



# PZP150 Silicon Pressure Sensors

## Introduction

The PZP150 has a smaller diameter compared with PZP160 pressure sensor, diameter of 15 mm. It is based on a high-sensitivity silicon piezoresistive chip. The chip is protected against aggressive media by a stainless steel housing sealed with a concentrically corrugated diaphragm. Silicon oil filled in the housing is for transferring the pressure from the diaphragm to the chip.

Its profile, installation dimension and sealing method make PZP150 be freely interchangeable and widely used for measuring pressure field.

## Features

- Pressure range : 0~3.5bar, ... , 0~600bar
- Pressure types: gauge, absolute and sealed gauge
- Accuracy up to 0.25%fs
- 0~70°C standard compensated temperature range
- Excited by either current or voltage
- Isolated construction to measure various liquid or gas
- Φ15 mm OEM pressure sensor
- 316L stainless steel material

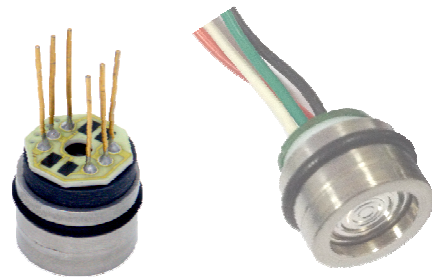
## Applications

- Industrial process control
- Liquid pressure system and switch
- Gas, liquid pressure measurement
- Level measurement
- Refrigeration equipment and air conditioner
- HVAC systems

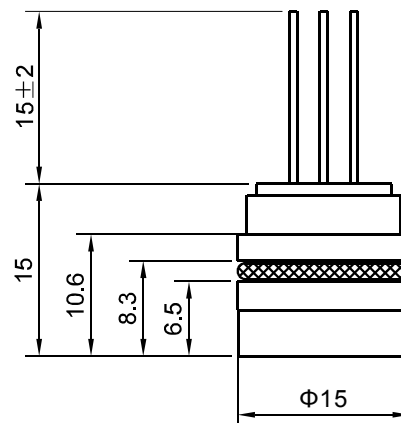
## Environment Effect

- Position effect: deviate 90° from any orientation, zero change ≤ 0.1%FS
- Shock effect: no change at 10gRMS, 20~2000Hz
- Impact: 100g, for 10 ms

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## Dimensions



Notes: All dimensions are in mm.

## Basic Condition

- Media temperature: 25 ± 1°C
- Environment temperature: 25 ± 1°C
- Shock: 0.1g (1m/s/s) Max
- Humidity: 50%RH ± 10%RH
- Barometric pressure: 86~106 kPa
- Excitation: 1.5±0.0015mA



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## Specifications

Parameter	Units	Data (*)	Notes
Pressure types and ranges	bar	Gauge(G): 0~3.5, ~7, ~10, ~20	[1]
		Absolute(A): 0~3.5, ~7, ~10, ~20	
		Sealed Gauge(S): 0~35, ~70, ~100, ~200, ~350, ~600	
Overload pressure	%fs	200 ( $\leq 350$ bar), 150 ( $\geq 600$ bar)	[2]
Full scale output (fso)	mV	$\geq 70$	
Zero offset	mV	$\leq \pm 2$	
Excitation	/	Current: 1.5 mA (max. 2 mA); Voltage: 5 V (max. 10V)	
Accuracy	%fs	$\leq \pm 0.25$ (standard), $\leq \pm 0.5$	[3]
Long-term stability	%fs/year	$\leq \pm 0.2$	
Input resistance	k $\Omega$	3~8	
Output resistance	k $\Omega$	2.5~6	
Insulation resistance	M $\Omega$	100 @ 100Vdc	
Compensated temperature range	$^{\circ}\text{C}$	0~70 (standard)	
Operating temperature range	$^{\circ}\text{C}$	-40 ~ +125	
Storage temperature range	$^{\circ}\text{C}$	-40 ~ +125	
Temperature coefficient of zero offset	%fso/ $^{\circ}\text{C}$	$\leq \pm 0.02$	
Temperature coefficient of span	%fso/ $^{\circ}\text{C}$	$\leq \pm 0.02$	
Response time (10% to 90%fso)	ms	$\leq 1$	
Process sealing	/	Viton O-ring	[4]
Electrical interface	/	4 colored silicon rubber flying wires, 100mm (standard)	
	/	6 gold-plated copper pins, $\Phi 0.45\text{mm}$ , 15mm	
Pressure diaphragm	/	316L SS	
Wetted parts material	/	316L SS	
Filling oil	/	silicon oil	[5]
Pressure medium	/	compatible with pressure diaphragm and O-ring	
Life time	cycles	$10 \times 10^6$	
Net weight	gram	~23	

### Notes:

- (\*). Testing at Basic Condition.
- [1]. For customized pressure ranges, please consult Proza.
- [2]. "fs" refers to full scale pressure or rated pressure.
- [3]. Accuracy =  $\sqrt{\text{non-linearity}^2 + \text{hysteresis}^2 + \text{repeatability}^2}$ .
- [4]. Other O-ring material on request.
- [5]. Other filled liquid on request.

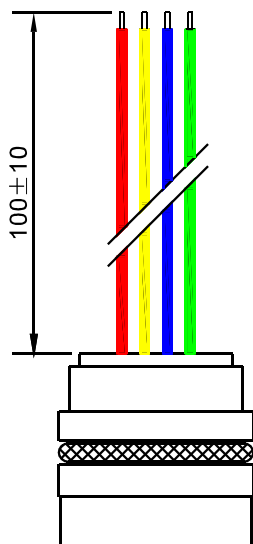
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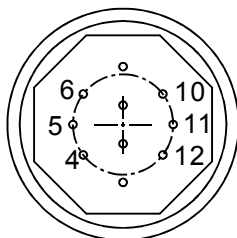
## Electrical Connection

4 colored silicon rubber flying wires(4W)



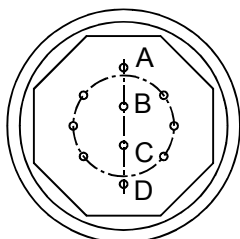
wire color	connection
red	excitation +
yellow	excitation -
blue	signal +
green	signal -

6 gold-plated copper pins (6P)



I: Excitation= Current

pin	connection
5	excitation +
6	excitation -
4	signal +
10	signal -



II: Excitation= Voltage

pin	connection
A	excitation +
B	excitation -
C	signal +
D	signal -

Notes: - All dimensions are in mm.

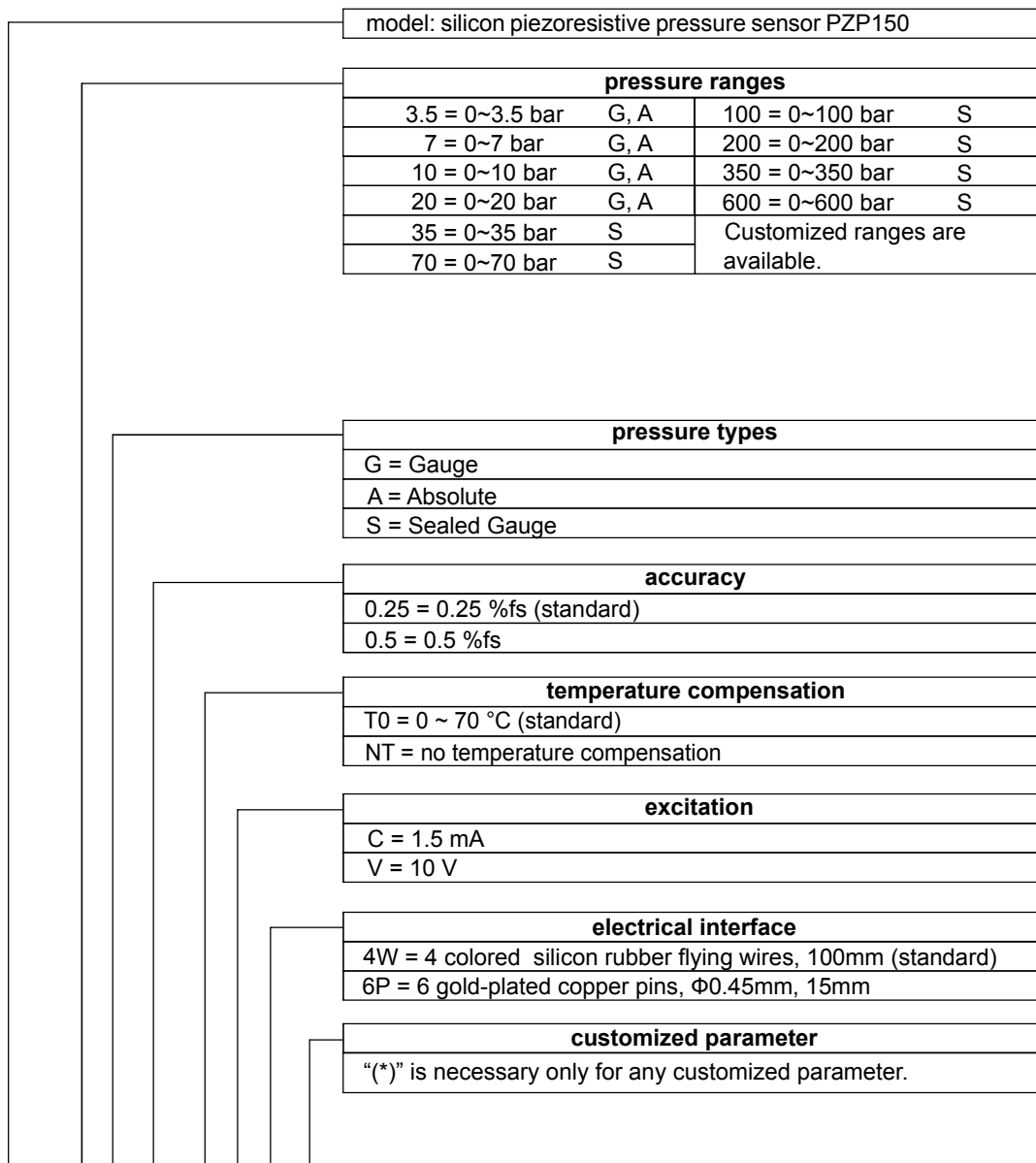
- In case of alterations, please refer to the label on the package delivered.

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# PZP150 Silicon Pressure Sensors

## Ordering Guide



ordering code: PZP150-10-G-0.25-T0-C-4W-(\*)

### Examples of Ordering Code

model-pressure range-pressure type-accuracy-compensation-excitation-electrical interface-customized parameter

**PZP150-20-G-0.25-T0-C-4W**

### Order Notes

1. For any critical working environment or pressure media, please inform me before order.
2. Please pay attention to protect the diaphragm. Do not touch the diaphragm by fingers and other hard objects, or it may be damaged.

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