



## US9111 Series Semiconductor Pressure Sensor

### Description

The US9111 series pressure sensor features a micro machined silicon solid-state sensor packaged in a 6-pin dual in-line package or 8-pin (SO8) or 6-pin(SO6) SMT package. All parts in this series are uncompensated high-performance die mounted on a substrate with a plastic cap. Pins are designed for through-board assembly. The US9111 is ideal for applications requiring low hysteresis, high reliability and stability.

With constant voltage excitation or constant current excitation, the US911 produces a voltage output that is linearly proportional to the input pressure. The user can add on external signal conditioning circuitry to amplify the output signal and maximize its performance. The US9111 is compatible with most noncorrosive gases and dry air.

### Features

Low Cost

Gauge Version and Absolute Version

High Output

Constant Current or Constant Voltage Drive

Wide Pressure Range Available from 1psi to 60psi

### Applications

Medical Instrumentation

Altimeter

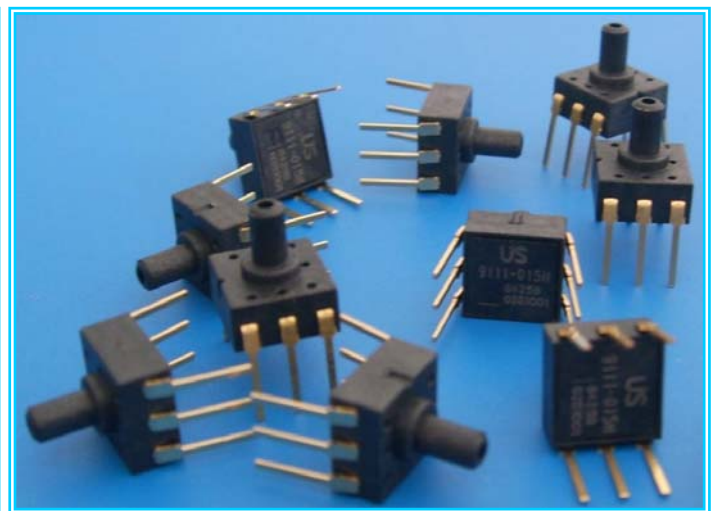
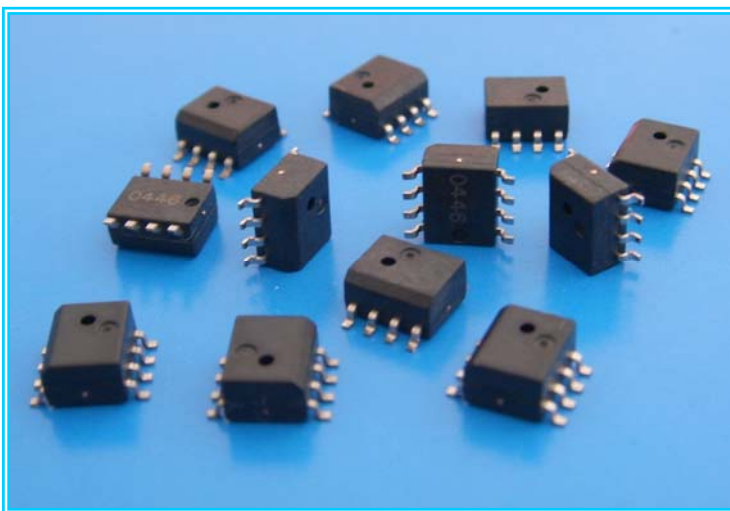
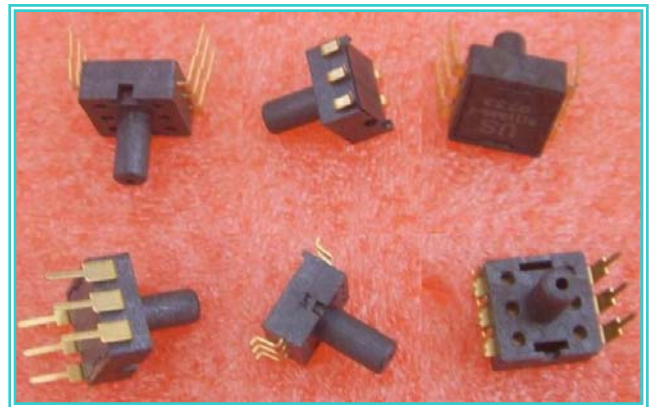
Weather Forecast

Tire Gauge

Pressure Gauge

Industrial Sensor

Home Appliances





## US9111 Series Semiconductor Pressure Sensor

### Specification

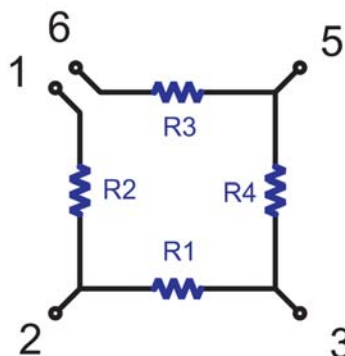
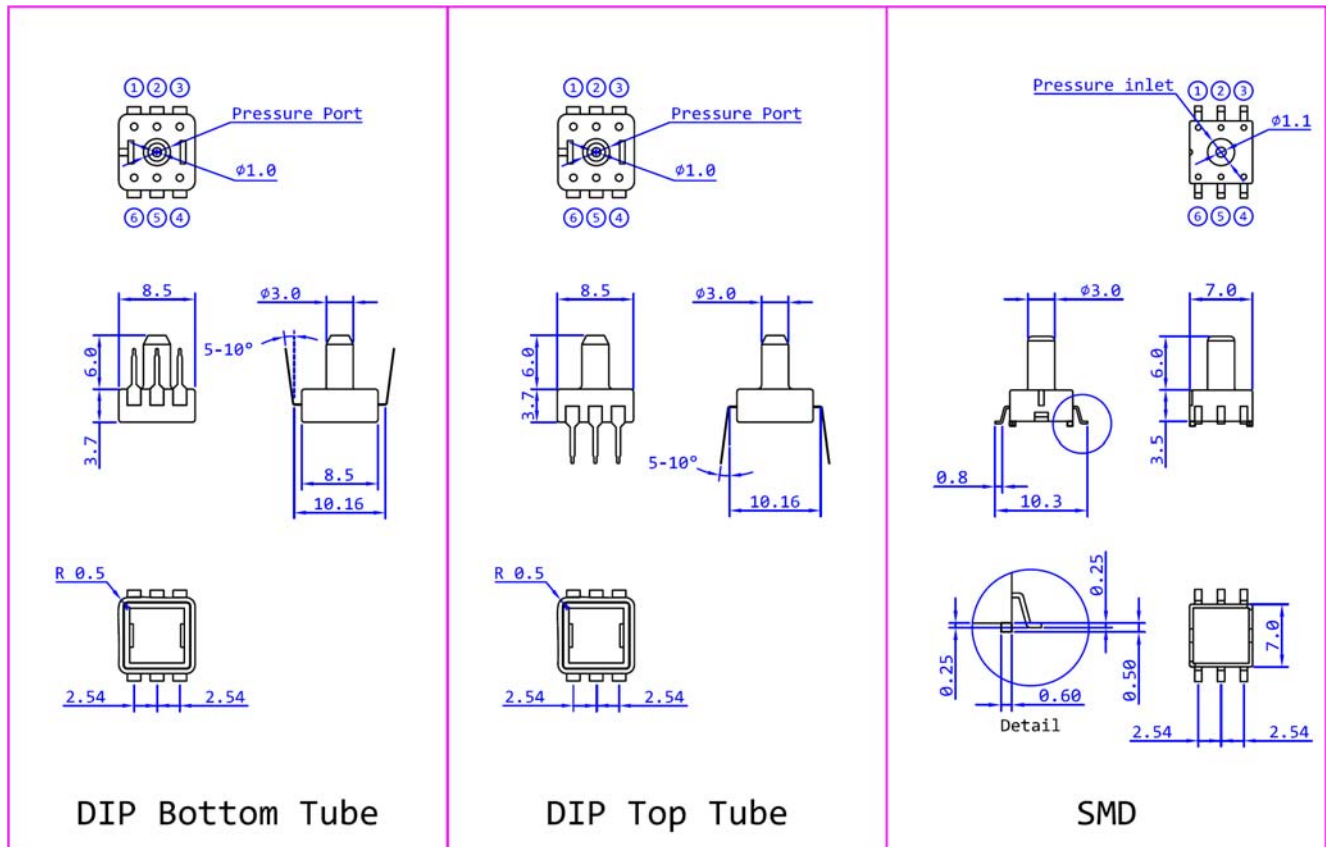
Type of pressure	Absolute type or gauge type			
Type of package	DIP or SMT			
Pressure medium	Air or non-corrosive gas			
	Min	Nominal	Max	Unit
Excitation Voltage	--	5	10	V
Excitation Current	--	1.00	2.00	mA
Bridge Impedance	4	5	6	kΩ
Span1				
1psi	20	30	40	mV
5.8psi	40	70	100	mV
5.8psi*	75	100	125	mV
15psi	75	100	125	mV
15psi**	130	170	210	mV
30psi	70	100	130	mV
60psi	140	190	240	mV
Offset	-30	0	+30	mV
TC Span2(Constant Voltage)	-0.17	-0.22	-0.27	%FS/°C
TC Span2(Constant Current)	-0.05	-0.02	+0.05	%FS/°C
TC Offset2	-0.05	-0.02	+0.05	%FS/°C
Linearity3	-0.3	±0.1	+0.3	%FS
Hysteresis	-0.3	±0.1	+0.3	%FS
Proof pressure			2x	Rated Fs
Burst pressure			3x	Rated Fs
Operating Temperature	-40		+125	°C
Storage Temperature	-55		+150	°C
<p>1、 Unless otherwise specified, span is measured at 5.0V Constant Voltage supply at 25°C.            2、 Unless otherwise specified ,Temperature coefficients are Measured from 0°C to 50°C @ 5V Constant voltage excitation.            3、 Defined as best straight line.            * 5.8 psi high sensitivity type ** 15 psi high sensitivity type, linearity characterized at 700mbar and 1100mbar</p>				



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### Pads Layout and Definition (unit mm)

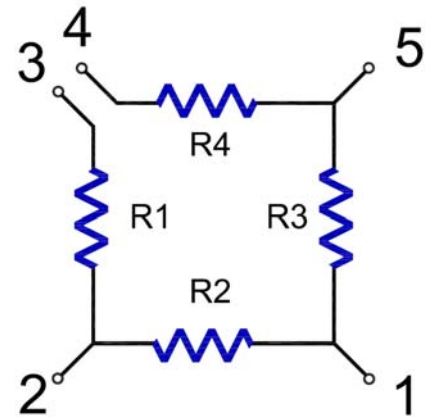
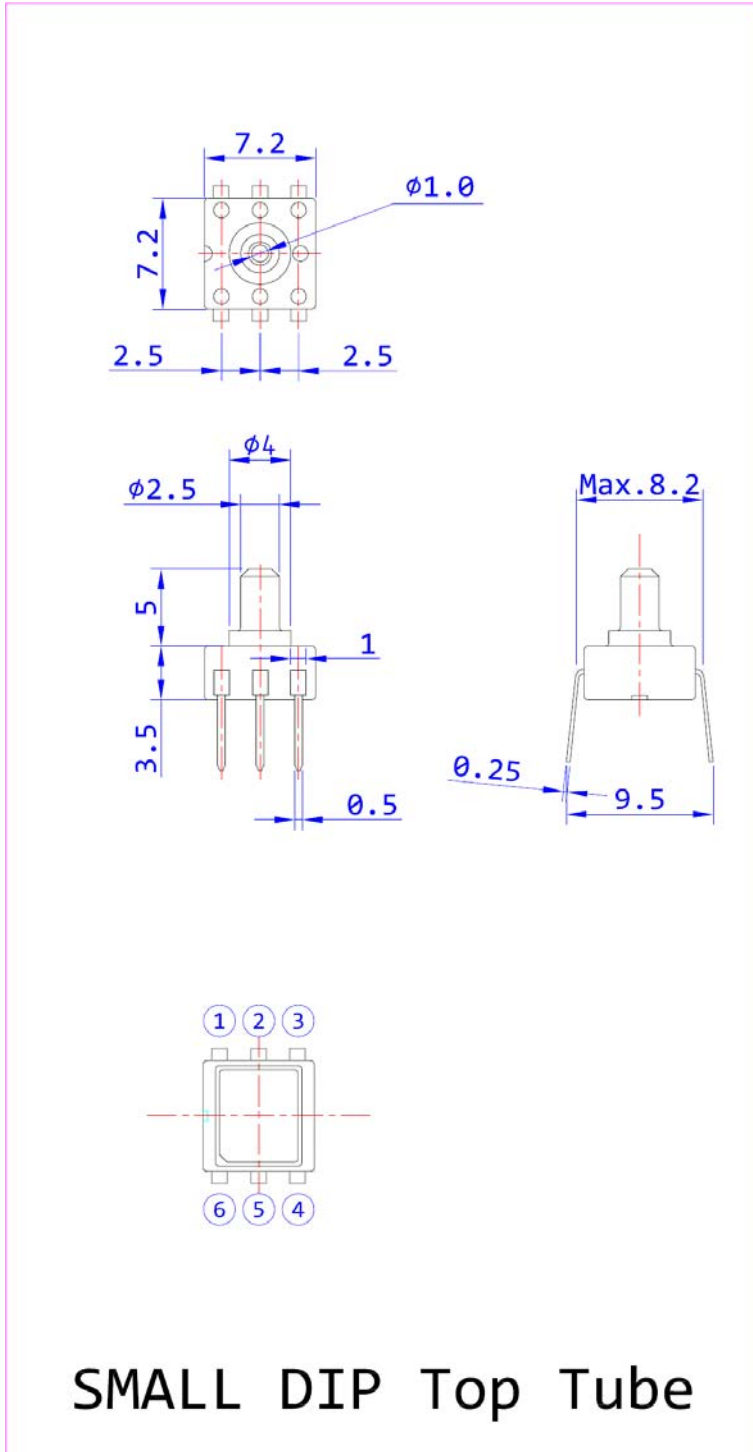
#### Tube type



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



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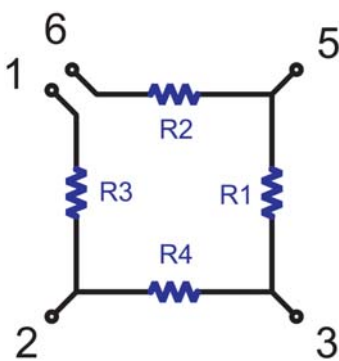
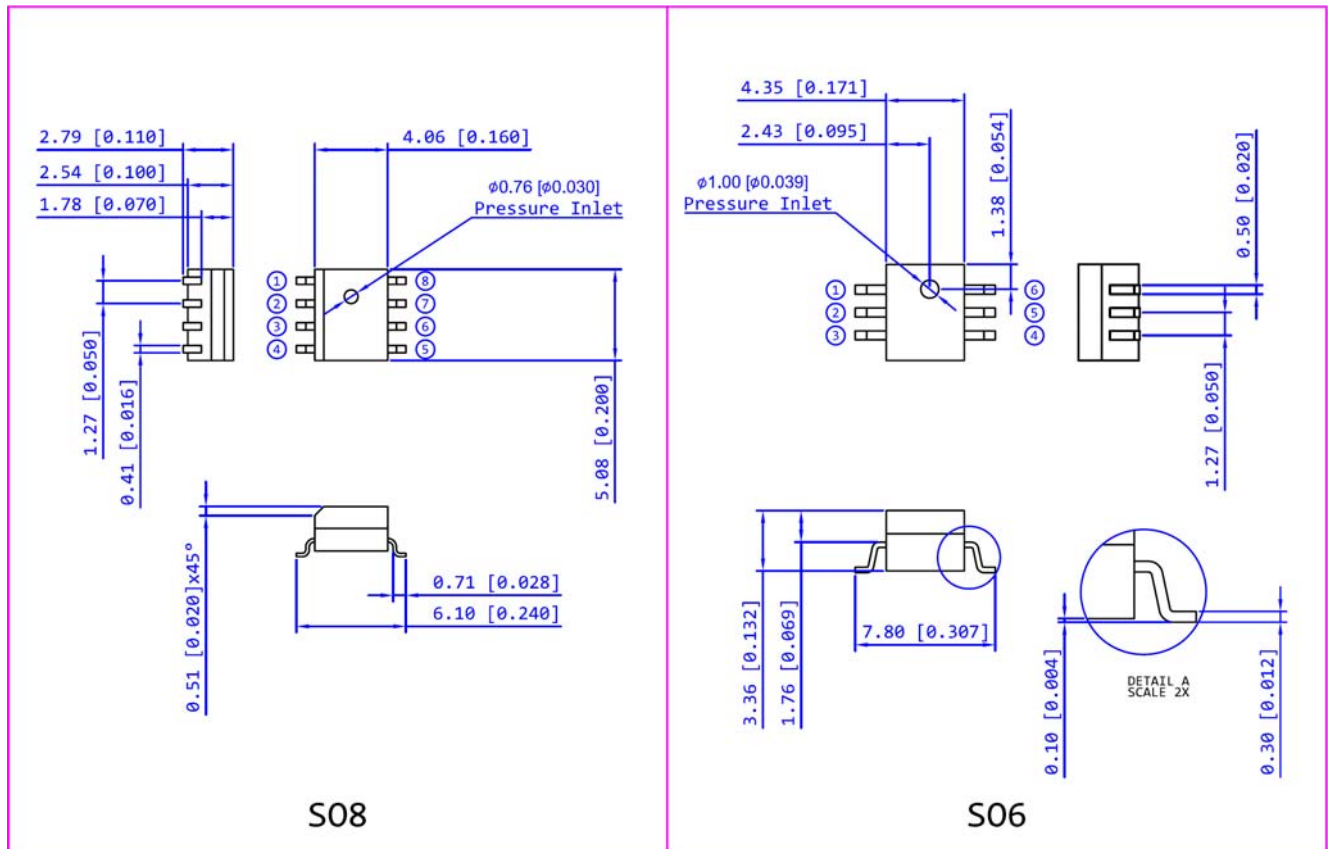


Pin	Definition
1	Ext
2	S+
3	Gnd
4	Gnd
5	S-
6	N/C

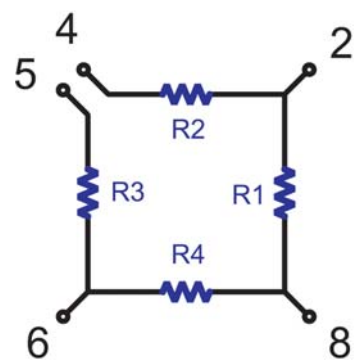


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HoleType

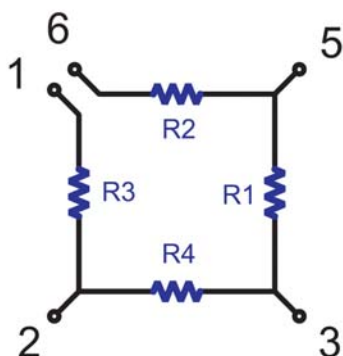
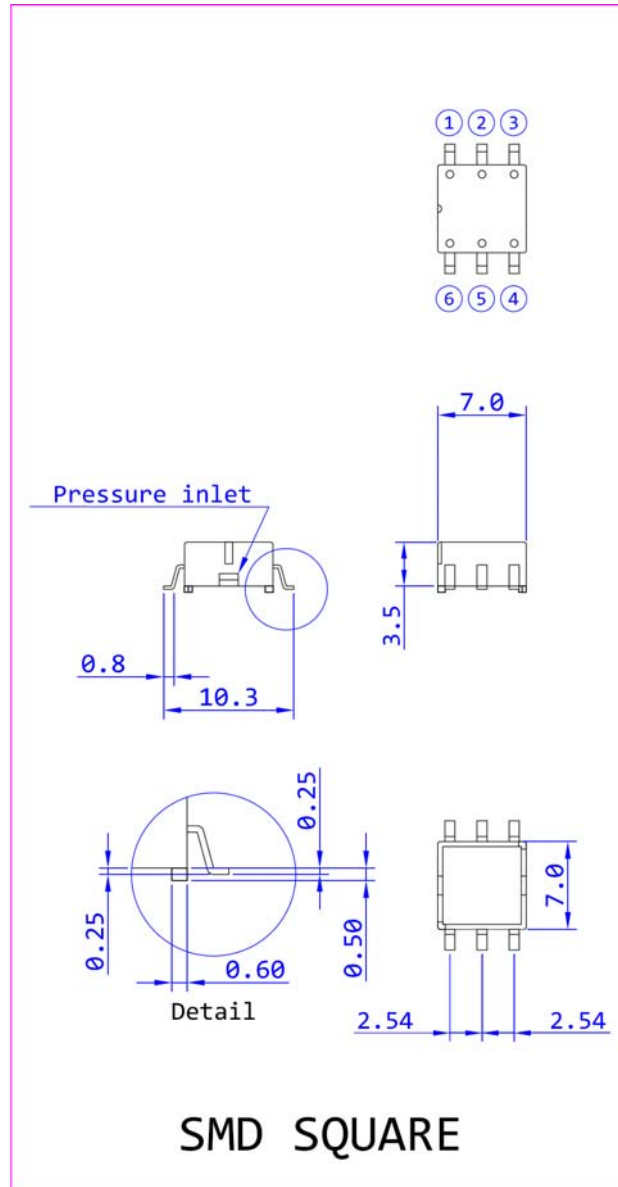


SO6	Pin	SO8
Gnd	1	N/C
S-	2	S+
Ext	3	N/C
N/C	4	Gnd
S+	5	Gnd
Gnd	6	S-
	7	N/C
	8	Ext

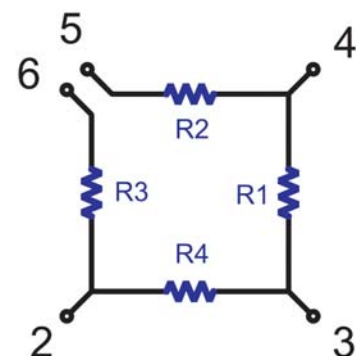




US9111 Series Semiconductor Pressure Sensor



H15	Pin	D15
Gnd	1	N/C
S-	2	S-
Ext	3	Ext
N/C	4	S+
S+	5	Gnd
Gnd	6	Gnd





**US9111 Series Semiconductor Pressure Sensor**

Ordering Information

US-9111-□□□-□

001	1psi
006	5.8psi
H06	5.8psi High sensitivity type
015	15psi
H15	15psi High sensitivity type
D15	15psi High sensitivity type
030	30psi
060	60psi

U	DIP Bottom tube
D	DIP TOP tube
S	SMT Top tube
6	SO6 Hole
8	SO8 Hole
R	SMT Without Hole
N	Small DIP Top tube