



# SPX-T Series Model 3291

Button Seal Flange-Mount Pressure Transmitter with Temperature Compensation



## **Features**

- Large diaphragm and mounting flange for easier installation
- Reduce temperature drift by ~80% over non-compensated units
- Accuracy to ±0.25% FS
- Temperature output available (RTD or 4-20mA)
- HART<sup>™</sup> digital communications
- 0-500 to 0-10,000psi range options
- Rugged welded electronics housing

# **Description**

The SPX-T is a smart 4-20mA pressure transmitter that includes Temperature Compensation and DynaLarity<sup>™</sup>, a Dynisco innovation. The SPX-T delivers the best spec performance in the line. Temperature Compensation is based on an RTD measurement that compensates for temperature variations which reduces temperature-related drift and increases accuracy. No need to re-zero for temperature changes after installation. DynaLarity uses an advanced algorithm that will linearize offsets due to process effects on the sensor. Combined Temperature Compensation and DynaLarity reduces temperature-related drift by as much as 80% and improves accuracy by more than 60% over other sensors. Process temperature output is available. HART communication is standard. The SPX3291 is an all-welded construction that features a large diaphragm and mounting flange for easier installations. Many other flange-mount configurations are available.



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## **Specifications**

#### **PERFORMANCE CHARACTERISTICS**

Voltage Input:	13-32Vdc
5	(IS, EX versions: 13-30Vdc)
Output, analog:	4-20mA
	(pressure std; temp. optional)
Output, digital:	HART
Accuracy*:	±0.25% FS (≥3M)
	±0.50% FS (1.5M)
	±0.75% FS (<1.5M)
Repeatability:	±0.1% FS
Electronics Ambient Temp (T <sub>Ambient</sub> ):	70°F (20°C)
Electronics Operating Temp:	-20 to +185°F (-29 to 85°C)
Electronics Compensated Temp. Range:	70 to 185°F (20 to 85°C)
Snout Operating Temp:	32 to 752°F (0 to 400°C)
Snout Compensated Temp. Range:	70 to 572°F (20 to 300°C)
Overload Pressure Rating:	1.5x FS
Range:	500 to 10,000psi
Rangeabilty:	6:1 turndown
Load Resistance:	250Ω @18Vdc; 500Ω @23Vdc

\*Accuracy is defined as the combined error expressed as a percentage of full scale (FS) output with the above specifications of: Electronics ambient temp; Snout compensated temperature range; Capillary of ≤36"; Dymax coated 15-5 SST diaphragm; Best Straight Line (BSL) % FS, per ISA-37.3. Consult factory for availability and specifications of non-standard configurations.

#### **MECHANICAL & PACKAGING**

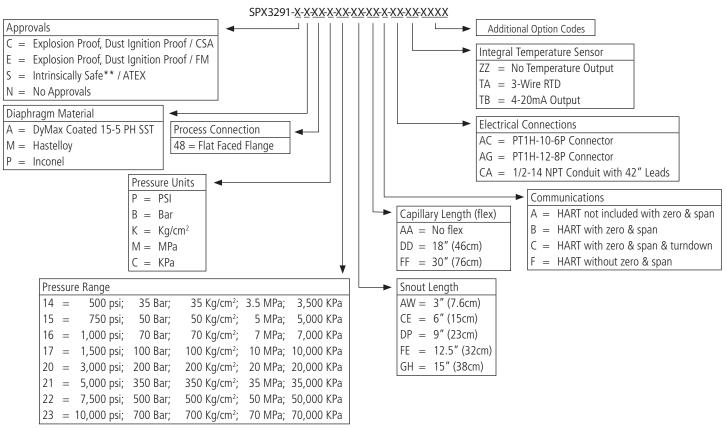
Diaphragm Temperature Limit:
Mounting Torque:
Wetted Parts:
Weight, net (typical):
Display:

752°F (400°C), max 125 in/lbs, max DyMax<sup>™</sup> coated 15-5 PH SST diaphragm 4 lbs (1.8 Kg) Model SPXD loop-powered display available

#### **APPROVALS & CERTIFICATIONS**

Marks, Certifications, Registrations:	CE, CE-PED
Agency Approvals:	
FM (EX), conduit fitting:	
(Explosion Proof)	Class I, Div 1, Groups A, B, C, D
(Dust Ignition Proof)	Class II & III, Div 1, Groups E, F, G
CSA (EX), conduit fitting:	
(Explosion Proof)	Class I, Div 1, Groups B, C, D
(Dust Ignition Proof)	Class II & III, Div 1, Groups E, F, G
ATEX (IS): (Intrinsically Safe)	II 1 G Ex ia IIC

### Ordering Guide



Certain configurations cannot be combined on the same unit (example: Approval "E" and Electrical Connections "AC" or "AG" are not compatible. The Ordering Guide shows only a sample of configuration options. Contact Dynisco for additional options, pricing and lead times.

\*\*IS approved units requires separate purchase of IS approved cable. Contact Dynisco for part number and length.



