

Model 112S

DIP Mounting Pressure Sensors with Plastic Housing



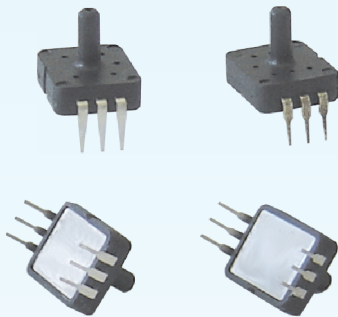
The key component of 112S pressure sensor is the piezoresistive silicon die (model SE103). This die is mounted on a substrate. A plastic cap, which provides both protection and pressure interface with a molded tube, is used to cover the die. The electrical interface of 112S pressure sensor is 6-pin Dual In-line (DIP) configuration.

Model 112S pressure sensor can be used to measure either gauge pressure (G) or absolute pressure (A). The pressure ranges of 112S span from 0~0.35 to 0~7 bar. The non-linearity of the sensor is 0.3%fso (fso = full scale output). These sensors can be excited either by constant current or constant voltage. The output signal is unconditioned mV signal.

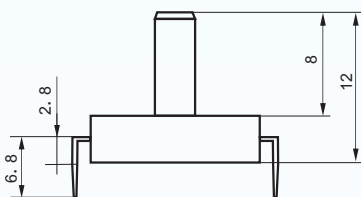
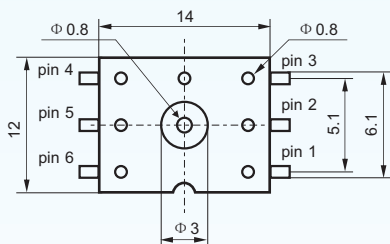
Model 112S pressure sensors are designed for PCB mounting applications which requiring components of small size, lightweight and low cost.

Features:

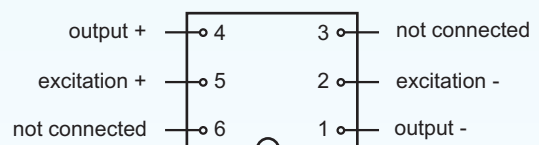
- low pressure ranges of 0~0.35, ..., 0~7 bar (G, A)
- full scale output: > 70mV
- non-linearity of 0.3 %fso
- operating temperature range of -20 ~ +85°C
- no temperature compensation
- Dual In-line Package (DIP)
- molded pressure tube as pressure port



Dimensions:



Electrical connection:



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Technical data:

parameters	units	specifications
pressure media		non-electroconductive (suggested insulation resistance >20MΩ) and non-corrosive gases or dilute liquids
pressure ranges and types	bar, G	0~0.35, ~1, ~2, ~7
	bar, A	0~1
overload pressure	%FS	200
full scale output	mV	≥ 70
zero offset	mV	± 20
excitation	mA (recommended)	1.5, max. 3
	Vdc	5, max. 10
non-linearity (NL)*	%FSO	≤ ± 0.3
hysteresis	%FSO	≤ ± 0.15
repeatability	%FSO	≤ ± 0.2
response time	ms	1 (front edge 10% - 90%)
input resistance	kΩ	3.3 ± 25%
output resistance	kΩ	3.3 ± 25%
insulation resistance	MΩ	100 @ 100 Vdc
storage temperature range	°C	-30 ~ +125
operating temperature range	°C	-20 ~ +85
temp. coefficient-SPAN	%FSO/°C	± 0.27
temp. coefficient-ZERO	%FSO/°C	± 0.07
temp. coefficient-resistance	%FSO/°C	≤ 0.33
long-term stability	%FSO/year	0.2
fatigue life	cycles	10 ⁸
humidity limit	%RH	80
wetted parts materials		glass, ryton, silicon, fluorosilicon and gold
net weight	g	~ 1

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

Reference of test conditions: excitation = 1.5 mA, T = 25 °C, humidity = 40 %RH.

*: NL is calculated using "least square method".

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Ordering code:

example: 112S - 035 - G - c - Cxxxx

model
112S

pressure ranges & available pressure types
035 = 0~350 mbar, G
1 = 0~1 bar, G, A
2 = 0~2 bar, G
7 = 0~7 bar, G

pressure types
G = gauge pressure
A = absolute pressure

excitation method
c = 1.5 mA (recommended, max. 3 mA)
v = 5 Vdc (max. 10Vdc)

Cxxxx: This is a customized code given by the customer who can use this code to indicate his desired/wished specifications of the sensor to be ordered on his order sheet. The code starts with a "C" and is followed by 4 digits, the customer can use the 4 digits to indicate the month and date when he requests this customized specifications. The sales team of BCM will confirm this customized specifications when sending BCM's <<Order Confirmation>>.

ordering code explanation: 112S - 035 - G - c

Model 112S pressure sensor for gauge pressure measurement in 0~350 mbar range. This sensor is excited by constant current of 1.5 mA. No customized requests.



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