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## PCM10 Industrial Pressure Sensor



- Amplified output (ASIC inside)
- I<sup>2</sup>C
- 0.5 to 4.5V
- 4 to 20mA
- CE certificate

PCM10 industrial pressure sensor is a standard and most popular sensor applied in air and liquid pressure measuring. A high sensitivity silicon pressure chip is employed in the sensor. The housing is filled with oil for pressure transmission. The most important specification for industry application is long term stability. The PCM10 sensor is designed for industry application with perfect long term stability.

### Diaphragm and pressure range

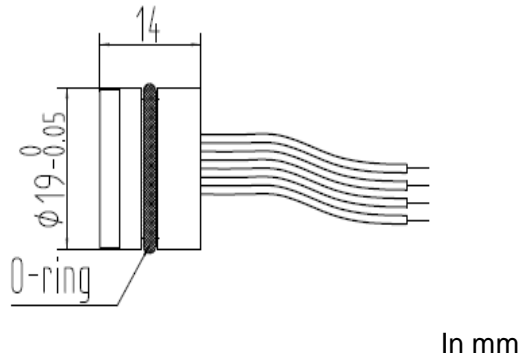
The diaphragm diameter has tight relation with pressure measured. Low pressure requires large diameter and high pressure needs small diameter. This is caused by oil expansion during temperature changing. It creates internal pressure due to the resistance of the diaphragm. The smaller diaphragm will create large internal pressure, and it is difficult to make zero compensation.

### Caution

Please do not touch the diaphragm by finger and other hard objects, or it may be damaged.

Pressure range			
Pressure range	35kPa, 70kPa, 100kPa, 250kPa, 400kPa, 600kPa, 1MPa, 1.6MPa, 2.5MPa, 4MPa, 6MPa, 10MPa, 16MPa, 25MPa (bar and psi unit available)		
Pressure reference	Gauge pressure   Absolute pressure   Sealed gauge pressure		
Overpressure	300%F.S.( $\leq 70\text{kPa}$ )   200%F.S.( $< 25\text{Mpa}$ )   150%F.S.( $\geq 25\text{Mpa}$ )		
Output signal			
Output	4 to 20mA (24V excitation)		
	0.5 to 4.5V ratiometric (5V excitation)		
	I <sup>2</sup> C (3.3V excitation)		
Specification			
Accuracy (linearity, repeatability and hysteresis)	$\pm 0.25\%$ F.S. (Typical)		
Excitation	24V   5VDC   3.3VDC		
Compensated temp.	-10-70°C (Typical)   0-60°C (<100kPa)		
Operating temp.	-40-125°C		
Storage temp.	-40-125°C		
Zero temp. coefficient	0.02%F.S./ °C ( $\geq 100\text{kPa}$ )   0.04%F.S. / °C (<100kPa)		
Span temp. coefficient	0.02%F.S. / °C ( $\geq 100\text{kPa}$ )   0.04%F.S. / °C (<100kPa)		
Insulation resistance	> 200Mohm/250VDC		
Bridge resistance	Min.	Max.	Unit
	2600	5500	ohm
Long term stability	$\leq 0.2\%$ F.S.S/year		
Vibration	20g (20-5000HZ)		
Oil filling	Silicon oil (Typical)   Olive oil available for sanitary application		
O-ring	NBR, Viton		
Housing and diaphragm	Stainless steel 316L		
Wire connection	4 wire (typical)   5 wire (available)    39 $\times$ $\phi$ 0.015, Silicon shielded, 200°C bearing		
Weight	40g(approx)		

## Wire connection



4 to 20mA	
red	Excitation+
blue	Output+
0.5 to 4.5V ratiometric	
red	Excitation+
blue	Output-
yellow	Output+
I <sup>2</sup> C	
red	excitation+
blue	excitation-
yellow	SCL
white	SDL

## How to order

