



PZP331 Ceramic Pressure Transmitter

Introduction

The PZP331 Pressure Transmitter is developed for automotive industry and refrigerator system. The PZP331 pressure transmitter uses ceramic pressure sensor as signal sensing element, through automatic testing and compensating zero and sensitivity in wider temperature range. The transmitter can transfer pressure to standard voltage and current signal. The material of housing and pressure port are stainless steel. Through strict component making, semi-finished product and all-finished product testing and aging, the transmitter is stable and reliable, having excellent flexibility and diversity. The product is also widely used for pressure measure and control of petroleum, chemi-industry, metallurgy, power station and hydrology, etc.

Features

- Pressure range: 0~2,...,150bar
- Pressure type: gauge
- Accuracy up to 0.5%fs
- Excellent corrosion resistance
- Small profile, compact structure
- Optional pressure port

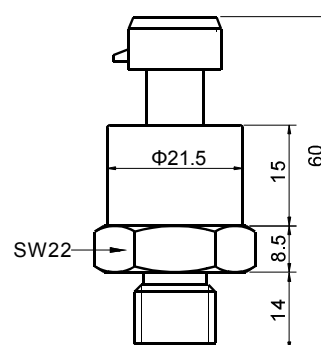
Applications

- Automotive industry
- Refrigerator system
- Industrial process control
- Gas, liquid pressure measurement
- HVAC system
- Mechanical engineering



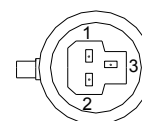
Dimensions

Packard connector



Electrical Connection

Packard connector:



2-wires for current output

pin	color	2-wires
1	red	power+
2	green	signal+
3	/	/

3-wires for voltage output

pin	color	3-wires
1	red	power+
2	black	GND
3	green	signal+

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Specification

Parameter	Units	Data	Notes
Pressure ranges and type	bar	Gauge(G): 0~2, ...,~150	
Overload pressure	%fs	150	[1]
Accuracy	%fs	$\leq \pm 0.5$ (standard), $\leq \pm 1.0$	[2]
Long-term stability	%fs/year	$\leq \pm 0.2$	
Compensated temperature range	°C	-20 ~ +85	
Operating temperature range	°C	-40 ~ +125	
Storage temperature range	°C	-40 ~ +125	
Temperature coefficient of zero	%fso/°C	$\leq \pm 0.03$	
Temperature coefficient of span	%fso/°C	$\leq \pm 0.03$	
Output signal	mA	4~20 (standard)	
	Vdc	0.5~4.5 (ratiometric)	
Power supply (Us)	Vdc	12 < Us < 36; 5 (for output = 0.5~4.5 V)	
Load resistance for voltage output	kΩ	> 5	
Load resistance for current loop	Ω	$\leq (Us - 12V) / 0.02A$	
Insulation resistance	MΩ	100 @100Vdc	
Environment protection	/	IP65 (standard)	
Electrical connection	/	packard connector	
Pressure connection	/	G1/4, 7/16-20UNF or other	
Pressure diaphragm	/	Ceramic (96% Al ₂ O ₃)	
Wetted parts material	/	316 SS	
Electronics housing material	/	304 SS	
Media compatibility	/	liquids and gases compatible with ceramic and 316 stainless steel	
Vibration resistance (20, ..., 5000 Hz)	g	20	
Response time	ms	≤ 1	
Seal	/	Viton O-ring	
Life time	/	10x10 ⁶	
Net weight	gram	~80	

Notes: For any customized parameter, please consult Proza.

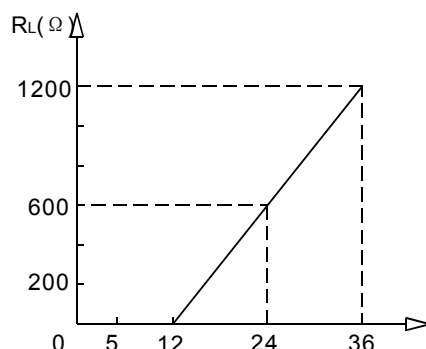
[1]. "fs" refers to full scale pressure or rated pressure.

[2]. Accuracy = $\sqrt{\text{non-linearity}^2 + \text{hysteresis}^2 + \text{repeatability}^2}$

Load Characteristic

load resistance for current loop:

$$R_L \leq (U_s - 12V) / 0.02A (\Omega)$$



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Ordering Guide

model: ceramic piezoresistive pressure transmitter PZP331

pressure ranges

2 = 0~2 bar	G	150 = 0~150 bar	G
5 = 0~5 bar	G		
10 = 0~10 bar	G		
16 = 0~16 bar	G		
20 = 0~20 bar	G		
25 = 0~25 bar	G		
30 = 0~30 bar	G		
40 = 0~40 bar	G	customized range available as an option	
50 = 0~50 bar	G		
100 = 0~100 bar	G		

pressure types

G = Gauge

accuracy

0.5 = 0.5 %fs (standard), 1.0 = 1.0 %fs

output signal

4~20mA, 0.5~4.5 Vdc

pressure connection

G1/4, NPT1/4, 7/16-20UNF or other

electrical connection

Packard connector

customized parameter

"(*)" is necessary only for any customized parameter.

PZP331-10-G- 0.5- 4~20mA-G1/4-Packard-(*)

Examples of Ordering Code

PZP331-35-G-0.5-4~20mA-G1/4-Packard-(*)

(*): Customized range = 35 bar.

Order Note

Please pay attention to protect the diaphragm. Do not touch the diaphragm by finger and other hard objects, or it may be damaged.

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