

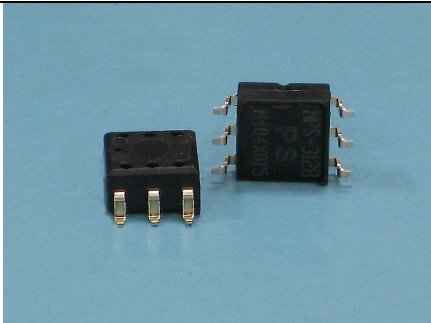
MPS-3120 series Pressure Sensor

■ Features

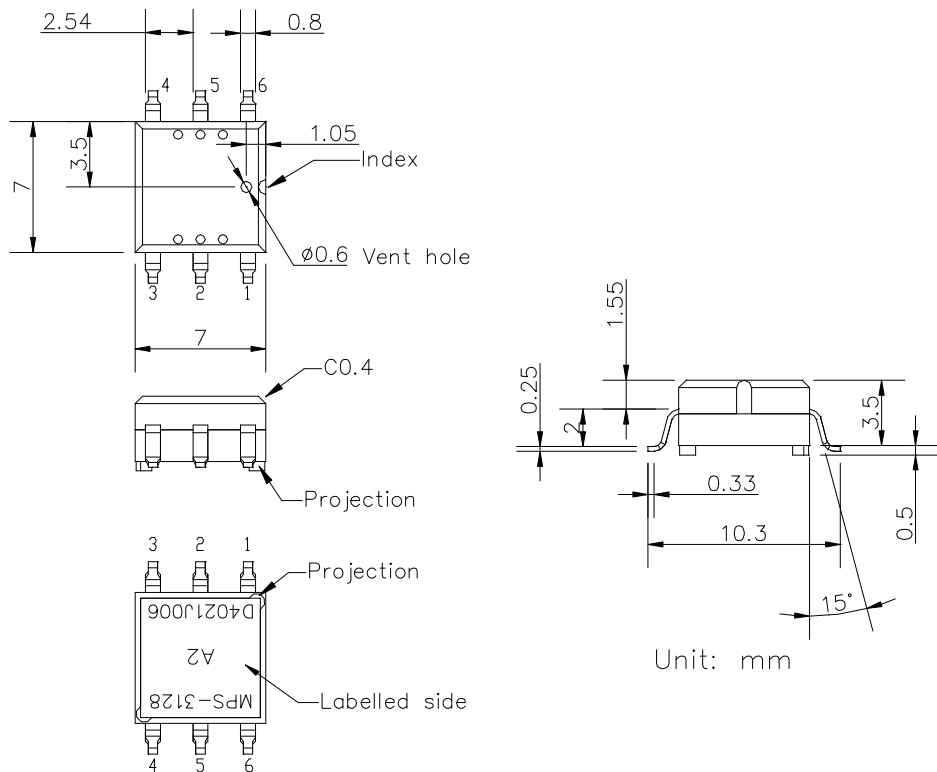
- Competitive price SMD package
- Wide operating temperature range:- 40 to +85°C
- Solid-state reliability
- Easy to Use
- Easily Embedded in OEM Equipment
- Absolute pressure type (5.8 、 15 、 30 、 100psi)

■ Applications

- Digital altitude meter
- Digital pressure gauges
- Digital barometer
- Environment monitoring
- Consumer & sports
- Medical instrumentation & monitoring

Pressure type	Absolute
Model	

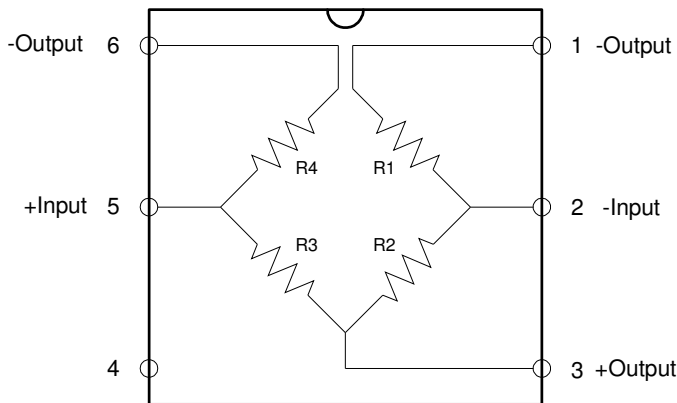
■ Outline dimensions



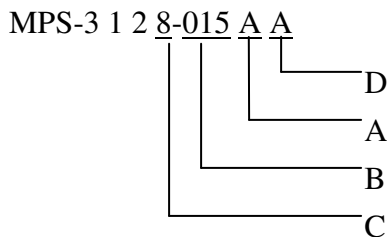
■ Specifications

Parameter	Min	Typ	Max	Units	Notes
General					
Pressure Range	5.8 · 15 · 30 · 100			PSI	
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				
Electrical performance⁽¹⁾					
Excitation voltage	2	5	15	Vdc	
Excitation current	0.4	1	3	mA	(5)
Bridge resistance	4	5	6	kΩ	
Offset Voltage					
5.8 · 15 · 30 PSI	-25		25	mV	
100 PSI	-35		35		
Full Scale Span Voltage					
5.8 PSI (MPS-3127)	50	75	100	mV	
15 PSI (MPS-3127)	130	170	210		
15 PSI (MPS-3128)	70	100	130		
30 PSI (MPS-3128)	80	110	140		
100 PSI (MPS-3128)	70	120	170		
DC output@1atm environment					
5.8PSI (MPS-3127) absolute type (ref. : vacuum)	102		278	mV	(6)
15PSI (MPS-3127) absolute type (ref. : vacuum)	105		235		
15PSI (MPS-3128) absolute type (ref. : vacuum)	50		150		
30PSI absolute type (ref. : vacuum)	14		94		
100PSI absolute type (ref. : vacuum)	-25		60		
Linearity	-0.3	0.05	0.3	% Span	(2)
Temperature Coefficient of Zero Offset	-0.08		0.08	% Span/°C	(3)
Temperature Coefficient of Span	-0.16	-0.21 ⁽⁴⁾	-0.26	%Span/°C	Const. Voltage excitation (3)
	-0.05	0.025 ⁽⁵⁾	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 15% ~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) .					
6. DC output is combined offset with span voltage in atmospheric pressure.					
Metrodyne Microsystem Corp. reserves the right to make changes to the product specification in this publication.					

■ Terminal connection diagram



■ Ordering information



A	Pressure type	B	Pressure range
A	Absolute	006 015 030 100	5.8 PSI 15 PSI 30 PSI 100 PSI
C		D	
7	High sensitivity Temp. compensation	C D	Plastic cover Gel protective
8	Low sensitivity Temp. compensation		

Part No.	Pressure type	Pressure range	Feature	Note
MPS-3127-006AC	Absolute	5.8 PSI	5kOhm	Plastic cover
MPS-3127-015AC	Absolute	15 PSI	5kOhm	High sensitivity Plastic cover
MPS-3128-015AC	Absolute	15 PSI	5kOhm	Plastic cover
MPS-3128-030AC	Absolute	30 PSI	5kOhm	Plastic cover
MPS-3128-100AC	Absolute	100PSI	5kOhm	Plastic cover
MPS-3127-006AD	Absolute	5.8 PSI	5kOhm	Gel protective
MPS-3127-015AD	Absolute	15 PSI	5kOhm	High sensitivity Gel protective
MPS-3128-015AD	Absolute	15 PSI	5kOhm	Gel protective
MPS-3128-030AD	Absolute	30 PSI	5kOhm	Gel protective
MPS-3128-100AD	Absolute	100PSI	5kOhm	Gel protective

Metrodyne Microsystem Corp.

10, Prosperity Rd. II, Science-Based Industrial Park, Hsin-Chu 300, Taiwan, R.O.C.

Tel:886-3-5632161 Fax:886-3-5632509

E-mail:sales@metrodyne.com.tw <http://www.metrodyne.com.tw>