

MVCPT Chemical Smart Pressure Transmitter

Features

- Wide pressure measurement range
- Two-wire connection with 4–20 mA output and optional HART® digital communication protocol
- Backlit intelligent LCD display
- Local zero adjustment and pressure range setting
- Complete product range, high accuracy, and excellent long-term stability
- Explosion-proof isolated housing with high resistance to variable frequency drive (VFD) interference
- No mechanical transmission parts, providing excellent vibration resistance

Applications and Industries

- Suitable for process control applications in the petroleum, chemical, metallurgical, power generation, food, paper, pharmaceutical, machinery manufacturing, scientific research, and aerospace industries.

Notes:

1. Do not allow the diaphragm to come into contact with hard objects, as this may damage the diaphragm.
2. Before installation, carefully read the User Manual and verify the product information.
3. Follow the specified wiring instructions

strictly. Failure to do so may damage the product or cause other potential malfunctions.



Product Overview

The MVCPT pressure transmitter incorporates an advanced MEMS ceramic capacitive pressure sensor chip. The sensor signal is converted into a standard output signal through a dedicated signal processing module. Following long-term aging and stability testing, the transmitter provides stable performance and high reliability. It is suitable for outdoor applications in harsh environmental conditions.

The transmitter also supports local pressure indication, zero adjustment, and full-scale range calibration. The process connection of the MVCPT ceramic capacitive pressure transmitter can be customized to meet user requirements and is compatible with process connections used by other transmitter brands.

This product series is widely used in industrial process control applications, including the petroleum, chemical, metallurgical, power generation, food, paper, pharmaceutical, machinery manufacturing, scientific research, and aerospace industries.

Notes:

1. Do not misuse this documentation.
2. The information provided in this product datasheet is for reference purposes only. Do not use this document as an installation guide for the product.
3. Complete installation, operation, and maintenance instructions are provided in the product instruction manual.

Technical Specifications

Measuring Range	-1...2.5 bar 0...25 bar
Pressure Reference	Gauge / Absolute
Supply Voltage	12 to 32 VDC (24 VDC recommended)
Output Signal	4-20 mA (optional HART® protocol)
Measurement Accuracy	±0.5% FS
Temperature Drift	0.05%FS
Storage Temperature	-30 °C to +80 °C With display: -30 °C to +70 °C
Process Temperature	-20 °C to +80 °C
Vibration Resistance	20 g (20 to 5000 Hz)
Shock Resistance	100 g (11 ms)
Housing Material	Painted Aluminum
Long-term Stability	≤ ±0.2% FS/year
Protection Rating	IP65
Diaphragm Material	99.9% Al ₂ O ₃ (Ceramic Capacitive),
Wetted Parts Material	1.4404 (316L), Hastelloy C4, PTFE, PVDF
Corrosion Resistance	Equivalent corrosion resistance to SS316L
Response Time	HART data acquisition time: 0.1 s HART output update time: 0.5 s

Ordering Code

MODEL	PROCESS CONNECTION	WETTED PARTS MATERIAL	MEASURING RANGE	OUTPUT SIGNAL
MVCPT	40 G 1 ½" female thread	01 1,4404(316L)	-1...2,5 bar 0...25 bar Enter the range as shown below. Use "P" for pressure and "V" for vacuum. Example: P0/0010 = 0...10 bar	AA 4...20 mA AH 4...20 mA HART
	50 1 ½" NPT male thread	02 HastelloyC4		
	60 DN50 PN40 Flange	03 PTFE		
	YY Specific Selection	04 PVDF		

Example Model Code : MVCPT-60-01-P0/010-AH

DN50 PN40 Flange, 1,4404(316L), 0-10 bar, 4...20 mA HART