

# PC33 Monocrystalline Silicon Pressure Sensor

## Features

- Imported MEMS monocrystalline silicon pressure die
- High accuracy and excellent overpressure resistance
- High performance, all solid state, high reliability
- 316L stainless steel all welded integrated structure
- Gauge pressure type applicable to negative pressure measurement

## Applications

- Provide OEM for industrial transmitter manufacturers

### Notes:

- 1 Do not touch the diaphragm with hard objects, which may cause damage to the diaphragm.
- 2 Please read the Instruction Manual of the product carefully before installation and check the relevant information of the product.
- 3 Strictly follow the wiring method for wiring; otherwise it may cause product damage or other potential faults.
- 4 Misuse of the product may cause danger or personal injury.



## Overview

PC33 High-Stability Pressure Sensor adopts monocrystalline silicon sensor die with advanced MEMS technology, achieves international leading overpressure performance and ensures the excellent stability of signal. It is assembled in all-welded seal structure and filled with silicon oil in high vacuum. Diaphragm of different materials isolates measuring medium and pressure die, meanwhile, the sensor performs long-term reliable measurement of differential pressure signals of various strong corrosive media. PC33 High-Stability Pressure Sensor allows measured pressure to act directly on the diaphragm of sensor. Then the diaphragm produces a micro displacement proportional to the pressure, which can be detected with the integrated electronic circuit and be converted to output a standard measurement signal of the corresponding pressure.

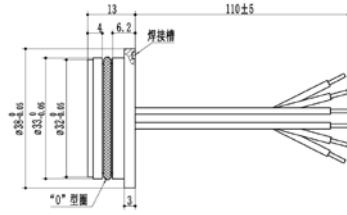
### Notes:

- 1 Do not misuse documentation.
- 2 The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- 3 Complete installation, operation, and maintenance information is provided in the instructions of the product.
- 4 Misuse of the product may cause danger or personal injury.

## Performance parameters

Supply	Constant voltage 5V
Operating temp.	-40~85℃
Storage temp.	-50~125℃
Output voltage	60~140mV
Zero temp. coefficient	±0.3%FS/℃
Temp. hysteresis	±0.1%FS(Range≥10kPa); ±0.5%FS(Range<10kPa)
Pressure hysteresis	±0.05%FS
Long-term drift	±0.05%FS / Year
Nonlinearity	±0.3%FS(Range≥10kPa); ±3.5%FS(Range<10kPa)
Max. overpressure	See "Pressure range selection" below.
Diaphragm material	Stainless steel 316L, Hastelloy C

Unit: mm



## Electrical connection

Electrical schematic diagram	Wire color	Definition
	Red	IN+
	Blue	IN-
	Yellow	OUT+
	White	OUT-
	Green	Diode+
	Black	Diode-

## Pressure range selection

Code	Min. pressure	Pressure reference	Pressure reference	Overpressure
6kG	1.5kPa	Gauge	-10～10kPa	200kPa
40kG	10kPa	Gauge	-40～40kPa	400Pa
100kG	25kPa	Gauge	-100～100kPa	1MPa
250kG	60kPa	Gauge	-100～250kPa	2MPa
1MG	250kPa	Gauge	-0.1～1MPa	6MPa
3MG	0.8MPa	Gauge	-0.1～3MPa	15MPa

## How to order

PC33 - 250kG - M1 -6W

Pressure range  
selection:

$$6kG = 6kPa \quad G$$

40kG=40kPa G

100kG=100kPa G

250kG=250kPa G

1MG=1MPa G

3MG=3MPa G

Diaphragm material:

M1: Hastelloy C

Default: Stainless

steel 316L

Connection:

6w: 6 wires

L: 2x4P terminal

Z: 1x7P terminal



**Example:** PC33-250kG-M1-6w

Refer to product model PC33, with pressure range 250kPa, pressure reference gauge pressure, and diaphragm material Hastelloy C, 6 wires.

### **Ordering tips**

Wotian reserves the right to make any change in this publication without notice. The information provided is believed to be accurate and reliable as of this product sheet.

### **Contact us**

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