



Smart Electronic, Transmitter Pressure, Level, and Vacuum

SMT PT/EL CV Series



- Remote Configuration using HART® Protocol
- $\pm 0.25\%$ FS Accuracy
- Ranges 5"WC - 300 psig, 30"Hg Vacuum
- 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 pressures, levels, and vacuum ranges 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 CV configuration allows customers to specify custom lengths of cable to be supplied with the transmitter. A choice of vented Polyurethane or Teflon FEP cable is available. Teflon FEP cable offers improved chemical resistance for more demanding applications.

3A Sanitary version (SMT PT/EL SAN) provides your choice of certified sanitary process connections including weld-on nipple, NPT threaded nipple, or Tri-Clamp. Double Ring version (**SMT PT/EL DR**) 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

■ 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

■ Cable

CV/P - 10' Polyurethane
 CV/T - 10' Teflon FEP

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

HEAD OFFICE



Process Measurement & Controls, Inc.

11 Old Sugar Hollow Road
 Danbury, CT 06810 U.S.A.
 Tel: 203-792-8686
 Fax: 203-743-2051
 Email: sales@pmc1.com
www.pmc1.com

ORDERING INFORMATION

SMT PT/EL CV Series

Smart 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	
CV/P	Polyurethane
CV/T	Teflon FEP Cable

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

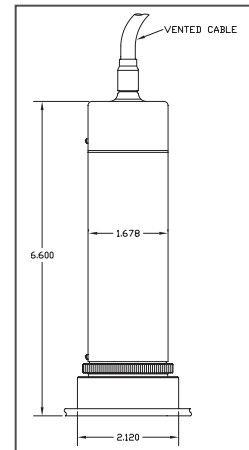
Order Code Example: PMC-SMT-PT/EL-SAN-100"WC-Ha-CV/P

- (1) Model: PMC-SMT-PT/EL-SAN
- (2) Range: 100" WC
- (3) Diaphragm Material: Havar
- (4) Electrical Termination: SS Cover with 10' Polyurethane Cable

OPTIONS

- Remote Electronics
- Thermal Head
- 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: