

# Gas Sensor Specifications

Gas	Sensor Code	Sensor Type <sup>1</sup>	Range (ppm)	Minimum Detection Limit (ppm)	Accuracy of Factory Calibration <sup>2</sup>	Resolution (ppm)	Response time (s) <sup>3</sup>	Operating Conditions <sup>4</sup>		Application Type <sup>5</sup>			Compatibility					
								Temp	RH	ENV	IAQ	IND	S2/3/500 <sup>6</sup>	S900	S930	S940	SM70	SM50
Ammonia (NH <sub>3</sub> )	NH	GSS	0-1000	2	<±5 ppm +15%	1	30	0 to 40°C	10 to 90%			✓	•	•	•			
Ammonia (NH <sub>3</sub> )	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 <sub>2</sub> )	CD	NDIR	0-2000	10	<±10ppm + 5%	1	120	0 to 40°C	0 to 95%	✓	✓	✓	•	•				
Carbon dioxide (CO <sub>2</sub> )	CE	NDIR	0-5000	20	<±20ppm + 5%	1	120	0 to 40°C	0 to 95%		✓	✓	•	•				
CO <sub>2</sub> , CO	MS1	NDIR GSE	0-2000 0-100	10 0.2	See CD and ECN data	1 0.1	120	0 to 40°C	15 to 90%	✓	✓		•					
CO <sub>2</sub> , CO, PID	MS2	NDIR GSE PID	0-2000 0-100 0-20	10 0.2 0.01	See CD, ECN and PDL data	1 0.1 0.01	120	0 to 40°C	15 to 90%	✓	✓		•					
Chlorine (Cl <sub>2</sub> )	ECL	GSE	0-10	0.01	<±0.02ppm + 10%	0.01	30	0 to 40°C	15 to 90%	✓		✓	•	•	•			
Formaldehyde (CH <sub>2</sub> 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 <sub>2</sub> )	HA	GSS	0-5000	5	<±10ppm + 10%	1	30	0 to 40°C	10 to 90%			✓	•	•	•			
Methane (CH <sub>4</sub> )	MT	GSS	0-10000	10	<±20ppm + 15%	1	60	0 to 40°C	10 to 90%			✓	•	•	•			
Hydrogen sulfide (H <sub>2</sub> 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 <sub>2</sub> 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 <sub>2</sub> )	ENW	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 <sub>3</sub> )	OZS	GSS	0-0.05	0.001	<±0.002 ppm	0.001	240	0 to 40°C	10 to 90%			✓	•	•	•			
Ozone (O <sub>3</sub> )	OZU	GSS	0-0.15	0.001	<±0.005 ppm	0.001	60	0 to 40°C	10 to 90%	✓	✓	✓	•	•	•	•	•	•
Ozone (O <sub>3</sub> )	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 <sub>3</sub> )	EOZ	GSE	0-10	0.01	<±0.01 ppm + 7.5%	0.01	5	0 to 40°C	15 to 90%		✓	✓	•	•	•			
Perchloroethylene (C <sub>2</sub> Cl <sub>4</sub> )	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 <sub>2</sub> )	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 <sub>2</sub> )	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	PDL	PID	0-20	0.01	<±0.02ppm + 10%	0.01	30	0 to 40°C	0 to 95%	✓	✓		•	•	•			
VOC	PDH	PID	0-1000	0.1	<±0.2ppm + 10%	0.1	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), 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.