, RSS (0-5000 psi and higher)
- $\pm 0.2\%$  FSO, RSS (0-3500 psi and lower)



Consult factory for hazardous location approval availability.

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

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, includes temperature effects)</b><br>± 0.25% FSO(RSS) 500 through 3500 psi<br>± 0.15% FSO(RSS) 5000 through 30000 psi |                                  |
| <b>Ranging</b>                                   | 3:1 (500 through 2500 psi)<br>5:1 (3000 through 30,000 psi)   |                                  |
| <b>Operating Temperature Range (Compensated)</b> |   |                                  |
| <b>Process</b>                                   | 77°F to 575°F (25°C to 300°C), optional to 660°F (350°C)  |                                  |
| <b>Electronics</b>                               | 77°F to 176°F (25°C to 80°C)  |                                  |
| <b>Temperature Effects from Electronics</b>      | Less than ±0.15% FSO/100°F  |                                  |
| <b>Electricals</b>                               |   |                                  |
| (Model 430/431)<br>(Model 430X/431X)             | <b>Excitation Voltage</b>   | <b>Output at 70° F</b>           |
|  | 12-36 Vdc<br>12-36 Vdc  | 4-20 mA ± 0.1%<br>4-20 mA ± 0.1% |
| Load Impedance                                   | 250 ohms minimum (for HART® communication) @ 17Vdc<br>1200 ohms maximum, at 36 Vdc  |                                  |
| Output Current                                   | 4-20 mA ±0.1% FSO @ 70°F  |                                  |
| <b>Connections</b>                               |   |                                  |
| Pressure   | 1/2"-20 UNF-2A thread for standard (M18 x 1.5 metric thread optional)   |                                  |
| Electrical (430, 431)                            | PTIH-10-6P standard, (PT06A-10-6S (SR), mate not included)  |                                  |
| Electrical (430X, 431X)                          | 1/2" NPT(M) thread with 72" leads   |                                  |
| <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: 4 3X X-XX-XX/XX/XX/XX/XX

| ELECTRICAL OUTPUT |                                  |
|-------------------|----------------------------------|
| 4                 | 4-20mA with HART® Communications |

| BASE MODEL |                     |
|------------|---------------------|
| 0          | Rigid Stem Only     |
| 1          | Rigid Stem and Flex |

| HAZARDOUS APPROVAL |                          |
|--------------------|--------------------------|
| Blank              | No Approvals             |
| X                  | FM Explosion Proof       |
| P                  | FM & CSA Explosion Proof |

| 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 Non Approved 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     |
| 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)                |
| 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)                 |

\* Non Explosion Proof Transmitters Only

\* Other Options Available - Consult Factory