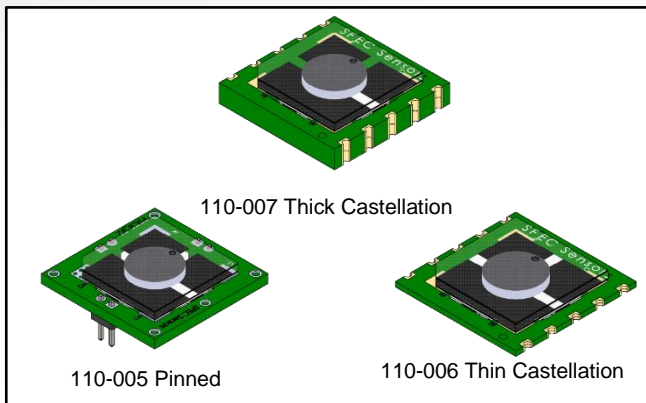
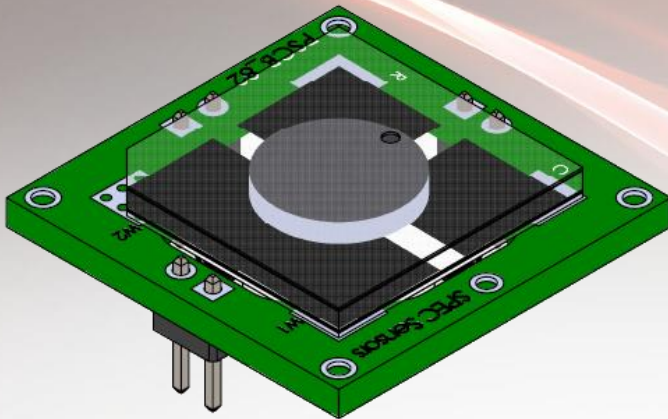


Hydrogen (H₂) Sensor

110-0xx



Interlink Electronics' Screen Printed Electrochemical sensors (SPEC Sensor™) revolutionize the current state of the art, enabling new applications in consumer, medical and industrial safety. SPEC sensors offer high-performance sensing at a fraction of the price. The 110-0xx family of Hydrogen 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 Hydrogen Sensor are available in three packages (110-005, 110-006, 110-007).

FEATURES

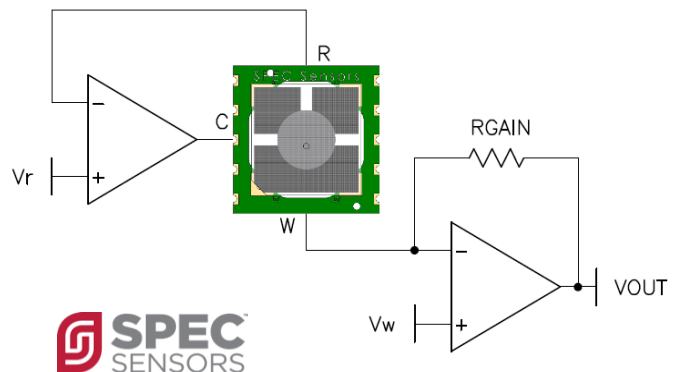
- Small Size & Low Profile (20 x 20 x 5 mm)
- Long Life (10+ years)
- Improved stability and low ppm sensitivity
- Fast Response
- Accurate & Linear Response
- Ultra-Low Power < 50 uW max
- ROHS Compliant
- 100% Factory Tested

APPLICATIONS

- Industrial Safety
- Health & Wellness
- Hydrogen Transportation
- Hydrogen Usage
- Hydrogen Production
- Hydrogen Power Generation

The diagram below shows the basic measuring circuit for the 110-0xx. The sensor generates an electric current which is converted into output voltage (V_{out}) using a linear circuit like the one shown.

Notes: V_{bias} = V_w - V_r

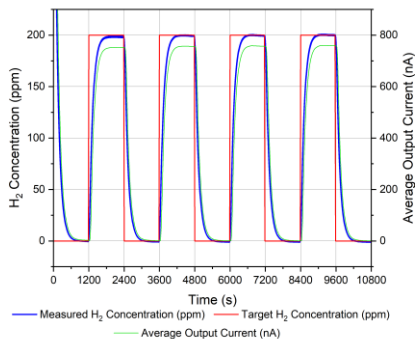


SPECIFICATIONS

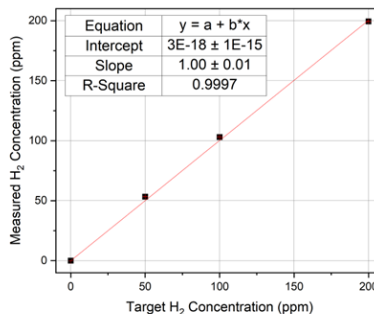
Parameter	Typical Value	Unit	Notes
Measurement Range	0 to 250	ppm	1,2,3
Lower Detection Limit	1	ppm	1,2
Resolution	0.5	ppm	1,2
Accuracy	± 1	%	1
Response Time – T (90)	< 60	seconds	1
Sensitivity Range	4 ± 2	nA/ppm	1
Expected Operating Life	10	years	1
Operating Temperature Range	-5 to 50	°C	3
Operating Humidity Range	10 to 95	%	3,4
Operating Pressure Range	0.8 to 1.2	atm	3
Operating Bias Range	+25	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 0 to 40 °C and 15 to 90% RH.
4. Non-condensing.

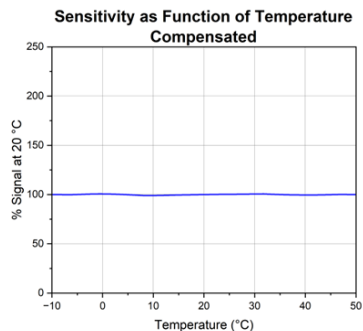
KEY CHARACTERISTICS



Accuracy



Linearity



Sensitivity vs Temp

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