



## Features

- ◆ Low Cost
- ◆ SMD Package
- ◆ Constant Current or Constant Voltage Drive
- ◆ Close Bridge or Open Bridge
- ◆ High Output
- ◆ Wide Pressure Range Available from 30psi to 800psi

## Applications

- ◆ Medical Instrumentation
- ◆ Altimeter
- ◆ Weather Forecast
- ◆ Tire Gauge
- ◆ Pressure Gauge
- ◆ Industrial Sensor
- ◆ Home Appliances

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## Specification

Type of package	DIP or SMD
Pressure medium	Air or non-corrosive gas

	Min	Nominal	Max	Unit
Excitation Voltage	--	5	10	V
Excitation Current	--	1.00	2.00	mA
Bridge Impedance	4	5	6	kΩ
Positive pressure Span <sup>1</sup>				
30 psi	70	100	130	mV
100 psi	75	100	125	mV
150 psi	113	150	188	mV
300 psi	70	100	130	mV
800 psi	170	250	330	mV
Negative pressure Span <sup>2</sup>				
-14.7~0psi(30 psi)	-45	-50	-65	mV
-14.7~0psi(100psi)	-15	-10	-20	mV
-14.7~0psi(150psi)	-15	-10	-20	mV
-14.7~0psi(300psi)	-3	-5	-7	mV
-14.7~0psi(800psi)	-3	-5	-7	mV
Offset(Absolute /Gauge)	-30	±10	+30	mV
TC Span <sup>3</sup>	-0.17	-0.22	-0.27	%FS/°C
TC Offset <sup>3</sup>	-0.08	-0.02	+0.08	%FS/°C
Linearity <sup>4</sup>	-0.3	±0.05	+0.3	%FS
Hysteresis	-0.3	±0.1	+0.3	%FS
Proof Pressure <sup>5</sup>			2X	Rated FS
Burst Pressure <sup>5</sup>			3X	Rated FS
Operating Temperature	-40		125	°C
Storage Temperature	-55		150	°C



## US9011 Silicon Pressure Sensor

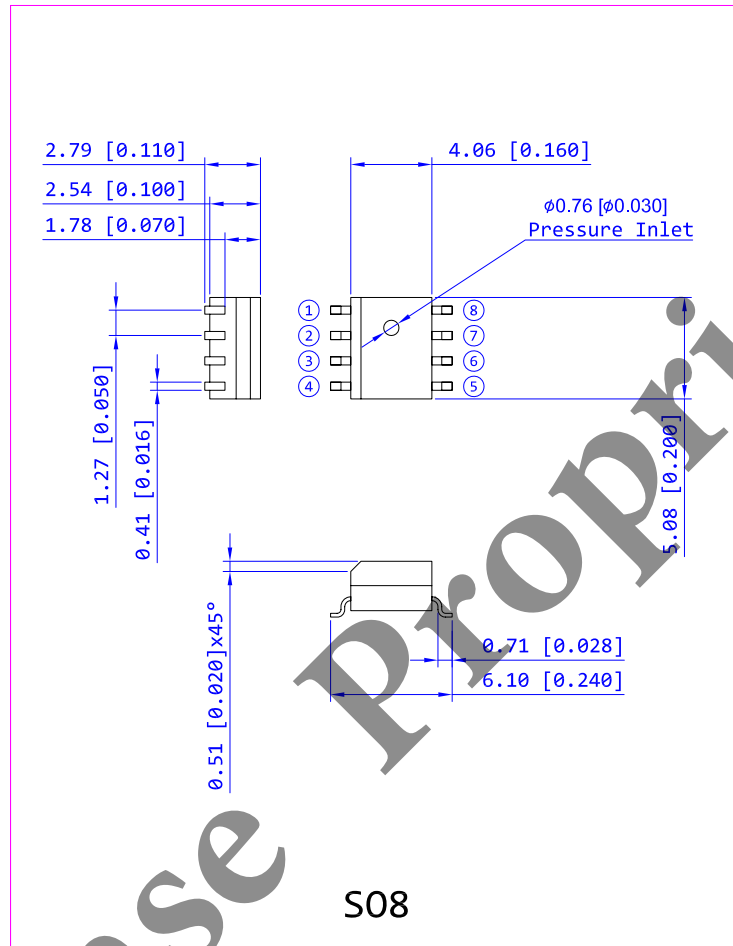
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- <sup>1</sup> Unless otherwise specified, Span is measured at 5.0V Constant Voltage supply at 25°C. (Positive signal when diaphragm deflects upward.)
- <sup>2</sup> Unless otherwise specified, span is measured at 5.0V Constant Voltage supply at 25°C. (Negative signal when diaphragm deflects downward.)
- <sup>3</sup> Unless otherwise specified, temperature coefficients are measured from 0°C to 50°C @ 5V Constant voltage excitation
- <sup>4</sup> Defined as best straight line.
- <sup>5</sup> Proof Pressure and Burst Pressure for high pressure type(150 psi or above) is 1.5X rated FS.

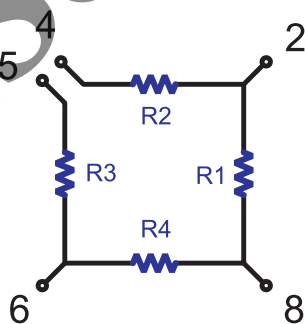
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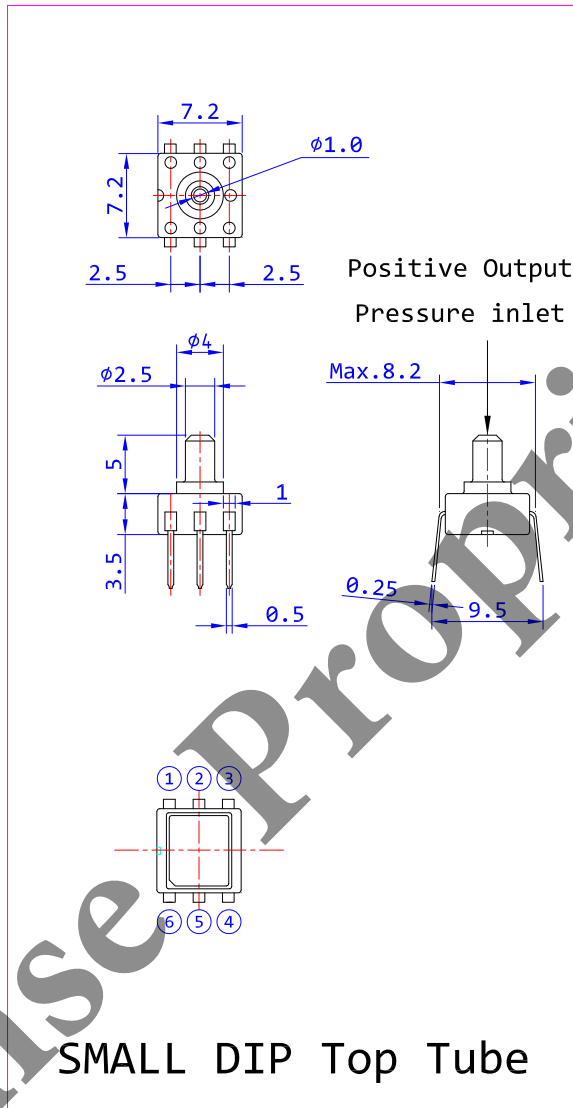
**Pads Layout and Definition**



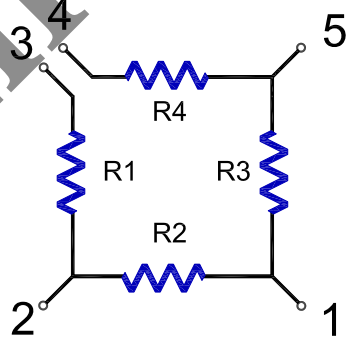
Unit: mm[in]



Pin	SO8
1	N/C
2	S+
3	N/C
4	Gnd
5	Gnd
6	S-
7	N/C
8	Ext



Unit: mm

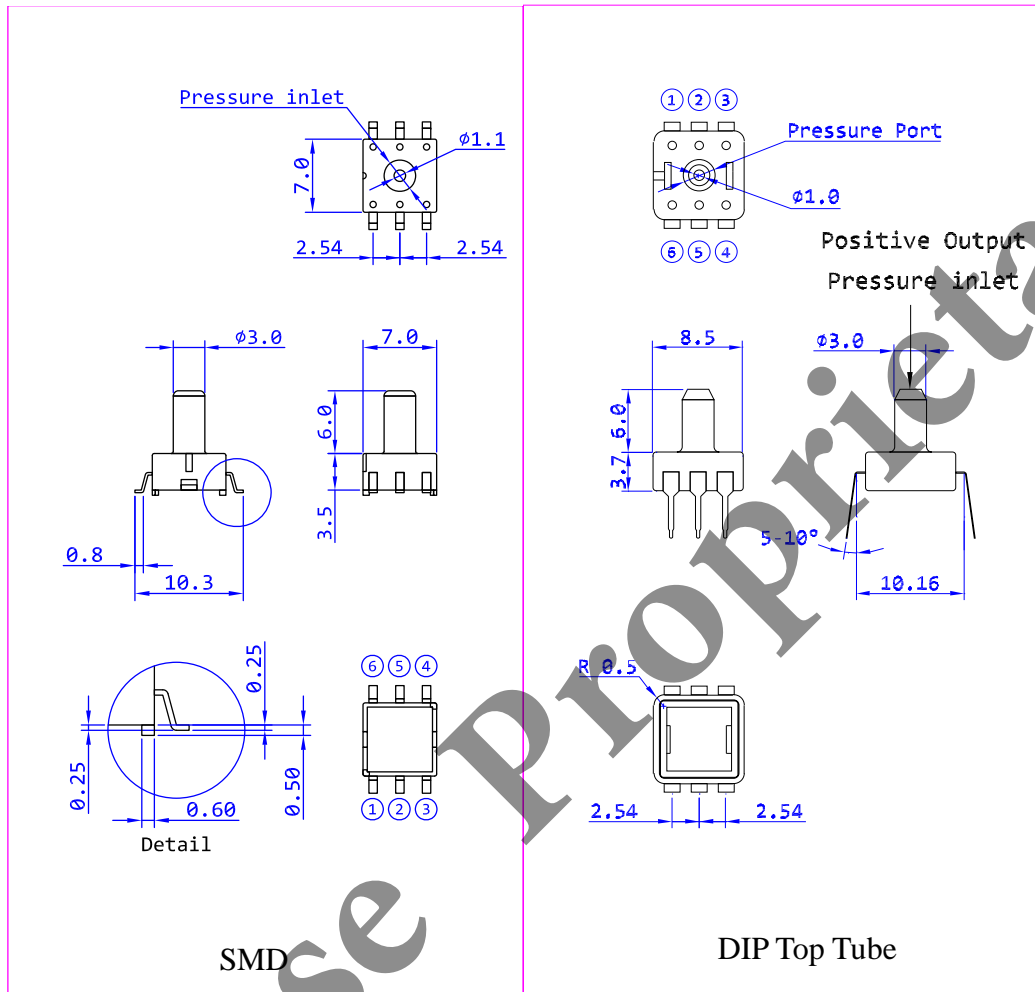


Pin	Definition
1	Ext
2	S+
3	Gnd
4	Gnd
5	S-
6	N/C

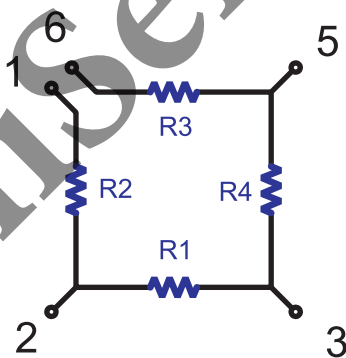


# US9011 Silicon Pressure Sensor

## Tube type



Unit: mm



Pin	Definition
1	Gnd
2	S+
3	Ext
4	N/C
5	S-
6	Gnd

## Ordering Information

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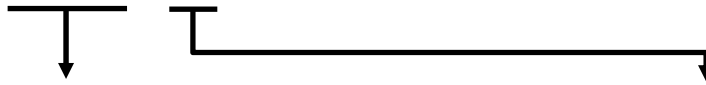
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Ver. 5.0  
SP-016



**US9011**  
Silicon Pressure Sensor

US – 9011 - □□□ - □



030	30 psi,
100	100 psi,
150	150 psi,
300	300 psi,
800	800 psi,
K20	1200 psi,

8	SO8
N	SMALL DIP Top tube
S	SMD Top tube
D	DIP Top tube

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