



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

*SMT/MIN EL TH/SS Series*



- Remote Configuration using HART® Protocol
- Nema 4X Stainless Steel 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. The Nema 4X rated, Stainless Steel Terminal Junction Head provides a corrosion resistant and 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 1/2" NPT threaded port. The optional 1/2" Nylon Gland Nut provides a liquid-tight cord connection.

**3A Sanitary version (SMT/MIN PT/EL SAN)** provides your choice of certified sanitary process connections including weld-on nipple, NPT threaded nipple, or Tri-Clamp. **The standard version (SMT/MIN PT/EL)** provides your choice of process connections including weld-on nipple, or NPT threaded nipple. See the Process Connections Datasheet for a detailed list and description of options.

***Pneumatically Operated Transmitters Also Available***

## 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

-4°F to 175°F (-20°C to 80°C)

### ■ Operating Temperature Range

Ambient: -40°F to 175°F (-20°C to 80°C)  
 Process: -40°F to 250°F (-20°C to 125°C)

### ■ Temperature Effects

*Thermal Zero Shift:* ±0.010%/°C

*Thermal Span Shift:* ± 0.004%/°C

### ■ Electrical

Output: 2-wire, 4-20 mA  
 Supply Voltage: 24 VDC nominal supply

### ■ Zero Setting

± 5% FS, potentiometer adjustment

### ■ Span Setting

± 15% FS, potentiometer adjustment

### ■ Housing

Nema 4X, EMI / RFI protected,  
 Stainless Steel Construction

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

## ORDERING INFORMATION

# SMT/MIN EL TH/SS Series

## Smart Miniature Electronic Transmitter

### Pressure, Level, and Vacuum

When ordering please specify the following:

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

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

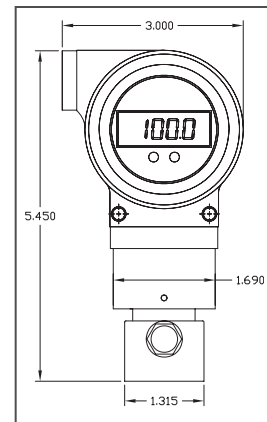
### Order Code Example: PMC-SMT/MIN-EL-30"WC-Cer-TH-SS

- (1) Model: PMC-SMT/MIN-EL
- (2) Range: 30" WC
- (3) Diaphragm Material: Ceramic
- (4) Electrical Termination: 316L Stainless Steel Terminal Head

## OPTIONS

- Remote Electronics
- Gland Nut Cable Connection
- LCD Display
- Submersible Versions
- Process Connections  
 Sanitary, 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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Represented By: