



PZP320 Sanitary Silicon Pressure Transmitter



Introduction

This PZP320 pressure transmitter is made with flush diaphragm structure. It is specially designed to measure pressures of viscous fluids. The transmitter uses piezoresistive silicon chip as sensing element.

Three types of flush diaphragm are available, type P1, P2, and P3. The type P1 has a ring on the diaphragm. The type P2 has its diaphragm completely flat (no ring on the diaphragm). The type P3 is designed with clamp interface for mechanical connection, especially for application in either pharmaceutical or food industries.

Due to its compact and rugged design, the models are suitable for applications of processing and control operations such as hydraulics, pneumatics, test equipment, liquid level measurement and pump control, etc. It has good ability on preventing fouling, crystallization and jamming of thick liquids.

Every PZP320 is temperature compensated and calibrated and supplied with a traceable serial number and calibration certificate.

Features

- Pressure range: -1,...,0~0.35,...,100bar
- Pressure types: gauge, sealed gauge and absolute
- Accuracy up to 0.25%fs
- Optional output signal
- Sanitary, anti fouling
- Isolated construction to measure various media
- Full stainless steel construction
- Optional pressure and electrical connection

Applications

- Industrial process control
- Liquid level measurement
- Hygienic applications
- Test equipment
- Food industry
- Pharmaceutical industry
- Environmental Engineering
- Tank gauging

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Specifications

Parameter	Units	Data	Notes
Pressure types and ranges	bar	Gauge(G): -1~0, 0~0.35, ..., ~40	
	bar	Absolute(A): 0~1, ~1.6, ..., ~25	
	bar	Sealed Gauge(S): 0~10, ~16, ..., ~100	
Overload pressure	%fs	150	[1]
Accuracy	%fs	$\leq \pm 0.25$, $\leq \pm 0.5$ (standard)	[2]
Long-term stability	%fs/year	$\leq \pm 0.2$	
Compensated temperature range	°C	-10 ~ +70	
Operating temperature range	°C	-20 ~ +85(standard), -40~+150(high temperature type)	
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 (U)	Vdc	$12 < U < 36$; 5 (for output = 0.5~4.5 V)	
Load resistance for voltage output	kΩ	> 5	
Load resistance for current loop	Ω	$\leq (U - 12V) / 0.02A$	
Insulation resistance	MΩ	100 @100Vdc	
Environment protection	/	IP65	
Electrical connection	/	plug connection: DIN43650	
Pressure connection	/	G1/2, 2" clamp or other	
Pressure diaphragm	/	316L SS	
Wetted parts material	/	316 SS	
Electronics housing material	/	304 SS	
Filling oil	/	silicone oil	
Media compatibility	/	liquids and gases compatible with 316/316L stainless steel	
Vibration resistance (20, ..., 5000 Hz)	g	20	
Response time (10% to 90%fs)	ms	≤ 1	
Seal	/	Viton ED-ring	
Life time	cycles	10×10^6	
Net weight	gram	~170	

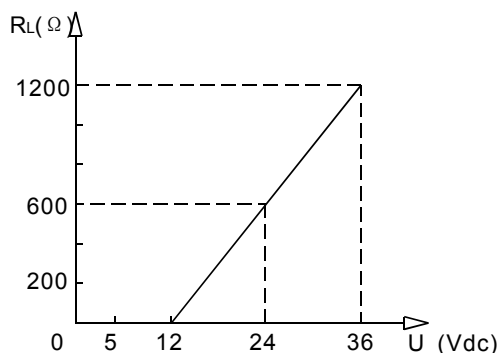
Notes: [1]. "fs" refers to full scale pressure or rated pressure.

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

Load Characteristic

Load resistance for current loop:

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



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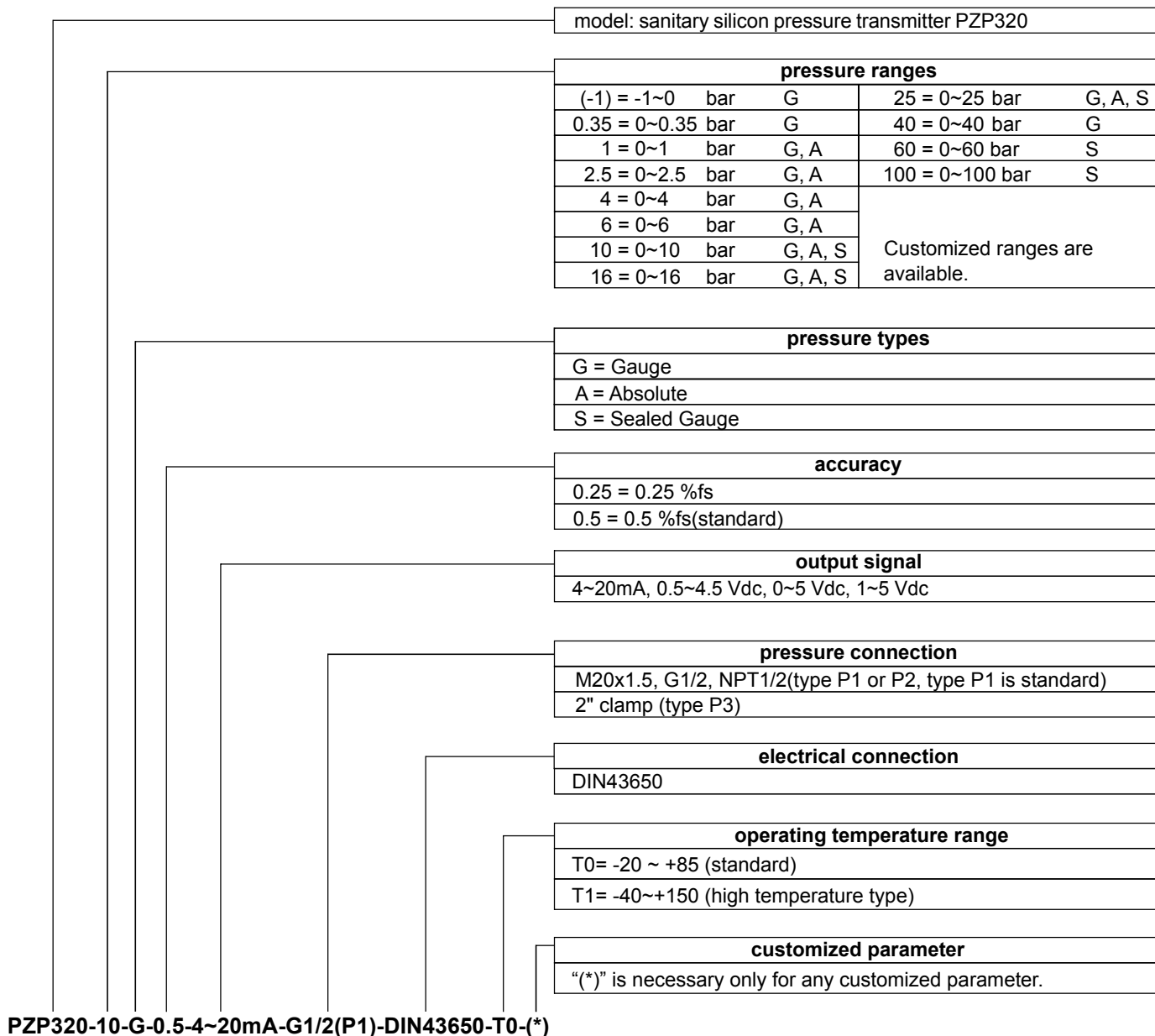
Room 704, FengDong New Town,Xi'an



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Ordering Guide



Examples of Ordering Code

PZP320-21-G-0.5-4~20mA-G1/2(P1)-DIN43650-T0-(*)

(*): Customized pressure range = 21bar.

Order Note

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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