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]						
								Temp	RH	ENV	IAQ	IND	Ranger	S3/500[6]	S900	S930
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	<±0.5 ppm + 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% 5-25 ppm	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% 10-100 ppm	0.1	30	0 to 40°C	15 to 90%	✓	✓	✓	●	●	●	●
Carbon monoxide (CO)	CO	GSS	0-1000	1	<±2 ppm + 15%	1	30	0 to 40°C	10 to 90%			✓	●	●	●	
Carbon dioxide (CO_2)	CD	NDIR	0-2000	10	<±10 ppm + 5%	1	120	0 to 40°C	0 to 95%	✓	✓	✓	●	●	●	
Carbon dioxide (CO_2)	CE	NDIR	0-5000	20	<±20 ppm + 5%	1	120	0 to 40°C	0 to 95%		✓	✓	●	●	●	
Chlorine (Cl_2)	ECL	GSE	0-10	0.01	<±0.02 ppm + 10%	0.01	30	0 to 40°C	15 to 90%	✓		✓	●	●	●	●
Formaldehyde (CH_2O)	EF	GSE	0-10	0.01	<±0.05 ppm 0-0.5 ppm <±10% 0.5-10 ppm	0.01	120	0 to 40°C	15 to 90%			✓	●	●	●	●
Hydrogen (H_2)	HA	GSS	0-5000	5	<±10 ppm + 10%	1	30	0 to 40°C	10 to 90%			✓	●	●	●	
Methane (CH_4)	MT	GSS	0-10000	10	<±20 ppm + 15%	1	60	0 to 40°C	10 to 90%			✓	●	●	●	
Hydrogen sulfide (H_2S)	EHS	GSE	0-10	0.04	<±0.05 ppm 0-0.5 ppm <±10% 0.5-10 ppm	0.01	30	0 to 40°C	15 to 90%	✓			●	●	●	●
Hydrogen sulfide (H_2S)	EHT	GSE	0-100	0.4	<±0.5 ppm 0-5 ppm <±10% 5-100 ppm	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)	EOZ	GSE	0-10	0.01	<±0.01 ppm + 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%	✓	✓			●		
PMX Particulate Matter (PM_1, $PM_{2.5}$, PM_4, PM_{10}, TSP)	PMX	LPC	0–30.0 mg/m^3	Zero stability ± 0.1 µg/m^3	<±8% of reading	0.1 µg/m^3	1	0 to 40°C	0 to 95%	✓	✓	✓	●			
Perchloroethylene (C_2Cl_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% 0.5-10 ppm	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% 5-100 ppm	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	<±5 ppm + 10%	1	30	0 to 40°C	10 to 90%			✓	●	●	●	
VOC	VOC	PID	0-30	0.01	<±0.02 ppm + 10%	0.01	30	0 to 40°C	0 to 95%	✓	✓		●	●	●	●
VOC	VOCH	PID	0-2000	0.1	<±0.2 ppm + 10%	<1000 ppm: 0.1 >1000 ppm: 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 300 and 500 when inside the water and dustproof enclosure (HH ENC). Please contact Aeroqual for advice on your specific application.