Pressure Transmitter
PCI280



Introduction

The PCI280 series pressure transmitters are designed to measure gauge pressure, vacuum pressure, and absolute pressure of gases, vapours, and liquids. Their stainless steel housing makes them ideal for industrial environments. Built-in circuits allow for the adjustment of zero and span.

Application and construction

The PCI280 pressure transmitter is suitable for measuring gauge, vacuum, and absolute pressure of gases, vapours, and liquids. The active sensing element is a piezoresistive silicon sensor, isolated from the medium by a diaphragm. The electronics are housed in a casing with a protection rating ranging from IP65 to IP68, depending on the type of electrical connection used.

Available certification

- 2.1 Certificate of Conformity
- Test Certificate for indication accuracy
- Others on request

Specifications

- Pressure range:
  0-25 mbar / 0-1000 bar (gauge pressure)
  0-400 mbar / 0-1000 bar (absolute pressure)
- Housing connector DIN 43650 IP65
- Output signal: 4-20 mA two wire transmission
- Error due to supply voltage changes: 0,005 %/V
- Supply voltage: 10,5-36 V DC (rated 24V DC)
- Ambient temperature: -40 to +80 ˚C
- Process temperature limit: -40 / 120 °C – direct measurement
- Thermal compensation range: -10 / 80 ºC
- Relative humidity: 0 / 98%
- Vibration during operation: max 4g
- Diaphragm: Stainless steel 1.4435 (316L)
- Sensing module: Stainless steel 1.4404 (316L)
- Casing for electronic parts: Steel pipe, 1.4301 (304)
- Internal sensor liquids fill: Silicone oil, chemically inactive liquid for measurement of oxygen
- Protection Degree Casing: IP65 rated (EN 60529:2003)
- Process connections: standard ½" BSP also ¼" BSP, M20x1.5

Calibration

Potentiometers can be used to shift the zero position and the range by up to ±10%, without altering the settings.

Options

- Fitted with diaphragm seal (See related datasheets)
- Oxygen service
- Accuracy <0,16% (available for ranges <400 mbar)
- Measuring units: bar, MPa, kPa, etc.
- Output signal 0...10V DC, 0...2,5V DC, 0...3,3V DC, 0...5V DC, 0,5...4,5V
- Hart (PCI 280 SMART model)
- Digital display
- Other casing, electrical connections and process connections

How to order

Please specify: model, range, process connection, options, certificates

	Measurement Ranges		
	100 mbar	400 mbar	0...1/1000 bar
Overpressure limit (repeatable, no hysteresis)	1 bar	2.5 bar	4 x range Max 1200 bar
Damaging over pressure	2 bar	5 bar	8 x range, max 2000 bar
Accuracy	0.3%	0.2% (0.16 % special version)	
Thermal error	typically 0.3% / 10 ºC, max 0.4% / 10 ºC		typically 0.2% /10 ºC, max 0.3% / 10 ºC
Long term stability	0.2% / year	0.1 % / year	
Hysteresis and repeatability	0.05%		

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