



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
- 3A Sanitary available



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.

3A Sanitary version (SAN) provides your choice of certified sanitary process connections including weld-on nipple, NPT threaded nipple, or Tri-Clamp. Double Ring version (DR) provides your choice of process connections including weld-on nipple, or NPT threaded nipple. See the Process Connections Data sheet 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 - 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	Sanitary version
DR	Double Ring version
Range	Specify psi, " WC, bar, absolute, gauge, etc.
Diaphragm	
Ha	Havar
Hc	Hastelloy C
Ta	Tantalum
Cer	Ceramic
Termination	
TH	Terminal Head
TH/D	Adds Display

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

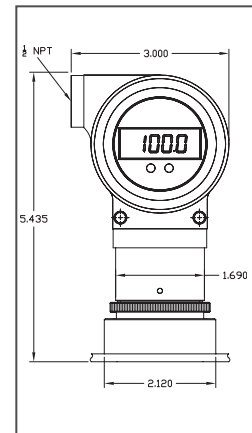
Order Code Example: PMC-SMT-PT/EL-SAN-10psig-Ha-TH/D

- (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
 Sanitary, Flush-Mount, Tri-Clamp Flange and Threaded Process Connections available

Contact PMC for other options and accessories



All measurements shown in inches

Represented By: