

DYNISCO MODEL 2194

Smart Pressure Transmitter for Flanged Mounting

Description

Dynisco's IPX II series 2194 is a high performance, microprocessor based transmitter with ambient and sensor temperature compensation, featuring a thin film sensor and proprietary fabrication techniques. Series 2194 provides a high accuracy pressure measurement available in a 243 style mounting. Ranging and setup of the transmitter may be accomplished with a dual LCD display, the Windows™ based Smartlink software or by using a HART® communicator.

Features

- Accuracy of $\pm 0.25\%$ of range compensated for process temperature (range specific)
- Temperature compensation
- 4 to 20 mA, 2 - wire output
- 6:1 span turn - down capability
- Split design
- Optional second 4 to 20 mA signal for temperature
- Optional programmable LCD display
- HART digital communication
- FM approved models
- Intrinsically safe models

Benefits

- Improves process optimization and removes temperature effects
- Improves accuracy
- Process industry standard
- Allows use in multiple ranges
- Easy to install
- Output temperature signal to display system
- At line readout of pressure or temperature
- Process industry standard
- Approved for operation in hazardous areas
- Approved for EEx ia IIC



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

$\pm 0.50\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 1.00\%$ for 1500 psi range)

Hastelloy:

$\pm 0.50\%$ of full scale range: Within 20% to 100% of range and within process temperatures of 77°F to 575°F (25°C to 300°C) ($\pm 1.00\%$ for 1500 psi range)

$\pm 1.00\%$ of full scale range: Within 0% to 20% of range and within process temperatures of 77°F to 575°F (25°C to 300°C)

Temperature Characteristics

Operating temperature ranges (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)

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: 0 to 32 second time constant, adjustable through HART communicator or SmartLink Software.

Power supply: 12 to 42 Vdc for non intrinsically safe; 12 to 30 Vdc for intrinsically safe.

LCD Display

Allows transducer to be configured and ranged at line before or after installation. Displays process pressure, 0 - 100% bar graph and temperature (optional).

Approvals

CE approved

FM approved, Explosion - Proof, Class I, Division I, Groups B, C and D, Class II/III, Division 2, Groups E, F and G (optional), SIRA approved, Intrinsically Safe, EEx ia IIC (optional)

Resolution: 0.035% full scale or better

Zero span and adjustment: Zero: +84% of range;

Span: 16% to 100% of range

Turn-down: 6:1

Overpressure limit: 1.5 x range

Sample rate: >10/sec

Long term stability: <0.09% of full scale per year

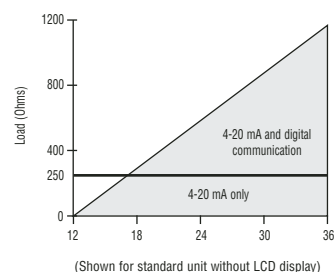
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COATING

Temperature effects:

Electronics: $\pm 0.15\%$ span/99°F ($\pm 0.15\%$ span/55°C)

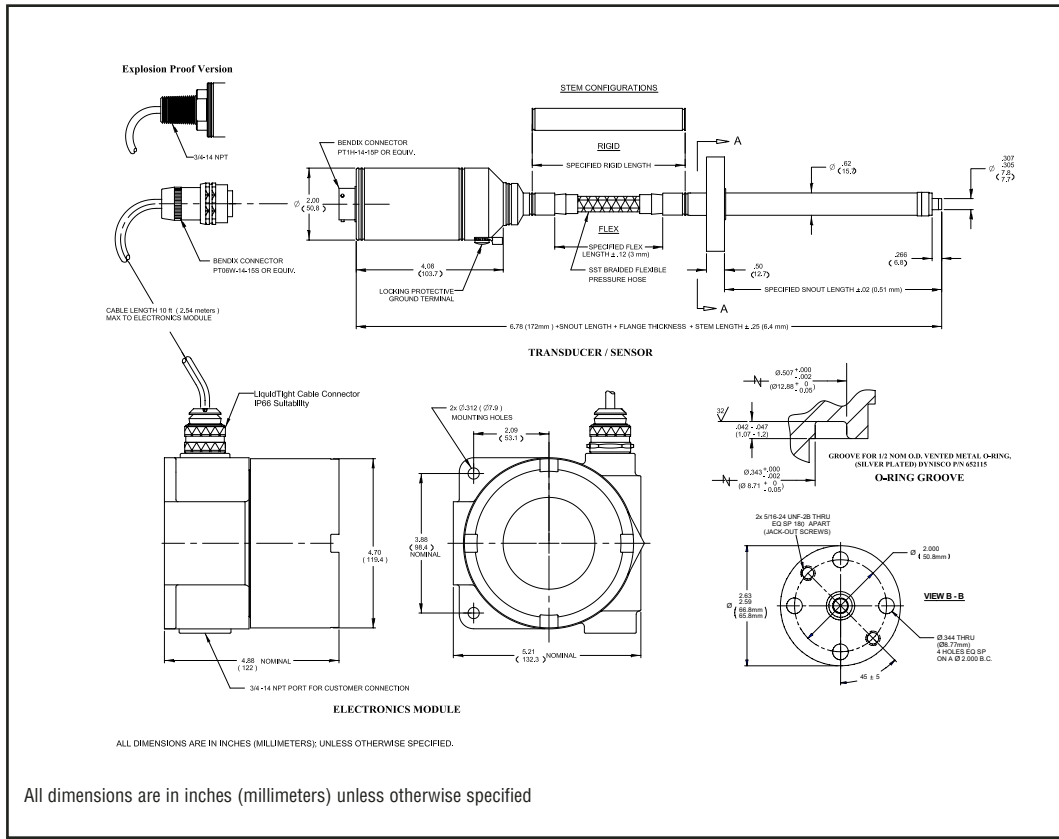
Electronics housing: IP66, NEMA 4x

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 sample below)



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All dimensions are in inches (millimeters) unless otherwise specified

Ordering Guide

Model	Diaphragm Material		Pressure Range				Snout Lengths	
	Code	Description	Code	psi	Code	bar	Code	Length
N2194: No Approvals S2194: Intrinsically Safe EE x ia IIC E2194: Explosion-Proof Class 1, Division 1, Groups B, C and D Class II/III, Division 2, Groups E, F and G	(Blank)	15-5 PH SST with Dymax® coated diaphragm	1.5M	0 - 1,500	1CB	0 - 100	6	6" (152)
			3M	0 - 3,000	2CB	0 - 200		
			5M	0 - 5,000	3.5CB	0 - 350		
			7.5M	0 - 7,500	5CB	0 - 500		
	10M	0 - 10,000	6.8CB	0 - 680				
	H	Hastelloy						For non-standard lengths please consult factory.

Standard Stem (Capillary) Lengths		Temperature Output		LCD Display		Communication Protocol		Options		Cable Length	
Code	Length	Code	Description	Code	Description	Code	Description	Code	Description	Code	Description
0	0" (0)	(Blank)	No second	(Blank)	No display	H	HART	M625	Full snout	(Blank)	120" (3048)
18	18" (457)	T	4-20mA output	D2	Programmable pressure and temperature display				Compensated to 660°F (350°C)	L72	72" (1829)
30	30" (762)		Second 4-20mA output								
For non-standard lengths please consult factory Note: Max. "snout & capillary" lengths is 36" (914)											
CE and intrinsically safe models are supplied with 72" (1824) of cable.											

Ordering Example: S2194 - 5CB - 6/30 - D2 - H

- Notes:**
- Please consult factory for alternate full scale settings and non-standard options.
 - 10M units are compensated to at least 7.5M and extrapolated to 10M.
 - Mounting bracket P/N 190750 is recommended.

