

## Smart Electronic Transmitter Pressure, Level, and Vacuum

*SMT PT/EL TH Series*



- Remote Configuration using HART® Protocol
- $\pm 0.25\%$  FS Accuracy
- Ranges 5"WC-300 psig, Vacuum & Absolute
- 4-20 mA, 2-wire output

**PMC Smart Electronic Pressure Transmitters (SMT PT/EL)** combine state-of-the-art temperature compensated capacitive sensor technology with microprocessor-based electronics to provide remote digital communications using a HART® protocol communicator. Using the HART communicator, the transmitter can easily and remotely be configured for specific ranges, calibrated, and tested. The transmitter provides a 2-wire 4-20mA output.

**The SMT PT/EL transmitters** accurately measure pressure, level, and vacuum in processes where clogging of the diaphragm face is a particular concern. The small, 1½" diameter of the transmitter allows installation flush with the inside wall of pipes 3" in diameter and larger. This feature eliminates the usual pocketing problems encountered with conventional flange-mounted and recessed-diaphragm transmitters. The high precision capacitive ceramic sensor is ideally suited for high-wear applications. **The SMT PT/EL Series** of transmitters offers overpressure protection of up to 10 times the full scale range. The Nema 4X rated, Anodized Aluminum Terminal Junction Head provides a flexible solution for connection to the transmitter and can be configured with a Local LCD Display. Access to the terminal strip is provided through the threaded and O-ring sealed cover. Cables enter the Terminal Junction Head via a ½" NPT threaded port. The optional ½" Nylon Gland Nut provides a liquid-tight cord connection.

***Pneumatically Operated Transmitters Also Available***

## STANDARD SPECIFICATIONS

### ■ HART® Communications

Configuration, Calibration, and Test using HART compatible communicator

### ■ Full Scale Ranges

0 - 5"WC to 0 - 300 psi gauge  
 ± 5"WC to ± 400"WC Compound  
 0 - 3"Hg to 0 - 30"Hg Vacuum  
 0 - 15 psi to 0 - 150 psi absolute

Ranges below 40"WC, absolute ranges, and/or compound ranges available with ceramic diaphragm only

### ■ Static Accuracy

± 0.25% of Full Scale  
 Combined non-linearity, hysteresis, and repeatability

### ■ Overpressure

10X for Full Scale Ranges up to 100 psi  
 4X for Full Scale Ranges over 100 psi

### ■ Compensated Temperature Range

Ceramic Diaphragm: -4°F to 175°F (-20°C to 80°C)  
 Other Diaphragms: 14°F to 175°F (-10°C to 80°C)

### ■ Operating Temperature Range

Ambient: -40°F to 175°F (-40°C to 80°C)  
 Process: -40°F to 250°F (-40°C to 125°C)

### ■ Temperature Effects

Ceramic Diaphragm:  
 Thermal Zero Shift: ±0.0075%/°C  
 Thermal Span Shift:  
 ± 0.005%/°C for ranges < 6 psi  
 ± 0.003%/°C for ranges 6 psi and above  
 Other Diaphragm Materials:  
 Temperature Error Band for 14°F to 175°F (-10°C to 80°C) is typically better than ±1.5% (TEB) for ranges greater than 6 psi and ±3.0% for ranges < 6 psi  
*Refer to Factory for more information*

### ■ Electrical

Output: 2-wire, 4-20 mA  
 Supply Voltage: 10 to 32 VDC nominal supply

### ■ Zero Setting

± 5% FS, potentiometer adjustment

### ■ Span Setting

± 15% FS, potentiometer adjustment

### ■ Housing

Nema 4X, EMI / RFI protected, Anodized Aluminum Construction

PMC adopts a continuous development program which sometimes necessitates specification changes without notice.

HEAD OFFICE



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## ORDERING INFORMATION

# SMT PT/EL TH Series

## Smart Electronic Transmitter

### Pressure, Level, and Vacuum

When ordering please specify the following:

MODEL PMC - SMT PT/EL	
SAN	SAN version
DR	Double Ring version
Range	Specify psi, " WC, bar, absolute, gauge, etc.
Diaphragm	
Hc	Hastelloy C
Ta	Tantalum
Cer	Ceramic
Termination	
TH	Terminal Head
TH/D	Adds Display

(1) Select (2) Specify (3) Select (4) Select

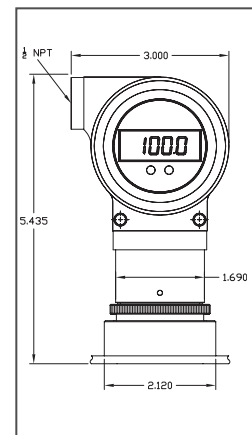
### Order Code Example: PMC-SMT-PT/EL-SAN-10psig-Hc-TH/D

- (1) Model: PMC-SMT-PT/EL-SAN
- (2) Range: 10 psi gauge
- (3) Diaphragm Material: Havar
- (4) Electrical Termination: Anodized Aluminum Terminal Head

## OPTIONS

- Remote Electronics
- Gland Nut Cable Connections
- LCD Display
- Submersible Versions
- Process Connections  
 SAN, Flush-Mount, Tri-Clamp Flange and Threaded Process Connections available

Contact PMC for other options and accessories



All measurements shown in inches

Represented By: