

# PS100E02 series 0-10V 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

PS100E02 series 0-10V ceramic pressure sensor is made with ceramic cell (Al<sub>2</sub>O<sub>3</sub> 96%) and works following the piezoresistive principle. The signal conditioning electronics are mounted on one side of ceramic diaphragm where the wheatstone bridge is screen printed and offers 0-10V, 0-5V various voltage output signal.

PS100E02 series is fully temperature compensated and guarantees a residual temperature effect inside the compensation temperature range within 0.02%F.S./°C. This feature results in a very stable sensor under very harsh conditions. Thanks to the excellent chemical immunity of the ceramic material, the sensor is suitable for nearly all most 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)

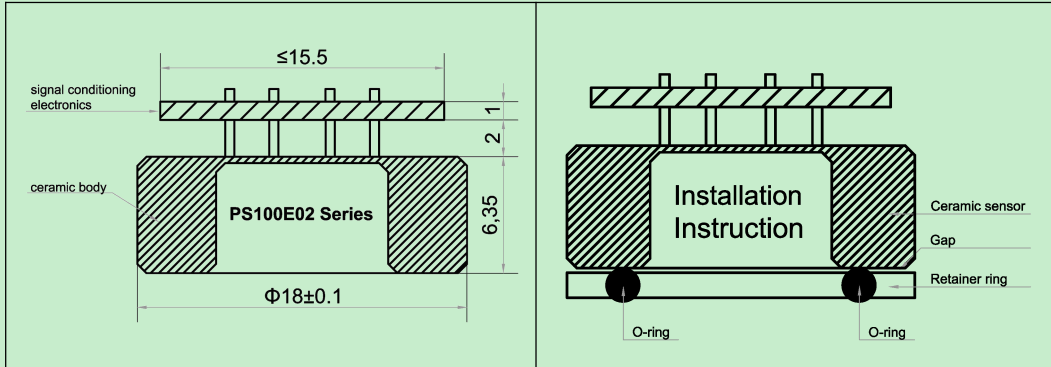
Power supply	12 to 30 VDC	<a href="#">See more in page 2 (part number chart)</a>
Output signal	0 to 10 V (Non ratio-metric)	<a href="#">See more in page 2 (part number chart)</a>
Pressure range	0...1 bar to 400 bar	
Temperature characteristic	± 0.02% F.S./°C (25 → 85 °C)	
Operating temperature	0 → 85 °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
	V+	Red	Voltage +
	GND	Black	GND
	S+	Blue/Yellow	Signal +

## Part number chart (How to order)

PART NUMBER REQUIRED: **PS100E02.D.01.A (EXAMPLE)**

1	Pressure range(bar)	D
	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	01
	01(0-10V & 12-30Vdc) 02(0-5V & 9-15Vdc) 2Z(Other output is on request)	
3	Electrical connection	A
	A(3Pins*7mm) B(3Wires*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)