

# Model 131G

## Pressure Transmitters for General Purpose



### Description

The 131G is a general purpose pressure transmitter based on glass bonding semiconductor strain gauge technology. Performance and reliability is enhanced by the 17-4PH stainless steel mono-block pressure sensor located in front of 131G transmitter which eliminates both the need for O-ring seal inside the sensor and the common leakage problem.

A number of options are available for both process connection and electrical interface, which makes the 131G suitable for most common industrial application. By selecting proper electrical interface, the 131G transmitter is able to reach the environmental protection rating up to IP67.

Featuring an inner-cavity process connection, the 131G is suitable to measure pressure of gases or dilute fluids with pressure reference of gauge pressure.



### Features

- 17-4PH stainless steel mono-block structure
- measuring ranges: 5bar, ..., 600bar
- safe overload: 300%fs
- burst pressure: 500%fs
- pressure references: gauge
- wide choice of process connection and electrical interface
- protection rating up to IP67

### Applications

- mechanical engineering
- hydraulics and pneumatics
- compressor and pump systems
- liquid level measurement

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### Technical Data

Parameters	Units	Specifications	Notes
pressure medium		gases or dilute fluids	1
pressure references	bar	~5, ~10, ~16, ~25, ~40, ~60, ~100, ~160, ~250, ~400, ~600	2
pressure references	bar	gauge	
proof pressure	%fs	300	3
burst pressure	%fs	500	
output signal	mA	4~20 (standard)	
	V	0.5~4.5 (ratiometric), 0~5, 1~5, I2C	
accuracy	%fs	≤ ±0.5 (standard), ≤ ±1	4
long-term stability	%fs/year	≤ ±0.2	
power supply (Vs)	Vdc	12 < Vs ≤ 36; 5 (for output = 0.5~4.5 V)	
load resistance for voltage output	kΩ	> 5	
load resistance for current loop	Ω	≤ (Vs - 12V) / 0.02A	
insulation resistance	MΩ	500 @100Vdc	
compensated temperature range	°C	-20 ~ +85	
operating temperature range	°C	-40 ~ +125	
storage temperature range	°C	-40 ~ +125	
temperature coefficient of zero	%fso/°C	≤ ±0.03	
temperature coefficient of span	%fso/°C	≤ ±0.03	
vibration resistance (20, ..., 2000 Hz)	g	10	
life time	cycles	10 <sup>8</sup>	
response time	ms	≤ 1	
seal		mono-block	
pressure diaphragm		17-4PH stainless steel	
wetted parts material		17-4PH stainless steel	
electronics housing material		304 SS	
environment protection		IP65 (standard), IP67 (only for cable connection)	
net weight	gram	~200	

- Notes:
1. The pressure medium should be compatible with wetted parts material and pressure diaphragm.
  2. For customized pressure ranges, consult BCM.
  3. "fs" refers to full scale pressure or rated pressure.
  4. Including non-linearity, hysteresis and repeatability.
  5. Response time for a 0 bar to fs step change, 10% to 90% rise time.

The listed specifications and dimensions are subject to change without prior notice.

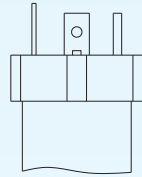
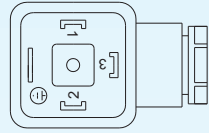
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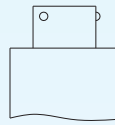
## Pressure Transmitters for General Purpose

### Dimensions

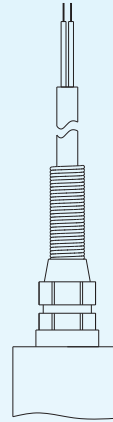
#### electrical interface



DIN43650  
(standard)



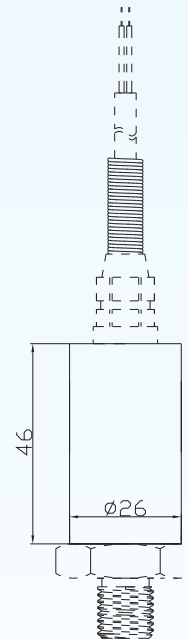
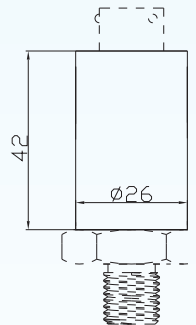
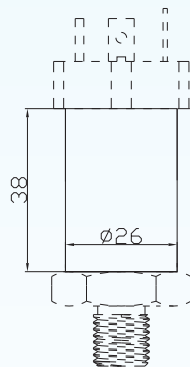
circular connector  
with 4 pins



PVC cable  
Φ5mm

- 2 wires for current loop
- 3 wires for voltage output
- cable length (L) should be specified in ordering information

#### electronics housing (casing)



Notes: All dimensions are in mm.

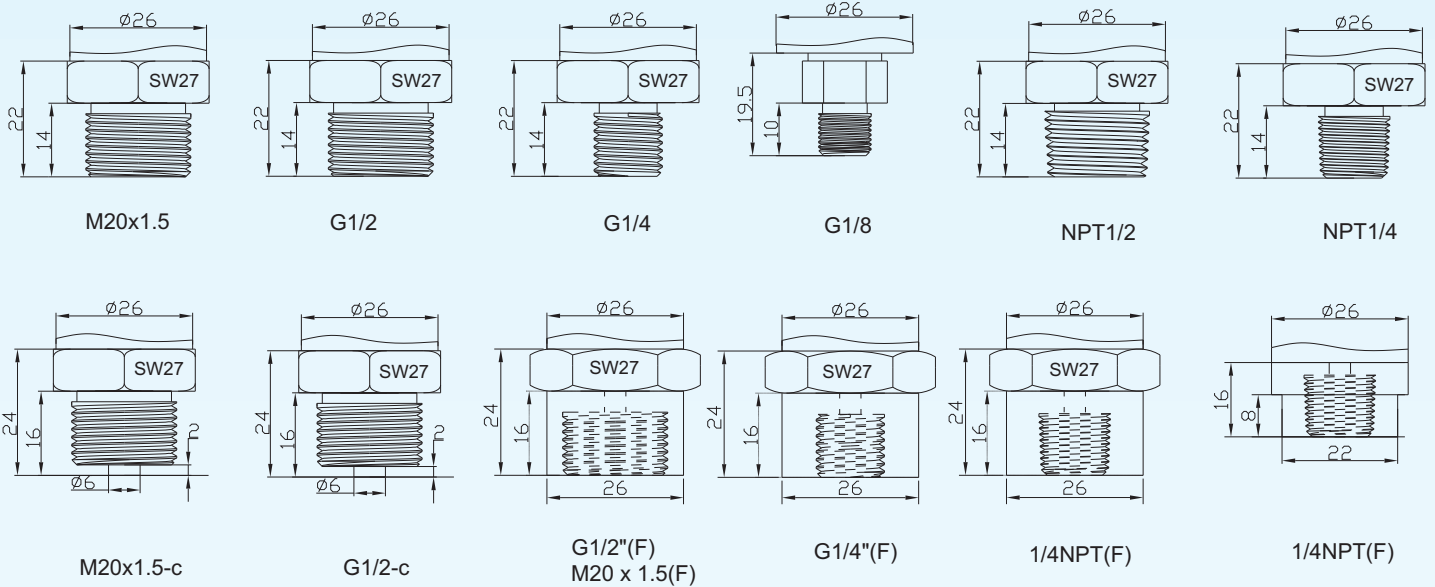
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### mechanical interface



Notes: - All dimensions are in mm.

- The mechanical interfaces and the electrical interfaces listed can be combined freely.
- If other types of interfaces are on request, consult BCM.

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### Ordering Information

<b>position (pos.) 1: model</b>							
131G							
<b>pos. 2: pressure range and reference</b>							
5bar G	60bar G	600bar G	G: gauge pressure				
10bar G	100bar G						
16bar G	160bar G						
25bar G	250bar G						
40bar G	400bar G						
<b>pos. 3: output signal</b>							
4/20mA (standard)	0.5/4.5V (ratiometric)	0/5V	1/5V	I2C			
<b>pos. 4: accuracy</b>							
0.5%fs	1%fs						
<b>pos. 5: mechanical interface</b>							
Refer to the drawings of mechanical interface for available options.							
<b>pos. 6: electrical interface</b>							
DIN43650 (standard) circular connection PVC/Φ5/1m = PVC cable, Φ5mm, L = 1m (this length should be specified)							
<b>pos. 7: environment protection</b>							
IP65		IP67					
<b>pos. 8: customized specifications</b>							
“(*)” is necessary only if any customized parameter is required, otherwise it is neglectable.							
<b>pos.1</b>	<b>pos. 2</b>	<b>pos. 3</b>	<b>pos. 4</b>	<b>pos. 5</b>	<b>pos. 6</b>	<b>pos. 7</b>	<b>pos. 8</b>

### Examples of Ordering Code

- standard transmitter:  
131G-16barG-4/20mA-0.5%fs-G1/2-DIN43650-IP65
- customized transmitter:  
131G-50barG-4/20mA-0.5%fs-G1/4-DIN43650-IP65-(\*)  
(\*): Customized pressure range = 0~50 barG.

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