

GP6251 Pressure Transmitter

Features

- ✓ Whole welding construct
- ✓ Up to IP67 or IP68
- ✓ Compact size down to 19 AF
- ✓ Long-term stability
- ✓ Zero offset by program
- ✓ High EMI protection
- ✓ Fault diagnostics function



Introduction

GP6251 industrial-grade pressure transmitter equipped with a proprietary high-performance silicon piezoresistive sensor, ensuring excellent measurement accuracy. It integrated with a patented adaptive compensation algorithm and had outstanding temperature performance. Featuring a compact design, innovatively employs fully welded sealing technology combined with an integrated injection-molded structure to achieve the highest IP68 protection. This enables stable work even under extreme temperature, vibration, and corrosive medium conditions in harsh industrial environment.

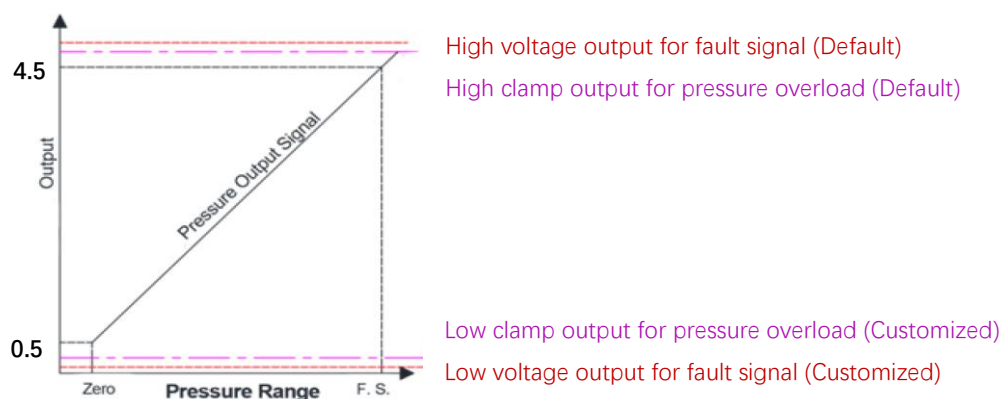
Specification

Item		Parameter			
TEB (Total Error Band) ¹	P< 1bar	Typ. ≤±0.50%FS Max. ≤±1.0%FS ²			-10°C-70°C
	P≥1bar	Typ. ≤±0.25%FS Max. ≤±0.5%FS ²			-20°C-85°C
Output Signal	0.5-4.5V	0.5-2.5V	0-5V/1-5V	0-10V/1-10V	4-20mA
	Ratio Metrics	Voltage			Current
Supply Voltage (SV)	5.0±5%V	3.2-5V	21-30V		10-32V
Supply Current	2.9mA	2.9mA	5.9mA	5.9mA	-
Supply Dependency	-	-	< 0.1%FS / 10V		< 0.1%FS / 10V
Voltage Protected	15V	5V	32V		36V
Max. Load Resistor (RL)	≥ 2kΩ				RL≤(SV-10V)/0.022A
Response Time	1ms				4ms
Over Pressure	3 x FS				
Durability	P: 10~90%FS, >10x 10 ⁶ cycles				
Long term stability	≤0.10% /Year				
1 TEB includes accuracy, Linearity, Hysteresis. Repeat and Thermal effects.					
2 Customized available for TEB≤±0.5% FS in a range of any 100°C.					

Item	Parameter	
Temperature	Medium	-40°C -125°C
	Ambient	-40°C -125°C
	Compensated	-20°C - 85°C
	Storage	-40°C -125°C
EMC-Emission	EN55032 Class B	
EMC-ESD	Contact Discharge: 8KV, Air Discharge 15KV	
EMC-Filed	IEC 61000-4-3, 80-2000MHz 10V/m	
Vibration	IEC 60068-2-6 (Sinus): 20G, 10-2000Hz	
	IEC60068-2-64 (Random): 7.5G rms, 5-1000Hz	
Shock	IEC 60068-2-27: Peak: 100G	

Output & Fault Diagnostics

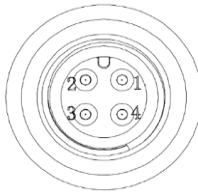
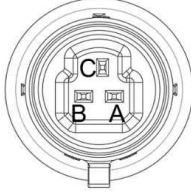
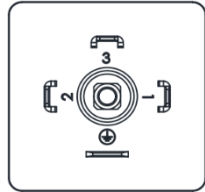
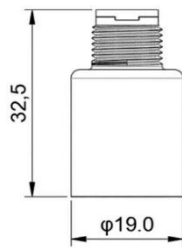
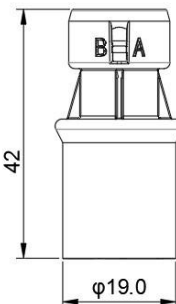
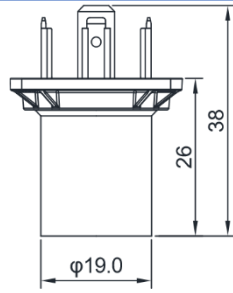
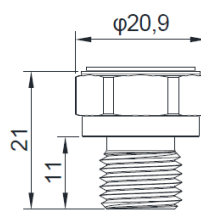
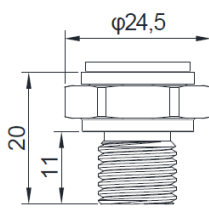
Take output 0.5~4.5 VDC for instance



Item	Parameter						
Zero Offset ¹	Zero offset can be adjustable						
Output Clamp Levels	If pressure overloaded, limits output signal to a setting value;						
Fault Singal Output	Once Pressure Sensor is broken, output a fault signal. Fault signal can be set to high or low, default setting is high						
Output Signal	Ratio Voltage	0.5-2.5V	0-5V	1-5V	0-10V	1-10V	4-20mA
Zero	10%	0.5V	0V	1V	0V	1V	4mA
FS	90%	2.5V	5V	5V	10V	10V	20mA
Span	80%	2V	5V	4V	10V	9V	16mA
Output Clamp Level-Hi	95%	2.7V	≈ 5.5V	≈ 5.5V	≈ 10.53V	≈ 10.53V	21.0mA
Fault Singal-Hi ¹	98%	≈ VDD	N/A	N/A	≈ 11.28V	≈ 11.28V	21.75mA

¹ Please contact us if zero offset or fault signal output is in need.

Connection

Connector Type	M12x1 EN60947-5-2	Packard Metri-Pack	Hirschmann EN175301-803-A
Figure			
Voltage Output	Pin 1: V+ Pin 3: GND	Pin A: GND Pin C: Vout	Pin 1: V+ Pin 3: Vout
Current Output	Pin 2: - Pin 4: -	Pin B: V+ Pin C: -	Pin 2: GND Pin 4: -
Plated Pin	Gold Plated	Tin Plated	
Housing Material	SUS304, PBT+30%GR		
Protection	IP67 for Gauge / IP68 for Abs. and Sealed		
Dimension			
Pressure Thread	 P <5bar G1/4 A Male ED gasket	 P ≥5bar G1/4 A Male ED gasket	

Order Guide

GP6251- Pressure Transmitter										
	□□	Pressure Range			□□	Pressure Range				
	K1	0~100 mbar	G		16	0~16 bar	G/A			
	K3	0~350 mbar	G		25	0~25 bar	G/A			
	01	0~1 bar	G/A		40	0~40 bar	S			
	H3	0~3.5 bar	G/A		60	0~60 bar	S			
	05	0~5 bar	G/A		A0	0~100 bar	S			
	10	0~10 bar	G/A		A6	0~160 bar	S			
		□□	Pressure Type							
		G	Gauge							
		A	Absolute							
		S	Sealed Gauge							
		N	Negative (Default from -1bar)							
			□□	Output Signal				Power Supply		
			R0	0.5-4.5VDC Ratio Metrics				5.0±5%V		
			V0	0.5-2.5VDC				3.2-5VDC		
			V1	0-5VDC				21-30VDC		
			V2	1-5VDC						
			V3	0-10VDC						
			V4	1-10VDC						
			C0	4-20mA						
			□	Electrical Connection						
			1	4 Pin M12						
			2	3 Pin Metri Pack T Male						
			3	EN175301-803-A Male						
			4	Cables 2m						
				□□	Pressure Connector					
				G1	G1/4 M, with ED Gasket					
				G2	G1/4 M, with O-ring					
				G3	G3/8 M, with ED Gasket					
				U1	7/16-20 UNF, Male					
		M1		M12x1.5, Male						
		M2		M10x1.0, Male						
		M3		M8x1.0, Male						
			□	Gasket						
			0	None						
	1		NBR, -40-85°C							
	2		FKM, -20-125°C							
			□	Pressure Buffer						
		W	With							
		N	No							
GP6251-16	G	R0	1	G1	1	N				

Completed Sample: **GP6251-16GR01G11N**