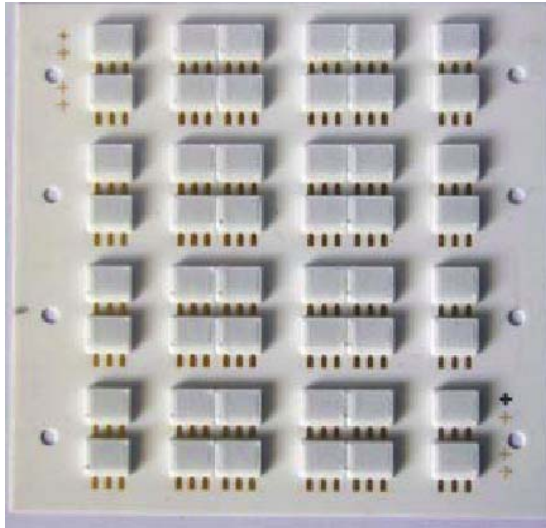


# H2 SS HYDROGEN SENSOR - RAW



**Part Number:** 2112B010210

Raw sensor option available as individual sensors and on a complete board of 48 sensors, as shown above.

## SPECIFICATION – RAW SENSOR

|  |                                |
|--|--------------------------------|
| <b>Operating Principle:</b>                        | Amperometric, 3-electrode cell |
| <b>Gas Detected:</b>                               | Hydrogen H <sub>2</sub>        |
| <b>Standard Range:</b>                             | 0 – 20,000 ppm                 |
| <b>Lower Detectable Limit (LDL):</b>               | 100 ppm                        |
| <b>Maximum Range:</b>                              | 40,000 ppm                     |
| <b>LEL:</b>  | 40,000 ppm                     |
| <b>Expected Operating Life:</b>                    | 5 years                        |
| <b>Temperature Range:</b>                          | -20°C to +80°C                 |
| <b>Humidity Range (non-condensing):</b>            | 15-90% RH                      |
| <b>Response Time (T<sub>50</sub>):</b>             | <10 seconds                    |
| <b>Response Time (T<sub>90</sub>):</b>             | <30 seconds                    |
| <b>Long Term Sensitivity Drift:</b>                | <10% per year                  |
| <b>Deviation From Linearity at Standard Range:</b> | <20% FS                        |
| <b>Zero Current at Normal Conditions:</b>          | +/- 100nA                      |
| <b>Sensitivity:</b>                                | 0.4 – 10.0 nA/ppm              |
| <b>Sensor Warm-Up Time (typically):</b>            | 20 seconds                     |
| <b>Temperature Dependence:</b>                     | <0.5% per °C                   |
| <b>Sensor dimensions:</b>                          | 10mm x 8.8mm x 3mm             |
| <b>Warranty Period:</b>                            | 2 years from date of despatch  |
| <b>Part Number:</b>                                | 2112B010210                    |



# H2 SS HYDROGEN SENSOR - RAW

## CROSS SENSITIVITY DATA

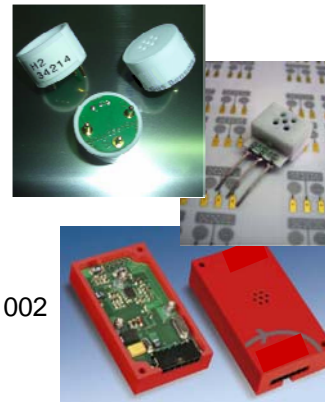
| GAS  | CONCENTRATION | READING IN PPM |
|--|---------------|----------------|
| Ammonia NH <sub>3</sub>                      | 25 ppm        | 0              |
| Carbon Dioxide CO <sub>2</sub>               | 5000 ppm      | 0              |
| Carbon Monoxide CO                           | 50 ppm        | 37             |
| Chlorine Cl <sub>2</sub>                     | 1.0 ppm       | 0              |
| Hydrocarbons unsaturated                     | 1%            | 0              |
| Hydrogen H <sub>2</sub>                      | 1000 ppm      | 1000           |
| Hydrogen Sulphide H <sub>2</sub> S           | 10 ppm        | 440            |
| Isopropanol C <sub>3</sub> H <sub>7</sub> OH | 1000 ppm      | To be advised  |
| Nitric Oxide NO                              | 20 ppm        | To be advised  |
| Nitrogen Dioxide NO <sub>2</sub>             | 10 ppm        | To be advised  |
| Ozone O <sub>3</sub>                         | 0.5 ppm       | To be advised  |
| Sulphur Dioxide SO <sub>2</sub>              | 20 ppm        | To be advised  |

Note: Test conditions at 20°C / 1013 hPa, flow rate > 500 qcm/min. Cross-sensitivity gases are not target gases. Relationship can change overtime.

## SENSOR OPTIONS

The H<sub>2</sub> SS sensor is also available as sensor only options and as housed systems:

|   |                                    |
|---|------------------------------------|
| <b>Micro sensor:</b>  | part no. 2112B012710               |
| <b>Raw sensor:</b>  | part no. 2112B010210               |
| <b>Nano sensor:</b>   | part no. 2112B011710               |
| <b>4 series sensor:</b>   | part no. 2112B010410               |
| <b>USB gas sensor stick:</b>                                    | part no. 2112B051001 / 2112B051002 |
| <b>H<sub>2</sub> Gas Measuring System in PVC housing:</b>       | part no. 2112B0090                 |
| <b>H<sub>2</sub> Gas Measuring System in aluminium housing:</b> | part no. 2112B24420                |



The data contained in this document is believed to be accurate and reliable. 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. 03/11

