

EC4-NH3-500-01

EC4-NH3-500 Ammonia Gas Sensor

EC Sense • Ammonia • Amperometric

The EC Sense EC4-NH3-500 is an electrochemical gas sensor for Ammonia detection, with a 0 – 500 ppm range, 35 nA/ppm ± 15 nA/ppm sensitivity and T50 < 20 s, T90 < 50 s response. Double-sealed ABS housing at about 8 g with excellent leakage protection — built for long-term industrial field deployment Well suited to industrial safety, leakage detection and emission monitoring, with a designed lifetime of > 2 years.

Specifications

|                         |                                             |
|-------------------------|---------------------------------------------|
| Operating Principle     | Amperometric                                |
| Bias Voltage            | 0 mV                                        |
| Range                   | 0 – 500 ppm                                 |
| Maximum Overload        | 1000 ppm                                    |
| Resolution              | 0.1 ppm (16-bit ADC)                        |
| Sensitivity             | 35 nA/ppm ± 15 nA/ppm                       |
| Response Time           | T50 < 20 s, T90 < 50 s                      |
| Repeatability           | 2 %                                         |
| Linearity               | Linear                                      |
| Zero Current            | ± 300 nA                                    |
| Recommended Load        | 100 Ω                                       |
| Warm-Up Time            | < 60 s                                      |
| Operating Temp.         | -30 °C to +55 °C                            |
| Operating Humidity      | 15-95% RH non-condensing                    |
| Operating Pressure      | 800 to 1200 hPa                             |
| Storage Temp.           | 0 °C to 20 °C (Optimum temp. 4 °C to 6 °C ) |
| Housing                 | ABS                                         |
| Weight                  | < 8 g                                       |
| Long-Term Drift         | < 5 %/year                                  |
| Expected Lifetime       | > 2 years                                   |
| Zero Drift in Clean Air | < 10 ppm                                    |
| Storage Life            | 6 months                                    |
| Warranty                | 12 months                                   |

Key Features

- Detects with high selectivity a wide variety of gases

- Double sealed housing for advanced leakage protection
- Stable zero
- Linear output
- High sensitivity
- nA power consumption
- Wide operation temperature range of -30 °C to +55 °C
- Typical warm-up time in minutes
- RoHS compliant

## Typical Applications

- Industrial Safety
- Leakage Detection
- Emission Monitoring
- Sewage/Water Treatment Plant
- Biogas
- Garbage Disposal
- Semiconductor Industry
- Warehouse Logistics Monitoring
- Indoor Air Quality

## Calibration & Cross-Sensitivity

Calibrated with Ammonia standard gas. Cross-sensitivity to other gases may exist — see the cross-sensitivity table in the datasheet.