

Portable & Fixed Monitor Sensor Specifications

| Gas | Sensor Code | Sensor Type ¹ | Range (ppm) | Minimum Detection Limit (ppm) | Accuracy of Factory Calibration ² | Resolution (ppm) | Response time (s) ³ | Operating Conditions ⁴ | | Application Type ⁵ | | | | | S2/3/500 ⁶ | S900 | S930 | SM70 | SM50 |
|--|-------------|--------------------------|--------------------------------|-------------------------------|--|------------------------------|--------------------------------|-----------------------------------|-----------|-------------------------------|-----|-----|---|---|-----------------------|------|------|------|------|
| | | | | | | | | Temp | RH | ENV | IAQ | IND | | | | | | | |
| Ammonia (NH ₃) | NH | GSS | 0-1000 | 2 | <±5 ppm + 15% | 1 | 30 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | | | | | |
| Ammonia (NH ₃) | ENG | GSE | 0-100 | 0.2 | <±0.5ppm + 10% | 0.1 | 120 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | • | | | | |
| Carbon monoxide (CO) | ECM | GSE | 0-25 | 0.05 | <±0.5 ppm 0-5 ppm <±10% 5-25ppm | 0.01 | 60 | 0 to 40°C | 15 to 90% | ✓ | | | • | • | • | | | | |
| Carbon monoxide (CO) | ECN | GSE | 0-100 | 0.2 | <±1 ppm 0-10 ppm <±10% 10-100ppm | 0.1 | 30 | 0 to 40°C | 15 to 90% | ✓ | ✓ | ✓ | • | • | • | | | | |
| Carbon monoxide (CO) | CO | GSS | 0-1000 | 1 | <±2ppm + 15% | 1 | 30 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | | | | | |
| Carbon dioxide (CO ₂) | CD | NDIR | 0-2000 | 10 | <±10ppm + 5% | 1 | 120 | 0 to 40°C | 0 to 95% | ✓ | ✓ | ✓ | • | • | | | | | |
| Carbon dioxide (CO ₂) | CE | NDIR | 0-5000 | 20 | <±20ppm + 5% | 1 | 120 | 0 to 40°C | 0 to 95% | | ✓ | ✓ | • | • | | | | | |
| Chlorine (Cl ₂) | ECL | GSE | 0-10 | 0.01 | <±0.02ppm + 10% | 0.01 | 30 | 0 to 40°C | 15 to 90% | ✓ | | ✓ | • | • | • | | | | |
| Formaldehyde (CH ₂ O) | EF | GSE | 0-10 | 0.01 | <±0.05 ppm 0-0.5 ppm <±10% 0.5-10ppm | 0.01 | 120 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | • | | | | |
| Hydrogen (H ₂) | HA | GSS | 0-5000 | 5 | <±10ppm + 10% | 1 | 30 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | | | | | |
| Methane (CH ₄) | MT | GSS | 0-10000 | 10 | <±20ppm + 15% | 1 | 60 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | • | | | | |
| Hydrogen sulfide (H ₂ S) | EHS | GSE | 0-10 | 0.04 | <±0.05 ppm 0-0.5 ppm <±10% 0.5-10ppm | 0.01 | 30 | 0 to 40°C | 15 to 90% | ✓ | | | • | • | • | | | | |
| Hydrogen sulfide (H ₂ S) | EHT | GSE | 0-100 | 0.4 | <±0.5 ppm 0-5 ppm <±10% 5-100ppm | 0.1 | 30 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | | | | | |
| Nitrogen dioxide (NO ₂) | END | GSE | 0-1 | 0.005 | <±0.02 ppm 0-0.2 ppm <±10% 0.2-1 ppm | 0.001 | 30 | 0 to 40°C | 15 to 90% | ✓ | | | • | • | • | | | | |
| NMHC | VN | GSS | 0-25 | 0.1 | <±0.1 ppm + 10% | 0.1 | 60 | 0 to 40°C | 10 to 90% | ✓ | | | • | • | • | | | | |
| Ozone (O ₃) | OZS | GSS | 0-0.05 | 0.001 | <±0.002 ppm | 0.001 | 240 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | • | | | | |
| Ozone (O ₃) | OZU | GSS | 0-0.15 | 0.001 | <±0.005 ppm | 0.001 | 60 | 0 to 40°C | 10 to 90% | ✓ | ✓ | ✓ | • | • | • | • | • | | |
| Ozone (O ₃) | OZL | GSS | 0-0.5 | 0.001 | <±0.008 ppm 0-0.1 ppm <±10% 0.1-0.5 ppm | 0.001 | 60 | 0 to 40°C | 10 to 90% | ✓ | ✓ | ✓ | • | • | • | • | • | | |
| Ozone (O ₃) | OZG | GSS | 0-10 | 0.02 | <±0.1ppm + 15% | 0.01 | 60 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | • | • | • | | |
| Ozone (O ₃) | EOZ | GSE | 0-10 | 0.01 | <±0.01ppm + 7.5% | 0.01 | 60 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | • | | | | |
| Ozone (O ₃) | EOZH | GSE | 0-30 | 0.01 | <±0.05 ppm + 10% | 0.01 | 60 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | | | | | |
| Particulate Matter (PM _{2.5} and PM ₁₀) | PM | LPC | 0.001-1.000 mg /m ³ | 0.001 mg /m ³ | ± 0.005 mg /m ³ + 15 % | 0.001 mg /m ³ | 5 | 0 to 40°C | 0 to 90% | ✓ | ✓ | ✓ | • | | | | | | |
| Perchloroethylene (C ₂ Cl ₄) | PE | GSS | 0-200 | 1 | <±5 ppm 0-50 ppm <±10% 50-200 ppm | 1 | 30 | 0 to 40°C | 10 to 90% | | ✓ | ✓ | • | • | | | | | |
| Sulfur dioxide (SO ₂) | ESO | GSE | 0-10 | 0.04 | <±0.05 ppm 0-0.5 ppm <±10% 0.5-10ppm | 0.01 | 60 | 0 to 40°C | 15 to 90% | ✓ | ✓ | | • | • | • | | | | |
| Sulfur dioxide (SO ₂) | ESP | GSE | 0-100 | 0.4 | <±0.5 ppm 0-5 ppm <±10% 5-100ppm | 0.1 | 30 | 0 to 40°C | 15 to 90% | | | ✓ | • | • | • | | | | |
| VOC | VM | GSS | 0-25 | 0.1 | <±0.1 ppm + 10% | 0.1 | 60 | 0 to 40°C | 10 to 90% | ✓ | ✓ | | • | • | • | | | | |
| VOC | VP | GSS | 0-500 | 1 | <±5ppm + 10% | 1 | 30 | 0 to 40°C | 10 to 90% | | | ✓ | • | • | | | | | |
| VOC | VOC | PID | 0-30 | 0.01 | <±0.02ppm + 10% | 0.01 | 30 | 0 to 40°C | 0 to 95% | ✓ | ✓ | | • | • | • | | | | |
| VOC | VOCH | PID | 0-2000 | 0.1 | <±0.2ppm + 10% | <1000ppm: 0.1 >1000ppm: 1 | 30 | 0 to 40°C | 0 to 95% | | | ✓ | • | • | • | | | | |

Notes

1. Sensor Types: Gas Sensitive Semiconductor (GSS), Gas Sensitive Electrochemical (GSE), Non-dispersive Infra-red (NDIR), Laser Particle Counter (LPC), Photo Ionization Detector (PID).
2. The accuracy is valid for the conditions stated in the calibration certificates, not including calibration gas tolerance. Relative errors are % of reading.
3. Response time is the time to reach 90% of final reading in response to a step change in gas concentration (T90). In practice response times vary due to air mass transport factors and concentration gradients.
4. Sensor performance may degrade outside of stated conditions. Avoid condensation which may damage sensors. Sensors may exhibit temperature and humidity interferences which will affect accuracy. Additional enclosure protection may extend operating environmental conditions, please contact Aeroqual for further information. Note sensors are designed to operate in environments with oxygen levels similar to ambient air.
5. Application type: ENV = outdoor environmental monitoring, IAQ = indoor air quality, IND = industrial health and safety
6. Not all sensors can be used with the Series 200, 300 and 500 when inside the water and dustproof enclosure (HH ENC). Please contact Aeroqual for advice on your specific application.