

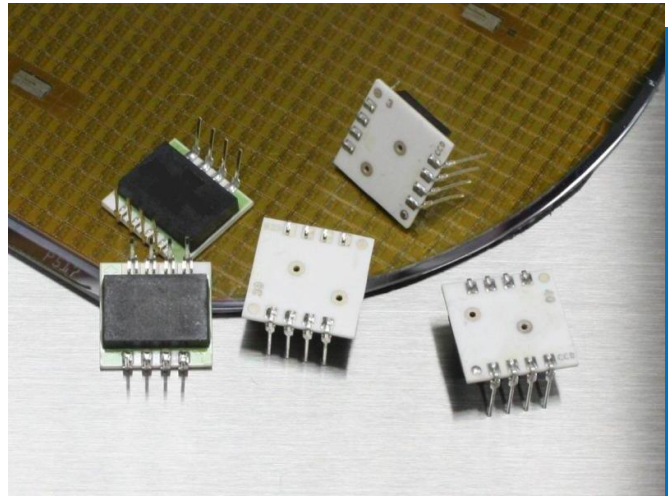
Solid State Pressure Sensor

ANALOG
OUTPUT

CCD 55A Series

FEATURES

- Manifold Mount Package
- Calibrated Span and Offset
- Multi-order Temperature Compensation
- Rigid Ceramic Substrate
- 0.15 PSI to 150 PSI
- Custom Configuration Upon Request



DESCRIPTION

The CCD 55A Series is a smart pressure sensor with a calibrated and amplified analog output. The series features a flat surface ideal for interfacing to a manifold and sealing by o-rings.

Compensation of sensor offset, sensitivity, temperature drift and nonlinearity is accomplished in the factory via the latest ASIC technology with calibration coefficients stored in an on-chip EEPROM.

A variety of output configurations, including response time and voltage levels are available to provide a simple and ready-to-use solution for a wide range of applications. The low voltage version operates from 2.7 to 3.3V while the regular version operates from 4.5 to 5.5V.

The CCD Series including Models 53, 54 and 55, are available for pressure ranges from 0.15 psi to 150 psi. Custom ranges and calibrations are available. Please contact the factory for details.



Sensormate Enterprise Co., Ltd. reserves the right to change specifications without prior notice

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Characteristics

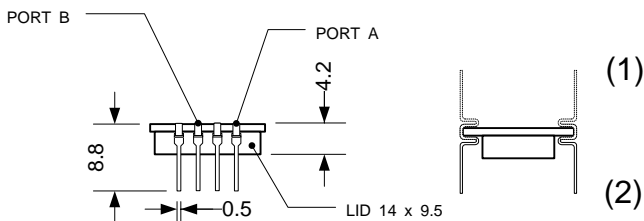
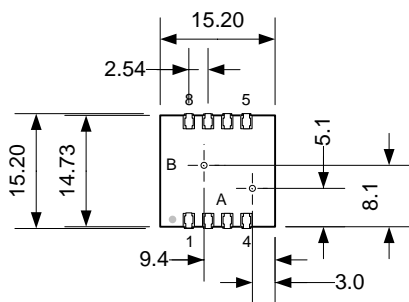
Unless otherwise specified, all parameters are measured at 5V excitation, 25 °C and 60% RH

Parameters	Min	Typ	Max	Unit
Supply Voltage ^{Note 3}	2.7 to 3.3		4.5 to 5.5	V
Supply Current			2.5	mA
Pressure Range ^{Note4}	5		150	psi
Zero Output (Offset)	0.428	0.500	0.572	V
Full Scale Output	4.428	4.500	4.572	V
Accuracy ^{NOTE 1}			1.8	%FS
Response Time		1	2	ms
Linearity	-0.20		+0.20	%FS
Thermal Hysteresis	-0.15		+0.15	%FS
Over Pressure ^{Note 5}			3X or 2.5 psi	Rated Pressure
Temp - Compensated	0		+50	°C
Temp - Operating	-20		+85	°C
Temp - Storage	-40		+125	°C

Notes:

1. Accuracy includes non-linearity, hysteresis, TCS and TCO inside the compensated temperature range, best fit straight line definition
2. Wetted material contains RTV, glass silicon and ceramic (Port A & B) and Au (Port A)
3. Specify desired operating voltage when ordering. Output is Ratiometric to Supply Voltage
4. See ordering guide for list of available pressure ranges
5. Which ever is higher

Dimensions:



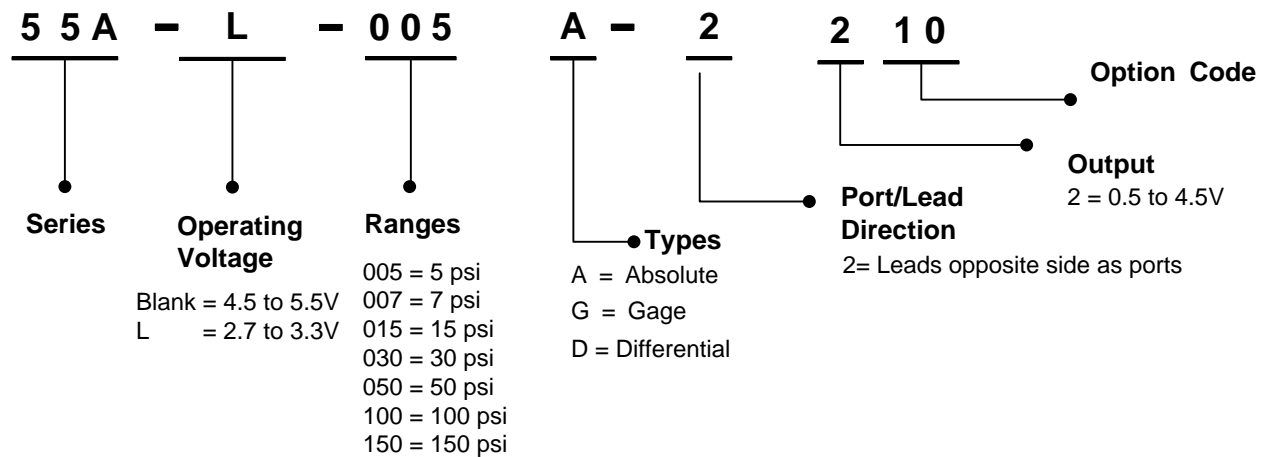
Pin	Description
#	N.C.
1	VSS
2	OUT
3	Vdd
4	N.C.
5	N.C.
6	N.C.
7	N.C.

NOTE:
N.C. pins should be left floating
A 0.1 μ F capacitor must be
connected between Vss and
Vdd

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Delivery : 17 pcs per tube

1. Port B is used for positive differential
2. Port A is used for absolute
3. Port B is used for gage
4. All dimensions are in mm
5. Solder reflow max. 250 °C 5s

Ordering Information



Note:

- 1) To specify differential single ended pressure (one side is always more +ve than the other) specify gage pressure. The device can be used for differential pressure by simply connecting the reference port (Port A) to the reference pressure instead of atmosphere.
- 2) Specifying Differential pressure means a +/- pressure range. The maximum pressure is +/-30 psi
- 3) Custom outputs and pressure ranges available. Please contact us with your request.
- 4) The lowest absolute pressure that can be specified is 15 psi
- 5) 50, 100 and 150 psi pressure ranges are only available in gage pressure. Only Port B can be exposed to pressure.

Example:

Part number 55A L30 D 22 20 corresponds to an output of 2.5V (@ 0 psi) +/- 2V (@ +/- 0.3 psi)

Part number 55A L30 G 22 20 corresponds to an output of 0.5V (@ 0 psi) to 4.5V (@ 0.3 psi) for gage applications only

Disclaimer/Warranty/Notice

Sensormate Enterprise Co. Ltd products are not authorized for use in applications where failure could result in loss of life or injury. While Sensormate 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 Sensormate Enterprise Co. Ltd reserves the right to make changes without prior notice.

Sensormate Enterprise Co. 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 Sensormate 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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