

MVSPT Smart Pressure Transmitter

Features

- Advanced MEMS single-crystal silicon pressure sensor chip
- 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 stability
- Explosion-proof isolated housing with high resistance to frequency converter 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 method strictly.

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



Product Overview

The MVSPT pressure transmitter incorporates an advanced MEMS single-crystal silicon 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 MVSPT single-crystal silicon 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, and many other 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 information is provided in the product instruction manual.

Technical Specifications

Measuring Range	-1...400 bar
Reference Pressure	Gauge / Absolute
Supply Voltage	12 to 32 VDC (24 VDC recommended)
Output Signal	4–20 mA (optional HART® protocol)
Measurement Accuracy	±60 mbar: ±0.1% FS Other ranges: ±0.075% FS
Temperature Drift	60 mbar: ±0.3% FS Other pressure ranges: ±0.25% FS
Storage Temperature	-30 °C to +80 °C With display: -30 °C to +70 °C
Process Temperature	-40 °C to +120 °C
Vibration Resistance	20 g (20 to 5000 Hz)
Shock Resistance	100 g (11 ms)
Housing Material	Painted Aluminum
Long-term Stability	±0.1% FS/year
Protection Rating	IP67
Explosion-proof Rating	None
Wetted Materials	316L Stainless Steel Diaphragm
Material Compatibility	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	MEASUREMENT RANGE	OUTPUT SIGNAL
MVSPT	10 G ½" female thread	-1...400 bar Enter the measuring range as shown in the examples below. Enter "P" for pressure and "V" for vacuum. Example 1: P0/0010 = 0...10 bar Example 2: V-1/0 = -1...0 bar	AA 4...20 mA AH 4...20 mA HART
	20 G ½" male thread		
	30 ½" NPT female thread		
	YY Specific Selection		

Example Model Code:

MVSPT-30-P0/0100-AH 1/2" Female NPT Thread,
0...100 bar, 4...20 mA with HART® Protocol