



SureCell - H₂S (H)

Innovation, Quality and Expertise for Gas Detection.

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

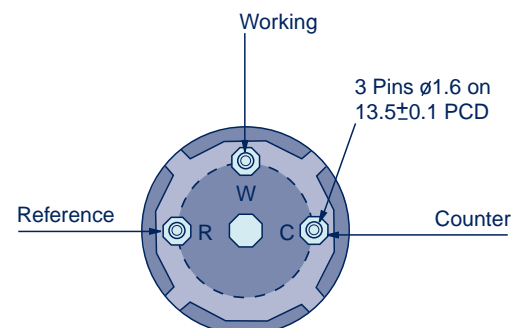
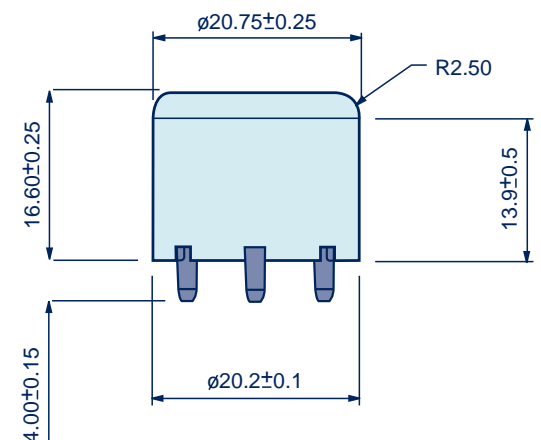
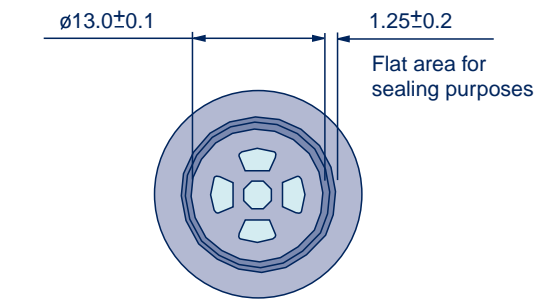
| | |
|--------------------|---------------------------------|
| Weight | 5g (approx) |
| Housing Material | Noryl 110 |
| Storage Life | 6 months in sealed container |
| Storage Conditions | +10°C to +30°C |
| Orientation | Any |
| Warranty Period | 18 months from date of despatch |

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
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 W: www.sixth-sense.com

Code date: 08/03

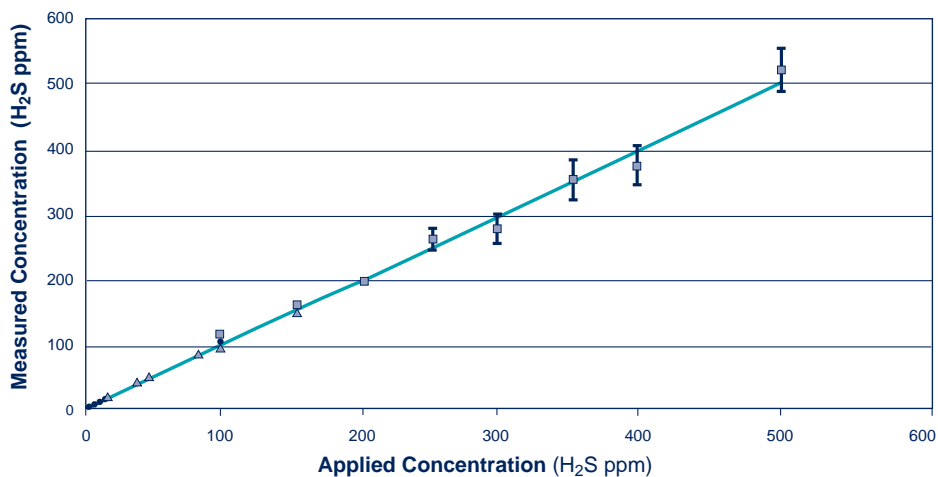




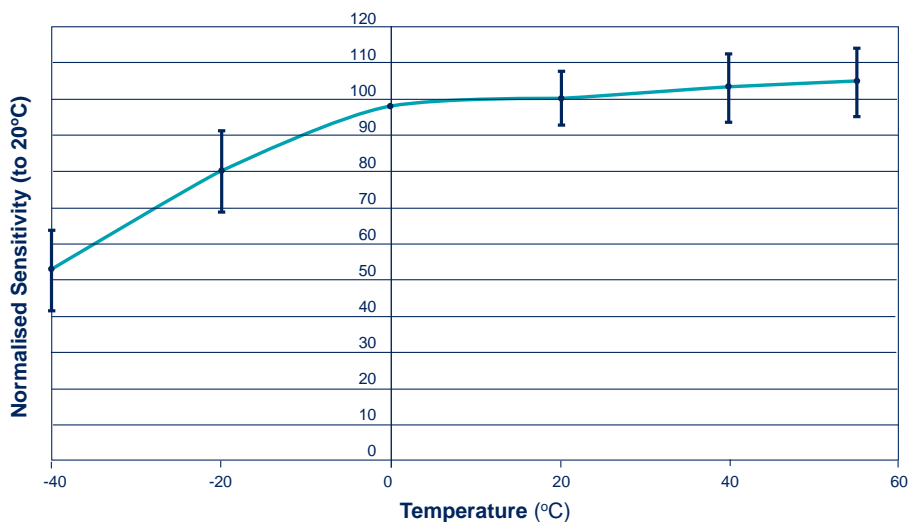
Additional Information

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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.