

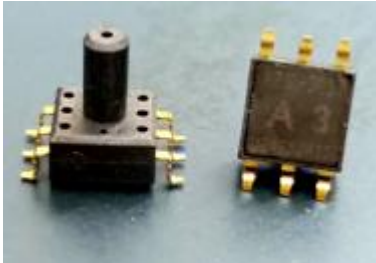

## MPS-3110 series Pressure Sensor

### ■ Features

- Competitive price SMD package
- Wide operating temperature range:- 40 to +85°C
- Solid-state reliability
- Easy to Use
- Easily Embedded in OEM Equipment
- Gauge pressure type ( 1 、 5.8 、 15 、 30 、 100 PSI )

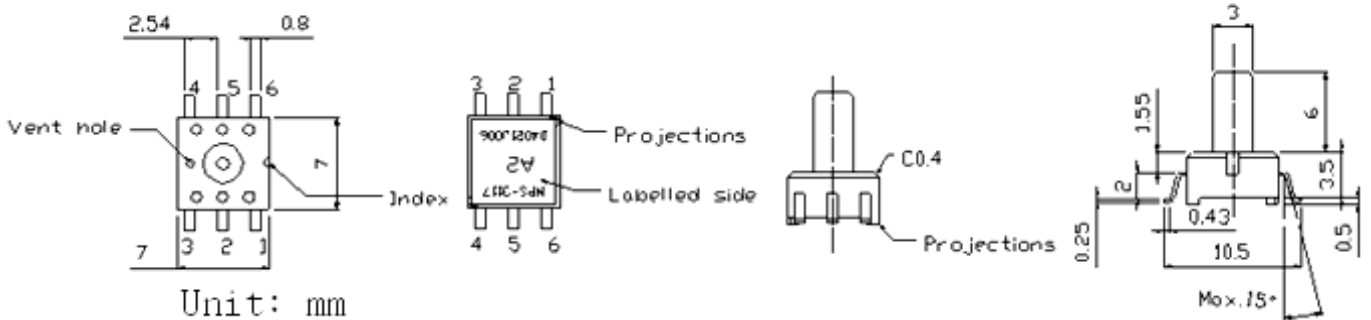
### ■ Applications

- Digital blood pressure meter
- Digital pressure gauges
- Environmental monitoring
- Consumer & sports
- Medical instrumentation & monitoring
- Disposable blood pressure sensor

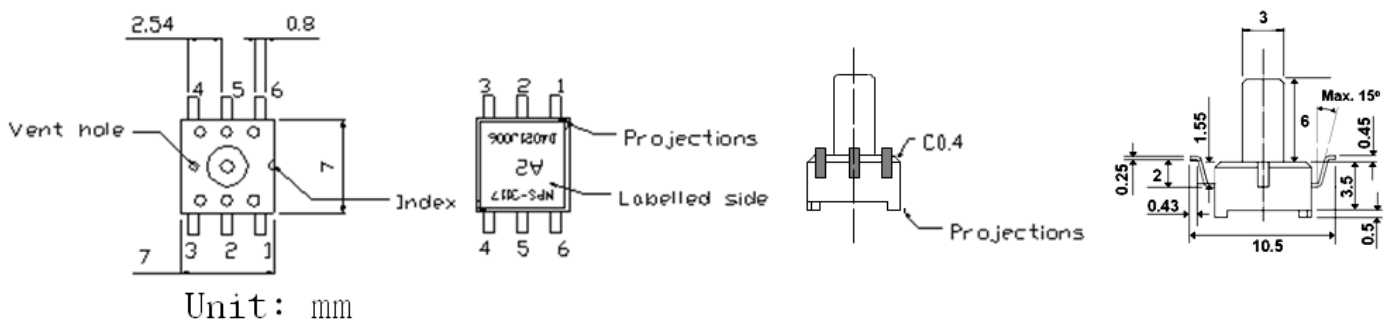
Pressure type	Gauge	
	MPS-311X_GC series	MPS-311X_GRC series
Model		

### ■ Outline dimensions

#### MPS-311X\_GC series



#### MPS-311X\_GRC series

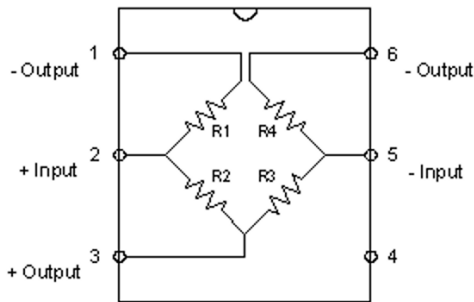


## ■ Specifications

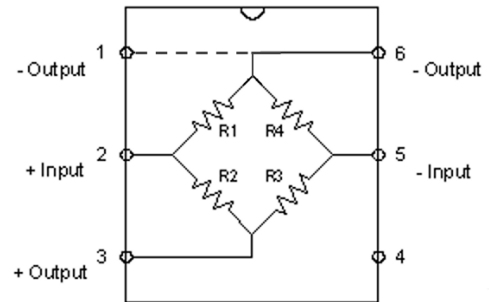
Parameter	Min	Typ	Max	Units	Notes
<b>General</b>					
Pressure Range	1 · 5.8 · 15 · 30 · 100			PSIG	40 KPaG
Maximum Overpressure			2X		Rated pressure
Operating Temperature Range	-40		85	°C	-40 °F ~+185°F
Storage Temperature Range	-40		125	°C	-40 °F ~+257 °F
Operating humidity	15		85	% RH	No condensation
Media Compatibility	Clean, dry air & noncorrosive gases				
<b>Electrical performance<sup>(1)</sup></b>					
Excitation voltage	2	5	15	Vdc	
Excitation current					(5)
3.3kOhm (MPS-3113)	0.6	1.5	4.5	mA	
5kOhm (MPS-3117 · MPS-3118)	0.4	1	3		
Bridge resistance					
3.3kOhm (MPS-3113)	2.7	3.3	3.9	kΩ	
5kOhm (MPS-3117 · MPS-3118)	4	5	6		
Offset Voltage	-25		25	mV	
Full Scale Span Voltage					
1 PSI (MPS-3117)	20	30	40	mV	
5.8 PSI (MPS-3117)	50	75	100		
5.8 PSI (MPS-3113 · MPS-3118)	20	45	70		
15 PSI (MPS-3117)	130	170	210		
15 PSI (MPS-3113 · MPS-3118)	70	100	130		
30 PSI (MPS-3118)	80	110	140		
100 PSI (MPS-3118)	70	120	170		
Linearity				% Span	(2)
1 PSI	-0.7	0.15	0.7		
5.8, 15, 30, 100 PSI	-0.3	0.05	0.3		
Temperature Coefficient of Zero Offset				% Span/°C	(3)
1 PSI	-0.22		0.22		
5.8, 15, 30, 100 PSI	-0.08		0.08		
Temperature Coefficient of Span	-0.16	-0.21 <sup>(4)</sup>	-0.26	%Span/°C	Const. Voltage excitation (3)
	-0.05	0.025 <sup>(5)</sup>	0.05		Const. Current excitation (3)
Temperature Coefficient of Resistance	0.17	0.2	0.23	%/°C	(3)
Notes :					
1. Unless otherwise specified, measurements were taken with a supply voltage of 5 Vdc at a temperature of 25±3°C and humidity ranging from 25% ~85% .					
2. Best fit straight line.					
3. Between 0°C and 50°C. Temperature coefficients are typical values.					
4. Measured only with constant voltage excitation ( 5V ) .					
5. Measured only with constant current excitation ( 1mA for 5kOhm sensor ; 1.5mA for 3.3kOhm sensor ) .					
Metrodyne Microsystem Corp. reserves the right to make changes to the product specification in this publication.					

## Terminal connection diagram (Bottom view)

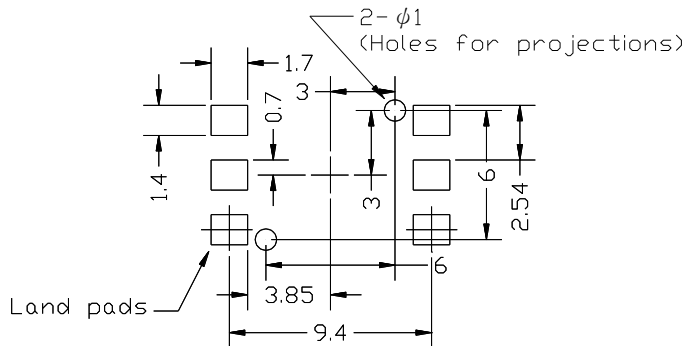
(1)



(2)



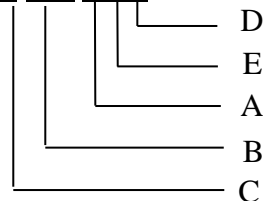
## Recommended footprint



Unit:mm

## Ordering information

MPS-3 1 1 7-006 GRC



A	Pressure type	B	Pressure range
G	Gauge	001	1 PSI
		006	5.8 PSI
C	Feature	015	15 PSI
3	3.3kOhm	030	30 PSI
7	High sensitivity	100	100 PSI
8	Low sensitivity	D	Cover material
E	Lead direction	C	Plastic cover
R	The same direction as the tube		
N/A	Opposite direction to the tube		

Part No.	Pressure type	Pressure range	Feature	Note
MPS-3117-001GC / GRC	Gauge	1 PSI	5kΩ	Plastic cover
MPS-3113-006GC / GRC	Gauge	5.8 PSI	3.3kΩ	Plastic cover
MPS-3117-006GC / GRC	Gauge	5.8 PSI	5kΩ	High sensitivity
MPS-3118-006GC / GRC	Gauge	5.8 PSI	5kΩ	Plastic cover
MPS-3113-015GC / GRC	Gauge	15 PSI	3.3Ω	Plastic cover
MPS-3117-015GC / GRC	Gauge	15 PSI	5kΩ	High sensitivity
MPS-3118-015GC / GRC	Gauge	15 PSI	5kΩ	Plastic cover
MPS-3118-030GC / GRC	Gauge	30 PSI	5kΩ	Plastic cover
MPS-3118-100GC / GRC	Gauge	100 PSI	5kΩ	Plastic cover

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