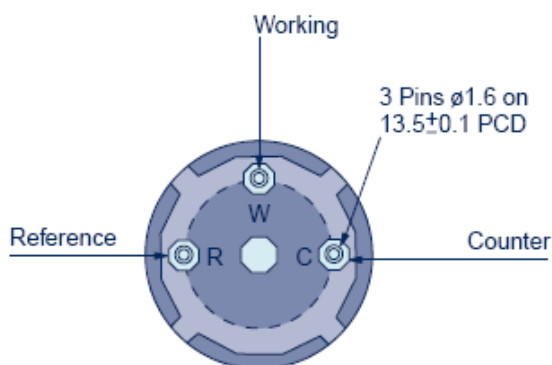
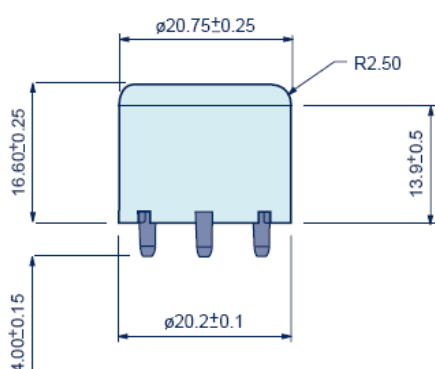
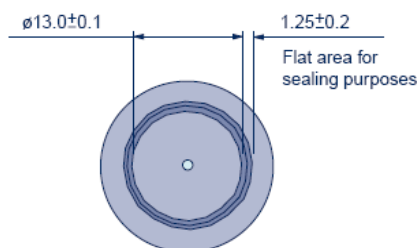


# SURECELL Chlorine Cl<sub>2</sub> Sensor



## OPERATING PERFORMANCE

<b>Operating principle:</b>	3-electrode electrochemical
<b>Gas detected:</b>	Chlorine (Cl <sub>2</sub> )
<b>Measurement range:</b>	0 – 20ppm
<b>Maximum overload<sup>1</sup>:</b>	50ppm
<b>Expected Lifetime:</b>	2 years in air from date of manufacture
<b>Output signal:</b>	0.50 ± 0.10 µA/ppm
<b>Temperature range<sup>2</sup>:</b>	Continuous: -20°C to +40 °C Intermittent: -40°C to +55 °C
<b>Pressure range:</b>	1 atm ± 10%
<b>Humidity range (non condensing):</b>	Continuous: 15 - 90% Intermittent: 0 – 99%
<b>Response time (T<sup>5</sup><sub>90</sub>):</b>	< 60 seconds
<b>Baseline offset (clean air):</b>	< ±0.25ppm equivalent
<b>Zero shift (-40 to +55°C):</b>	< ±0.5ppm equivalent
<b>Long term output drift:</b>	< 2% per month
<b>Repeatability:</b>	< ±5%
<b>Linearity:</b>	Linear < ±3%
<b>Recommended load resistor:</b>	5Ω
<b>Bias voltage:</b>	Not required

## INTRINSIC SAFETY DATA

<b>Maximum current at 50ppm:</b>	0.05mA
<b>Maximum O.C. voltage:</b>	0.8V
<b>Maximum S.C current:</b>	< 1.0A

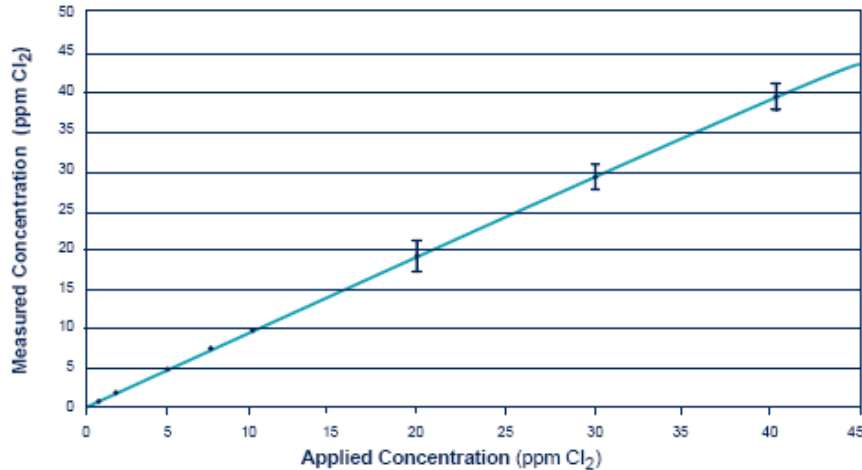
## PHYSICAL SPECIFICATION

<b>Weight:</b>	5g (approx)
<b>Housing material:</b>	Noryl 110
<b>Storage life:</b>	6 months in sealed container
<b>Storage conditions:</b>	+10°C to +30°C
<b>Orientation:</b>	Any
<b>Warranty period:</b>	18 months from date of despatch
<b>Part number:</b>	2112B2035

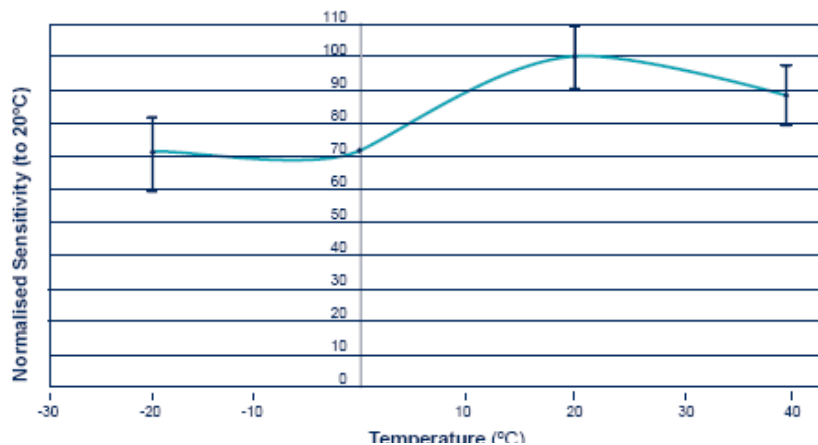
Important Notes: 1. After exposure to high concentrations of Chlorine, the cell should be left for an extended period of time to recovery fully its original characteristics. 2. The performance characteristics are based on this temperature range. However the cell can be used outside this range but not 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 Cl<sub>2</sub> 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.

# SURECELL Chlorine Cl<sub>2</sub> Sensor

Linearity of Cl<sub>2</sub> SureCells across Measurement Range



Temperature Coefficients of Chlorine SureCells



Cross Sensitivity Table

Gas	Concentration Used (ppm)	Reading (ppm Cl <sub>2</sub> )	Gas	Concentration Used (ppm)	Reading (ppm Cl <sub>2</sub> )
Hydrogen Sulphide	25	-16.3	Carbon Dioxide	20000	0
Sulfur Dioxide	50	9.1	Ammonia	50	-1.9
Nitrogen Dioxide	50	1.25	Hydrogen Chloride	9	1.25

**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.

The data contained in this document is believed to be accurate and correct. The data given is for guidance only. Euro-Gas Management Services Ltd accepts no liability for any consequential losses, injury or damage resulting from the use of this datasheet or the information contained in it. Customers should test the sensors under their own conditions to ensure that the sensors are suitable for their own requirements and in accordance with the plans and circumstances of the specific project and any standards/regulations pertaining to the country in which the sensors will be utilised. This datasheet is not intended to form the basis of a contract and in the interest of product improvement, Euro-Gas reserves the right to alter design features and specifications without notice.

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