



MELT PRESSURE TRANSDUCERS AND TRANSMITTERS

SMART RANGEABLE MELT PRESSURE TRANSMITTER

MODELS 430, 431 / 430X, 431X, / 430P, 431P

The GP:50 product line of melt pressure transducers and transmitters are based on the bonded strain gage principle that has been successfully utilized in thousands of applications. Our proprietary diaphragm design incorporates a matched diaphragm system which improves linearity, accuracy, and repeatability.

The unit operation utilizes an extremely small capillary tubing that transmits the media pressure to the strain gage sensor and advanced electronics via a mechanical fill fluid.



FEATURES

- ◆ Fully Welded Stainless Steel Construction
- ◆ Triangular Temperature Compensation
- ◆ HART® Communication
- ◆ FM Explosion Proof available
(Class I, II, II, Div. I, Groups A –G)

PRESSURE RANGES

From 0-500 to 0-30,000 PSI

ACCURACY

±0.15% FSO

INTERTECHNOLOGY
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Consult Factory for hazardous location approval availabil-

100% MADE IN THE U.S.A.

MODELS 430, 431 / 430X, 431X, / 430P, 431P

SPECIFICATIONS

Accuracy	Static Error Band (Non-linearity, Hysteresis, Non-Repeatability, includes temperature effects) ±0.25% FSO (RSS) 500 through 3,000 psi ±0.15% FSO (RSS) 5,000 through 30,000 psi	
Ranging	3:1 (500 through 2,500 psi) 5:1 (3,000 through 30,000 psi)	
Operating Temperature Range (Compensated)	Process 77°F to 575°F (25°C to 300°C), optional to 660°F (350°C) Electronics 77°F to 176°F (25° C to 80° C)	
Temperature Effects from Electronics	Less than ±0.15% FSO / 100°F	
Electricals	Excitation Voltage	Output at 70°F
(Model 430, 431, 430X, 431X)	12-36 Vdc	4-20 mA ± 0.1% FSO
	Load Impedance	250 ohms minimum (for HART® Communication) @ 17 Vdc; 1200 ohms at 36 Vdc
	Output Current	4-20 mA ±0.1% FSO at 70°F
Connections	Pressure	Electrical
	1/2" - 20—UNF—2A	430, 431: PTIH—10—6P standard (Mate not included) 430X, 431X: 1/2" NPT (M) Thread with 72" Leads
Enclosed Materials	316 Stainless Steel	
Mounting Torque	180-200 inch pounds, 500 inch pounds thread limitation	
Identification	Etched Stainless Steel Nameplate welded to body	

Example P/N: 430X-RX-QO/AA

ORDERING GUIDE

MODEL: 43X—XX / XX / XX / XX / XX / XX / XX

BASE MODEL	0 Rigid Stem Only	1 Rigid Stem / Flex																												
HAZARDOUS APPROVALS	AA No Approvals	X FM Explosion Proof	P FM and 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 _____ PSI Custom	SZ _____ BAR Custom
CONNECTOR OPTIONS	AA 6-Pin Bendix (PTIH-10-6P), Standard for 431 Model	AA 1/2" NPT (M) Thread with 72" Leads, Standard for 431X and 431P Models	CC 8-pin Bendix (PCO2E-12-8P)	CF 1/2" NPT (M) Thread with 36" Leads																										
CAPILLARY TUBE LENGTH	AA 18 inch (457.2 mm) Flex	HS 9 inch (228.6 mm) Flex	HY 12 inch (304.8 mm) Flex	GT 30 inch (762 mm) Flex																										
RIGID STEM LENGTH	AA 6 inch (152.4 mm) Rigid Stem	HJ 1 3/16 inch (30.2 mm) Rigid Stem	HD 3 inch (76.2 mm) Rigid Stem	GO 9 inch (228.6 mm) Rigid Stem	GN 12.5 inch (317.5 mm) Rigid Stem																									
DIAPHRAGM OPTIONS	AA 17-4 Stainless GPX Coated Diaphragm	GK1 Inconel Coated Diaphragm	GP Hastelloy C-276 Coated Diaphragm	NK Reinforced Diaphragm	QS2 Titanium Nitride Coated Diaphragm																									
FILL TYPES	AA Mercury Fill	QJ NaK Fill (750°F Max)	GW NaK Fill with Inconel Diaphragm (1000°F)																											

Other Options Available—Consult Factory / Authorized Distributor

Option "AA" denotes standard

Please contact the factory on all critical dimensions and specifications for verification.