

# Model 131S

## General Purpose Pressure Transmitters

### Description

The 131S is a silicone piezoresistive pressure transmitter fitting most industrial pressure measurement applications. Due its compact and rugged design, this model is suitable for applications of processing and control operations such as hydraulics, pneumatics, test equipment, liquid level measurement, compressor and pump control, etc. With various options of process connection and electrical interface, the 131S can be fitted into almost all common systems.

The 131S consisting of a stainless steel diaphragm, wetted part, and housing can be used for measurements involving hostile media compatible with 316 stainless steel. Featuring an inner-cavity process connection, the transmitter is specially designed to measure pressure of gases or dilute fluids with pressure reference of gauge, absolute, or sealed gauge.

By selecting proper electrical interface, the 131S is able to reach the environmental protection rating up to IP67.



### Features

- measuring ranges: 0.35bar, ..., 600bar
- pressure references:  
gauge, absolute, and sealed gauge
- accuracy up to 0.25%fs
- selectable output:  
4~20 mA (standard), 0.5~4.5V ratiometric and others.
- 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
- test equipment

**BCM SENSOR TECHNOLOGIES BVBA**

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### Technical Data

Parameter		Units	Specifications	Notes
pressure medium			viscous fluid or fluid with particles	1
pressure references & ranges	gauge	bar	0~0.35, ~0.6, ~1, ~1.6, ~2.5, ~4, ~6, ~10, ~16, ~25, ~40	2
	absolute	bar	0~1, ~1.6, ~2.5, ~4, ~6, ~10, ~16, ~25, ~40	
	sealed gauge	bar	0~10, ~16, ~25, ~40, ~60, ~100, ~160, ~250, ~400, ~600	
overload pressure		%fs	150	3
burst pressure		%fs	200	
output signal		mA	4~20 (standard)	
		V	0.5~4.5 (ratiometric), 0~5, 1~5	
		digital	I <sup>2</sup> C	
accuracy		%fs	≤ ±0.25 (standard), ≤ ±0.5	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	5
seal			O-ring (fluorine rubber)	
pressure diaphragm			316L SS	
wetted parts material			316 SS	
electronics housing material			304 SS	
filling oil			silicone oil (standard), fluorine oil	6
environment protection			IP65 (standard), IP67 (only for cable connection)	
net weight		gram	~180	

- 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.
  6. Fluorine oil can be used for in food and oxygen industry

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

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