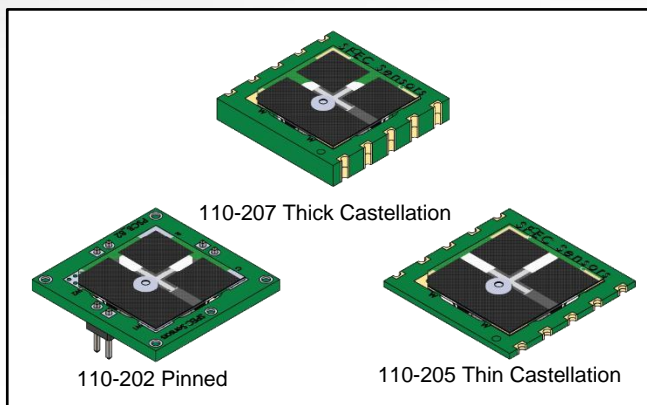
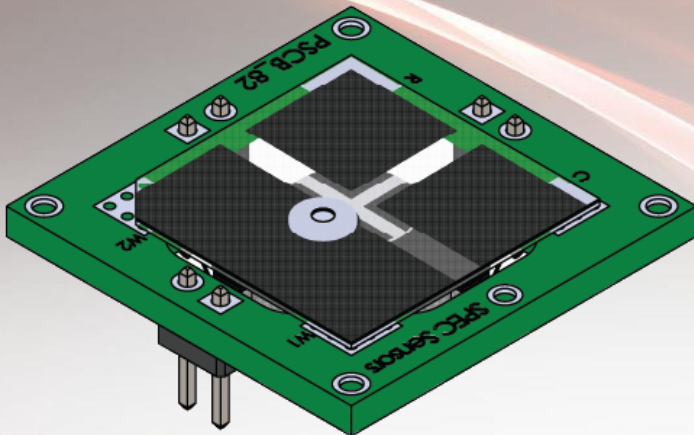


Ethanol (EtOH) Sensor

110-2xx



Interlink Electronics Screen Printed Electrochemical sensor (SPEC Sensor™) revolutionizes the current state of the art, enabling new applications in consumer, medical and industrial safety. Interlink Electronics offer the performance of the best quality electrochemical sensors at a fraction of the price. The 110-2xx family Ethanol sensors are small and low-profile, facilitating easy integration into wireless, portable, and other IoT solutions. These sensors are ideal for health, environmental, industrial, and residential monitoring, because of their high performance, low cost, and small size. IE'S Ethanol Sensor are available in three packages (110-202, 110-205, 110-207).

FEATURES

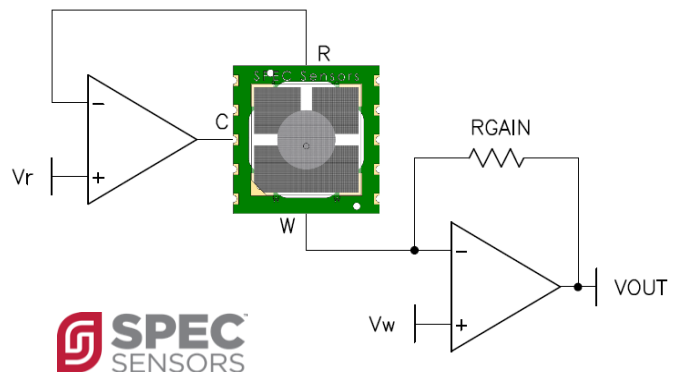
- Small Size & Low Profile (20 x 20 x 3 mm)
- Sensitive in the ppm range
- Accurate & Linear Response
- Long Life (10 +years)
- Fast Response
- 100% Factory Tested
- Ultra-Low Power < 50 uW max
- ROHS Compliant

APPLICATIONS

- Portable Breath Alcohol monitor
- Law Enforcement Breathalyzer
- Evidential Breath Alcohol Testing
- Portable Alcohol monitor
- Internet of Things

The diagram below shows the basic measuring circuit for the 110-2xx. The sensor generates an electric current which is converted into output voltage (Vout) using a linear circuit like the one shown.

Notes: $V_{bias} = V_w - V_r$

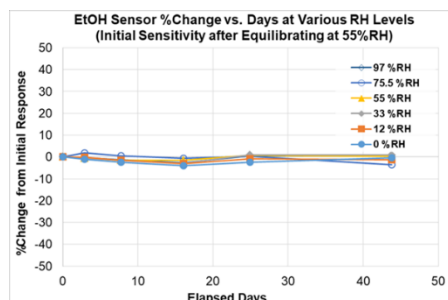


SPECIFICATIONS

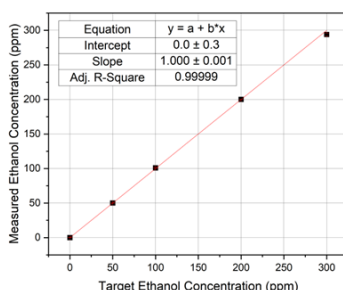
Parameter	Typical Value	Unit	Notes
Measurement Range	0 to 1000	ppm	1,2,3
Lower Detection Limit	1	ppm	1,2
Resolution	0.5	ppm	1,2
Accuracy	± 1	%	1
Response Time – T (90)	< 180	seconds	1
Sensitivity Range	20 ± 10	nA/ppm	1
Expected Operating Life	10	years	1
Operating Temperature Range	-30 to 55	°C	3
Operating Humidity Range	10 to 95	%	3,4
Operating Pressure Range	0.8 to 1.2	atm	3
Operating Bias Range	100	mV	
Power Consumption	10 to 50	uW	2

1. At standard conditions (25 °C, 50% RH, 1 atm), unless otherwise indicated.
2. Depends on circuit design.
3. Recommended operating range, The sensor may be damaged, and warranty voided if operated outside the specified range. For the best optimum accuracy operate sensor at -20 to 40 °C and 15 to 90 % RH.
4. Non-condensing.

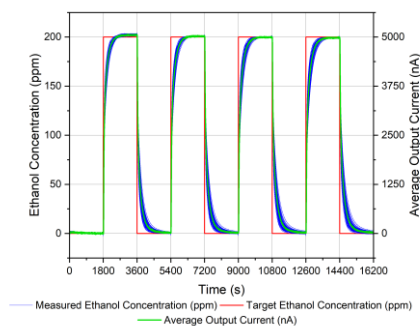
KEY CHARACTERISTICS



Humidity Effect



Linearity



Accuracy

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