



## Smart Miniature Electronic Transmitter Pressure, Level, and Vacuum

*SMT/MIN EL TH Series*



- Remote Configuration using HART® Protocol
- Nema 4X Anodized Alum. Terminal Junction Head
- $\pm 0.25\%$  FS Accuracy
- Ranges 10"WC-300 psig, Vacuum & Absolute
- Small 1" Sensing Area

**PMC Smart Miniature Electronic Pressure Transmitters (SMT/ MIN-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/MIN-EL** transmitters accurately measure pressure, level, and vacuum in processes where clogging of the diaphragm face is a particular concern. The small, 1" diameter of the transmitter allows installation flush with the inside wall of pipes 2" 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 and is approved by FM. 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 a convenient screw on cover. Cables enter the Terminal Junction Head via a 1/2" NPT threaded port. The optional 1/2" Nylon Gland Nut provides a liquid-tight cord connection.

***Pneumatically Operated Transmitters Also Available***

*Precision Solutions for pressure, level, vacuum and humidity measurement*

## STANDARD SPECIFICATIONS

### ■ HART Communications

Configuration, Calibration, and Test using HART compatible communicator

### ■ Full Scale Ranges

0 - 10"WC to 0 - 300 psi gauge  
 ± 10"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  
 2X for Full Scale Ranges over 150 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: -4°F to 175°F (-20°C to 80°C)  
 Process: -4°F to 250°F (-20°C to 125°C)

### ■ Temperature Effects

Ceramic Diaphragm:  
 Thermal Zero Shift: ±0.010%/°C  
 Thermal Span Shift:  
 ± 0.005%/°C for ranges < 6 psi  
 ± 0.004%/°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

### ■ 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.

## ORDERING INFORMATION

# SMT/MIN EL TH Series

## Smart Miniature Electronic Transmitter

### Pressure, Level, and Vacuum

When ordering please specify the following:

MODEL PMC - SMT/MIN-EL	
SAN	SAN version
	Standard version
Range	Specify psi, " WC, bar, absolute, gauge, etc.
Diaphragm	
Hc	Hastelloy C
Ta	Tantalum
Cer	Ceramic
Termination	
TH	Terminal Head
TH-D	adds LCD Display

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

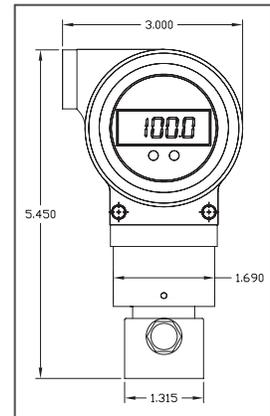
### Order Code Example: PMC-SMT/MIN-EL-30 psig-Hc-TH/D

- Model: PMC-SMT/MIN-EL
- Range: 30 psi gauge
- Diaphragm Material: Hastelloy C
- Electrical Termination: Anodized Aluminum Terminal Head with LCD Display

## OPTIONS

- Remote Electronics
- Gland Nut Cable Connection
- 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

HEAD OFFICE



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