

# General Ceramic Pressure Sensor

## GPT231

**GAMICOS**

### DESCRIPTION

GPT231 ceramic pressure sensor adopts hard and stable ceramic piezoresistive core, with a integrated stainless steel housing, which is mainly for oil. It is suitable for measuring pressure up to 600 bar and we can provide customers with  $\pm 1.5\%$  F.S. accuracy. GPT231 has got the CE and RoHS certification, and it can be used all around the world. In addition, we can provide our clients customized products with different pressure range and process connection, and meet your specific operating requirements within a short period.



### SPECIFICATION

Temperature : 25°C ; Relative humidity : 45%~75% ; ambient atmospheric pressure : 86KPa ~ 106KPa ;

Pressure range	0~400bar Gauge (600bar optional)	
Output signal	4mA~20mA	
Power supply(U+)	24V	
Output load	$\geq 10K\Omega$	$\leq (U+ - 10) / 0.023\Omega$
Accuracy	$\pm 1.5\%$ F.S (Default)	
Medium temperature	-30~120°C (Note 1)	
Environment temperature	-20~85°C	
Storage temperature	-40°C~105°C	
Long-term stability	$\pm 1.5\%$ FS/Year	
Response time	(10%~90%) $\leq 10$ ms	
Overload pressure	$\geq 150\%$ F.S	
Damage pressure	$\geq 200\%$ F.S	
Pressure interface	G1/4 , 7/16-20UNF-2B (Female) , 7/16-20UNF 2A (Male) , NPT1/4 , G1/2	
Electrical interface	M12 x1 connector	
Wetted sealing ring	NBR (Default) , FKM (Optional)	
Housing	304SS (Default) , 316L SS or others optional	
Insulation resistance	$\geq 100M\Omega @ 100VDC$	
Shock	10g , 5~2000Hz	
Impact	20g , 11ms Half-sine	
Protection	$\geq IP65$	

Note 1 : 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.

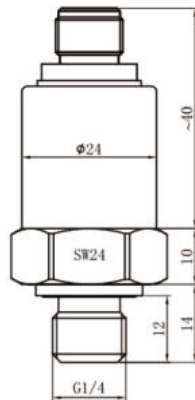
## FEATURES

- Ceramic piezoresistive core
- Pressure range: 0 ~ 400bar Gauge ( 600bar optional )
- Accuracy: 1.5%BFSL
- Output: 4 ... 20 mA
- Electrical interface: M12 ×1 connector
- Process interface: 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

- Machine made
- Measurement and Control Technology
- Hydraulic and Pneumatic Technology
- Pumps and Compressors

## DIMENSION




Connector M12×1 (4-pin)

### Pressure interface

G1/4	7/16-20UNF-2B	7/16-20UNF-2A
NPT1/4	G1/2	

## WIRING DEFINITIONS

Connector M12 x 1 (4-pin)

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

## ORDER GUIDE

GPT231	Ceramic Pressure sensor							
	Code	<b>Pressure range</b>						
	X	X represents actual pressure measurement range						
		Code	<b>Pressure interface</b>					
		G1/4	G1/4					
		7/16U(F)	7/16-20UNF-2B					
		7/16U	7/16-20UNF-2A					
		NPT1/4	NPT1/4					
		G1/2	G1/2					
		Code	<b>Electrical interface</b>					
		M12	M12x 1					
			Code	<b>Output</b>				
			420	4~20mA				
			Code	<b>Power supply</b>				
			09	24VDC				
			Code	<b>Wetted sealing ring material</b>				
			B	NBR				
			F	FKM				
			Code	<b>Resolution</b>				
			05	±1.5%				
GPT231	X	G1/2	M12	420	09	F	05	

### Precautions

- GPT231 pressure sensor must be used in a medium that is not corrosive to the sealing material and housing material.
- 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.
- No calibration or repair by yourself.
- Contact the supplier if you are not sure of the medium applicability.
- The installation location should be the places uneasy to touch or stampede.
- The pressure sensor may be damaged permanently if you make it work under an overload pressure .
- Consider lightning protection measures if there may be lightning.

### Declaration

Our company reserves the right to modify the specifications and contents of this manual. Subject to modification without notice. Due to the update of the product, the individual details of this document may not match the product, please refer to the actual product. The interpretation right of this document belongs to our company.