

Anti-corrosion Ceramic Pressure Transmitter

GaMicos

GPT235

DESCRIPTION

GPT235 Strong anti-corrosive ceramic pressure transmitter is specially designed for measuring pressure of strong corrosive medium. It adopts imported ceramic piezoresistive or ceramic capacitive sensor as sensitive components, strong anti-corrosive PTFE or PVDF as housing shell materials, cooperates with dedicated signal conditioning circuit, after the processes of comprehensive linearity error compensation and temperature error compensation, the product for pressure and level measurement that suits for strong corrosive medium is produced.

FEATURES

- Optional signal output ;
- Broad pressure measurement range:-1bar~0~25bar
- Anti-interference , anti-surge protection ;
- PTFE housing shell , strong corrosion resistance

APPLICATION

- Chemical factory, sewage treatment plant
- Mutiple acid liquid and gas besides HF
- High temperature medium

DIMENSION



Model	Sensor	
GPT235	Ceramic piezoresistive core	
GPT235-1	Ceramic capacitive core	

PROCESS INTERFACE

Code	Pressure interface	Standard No.
L01	G1/4 B M	EN 837
L02	G3/8 B M	EN 837
L03	G1/2 B M	EN 837
L04	G1/4 F	EN 837
L05	G1/4 A M	ISO 1179-2
L06	G3/8 A M	ISO 1179-2
L07	G1/2 A M	ISO 1179-2
L08	G1/4 F	ISO 1179-1
L09	M12X1.5 M	ISO 9974-2
L10	M14X1.5 M	ISO 9974-2
L11	M20X1.5 M	ISO 9974-2
L12	M20X1.5 M	EN 837
L13	NPT1/4 M	ANSI/ASME B1.20.1
L14	NPT1/2 M	ANSI/ASME B1.20.1
L15	NPT1/4 F	ANSI/ASME B1.20.1
L16	NPT1/2 F	ANSI/ASME B1.20.1
L17	R1/4 M	ISO 7
L18	R3/8 M	ISO 7
L19	R1/2 M	ISO 7
L20	7/16-20UNF M	SAE J514 E

SPECIFICATION

Pressure Type : Gauge											
Pressure range(bar)	-1.0~0	0.1	0.25	0.6	1.0	1.6	2.5	6.0	10.0	16.0	25.0
Overload	1.0	0.2	0.5	1.2	2	3.2	5.0	12.0	20.0	32.0	50.0
Pressure Type : Absolute pressure											
Pressure range(bar)	-1.0~0	0.1	0.25	0.6	1.0	1.6	2.5	6.0	10.0	16.0	25.0
Overload	1.0	0.2	0.5	1.2	2	3.2	5.0	12.0	20.0	32.0	50.0

Output signal		Total current consumption (signal current)	Power supply	
			Standard configuration	Optional
Current (2-wire)	4~20mA	Max. 25mA	DC 8...30V	
Voltage (3-wire)	0~10V	2.5mA	DC 14...30V	
	0~5V		DC 8...30V	DC 3...5V
	1~5V		DC 8...30V	DC 3...5V
	0.5~4.5V		DC 8...30V	DC 3...5V
Proportional voltage(3-wire)	0.5~4.5V	2.5mA	DC 5V±10%	
Digital output (suits for ceramic piezoresistive)	4...20mA+RS485		DC 8...30V	
	RS485		DC 8...30V	DC 3...5V
	I2C		DC 3...5V	
Product Accuracy (Comply with Standard JJG 860、JJ G882)	Standard configuration		Optional	
	0.5%FS		0.25%FS;0.1%FS	
Long-term stability(%FS/Year)	≤0.2%FS/Year@0.5%FS			
Temperature drift	Zero temperature drift	Pressure range≤1bar	Standard ±0.05%FS/°C	Optional ±0.02%FS/°C
		Pressure range≥1 bar	±0.03%FS/°C	±0.02%FS/°C
	Full scale drift	Pressure range≤1bar	±0.05%FS/°C	±0.02%FS/°C
		Pressure range≥1 bar	±0.03%FS/°C	±0.02%FS/°C
Temperature range	Operating temperature		Standard -20°C ~ 85°C	Optional -40°C ~ 125°C
	Compensated temperature	Pressure range≤1bar	0°C ~ 50°C	-10°C ~ 80°C
		Pressure range≥1 bar	0°C ~ 70°C	-10°C ~ 80°C
	Storage temperature		-40°C ~ 125°C	
Response time		Range	Standard	Optional
	Boot time		100ms	10ms
	Response time		10ms	1ms
	Settling time	≥1bar	15s	
		≤1bar	1min	
Load Resistance (Ω)	Current (2-wire)	≤ (Voltage-8V) /0.02A		
	Voltage (3-wire)	>Maximum output signal/1mA		
	Proportional voltage (3-wire)	>10K		
Anti-vibration	10g (IEC 60068-2-6, under resonance conditions)			
Impact resistance	500g (Standard IEC 60068-2-27 · Mechanical shock)			
Service life	1 million pressure cycles			
Housing shell material		Standard	Optional	
	Diaphragm material	Ceramic	99.9%A1203(ceramic capacitive) , 96%A1203(ceramic piezoresistive)	
	Shell material	PTFE	PVDF	

ORDER GUIDE

GPT235	Ceramic Pressure Transmitter										
	Code	Shape of Pressure Transmitter									
	S1	Ceramic piezoresistive core									
	S2	Ceramic capacitive core									
	Code	Pressure range									
	-1	-1.0~0	2.5	0~2.5							
	0.1	0~0.1	6	0~6.0							
	0.25	0~0.25	10	0~10.0							
	0.6	0~0.6	16	0~16.0							
	1	0~1.0	25	0~25.0							
	1.6	0~1.6									
	Code	Pressure type									
	G	Gauge									
	A	Absolute									
	Code	Unit									
	U1	bar									
	U4	Mpa									
	U5	psi									
	Code	Output									
	E	4-20mA	J	0-10V							
	K	0.5-4.5V	V	IIC(Customizable)							
	F	0-5V	H	RS485(Customizable)							
	Code	Power supply									
	V1	8-30VDC (2-wire)				V4	3-5VDC				
	V2	12-30VDC (3-wire)				V5	5VDC				
	V3	14-30VDC									
	Code	Accuracy									
	A1	0.5%FS									
	A2	0.25%FS									
	A3	0.1%FS									
	Code	Electrical interface									
	B1	Hirachmann DIN 175301-803 A									
	B2	Cable connection									
	B4	M12X1 connector									
	Code	Housing shell material									
	P1	PTFE									
	P2	PVDF									
	Code	Medium temperature									
	T1	0°C~50°C			T3	-20°C~85°C					
	T2	0°C~70°C			T4	-40°C~125°C					
GPT235	S1	10	G	U1	K	V5	A1	B1	P1	T1	Complete Model Specification