

## GP-6251 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

GP-6251 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

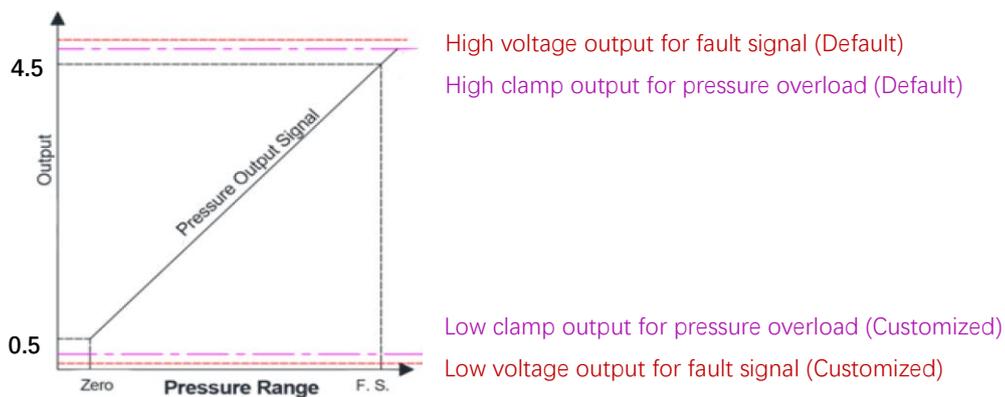
Item	Parameter				
TEB (Total Error Band) <sup>1</sup>	P < 1bar	Typ. $\leq \pm 0.50\%FS$ Max. $\leq \pm 1.0\%FS$ <sup>2</sup>		-10°C-70°C	
	P $\geq$ 1bar	Typ. $\leq \pm 0.25\%FS$ Max. $\leq \pm 0.5\%FS$ <sup>2</sup>		-20°C-85°C	
Output Signal	0.5-4.5V	0.5-2.5V	0-5V/1-5V	0-10V/1-10V	
	Ratio Metrics	Voltage			Current
Supply Voltage (SV)	5.0 $\pm$ 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)	$\geq 2k\Omega$				$RL \leq (SV - 10V) / 0.022A$
Response Time	1ms				4ms
Over Pressure	3 x FS				
Durability	P: 10~90%FS, >10x 10 <sup>6</sup> cycles				
Long term stability	$\leq 0.10\%$ /Year				

1 TEB includes accuracy, Linearity, Hysteresis. Repeat and Thermal effects.  
2 Customized available for TEB  $\leq \pm 0.5\%$  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

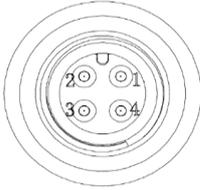
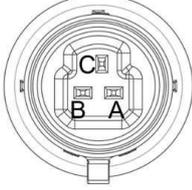
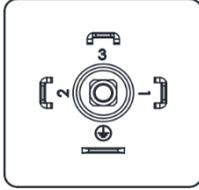
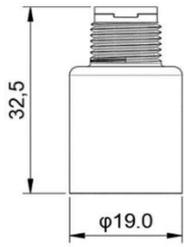
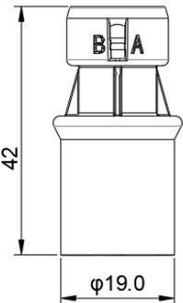
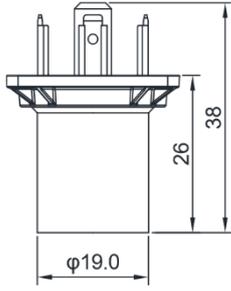
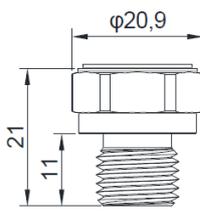
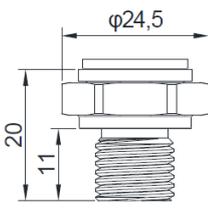
Take output 0.5~4.5 VDC for instance



Item	Parameter						
Zero Offset <sup>1</sup>	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 <sup>1</sup>	98%	≈VDD	N/A	N/A	≈11.28V	≈11.28V	21.75mA

<sup>1</sup> 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 2: Vout Pin 3: GND    Pin 4: -	Pin A: GND    Pin B: V+ Pin C: Vout	Pin 1: V+    Pin 2: GND Pin 3: Vout    Pin 4: -
Current Output	Pin 1: V+    Pin 2: - Pin 3: GND    Pin 4: -	Pin A: GND    Pin B: V+ Pin C: -	Pin 1: V+    Pin 2: GND Pin 3: -    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**

GP-6251		Pressure Transmitter						
<input type="checkbox"/>	<input type="checkbox"/>	Pressure Range			<input type="checkbox"/>	<input type="checkbox"/>	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		
	<input type="checkbox"/>	Pressure Type						
	G	Gauge						
	A	Absolute						
	S	Sealed Gauge						
	N	Negative (Default from -1bar)						
	<input type="checkbox"/>	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						
	<input type="checkbox"/>	Electrical Connection						
	1	4 Pin M12						
	2	3 Pin Metri Pack T Male						
	3	EN175301-803-A Male						
	4	Cables 2m						
	<input type="checkbox"/>	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						
	<input type="checkbox"/>	Gasket						
	0	None						
	1	NBR, -40-85°C						
	2	FKM, -20-125°C						
	<input type="checkbox"/>	Pressure Buffer						
	W	With						
	N	No						
<b>GP6251</b>	<b>16</b>	<b>G</b>	<b>R0</b>	<b>1</b>	<b>G1</b>	<b>1</b>	<b>N</b>	

Completed Sample: **GP-6251-16-G-R0-1-G1-1-N**