

# PS100E03 series 4-20mA ceramic pressure sensors

## Features

- Thermally compensated
- High accuracy and high stability
- Wide choice of measuring ranges
- Solid ceramic sensitive diaphragm
- Smart volume, easy for encapsulation
- Excellent shock and vibration resistance
- Excellent corrosion and abrasion resistance
- Low cost, extreme extensive application range



## Descriptions

PS100E03 series 4-20mA ceramic pressure sensor is made with a monolithic ceramic cell and works following the piezoresistive principle. The wheatstone bridge is screen printed directly on one side of the ceramic cell by means of Thick Film technology and signal conditioning electronics generate 4 ... 20 mA analog output (customized is available). Pressure and temperature calibration are done electronically with the on-board ASIC. Electronics provides offset and span correction when the temperature changes. Due to the excellent chemical immunity of the the Al<sub>2</sub>O<sub>3</sub> ceramic, the PS100E03 sensor is suitable for nearly all aggressive media.

## Mounting recommendations

The sensor is sensitive to the humidity, here is some recommendations for mounting. Before mounting, put the sensor into a drying oven with 85°C for at least 30 minutes. During mounting, make sure the environment humidity is keep under 50%. After mounting, appropriate sealing measures should be taken to protect the sensor.

## Technical data

Performance (EN 60770)

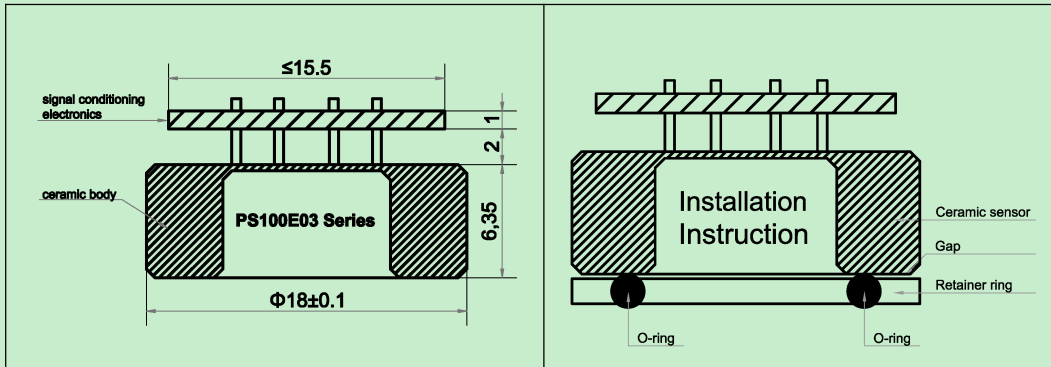
Power supply	12 to 36 VDC
Output signal	4 to 20 mA (current loop)
Pressure range	0...1 bar to 400 bar
Temperature characteristic	± 0.02% F.S./°C (25 → 85 °C)
Operating temperature	0 → 85 °C
Stability	< 0.2% F.S.O./year
Material	Ceramic Al <sub>2</sub> O <sub>3</sub> 96%
Sensor type	Gauge
Technology	Piezoresistive
Weight	8 g

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Typical pressure and accuracy (Unit: bar)

Rated range	2	5	10	20	30	50	100	200	400
Over pressure	4	10	20	40	60	100	200	400	600
Burst pressure	7	15	35	70	90	150	250	450	600
Accuracy @ 25° C	±1.5%F.S.		±1.0%F.S.				±1.5%F.S.		

Dimensions (Unit: mm)



Electrical connections

	Pins	Wires	Function
	+	Red	Voltage +
	-	Black	Signal +

## Part number chart (How to order)

PART NUMBER REQUIRED: **PS100E03.D.01.A (EXAMPLE)**

1	Pressure range(bar)	<b>D</b>
	A(1) B(2) C(5) D(10) E(20) F(30) G(50) H(100) I(200) J(250) K(400) 1Z(Other pressure range or unit is on request)	
2	Signal & supply	<b>01</b>
	01(4-20mA & 12-36Vdc) 2Z(Other output is on request)	
3	Electrical connection	<b>A</b>
	A(2Pins*7mm) B(2Wires*50mm)	

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\*Specifications subject to change without notice, the latest date sheet please contact: [sales@sendo-sensor.com](mailto:sales@sendo-sensor.com)