

## EC Sense Selection Guide

2 models · downloadable datasheets also available per model on [anchorsensor.com](http://anchorsensor.com)

### DS4-H2-1000 — DS4-H2-1000 Smart Hydrogen Gas Sensor

The EC Sense DS4 DS4-H2-1000 is a smart Hydrogen gas sensor based on printed solid-polymer electrochemical technology. It integrates a high-performance MCU and high-precision ADC, and ships factory-calibrated with Hydrogen (H<sub>2</sub>) standard gas — ready to measure ...

|                     |                                                              |
|---------------------|--------------------------------------------------------------|
| Target Gas          | Hydrogen (H <sub>2</sub> )                                   |
| Operating Principle | Printed Solid-Polymer Electrochemical (smart digital output) |
| Range               | 0 – 1000 ppm                                                 |
| Resolution          | 1 ppm                                                        |
| Accuracy            | ± 5% F.S                                                     |
| Repeatability       | < ± 2%                                                       |
| Linearity           | Linear                                                       |
| Response Time       | < 3 s (T <sub>90</sub> < 60 s)                               |
| Stabilization       | < 2 min (no warm-up, measure on power-up)                    |
| Long-Term Drift     | < 1% / month                                                 |
| Output Signal       | UART 3.3 V half-duplex single-bus, 9600 bps, 8N1             |
| Supply Voltage      | 3.3 – 12 V DC (recommended 5 V)                              |
| Operating Current   | 0.65 mA @ 5 V DC                                             |
| Peak Current        | 1 mA @ 5 V DC                                                |
| Sleep Current       | 0.35 mA @ 5 V DC                                             |
| Power Consumption   | ≤ 5 mW @ 5 V                                                 |
| Operating Temp.     | -40 °C ~ +55 °C                                              |
| Operating Humidity  | 15 – 95% RH (non-condensing)                                 |
| Operating Pressure  | Atmospheric pressure ±10%                                    |
| Storage Temp.       | 0 ~ +20 °C                                                   |
| Housing             | ABS                                                          |
| Weight              | 4.56 g                                                       |
| Expected Lifetime   | > 3 years (in air)                                           |
| Warranty            | 12 months                                                    |

Calibrated with Hydrogen (H<sub>2</sub>) standard gas. Each sensor is factory-calibrated and ready to use without re-calibration. An open calibration protocol supports offline secondary calibration and one-click

## DS4-H2-20000 — DS4-H2-20000 Smart Hydrogen Gas Sensor

The EC Sense DS4 DS4-H2-20000 is a smart Hydrogen gas sensor based on printed solid-polymer electrochemical technology. It integrates a high-performance MCU and high-precision ADC, and ships factory-calibrated with Hydrogen (H<sub>2</sub>) standard gas — ready to measure...

|                            |                                                              |
|----------------------------|--------------------------------------------------------------|
| <b>Target Gas</b>          | Hydrogen (H <sub>2</sub> )                                   |
| <b>Operating Principle</b> | Printed Solid-Polymer Electrochemical (smart digital output) |
| <b>Range</b>               | 0 – 20000 ppm                                                |
| <b>Resolution</b>          | 10 ppm                                                       |
| <b>Accuracy</b>            | ± 5% F.S                                                     |
| <b>Repeatability</b>       | < ± 2%                                                       |
| <b>Linearity</b>           | Linear                                                       |
| <b>Response Time</b>       | < 3 s (T <sub>90</sub> < 60 s)                               |
| <b>Stabilization</b>       | < 2 min (no warm-up, measure on power-up)                    |
| <b>Long-Term Drift</b>     | < 1% / month                                                 |
| <b>Output Signal</b>       | UART 3.3 V half-duplex single-bus, 9600 bps, 8N1             |
| <b>Supply Voltage</b>      | 3.3 – 12 V DC (recommended 5 V)                              |
| <b>Operating Current</b>   | 0.65 mA @ 5 V DC                                             |
| <b>Peak Current</b>        | 1 mA @ 5 V DC                                                |
| <b>Sleep Current</b>       | 0.35 mA @ 5 V DC                                             |
| <b>Power Consumption</b>   | ≤ 5 mW @ 5 V                                                 |
| <b>Operating Temp.</b>     | -40 °C ~ +55 °C                                              |
| <b>Operating Humidity</b>  | 15 – 95% RH (non-condensing)                                 |
| <b>Operating Pressure</b>  | Atmospheric pressure ±10%                                    |
| <b>Storage Temp.</b>       | 0 ~ +20 °C                                                   |
| <b>Housing</b>             | ABS                                                          |
| <b>Weight</b>              | 4.56 g                                                       |
| <b>Expected Lifetime</b>   | > 3 years (in air)                                           |
| <b>Warranty</b>            | 12 months                                                    |

Calibrated with Hydrogen (H<sub>2</sub>) standard gas. Each sensor is factory-calibrated and ready to use without re-calibration. An open calibration protocol supports offline secondary calibration and one-click