



Innovation, Quality and Expertise for Gas Detection.

SureCell - H₂S (H)

Operating Performance

Operating Principle	3-electrode electrochemical
Gas Detected	Hydrogen Sulfide
Measurement Range	0-100 ppm
Maximum Overload ²	500 ppm
Expected Operating Life	2 years in air
Output Signal	1.45 ±0.30µA per ppm
Temperature Range	Continuous: -20°C to +40°C Intermittent: -40°C to +55°C
Pressure Range	1 atm ±10%
Humidity Range (non-condensing)	Continuous: 15-90% RH Intermittent: 0-99%RH
Response Time (T ⁵ ₉₀)	<30 seconds
Baseline Offset (clean air)	<±0.35ppm equivalent
Zero Shift (-40 to +55°C)	<±0.2ppm equivalent
Long Term Output Drift	<2% per month
Repeatability	<±5%
Linearity	Linear ±<5%
Recommended Load Resistor	5Ω
Bias Voltage	Not required

Intrinsic Safety Data

Maximum at 500ppm	1.0mA
Maximum o/c Voltage	0.8V
Maximum s/c Current	<1.0A

Physical Specification

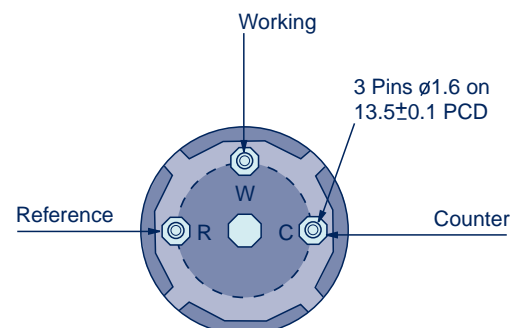
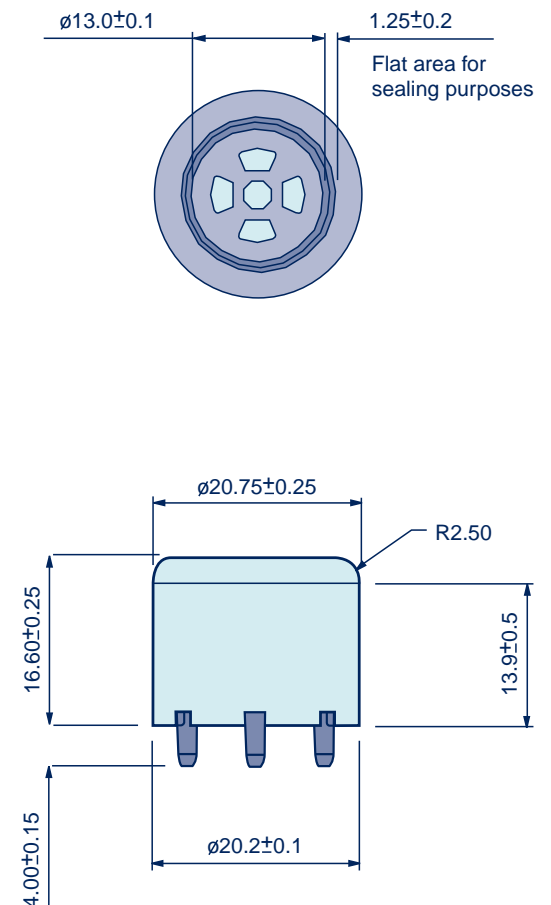
Weight	5g (approx)
Housing Material	Noryl 110
Storage Life	6 months in sealed container
Storage Conditions	+10°C to +30°C
Orientation	Any
Warranty Period	18 months from date of despatch

Ordering Details

Part Number 2112B2023

Order From Sixth Sense
 Hatch Pond House, 4 Stinsford Road
 Poole, Dorset, England BH17 0RZ
 T: +44 (0) 1202 645770
 F: +44 (0) 1202 665331
 E: sensors@sixth-sense.com
 W: www.sixth-sense.com

Code date: 08/03

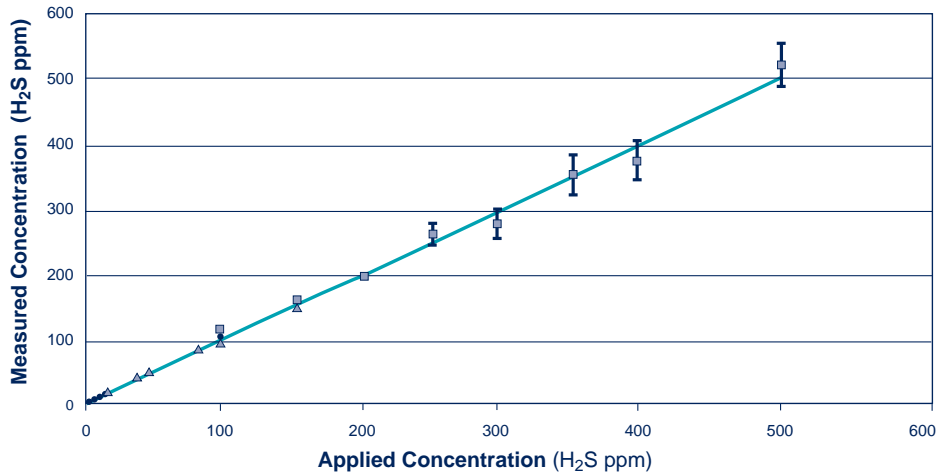




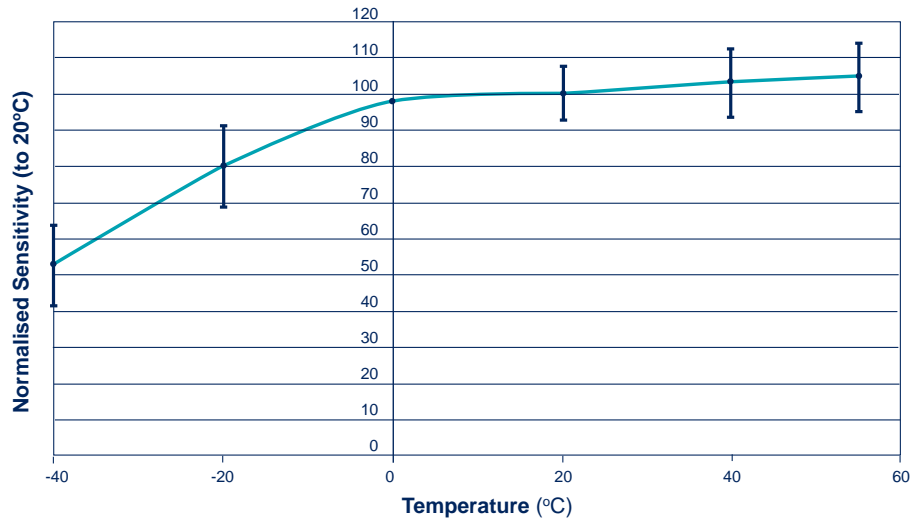
Additional Information

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Linearity of H₂S SureCells (0 to 500 ppm)



Temperature Coefficients of H₂S SureCells



Cross Sensitivity Table

Gas	Concentration Used (ppm)	Reading (ppm H ₂ S)	Gas	Concentration Used (ppm)	Reading (ppm H ₂ S)
Carbon Monoxide	50	0	Chlorine	0.5	0
Hydrogen Sulphide	10	10	Hydrogen	100	0
Sulfur Dioxide	2	0	Ethylene	100	0
Nitrogen Dioxide	3	0	Carbon Dioxide	5000	0
Nitric Oxide	25	0	Ammonia	50	0

In the interest of product improvement, Sixth Sense reserves the right to alter design features and specifications without notice. Unless otherwise stated, all product specifications are quoted at standard temperature and pressure.

***Note:** The figures in this table are typical values and should not be used as a basis for cross calibration. Cross sensitivities may not be linear and should not be scaled. All data based on a 5 minute gassing. For some cross interferences break through will occur if gas is applied for a longer time period.