

Solid State Pressure Sensor

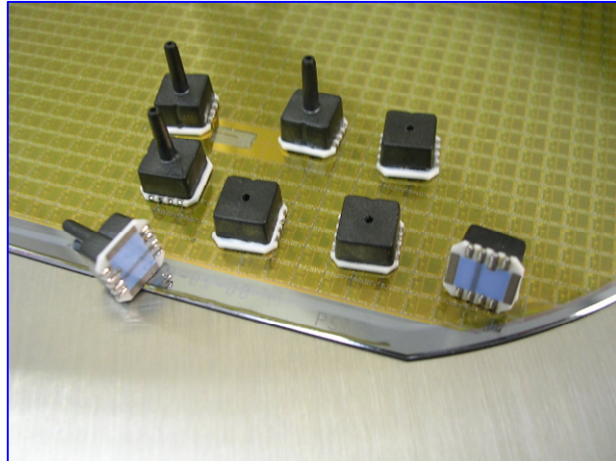
SCD Series - Model 51

FEATURES

- Miniature Size
- Surface Mount
- Automated Assembly
- Low Cost

APPLICATIONS

- Barometer
- Medical Instruments
- White Goods
- Process Control



DESCRIPTION

The SCD 51 Series MEMS piezoresistive pressure sensor provides a convenient way to use surface mount pressure sensors with a flexible mechanism for pressure connection. These miniature sensors are ideal for high volume applications with automated assembly.

Two kinds of plastic cap enclosures are available for selection. The cap with hole is suitable for measuring barometric pressure, pressure in sealed enclosure (absolute) or O-ring sealant to another case (gage). The cap with tube provides convenient pressure connection using 1/8" diameter tubing.

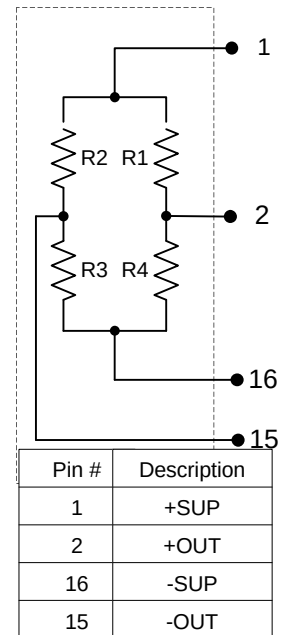
Pressure ranges are from 5 to 100 psi in absolute or gage. Custom configurations and pressure ranges are available. Please contact the factory for details.



Characteristics (Absolute Version, 15 and 100 psi)

Unless otherwise specified, all parameters are measured at 25 °C, 60% RH and 5Vdc excitation

Parameters	Min	Typ	Max	Unit
Excitation Voltage		5	10	V
Pressure Range ^{Note 3}	15		100	psi
Offset	-30	0	30	mV
Span	70	100	140	mV
Bridge Impedance	4.0	5.0	6.0	kohm
Linearity ^{NOTE 1}		±0.3		%FS
TC - Span ^{NOTE 2}	-14	-19	-24	%FS/100°C
TC - Offset ^{NOTE 2}		±8		%FS/100°C
Temp - Operating	-40		+85	°C
Temp - Storage	-40		+125	°C
Over Pressure			2X	Rated FS

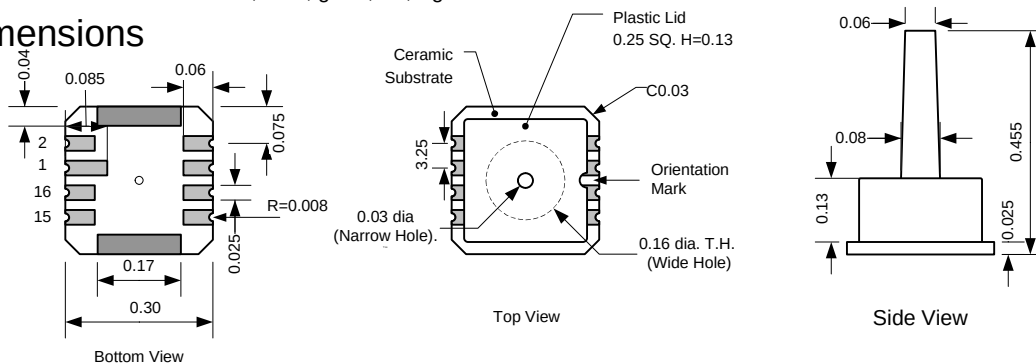


***Note: Pinout is the same for all versions (absolute & gauge). Offset, Span and Bridge resistance vary for different versions.**

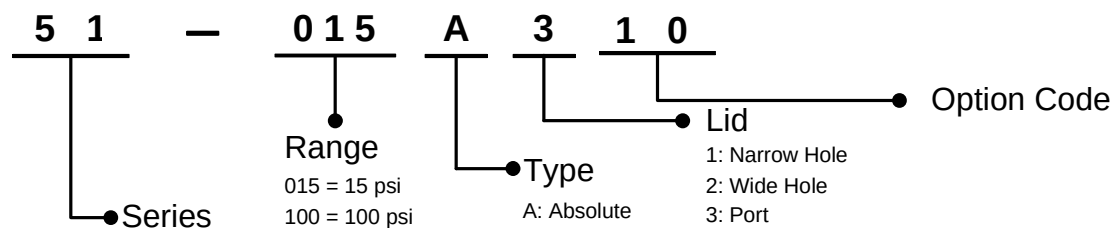
Notes:

1. Best fit straight line definition
2. Temperature coefficient is measured from 0 °C to 50 °C
3. See ordering guide for list of available pressure ranges
4. Wetted material contains PPA, RTV, glass, Au, Ag and silicon

Dimensions



Ordering Information



NOTES:

1. Unit: inch
2. Solder reflow max. 250 °C for 20 seconds



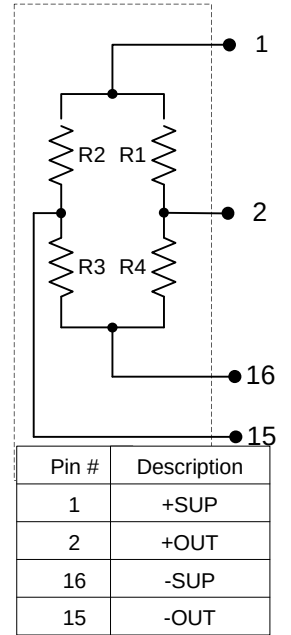
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Characteristics (Gauge Version, 5 psi)

Unless otherwise specified, all parameters are measured at 25 °C, 60% RH and 5Vdc excitation

Parameters	Min	Typ	Max	Unit
Excitation Voltage		5	10	V
Pressure Range ^{Note 3}		5		psi
Offset	-30	0	30	mV
Span	40	60	85	mV
Bridge Impedance	4.0	5.0	6.0	kohm
Linearity ^{NOTE 1}		±0.3		%FS
TC - Span ^{NOTE 2}	-14	-19	-24	%FS/100°C
TC - Offset ^{NOTE 2}		±8		%FS/100°C
Temp - Operating	-40		+85	°C
Temp - Storage	-40		+125	°C
Over Pressure			2X	Rated FS

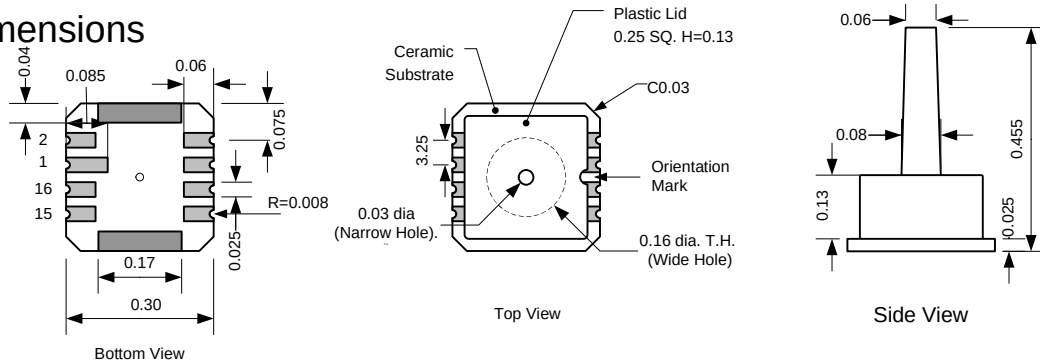


***Note: Pinout is the same for all versions (absolute & gauge). Offset, Span and Bridge resistance vary for different versions.**

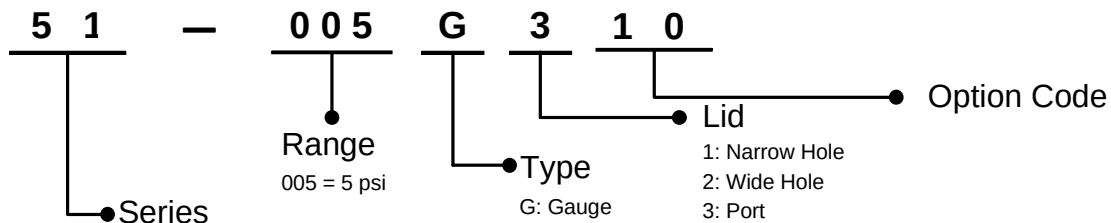
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Dimensions



Ordering Information



NOTES:

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2. Solder reflow max. 250 °C for 20 seconds

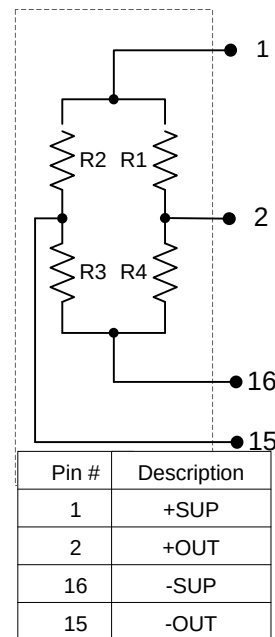


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Characteristics (Gauge Version, 15 psi)

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Parameters	Min	Typ	Max	Unit
Excitation Voltage		5	10	V
Pressure Range ^{Note 3}		15		psi
Offset	-50	0	50	mV
Span	105	145	175	mV
Bridge Impedance	2.7	3.3	4.0	kohm
Linearity ^{NOTE 1}		±0.3		%FS
TC - Span ^{NOTE 2}	-14	-19	-24	%FS/100°C
TC - Offset ^{NOTE 2}		±8		%FS/100°C
Temp - Operating	-40		+85	°C
Temp - Storage	-40		+125	°C
Over Pressure			2X	Rated FS

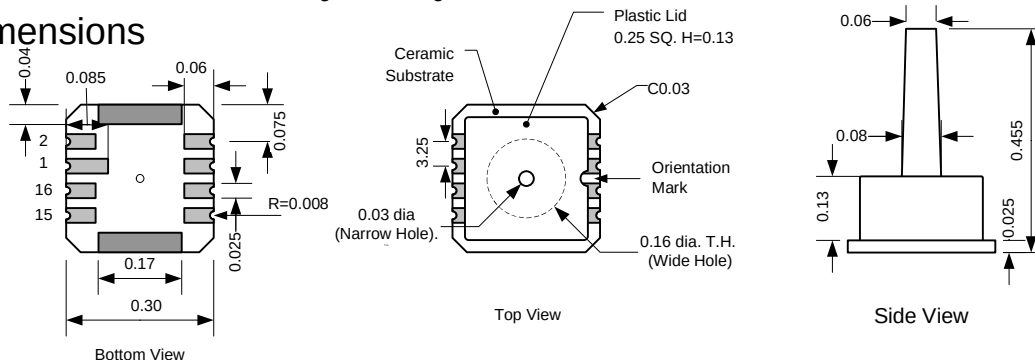


***Note: Pinout is the same for all versions (absolute & gauge). Offset, Span and Bridge resistance vary for different versions.**

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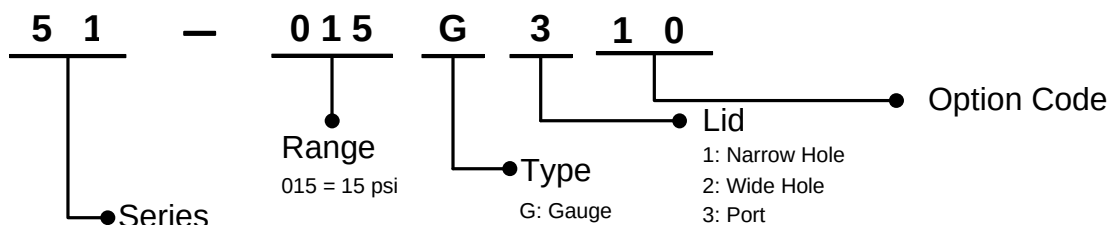
Dimensions



Ordering Information

NOTES:

1. Unit: inch
2. Solder reflow max. 250 °C for 20 seconds



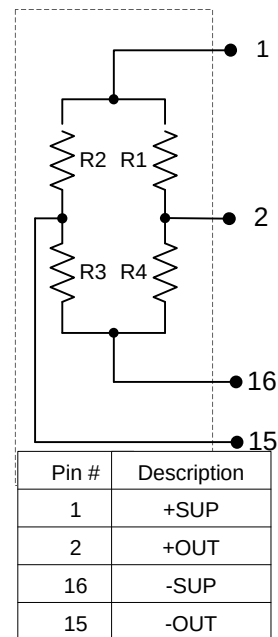
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Characteristics (Gauge Version, 100 psi)

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Parameters	Min	Typ	Max	Unit
Excitation Voltage		5	10	V
Pressure Range ^{Note 3}		100		psi
Offset	-30	0	30	mV
Span	70	100	140	mV
Bridge Impedance	4.0	5.0	6.0	kohm
Linearity ^{NOTE 1}		±0.3		%FS
TC - Span ^{NOTE 2}	-14	-19	-24	%FS/100°C
TC - Offset ^{NOTE 2}		±8		%FS/100°C
Temp - Operating	-40		+85	°C
Temp - Storage	-40		+125	°C
Over Pressure			2X	Rated FS

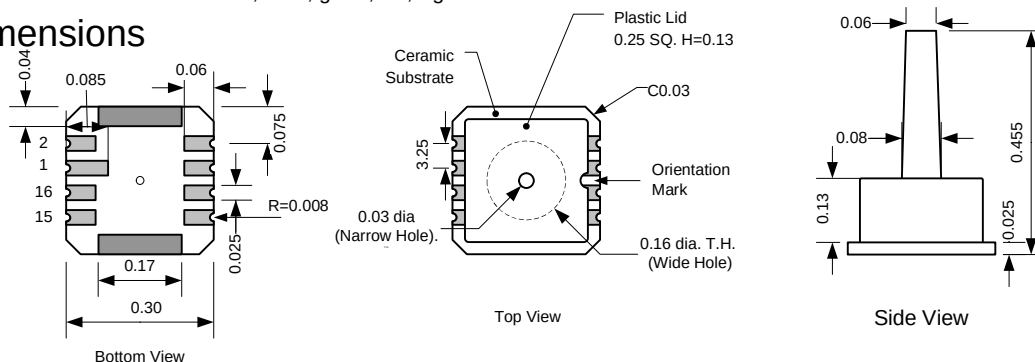


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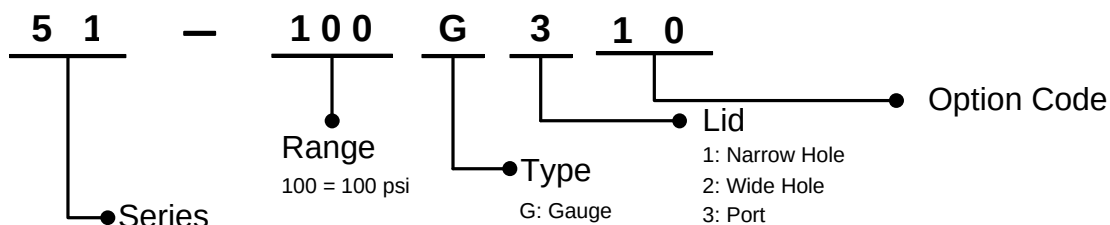
Dimensions



Ordering Information

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