General Ceramic Pressure Sensor







DESCRIPTION

GPT230 ceramic pressure sensor is a cost-effective product with the characteristics of compact structure, reliable quality. It is equipped with ceramic piezoresistive core, hard 304 stainless steel housing, suitable for measuring pressure of gas and liquid. GPT230 ceramic pressure transmitter is mainly used in air compressor, measurement and control technology, and other situations that requires gas and liquid pressure. GPT230 series pressure transducers have high ability of customization, we can provide our clients customized products with different pressure range and process connection, and meet your specific operating requirements within a short period.

FEATURES

- Ceramic piezoresistive core
- Measurement range: 0 ~ 5...50bar gauge

- Accuracy: ±0.5%F.S,±1.0%F.S
- Output: 4~20mA, 0.5V~4.5V,0~5V, 0~10V
- Electrical interface: Small Hirschmann, Packard connector, M12×1 connector, Waterproof connector outlet, Grommet outlet
- Process connection: G1/4, 7/16-20UNF-2B (Female), 7/16-20UNF-2A (Male), NPT1/4, G1/2 or others
- Accurate measurement and cost-effective
- Suitable for mass production

APPLICATION

- Universal pressure measurement
- Air compressor
- Measurement and Control Technology
- Hydraulic and Pneumatic Technology

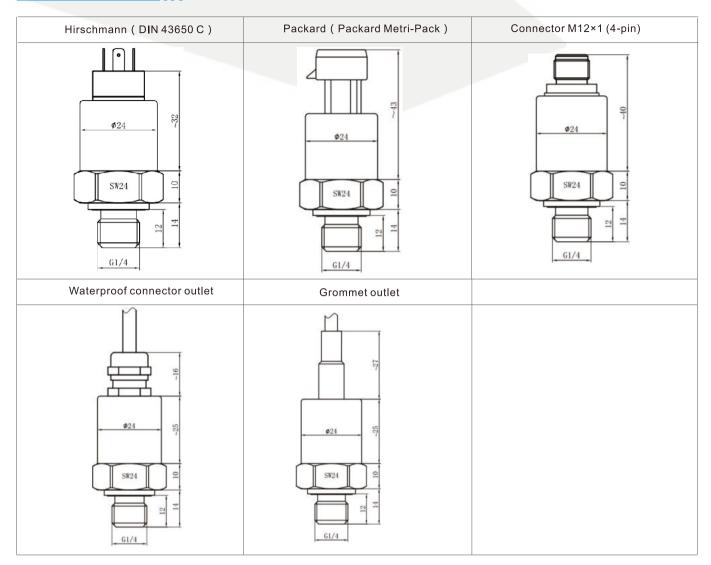
SPECIFICATION ///

Temperature : 25℃; Relative humidity : 45%~75%; Ambient atmospheric pressure : 86KPa~106KPa;

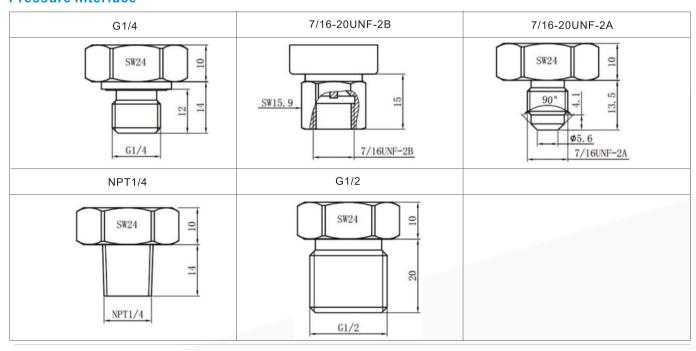
Pressure range	0∼550bar gauge					
Output signal	0.5~4.5V	0~10V	0~5V	4mA~20mA		
Power supply(U+)	5VDC 12~30VDC 10VDC~30VDC					
Output load	≥10KΩ ≤(U+ - 10) / 0.023					
Room temperature Accuracy	±0.5%F.S. (Default), :	±1.0% Optional(Note1)				
Medium temperature	-30∼120℃ (Note2)					
Environment temperature	-20∼85℃					
Storage temperature	-40℃~105℃					
Long-term stability	±0.5%FS/Year	±0.5%FS/Year				
Response time	(10%~90%)≤10ms					
Overload pressure	≥150%F.S					
Damage pressure	≥200%F.S					
Pressure interface	G1/4 · 7/16-20UNF-2B (Female),7/16-20UNF-2A (Male),NPT1/4,G1/2					
Electrical interface	Small Hirschmann, Packard connector, M12 ×1 connector, Waterproof connector outlet, Grommet outlet					
Wetted sealing ring	NBR (Default),FKM (optional)					
Housing	304 SS (Default),316L SS or others optional					
Insulation resistance	≥100MΩ@100VDC					
Shock	10g,5~2000Hz					
Impact	20g,11ms Half-sine					
Protection	≥IP65					

Note 1: Range 0 ~ 5bar includes products with pressure 5 bar, customers can only choose accuracy of ±1.0%F.S.

Note2: Medium temperature is mainly decided by sealing material. The default sealing ring material is NBR, and the medium temperature is from -30°C to 120°C. When its material is FKM, temperature of the medium is -20~125°C. If the medium temperature exceeds 85°C for a long time, please make special instructions.

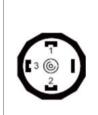


Pressure interface



WIRING DEFINITIONS ///

Hirschmann (DIN 43650 C)



Pin	2-	wire	3-wire		
	Definition	Wire color	Definition	Wire color	
1	Power supply	Red	Power supply	Red	
2	Output	Green/Blue	GND	Black	
3			Output	Green/Blue	
(Shield	Black	Shield	Yellow	

Packard connector (Packard Metri-Pack)

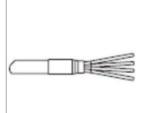
<u>.</u>	2-w	/ire	3-wire		
Pin	Definition	Wire color	Definition	Wire color	
Α	Shield	Black	GND	Black	
В	Power supply	Red	Power supply	Red	
С	Output	Green/Blue	Output	Green/Blue	
				Yellow(Shield)	

Connector M12 x 1 (4-pin)



D'	2-w	ire	3-wire	
Pin	Definition	Wire color	Definition	Wire color
1	Power supply	Red	Power supply	Red
2	Outputy	Green/Blue	Output	Green/Blue
3			GND	Black
4	Shield	Black	Shield	Yellow

Waterproof connector / grommet outlet



\A/'	Pin Definition		
Wire color	2-wire	3-wire	
Red	Power supply	Power supply	
Green/Blue	Output	Output	
Black	Shield	GND	
Yellow		Shield	



GPT230	Ceran	nic Press	c Pressure sensor						
	Code	Pressu	ire rang	re range ents actual pressure measurement range					
	Χ	X repre	sents ac						
		Code	Press	ure inte	rface				
		G1/4	G1/4						
		7/16U(F)	7/16-2	7/16-20UNF-2B					
		7/16U	7/16-2	20UNF-2					
		NPT1/4	NPT1	T1/4					
		G1/2	G1/2						
			Code	Electr	ical inte	rface			
			HSM	Small	Hirschma	ann			
			Р	Packa	rd				
			M12	M12x 1	1				
			CW Waterproof connector outlet						
			C1	Gromn	Grommet outlet				
				Code Output 420 4~20mA					
			0545R 0.5~4.5V proportional voltage					roltage	
				005	0~5V				
				010					
					Code	Powe	rsupply		
					09	10~3	30VDC		
					03	(5±0.25) VDC			
					13	12~30VDC			
						Code Wetted sealing ring material			
						B NBR			
						F	FKM		
							Code	Resolution	
							05	±0.5%	
							10	±1.0%	
GPT230	X	G1/2	C1	005	03	F	10		

Precautions

- a.GPT230 pressure sensor must be used in a medium that is not corrosive to the sealing material and housing material
- b.No sharps used when the pressure guide hole is blocked. Immerse the pressure guide hole into a liquid that can dissolve the blockage. Throw it out after the blockage is dissolved
- c.No calibration or repair by yourself
- d.Contact the supplier if you are not sure of the medium applicability
- e.The installation location should be the places uneasy to touch or stampede
- f.The pressure sensor may be damaged permanently if you make it work under an overload pressure
- g.Consider lightning protection measures if there may be lightning

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