SureCell® H_2S(M)

Operating Performance

Operating Principle	3-electrode electrochemical
Gas Detected	Hydrogen Sulfide
Measurement Range	0-100 ppm
Maximum Overload	150 ppm
Expected Operating Life	2 years in air
Output Signal	0.7 ± 0.2 µA 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})	<20 seconds
Baseline Offset (clean air)	<±0.5ppm equivalent
Zero Shift (-40°C to +50°C)	<±0.4ppm equivalent
Long Term Output Drift	<2% per month
Repeatability	<±5%
Linearity	Linear <±5%
Recommended Load Resistor	5 Ω
Bias Voltage	Not required

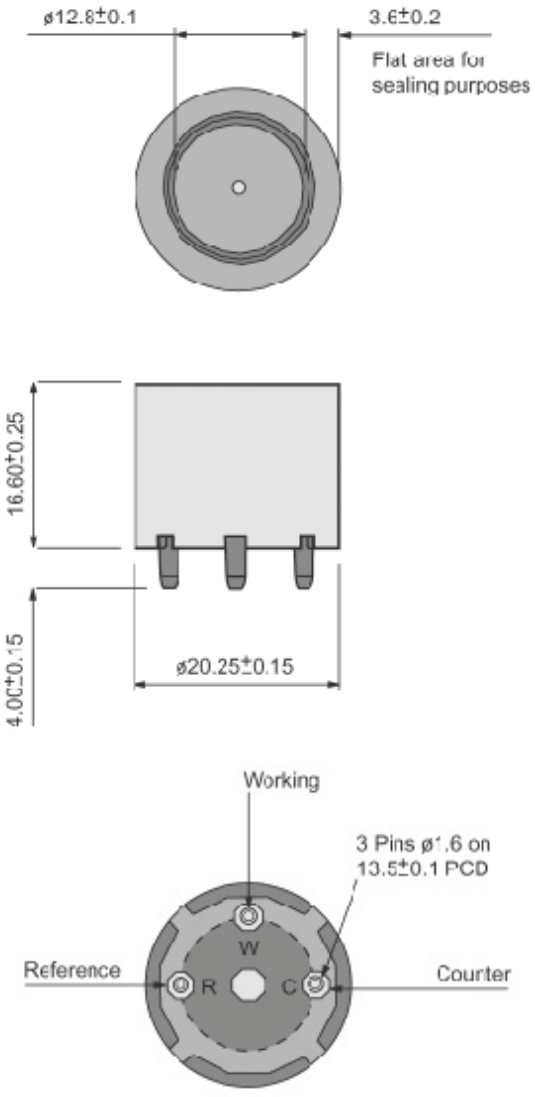
Intrinsic Safety Data

Maximum at 150 ppm	0.15 mA
Maximum o/c Voltage	0.8 V
Maximum s/c Current	<1.0 A

Physical Specification

Weight	5 g (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

Outline Dimensions



All dimensions in mm
All tolerances ±0.15mm unless othewise stated

IMPORTANT NOTE:

Connection should be made via recommended mating parts only. Soldering to the sensor will result in damage and invalidate the warranty.

All performance data is based on conditions at 20°C, 50% RH and 1013 mBar.

City Technology Limited
City Technology Centre, Walton Road, Portsmouth, Hampshire PO6 1SZ UK
Tel +44 23 9232 5511 Fax +44 23 9238 6611

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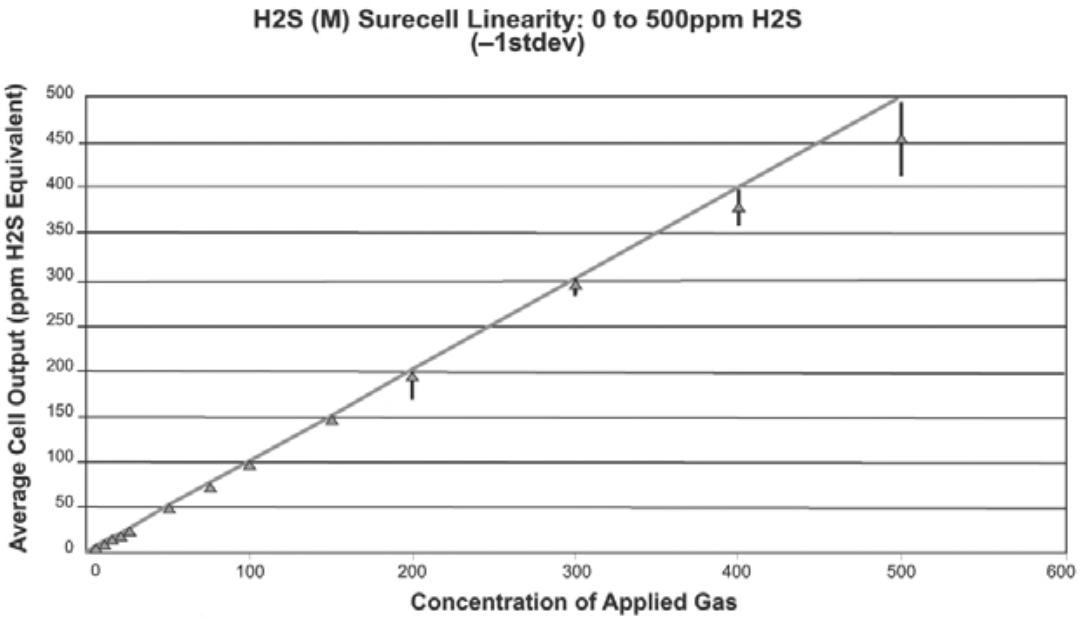

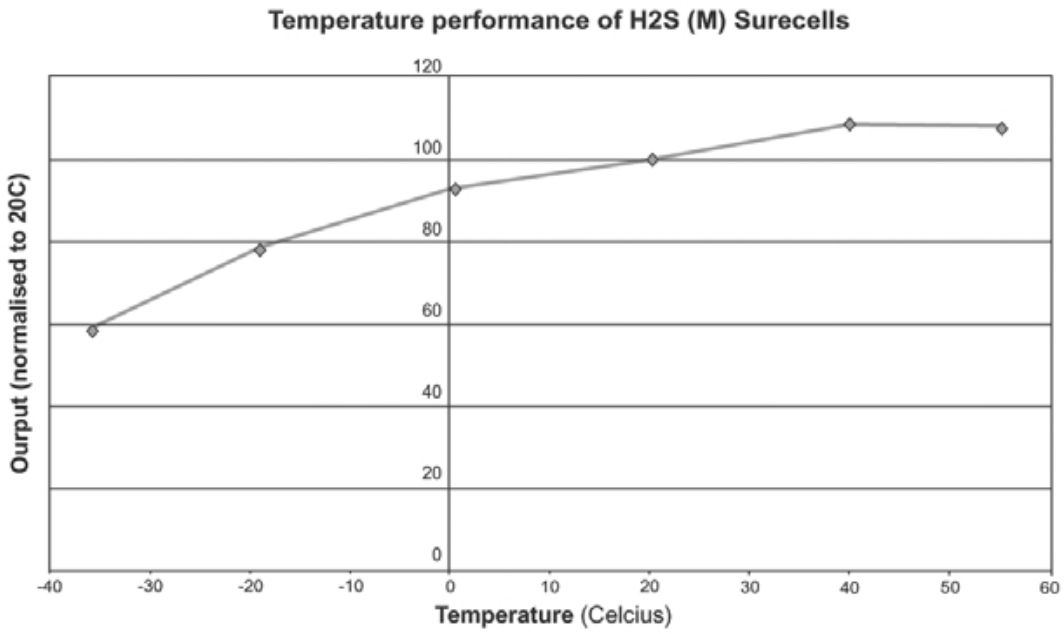

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Cross Sensitivity Table

Gas	Concentration used (ppm)	Reading (ppm H_2S)	Gas	Concentration used (ppm)	Reading (ppm H_2S)
Carbon Monoxide	50	0	Ethanol		TBA
Hydrogen Sulfide	10	10	Propanol		TBA
Sulphur Dioxide	2	0	Acetone		TBA
Nitrogen Dioxide	3	0	Ozone		TBA
Nitric Oxide	25	0	Arsine		TBA
Chlorine	0.5	0	Diborane		TBA
Ethylene	100	0	Phoshine		TBA
Carbon Dioxide	5000	0	Silane		TBA
Ammonia	50	0	Germane		TBA
Methane		TBA	Hydrogen Chloride		TBA

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 interferents break through will occur if gas is applied for a longer time period.

SAFETY NOTE
This sensor is designed to be used in safety critical applications. To ensure that the sensor and/or instrument in which it is used, are operating properly, it is a requirement that the function of the device is confirmed by exposure to target gas (bump check) before each use of the sensor and/or instrument. Failure to carry out such tests may jeopardize the safety of people and property.

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