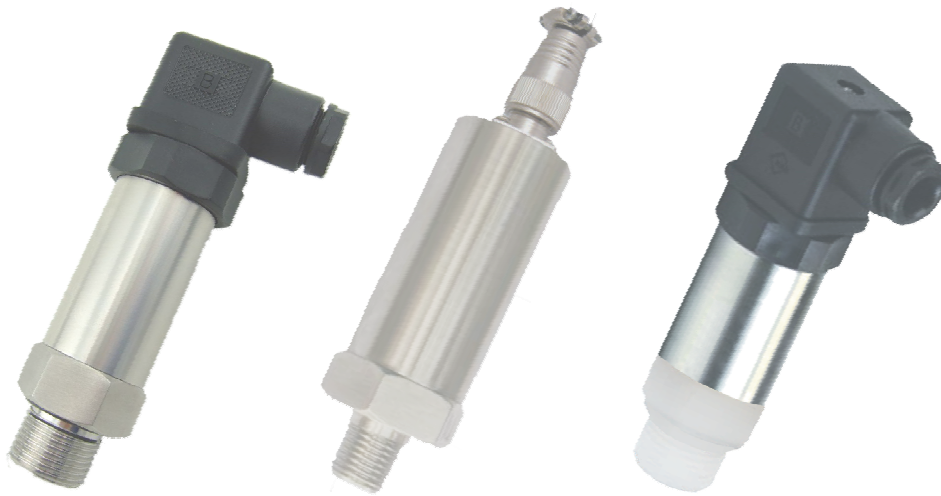




PZP311 Ceramic Pressure Transmitter



Introduction

PZP311 series of industrial control pressure transmitter with high precision, high stability of the ceramic piezoresistive pressure sensor. Using the sensor conditioning chip, compensation of the sensor offset, sensitivity and temperature drift. The measured medium pressure into standard electric signal. Pure analog circuit design, strong anti electromagnetic interference ability. To meet requirements of high corrosion resistance, the transmitter can have its process connection made from PVDF (polyvinylidene fluoride). With many options of process connection and electrical interface. PZP311 to measure pressure of gases or dilute fluids with gauge pressure reference.

Features

- High chemical resistance
- Pressure range : 0~2bar, 0~5bar, ... , 0~150bar
- Pressure types: gauge
- Impact and vibration resistance
- Optional output signal
- Optional pressure port

Applications

- Industrial process control
- Liquid pressure system
- Gas, liquid pressure measurement
- Hydraulics and pneumatics
- Chemical industry
- Medical instrument

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PZP311 Ceramic Pressure Transmitter

Specification

Parameter	Units	Data	Notes
Pressure ranges and type	bar	Gauge(G): 0~2, ~5,...,~150	
Overload pressure	%fs	150	[1]
Accuracy	%fs	$\leq \pm 0.5$ (standard)	[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), 0~5, 1~5	
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	/	plug connection or cable connection	
Pressure connection	/	G1/2 or other	
Pressure diaphragm	/	Ceramic (96% Al ₂ O ₃)	
Wetted parts material	/	316 SS (standard), PVDF	
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	~170	

Notes:

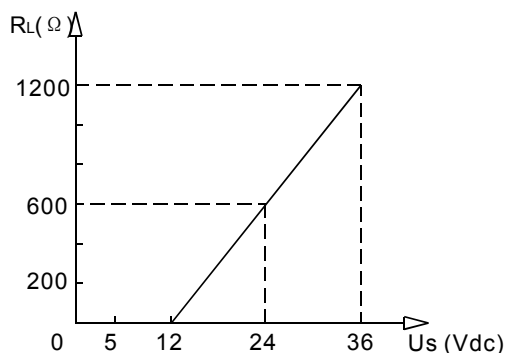
[1]. "fs" refers to full scale pressure or rated pressure.

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

Load Characteristic

load resistance for current loop:

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

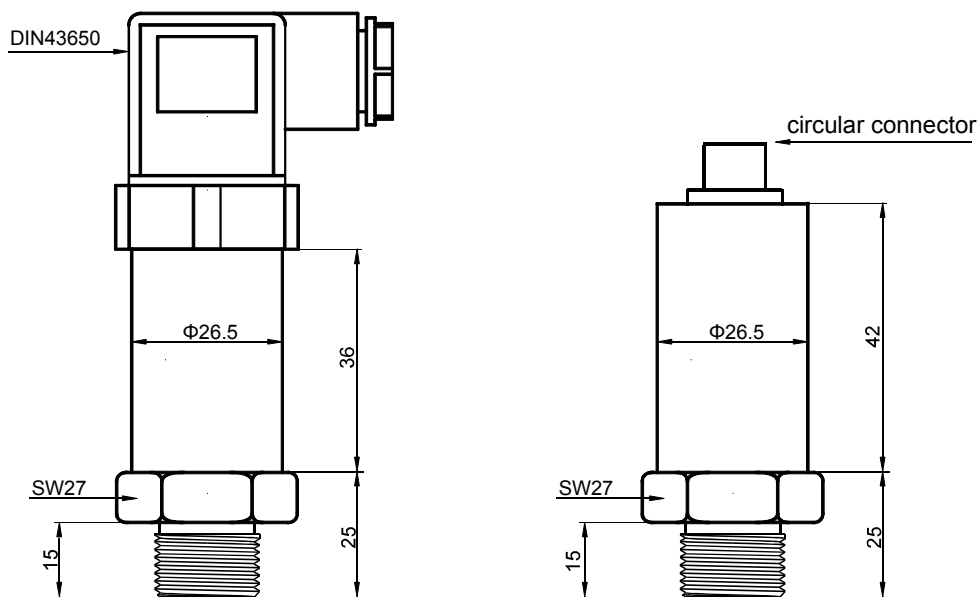


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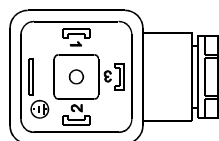


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Dimensions



Electrical Connection



DIN43650
(standard)

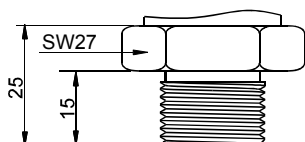


circular connector

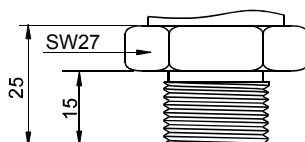
Connector Connection Wiring

pin	2-wires	3-wires
1	power+	power+
2	signal+	power-
3	null	signal+

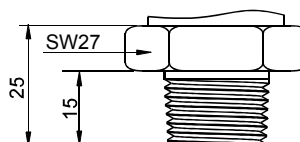
Pressure Connection



M20x1.5



G1/2 or G1/4



NPT1/2 or NPT1/4

Notes: - All dimensions are in mm.

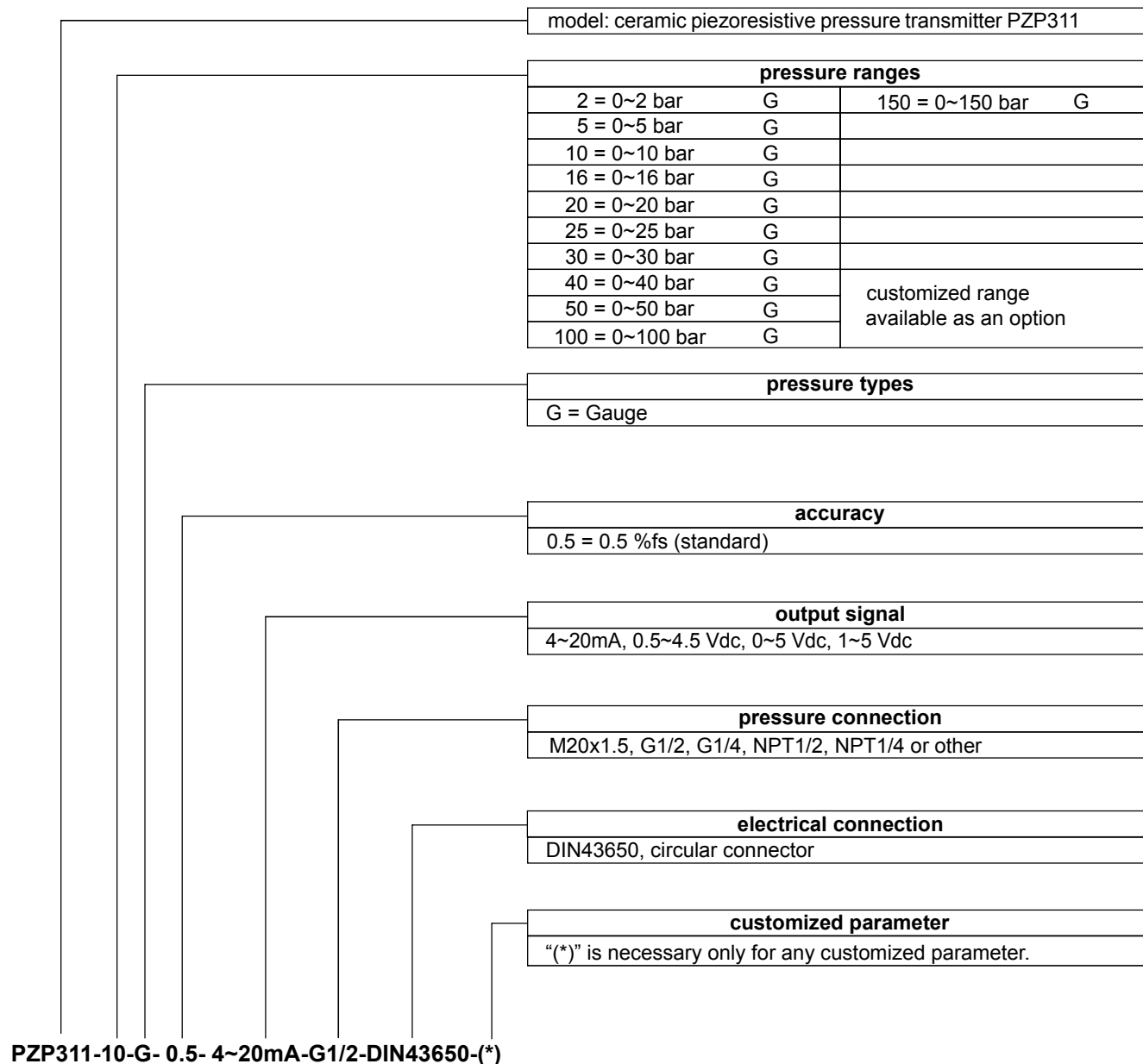
- If other types of interfaces are on request, consult us.

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PZP311 Ceramic Pressure Transmitter

Ordering Guide



Examples of Ordering Code

PZP311-30-G-0.5-4~20mA-G1/2-DIN43650-(PVDF*)

(*): Customized wetted parts material = PVDF.

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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