DYNISCO MODEL PX185
Smart Pressure Transmitter for Button-Seal Mounting

Description

Dynisco's PX185 is a smart pressure transmitter with ambient and process temperature compensation, featuring a thin film sensor and proprietary fabrication techniques. Featuring the familiar "button - seal" mounting of Dynisco's PT290 Series, the PX185 is ideal for applications requiring the highest accuracy. Remote HART® digital communication simplifies operator access for configuration of transmitter parameters such as tag I.D. and span.

Features

- Accuracy of better than ±0.25% of range independent of process temperature
- 4 to 20 mA, 2 - wire output
- HART digital communication
- 5 : 1 span turn - down capability
- Ambient and process temperature compensation
- Optional 100 Ohm platinum RTD output

Benefits

- Improves process optimization and removes temperature effects
- Industry standard
- Process industry standard
- Allows use in multiple ranges
- Improved accuracy
- Process temperature measurement without a second intrusion into the process

Rigid stem version shown

Specifications

Performance Characteristics

Ranges:
psi: 0 - 750, 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500
bar: 0 - 50, 0 - 100, 0 - 200, 0 - 350, 0 - 500
Accuracy:
±0.25% of range: Within pressures of 20% to 100% of range and process temperatures of 77˚F to 575˚F (25˚C to 300˚C) (±.50% for 750 psi range)
±0.50% of range: Within pressures of 0 psig to 20% of range and above process temperatures (±1.00% for 750 psi range)
Hastelloy:
±0.60% of range: Within pressures of 20% to 80% of range and process temperatures of 77˚F to 575˚F (25˚C to 300˚C) (±1.00% for 750 psi range)
±1.00% of range: Within pressures of 0 psig to 20% of range

Resolution: 0.035% or better
Zero span and adjustment:
Zero: +80% of range
Span: 20% to 100% of range
Turn-down: 5 : 1 maximum
Overpressure limit: 1.5 x range
Sample rate: ≤50 msec
Long term stability: <0.09% of span per year

Temperature Characteristics

Operating temperature ranges (compensated):
Process: 77˚F to 575˚F (25˚C to 300˚C), option to 660˚F (350˚C)
Electronics: 77˚F to 140˚F (25˚C to 60˚C)

Temperature effects:
Electronics: ±0.15% of range/100˚F (±0.027% of range/10˚C)
Humidity limits: 0% to 90% relative humidity, non - condensing
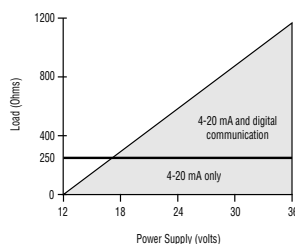
Electrical Characteristics

Output: 2 - wire, 4 to 20 mA. Hart digital communication superimposed on the 4 to 20 mA signal is available for remote configurations
Damping: Adjustable through HART communicator
Power supply: 12 to 36 Vdc
Electronics housing: IP 55, NEMA 3

Load limitation: Maximum loop resistance is determined by the voltage of the external power supply. Digital communication requires a minimum loop resistance of 250 Ohms. (See below)
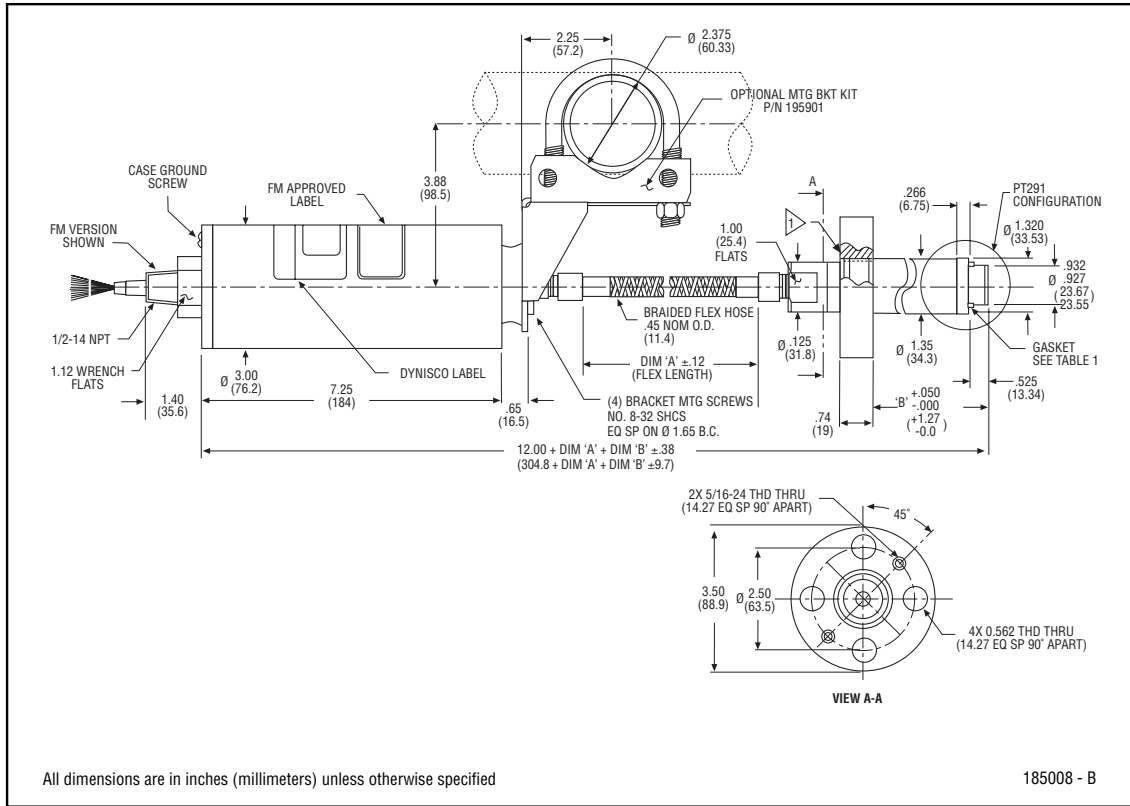
Approvals (optional)

FM approved, Class I, Division II, Groups A, B, C and D

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All dimensions are in inches (millimeters) unless otherwise specified

185008 - B

Ordering Guide

Model	Approvals		Diaphragm Material/Coating		Pressure Range				Rigid Stem		Flexible Stem		Options	
	Code	Description	Code	Material/Coating	Code	psi	Code	bar	Code	Length	Code	Length	Code	Description
	(Blank)	Standard	(Blank)	15 - 5 PH SST with DyMax™ Coating	1.5M	0 - 1,500	1CB	(0 - 100)	4.77	4.77 (121)	30	30 (762)	M315	3 - wire w/ RTD output (snout temp.)
PX185	FM	Factory Mutual Approved Class I , Division II, Groups A, B, C & D	H	Hastelloy	3M 5M 7.5M	0 - 3,000 0 - 5,000 0 - 7,500	2CB 3.5CB 5CB	(0 - 200) (0 - 350) (0 - 500)	5.00	5.00 (127)			M625	Temperature compensated to 350˚C

Ordering Example: PX185 - 1.5M - 4.77/30 - M315

Accuracy is based upon a maximum total length of process connection and flexible capillary of 36" (914). For each 6" (152) of length added accuracy is reduced by 0.10% to maximum length of 48" (1219) total. For total unit lengths over 48" (1219), the error correction software performance is reduced. Consult factory for specific requirements.

Notes: • FM approved units include end cap with conductor connector and 20 ft. (6 meter) leads.
• Standard unit includes a 6 pin Bendix connector and requires optional cable 929008 - 10 ft. (3 meter).
• Standard unit with M315 option includes an 8 pin Bendix connector and requires optional cable 801726.
• Mounting bracket P/N195901 recommended.
• 10M units are compensated to at least 7.5M and extrapolated to 10M.

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