

DYNISCO MODEL PX182

Smart Pressure Transmitter for Standard Thread Mounting

Description

Dynisco's PX182 is a smart pressure transmitter with ambient and process temperature compensation, featuring a thin film sensor and proprietary fabrication techniques. The PX182 provides a high accuracy pressure measurement available in a 1/2 - 20 UNF mounting. HART® digital communication utilizing a HART compatible hand - held communicator enables re - ranging of the transmitter for maximum control of your process.

Features

- Accuracy of better than $\pm 0.25\%$ 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



Specifications

Performance Characteristics

Ranges:

psi: 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000

bar: 0 - 100, 0 - 200, 0 - 350, 0 - 500, 0 - 680

Accuracy:

$\pm 0.25\%$ of range: Within pressures of 20% to 100% of range and process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 0.50\%$ for 1500 psi range)

$\pm 0.50\%$ of range: Within pressures of 0 psig to 20% of range and above process temperatures ($\pm 1.00\%$ for 1500 psi range)

Hastelloy:

$\pm 0.60\%$ of range: Within pressures of 20% to 80% of range and process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 1.00\%$ for 1500 psi range)

$\pm 1.00\%$ of range: Within pressures of 0 psig to 20% of range

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)

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



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

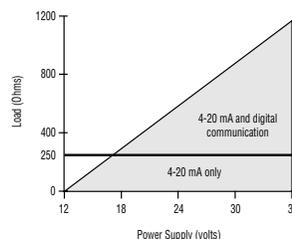
Electronics housing: IP 55, NEMA 3

Temperature effects:

Electronics: $\pm 0.15\%$ of range/100°F ($\pm 0.027\%$ of range/10°C)

Humidity limits: 0% - 90% relative humidity non - condensing

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)

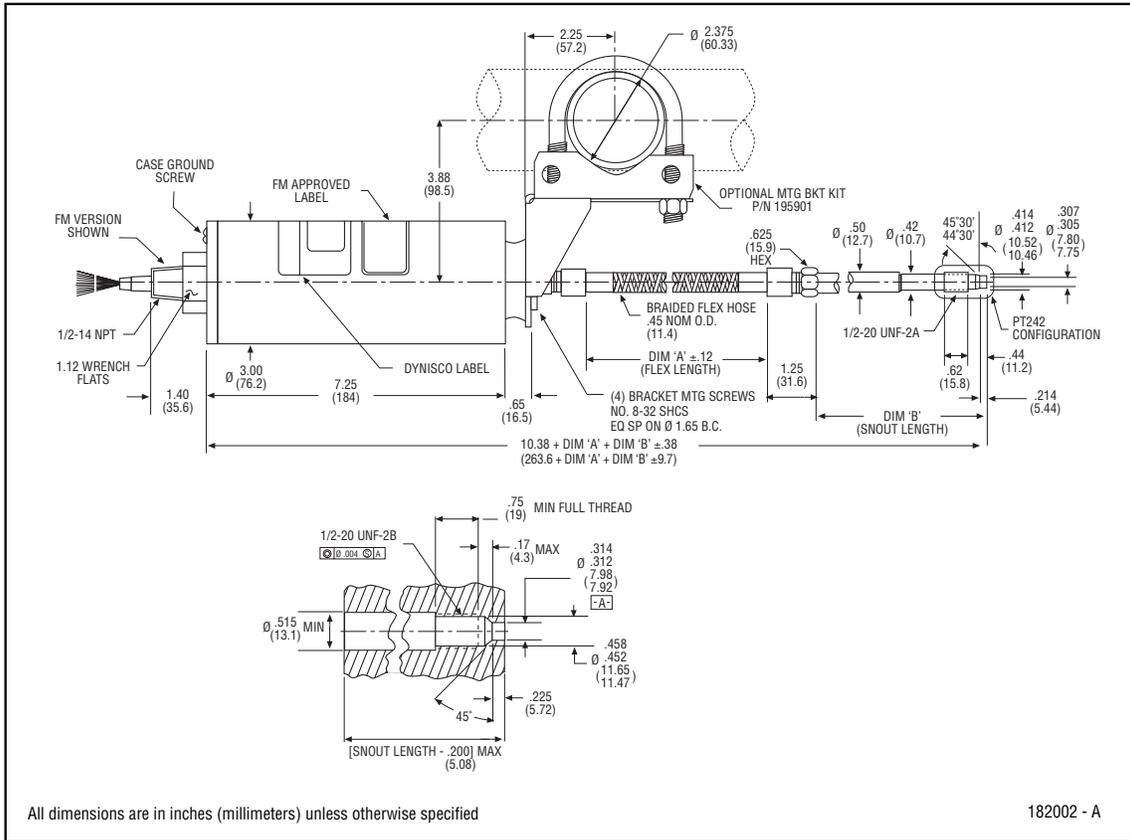


Approvals (optional)

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

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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	
PX182	(Blank)	Standard	(Blank)	15 - 5 PH SST with DyMax™	1.5M	0 - 1,500	1CB	(0 - 100)	6	6 (152)	30	30 (762)	M315	3 - wire w/ RTD output (snout temp.)	
	FM	Factory		Coating	3M	0 - 3,000	2CB	(0 - 200)	12	12 (304)					
		Mutual	H	Hastelloy	5M	0 - 5,000	3.5CB	(0 - 350)							
		Approved Class I, Division II, Groups A, B, C & D			7.5M	0 - 7,500	5CB	(0 - 500)							M625
				10M	0 - 10,000	6.8CB	(0 - 680)								

Ordering Example: PX182 - 3M - 6/30 - MXXX

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 conduit 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.

