DYNISCO MODEL PT291

Flange Mounting Button-Seal Pressure Transmitters for Process Control in Hazardous Areas

Description

The PT291 transmitters were designed for applications where an adjustable flange configuration is required. Models are available with Factory Mutual (FM) explosion - proof or FM intrinsically safe (SIRA) approvals. Both models are approved for Class I, Division I, Groups A, B, C and D. The 290 Series is the ideal choice for low pressure applications.

Features

- Accuracy of better than ±0.5% full scale
- 0 - 25 psi (0 - 2 bar) to 0 - 10,000 psi (0 - 700 bar)
- Replacement for traditional "button - seal" units
- New diaphragm design
- 4 to 20 mA loop powered output
- New side - mounted zero and span adjustments
- Various configurations
- New amplifier
- Heavy - duty welded electronics housing
- Thermocouple or RTD option available

Benefits

- Improves process optimization
- Proper range choice improves performance
- Installs in "button" seal holes
- Improved stability
- Industry standard
- Reduces set - up time
- Easy to install
- Superior resistance to electromagnetic noise
- Environmental protection
- Temperature measurement from same process connection

Specifications

NEW EXTENDED LIFE COATING

Performance Characteristics

Ranges:
psi: 0 - 25, 0 - 50, 0 - 100, 0 - 250, 0 - 500, 0 - 750,
0 - 1,000, 0 - 1,500, 0 - 3,000, 0 - 5,000, 0 - 7,500, 0 - 10,000
bar: 0 - 2, 0 - 3, 0 - 7, 0 - 15, 0 - 30, 0 - 50, 0 - 100, 0 - 200,
0 - 350, 0 - 500, 0 - 700

Accuracy: ±0.5% FSO
Repeatability: ±0.1% FSO
Maximum pressure: 2 x full range below 7,500 psi, 1.5 x full range for 10,000 psi
Material in contact with pressure media: DyMax™ coated 15 - 5 PH stainless steel
Weight: 2 lbs. (.9 kg)

Electrical Characteristics

Input voltage: 12 to 36 Vdc
Output: 4 to 20 mA (2 - wire)
Maximum load resistance: 600 Ohms at 24 Vdc, 1,200 Ohms at 36 volts
Gain (span) adjustment range: ±25% FSO minimum, factory set to within ±0.5%

Load regulation: At operating voltage of 24 Vdc, current output will vary <0.25% full scale for a change of 10 to 600 Ohms
Zero balance adjustment range: ±40% FSO up to 100 psi, ±25% FSO at higher ranges (positive output indicated only). Factory set to within ±0.5%

Temperature Characteristics

Transducer diaphragm:
Maximum transducer diaphragm temperature: 750°F (400°C)
Zero shift due to temperature change:
1.0 psi/100˚F typical (from 75˚F to 450˚F)
2.0 psi/100˚F typical (from 450˚F to 600˚F)
.07 bar/38˚C typical (from 24˚C to 232˚C)
.14 bar/38˚C typical (from 232˚C to 315˚C)

Electronics housing:
Operating temperature range: -20˚F to +140˚F (-28˚ to +60˚C)
Temperature effects over a compensated range of 0˚F to 140˚F (-18˚C to +60˚C):
Zero: 0.01% full scale/˚F maximum (0.02% full scale/˚C maximum)
Span: 0.01% full scale/˚F maximum (0.02% full scale/˚C maximum)

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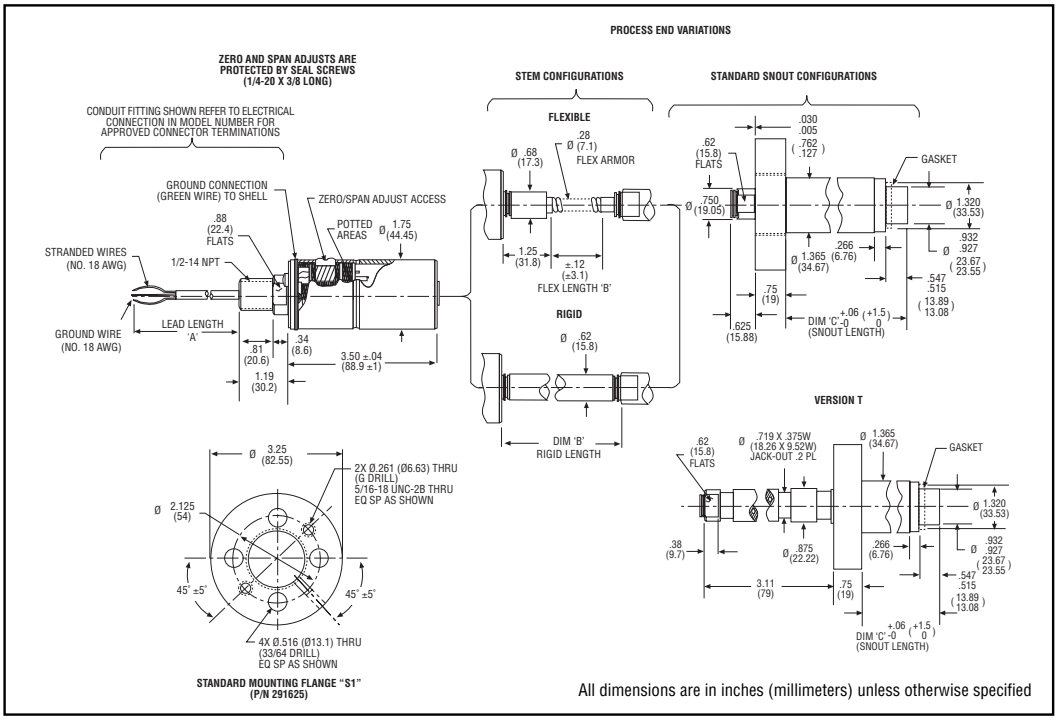

All dimensions are in inches (millimeters) unless otherwise specified

Ordering Guide

Model	Diaphragm Material/Coating		Approvals		Pressure Range				Snout
	Code	Material/Coating	Code	Description	Code	psi	Code	bar	Length
		15 - 5 PH SST with DyMax™ coating		No approval	25	0 - 25	2B	(0 - 2)	Specify length from 1.2 to 10.0 decimal inches (3.05 to 25.4 cm)
	B	15 - 5 PH SST with Borofuse Coating	E	FM Explosion - proof	50	0 - 50	3B	(0 - 3)	
	H	Hastelloy	S	FM intrinsically safe	1C	0 - 100	7B	(0 - 7)	
PT291	I	Inconel		Flange	2.5C	0 - 250	15B	(0 - 15)	
	T	15 - 5 PH SST with Titanium Nitride Coating		Standard flange (SI) as shown in outline drawing. Consult factory for optional flange configurations	5C	0 - 500	30B	(0 - 30)	
					7.5C	0 - 750	50B	(0 - 50)	
					1M	0 - 1,000	70B	(0 - 70)	
					1.5M	0 - 1,500	1CB	(0 - 100)	
					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	7CB	(0 - 700)	

Stem Lengths		Electrical Connection		Thermocouple/RTD
Rigid	Flexible	Conduit Fitting with Cable	Connectors	Options
Specify length from 0 to 36 inches (0 to 91.4 cm) and add "R" after number	30"	42" standard Additional lengths available up to 999"	C6 = PT02A - 10 - 6P C6G = PT02H - 10 - 6P C6H = PT1H - 10 - 6P C7D = DIN 7 pins C7T = TAJIMI C8 = PC02E - 12 - 8P	Please consult factory. Not available on explosion - proof approved models

Note: Consult factory for optional flange configurations, alternate full scale settings and other options.

Ordering Examples: PT291S - 1M - 6/60; PT291H - 5M - 4.8/60 - C6 - TC; PT291HS - 1C - 2/3.5R - 72