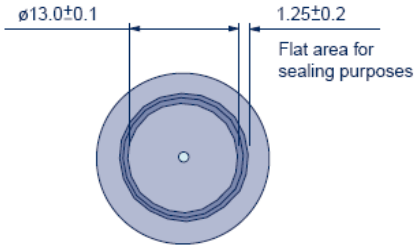
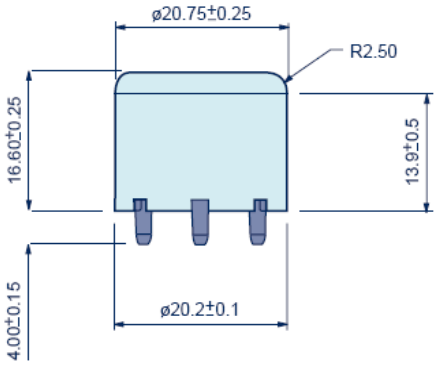
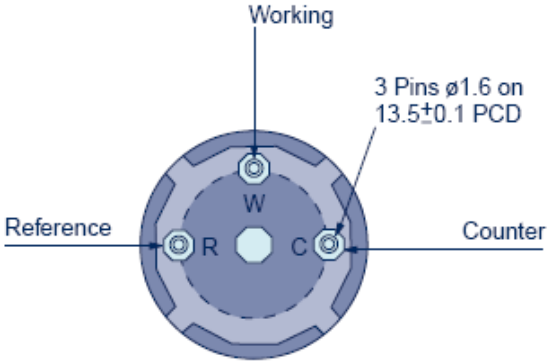
SURECELL H2S (H)
Hydrogen Sulphide Sensor





OPERATING PERFORMANCE

Operating principle:	3-electrode electrochemical
Gas detected:	Hydrogen Sulphide (H2S)
Measurement range:	0 – 100ppm
Maximum overload[1]:	500ppm
Expected Lifetime:	2 years in air from date of manufacture
Output signal:	1.45 ± 0.30 µA/ppm
Temperature range[2]:	Continuous: -20°C to +40 °C Intermittent: -40°C to +55 °C
Pressure range:	1 atm ± 10%
Humidity range (non condensing):	Continuous: 15 - 90% Intermittent: 0 - 99%
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 current 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 to +30°C
Orientation:	Any
Warranty period:	18 months from date of despatch
Part number:	2112B2023

Important Notes: 1. After exposure to high concentrations of Hydrogen Sulphide, the cell should be left for an extended period of time to recovery fully its original characteristics. 2. The performance characteristics are based on this temperature range. However the cell can be used outside this range but not all performance specifications will then be valid. If the cell is to be used outside this range, then the user should characterise the cell for their application. 3. All product specifications are quoted at standard temperature and pressure. 4. Poisoning: The H2S (H) sensor is designed for operation in a wide range of environments and harsh conditions. However it is important that exposure to high concentrations of solvent vapours is avoided, both during storage, fitting into instruments and operation. When using sensors with printed circuit boards (PCBs), degreasing agents should be used before the sensor is fitted. Do not glue directly on or near the Cell, as the solvent may cause crazing of the plastic.

EURO-GAS MANAGEMENT SERVICES LTD, CHURSTON HOUSE,
BASCOMBE ROAD, CHURSTON FERRERS, DEVON, TQ5 0JJ, UK
☎: +44 (0)1803 844414 Fax: +44 (0)1803 844224
euro-gas@btconnect.com www.euro-gasman.com

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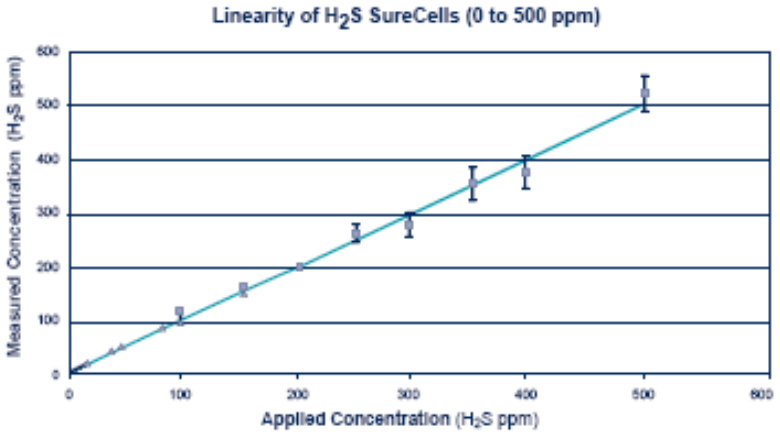

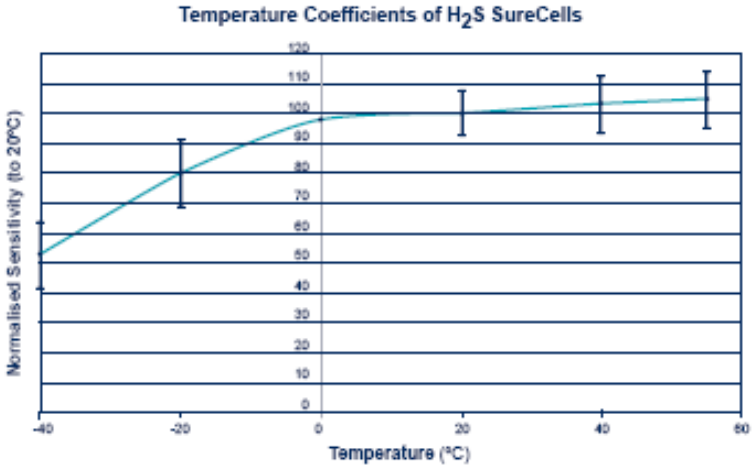

Cross Sensitivity Table					
Gas	Concentration Used (ppm)	Reading (ppm H_2S)	Gas	Concentration Used (ppm)	Reading (ppm H_2S)
Carbon Monoxide	50	0	Chlorine	0.5	0
Hydrogen Sulphide	10	10	Hydrogen	100	0
Sulfur Dioxide	2	0	Ethylene	100	0
Nitrogen Dioxide	3	0	Carbon Dioxide	5000	0
Nitric Oxide	25	0	Ammonia	50	0

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.

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