Smart Miniature Electronic Transmitter
Pressure, Level, and Vacuum

SMT/MIN-EL CV Series

- Remote Configuration using HART® Protocol
- ± 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 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.

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
2X for Full Scale Ranges over 150 psi

Compensated Temperature Range
Ceramic Diaphragm: -4ºF to 175ºF (-20°C to 80°C)
Other Diaphragms: 14ºF to 175ºF (-10°C to 80°C)

Operating Temperature Range
Ambient: -4ºF to 175ºF (-20°C to 80°C)
Process: -4ºF to 250ºF (-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 14ºF to 175ºF (-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

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

ORDERING INFORMATION

SMT/MIN-EL CV Series
Smart Miniature Electronic Transmitter
Pressure, Level , and Vacuum

When ordering please specify the following:

MODEL PMC - SMT/MIN-EL	
SAN	SAN
	Standard version
Range	Specify psi, ” WC, bar, absolute, gauge, etc.
Diaphragm	
Hc	Hastelloy C
Ta	Tantalum
Cer	Ceramic
Termination	
CV/P	Polyurethane cable
CV/T	Teflon FEP cable

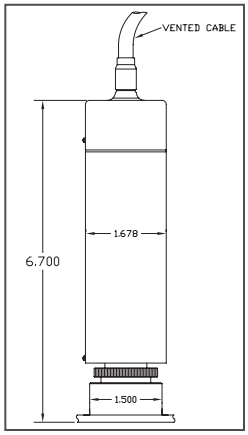
(1) Select (2) Specify (3) Select (4) Select

Order Code Example: PMC-SMT/MIN-EL-SAN-100psig-Hc-CV/P
(1) Model: PMC-SMT/MIN-EL-SAN
(2) Range: 100 psi gauge
(3) Diaphragm Material: Hastelloy C
(4) Electrical Termination: SS Cover 10´ Polyurethane Cable

OPTIONS

- Remote Electronics
- Terminal Head
- 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

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

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