

# SCC Series

## SPECIFICATION CHARACTERISTICS (Maximum Ratings for All Devices)

Supply current, $I_s$	1.5 mA
Compensated temperature range	0 °C to 50 °C [32 °F to 122 °F]
Operating temperature range	-40 °C to 85 °C [-40 °F to 185 °F]
Storage temperature range	-55 °C to 125 °C [-67 °F to 257 °F]
Humidity	0 % to 100 % RH
Lead temperature	250 °C [482 °F] Soldering 2 sec to 4 sec
Common-mode pressure	150 psi

## PERFORMANCE CHARACTERISTICS (Individual Models) $I_s=1.0$ mA, $T_A=25$ °C [77 °F]<sup>(1)</sup>

Part Number	Operating Pressure Range	Maximum Over Pressure	Accuracy <sup>(2)</sup>	Effect <sup>(3, 4)</sup> on Span 0 °C to 50 °C	Effect <sup>(5, 4)</sup> on Offset 0 °C to 50 °C	Full-Scale Span <sup>(6)</sup> mV
SCC05(D,G)	0 psid to 5 psid (g)	20 psi	0.50 %	1.50 %	30 $\mu$ V/°C	25-65
SCC15A	0 psia to 15 psia	30 psia	0.50 %	1.50 %	40 $\mu$ V/°C	40-95
SCC15(D,G)	0 psid to 15 psid (g)	30 psi	0.50 %	1.50 %	40 $\mu$ V/°C	40-95
SCC30(D,G)	0 psid to 30 psid (g)	60 psi	0.50 %	1.50 %	60 $\mu$ V/°C	60-150
SCC100A	0 psia to 100 psia	150 psia	0.50 %	1.50 %	30 $\mu$ V/°C	85-225
SCC100(D,G) <sup>(7)</sup>	0 psig to 100 psig	150 psig	0.50 %	1.50 %	90 $\mu$ V/°C	85-225
SCC300A	0 psia to 300 psia	450 psia	0.50 %	1.50 %	50 $\mu$ V/°C	50-120

## PERFORMANCE SPECIFICATIONS (All Models) $I_s=10.0$ Ma, $T_A=25$ °C [77 °F]

	Min.	Typ.	Max.	Unit
Zero Pressure Offset <sup>(8)</sup>	-30.0	-10.0	20.0	mV
Combined Linearity, Hysteresis and Repeatability <sup>(2)</sup>	—	0.25	0.50	% FSO
Long Term Stability of Offset and Span <sup>(9)</sup>	—	0.10	—	mV
Response Time (10 % to 90 %) <sup>(10)</sup>	—	0.10	—	ms
Input Impedance	4.00	5.00	6.50	kOhm
Output Impedance	4.00	5.00	6.50	kOhm

### Specification Notes:

- Note 1:** Reference Conditions; Supply Current = 1.0 mA;  $T_A = 25$  °C [77 °F], Common-mode Line Pressure = 0 psig, Pressure Applied to P1, unless otherwise noted.
- Note 2:** Accuracy is the sum of Hysteresis and Linearity. Hysteresis is the maximum output difference at any point within the operating pressure range for increasing and decreasing pressure. Linearity refers to the best straight line fit as measured for the offset, full-scale and ½ full-scale pressure at 25 °C [77 °F].
- Note 3:** This is the maximum temperature shift for span when measured between 0 °C and 50 °C [32 °F to 122 °F] relative to the 25 °C [77 °F] reading. Typical temperature coefficients for span and resistance are -2200 ppm/°C and 2200 ppm/°C respectively.
- Note 4:** Temperature effect on span and offset are guaranteed by design. Therefore these parameters are not 100 % tested.
- Note 5:** This is the maximum temperature shift for offset when measured at 0 °C and 50 °C [32 °F to 122 °F] divided by the temperature difference.
- Note 6:** Span is the algebraic difference between the output voltage at full-scale pressure and the output at zero pressure.
- Note 7:** The SCC100D devices can only be used in a forward gauge mode. Application of more than 30 psig to the back side of any of the SCC Series devices can result in device failure. On the SCC100GD2 pressure can only be applied to the back side of the die. No pressure is accessible from the front/top side of die.
- Note 8:** The zero pressure offset is 30 to -20 mV max. for parts SCCxxGD2 and SCCxxDD4 devices.
- Note 9:** Maximum difference in output at any pressure with the operating pressure range and temperature within 0 °C and 50 °C [32 °F to 122 °F].  
a) 100 temperature cycles, 0 °C and 50 °C [32 °F to 122 °F]  
b) 1.0 million pressure cycles, 0 psi to full-scale span.
- Note 10:** Response time for a 0 psi to full-scale span pressure step change. 10 % to 90 % rise time.

PIN 1 (GND)

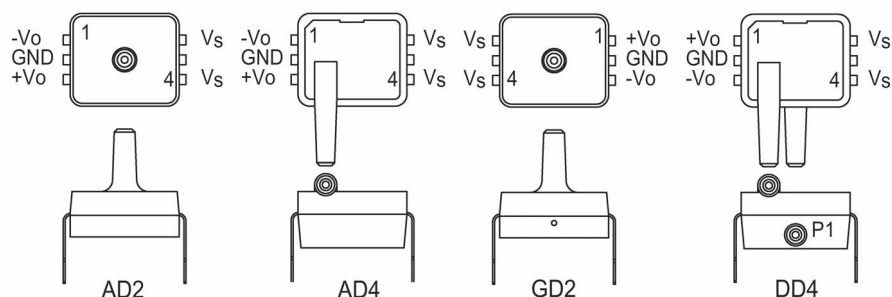
PIN 2 (+Vo)

PIN 3 ( $V_S$ )

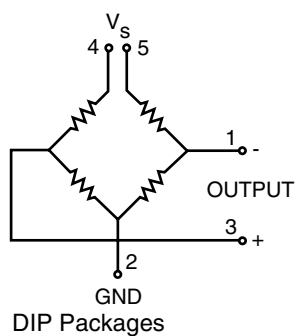
PIN 4 (-Vo)

Diagram of a 5-pin connector labeled P1. The pins are labeled as follows:

- PIN 1 (GND)
- PIN 2 (+Vo)
- PIN 3 ( $V_S$ )
- PIN 4 (-Vo)



Button, Nipple and “N” Packages



### Button package

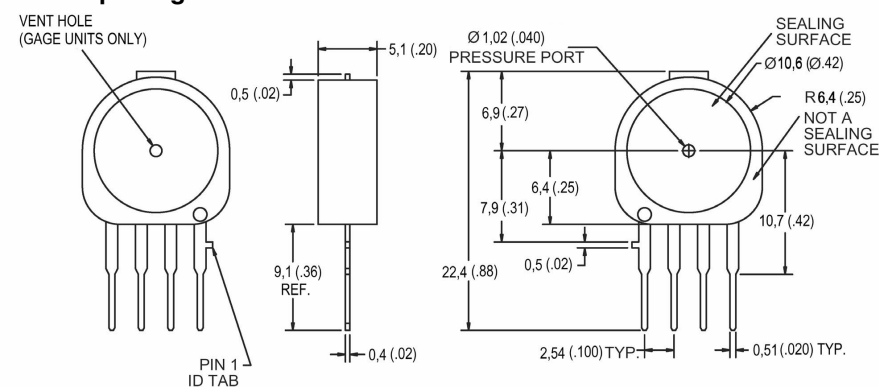
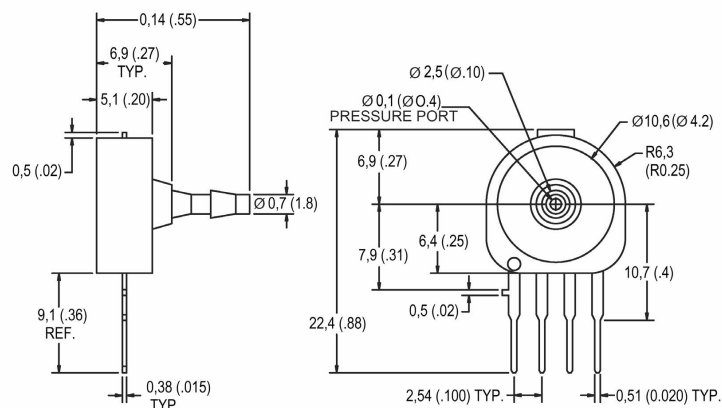


Diagram illustrating the top view of the sensor. The circular top surface features a central "VENT HOLE (GAUGE UNITS ONLY)". The bottom edge shows several pins, with the rightmost pin labeled "PIN 1 ID TAB".



**N Housing package**

29,2 (1.15) REF.

4X 0,4 (.02) PIN THICKNESS

2X R1,9 R0.075

PIN 1 ID TAB

2,5 (.10) TYP.

1,3 (.05)

0,5 (.02) TYP.

8,6 (.34)

7,2 (.285)

27,2 (1.07)

2X R3,2 R0.13

MOUNTING FOR SCREW OR TIE

2X Ø3,2 (.125)

2X Ø4,8 (.190)

22,9 (.90)

9,1 (.36)

12,7 (.50)

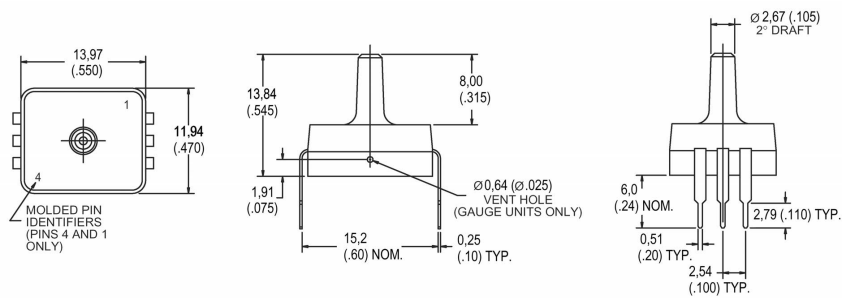
1,5 (.06)

6,4 (.25)

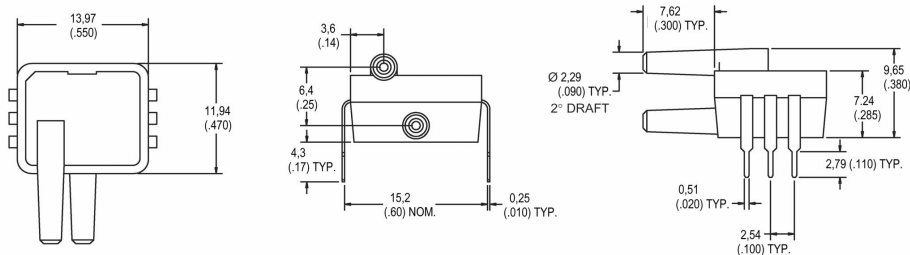
7,1 (.28)

10,2 (.40)

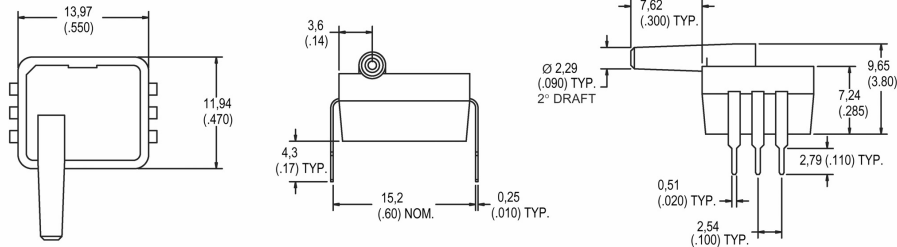
## D2 DIP package



## DD4 DIP package



## AD4 DIP package



## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of**

**merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

## SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

**E-mail:** [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

**Internet:** [www.honeywell.com/sensing](http://www.honeywell.com/sensing)

### Phone and Fax:

Asia Pacific	+65 6355-2828
	+65 6445-3033 Fax
Europe	+44 (0) 1698 481481
	+44 (0) 1698 481676 Fax
Latin America	+1-305-805-8188
	+1-305-883-8257 Fax
USA/Canada	+1-800-537-6945
	+1-815-235-6847
	+1-815-235-6545 Fax

## Automation and Control Solutions

Sensing and Control

Honeywell

11 West Spring Street

Freeport, Illinois 61032, USA

[www.honeywell.com](http://www.honeywell.com)

008135-2-EN IL50 GLO

May 2005

Copyright 2004-2005 Honeywell International Inc.

# Honeywell