

Solid State Pressure Sensor

ANALOG
OUTPUT



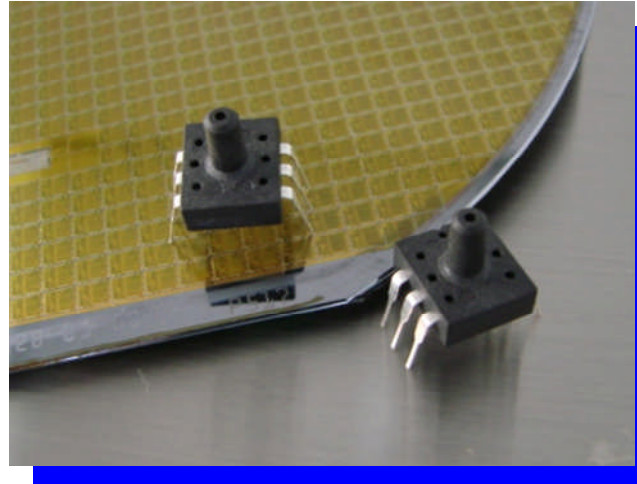
SLP Series - Model 33A

FEATURES

- Easy Design-in
- Temperature Compensated
- Calibrated & Amplified Output
- Low Cost

APPLICATIONS

- Process Control
- HVAC
- Consumer Electronics
- Medical Devices



DESCRIPTION

The SLP 33A Series incorporates a silicon piezoresistive pressure sensor and signal conditioning ASIC in a 6-pin DIL plastic housing for easy through hole board assembly. A surface mount version is also available. It provides a temperature compensated, calibrated pressure solution for high volume applications at an affordable cost.

Pressure ranges are available from 0.3 to 100 psig. Ratiometric output at 5V excitation is 0.5 to 4.5 V. Pressure connection is through Tygon tube on the pressure port.

Custom calibrations are available please contact the factory for details.



Characteristics

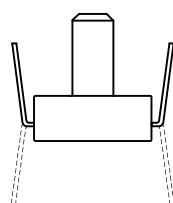
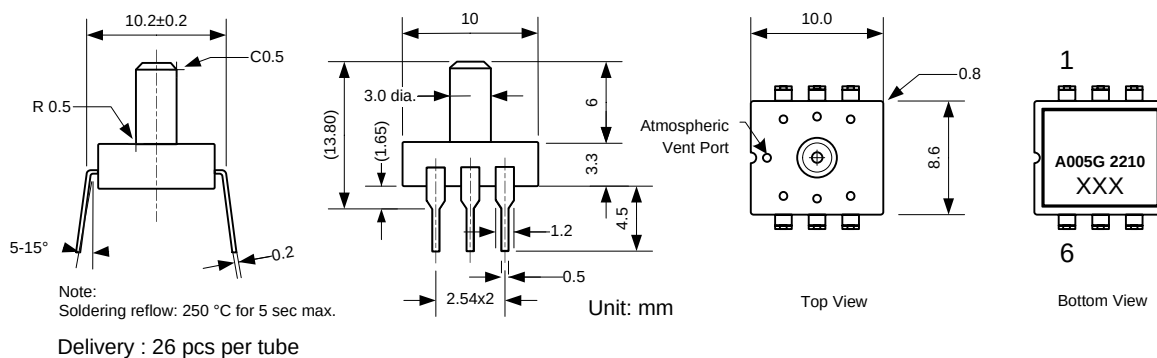
Unless otherwise specified, all parameters are measured at 5V excitation, 25 °C and 60% RH

Parameters	Min	Typ	Max	Unit
Supply Voltage ^{Note 3}	2.7 to 3.3		4.5 to 5.5	Vdc
Supply Current			2.5	mA
Pressure Range ^{Note 4}	5		100	psi
Zero Output (Offset)	0.428	0.500	0.572	Vdc
Full Scale Output	4.428	4.500	4.572	Vdc
Output Current of Buffer			2.2	mA
Accuracy ^{NOTE1}			1.8	%FS
Over Pressure			2X	Rated Pressure
Response Time		1	2	ms
Temp - Compensated	0		50	°C
Temp - Operating	-20		+85	°C
Temp - Storage	-40		+125	°C

Notes:

1. Accuracy includes non-linearity, hysteresis, TCS, TCO inside the compensated temperature range, Best Fit Straight Line definition
2. Wetted material contains RTV, PPA, glass and silicon
3. Specify desired operating voltage range when ordering. Output is Ratiometric to supply Voltage
4. See ordering guide for list of available pressure ranges

Dimensions



(1)

(2)

Pin #	Description
1	N.C.
2	VDD/N.C.*
3	VSS
4	VDD
5	OUT
6	VSS/N.C.*

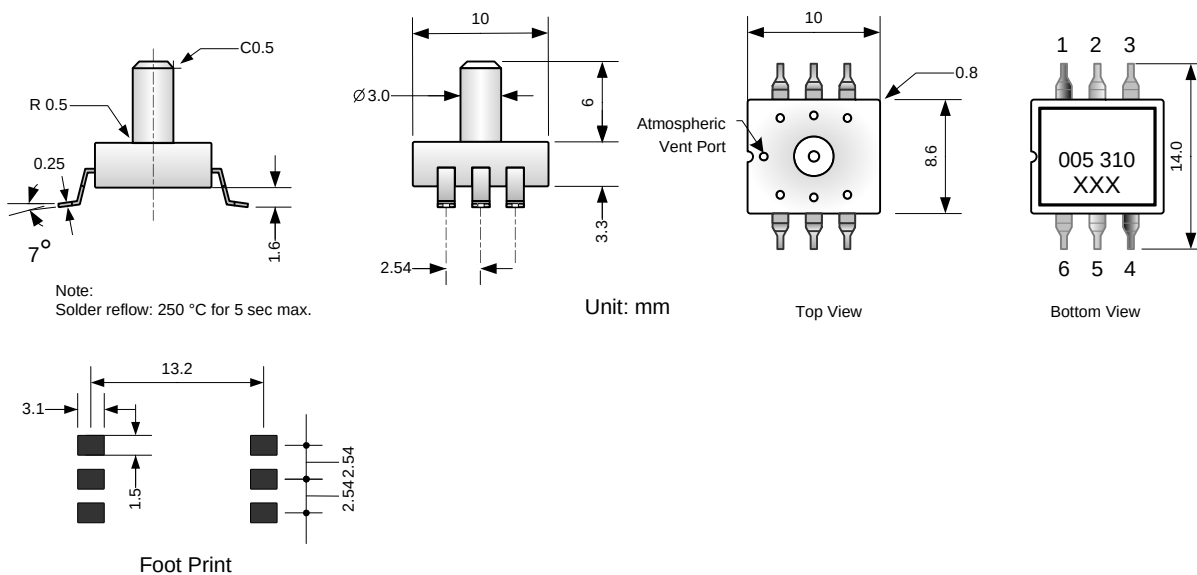
NOTE:

Pin 1 must be left floating.
A 0.1uF capacitor must be connected between Vdd and Vss
*For the 2, 3, 5 & 7 psi range, Pins 2 & 4 and Pins 3 & 6 must be shorted. Pins 2 and 6 must be N.C when using other ranges.



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Ordering Information

3 3 A L - 0 0 5 G - 2 2 1 0 - R

Series

Operating Voltage

Blank = 4.5 to 5.5V
L = 2.7 to 3.3V

Range

005: 5 psi
007: 7 psi
015: 15 psi
030: 30 psi
050: 50 psi
100: 100 psi

Type

G = Gage

I = Negative Gage*

D = Dual Polarity**

Lead

Direction

(1) Same side as inlet

(2) Opposite side as inlet

(3) SMT

Output

2 = 0.5 – 4.5 V

Packing

Blank: Tubes

-R: Tape and Reel

Option Code

* Negative Gage Output has -XXX psi as the Full Scale output (4.5V) and 0 psi as the Offset (0.5V). Max. pressure is -15 psi

** Dual Polarity has +XXX psi as the Full Scale Output and -XXX psi as the Offset. Max. pressure is 30 psi

Disclaimer/Warranty/Notice

Senphire Ltd products are not authorized for use in applications where failure could result in loss of life or injury. While Senphire provides application assistance personally, through our literature and website, it is the responsibility of the customer to determine the suitability of the product for the intended application.

All information provided is believed to be accurate at the time of publishing however Senphire Ltd reserves the right to make changes without prior notice.

Senphire Ltd warrants its products to be free of manufacturing defects for a period of 12 months from the date of purchase. The maximum liability, expressed or implied shall be limited to a direct replacement of those products Senphire finds defective. The foregoing is the Buyers Sole remedy in lieu of all other warranties, expressed or implied including those of merchantability and fitness for a particular purpose.



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