



Midas® Sensor Cartridge Specifications

Oxygen (O₂) MIDAS-L-O2S

Gas Measured	Oxygen (O ₂)
Cartridge Part Number	MIDAS-L-O2S 3 year warranty
Sensor Technology	3 electrode electrochemical cell
Measuring Range	O ₂ 0 – 25%v/v
Minimum Alarm 1 Set Point	23.5%v/v
Lower Detection Limit	0.4%v/v
Linearity	< ± 0.2%v/v
Repeatability	< ± 0.1%v/v
Resolution	0.1%vol
Response Time t_{62.5}	≤ 10 seconds
Sensor Cartridge Life Expectancy	≥ 36 months under typical application conditions
Operating Temperature	0°C to +40°C (32°F to 104°F)
Effect of Temperature	
Zero	
Sensitivity	< ± 0.3% of measured value / °C
Operating Humidity	10 to 90% RH
Effect of Humidity	
Zero	Follows actual concentration of O ₂ present
Sensitivity	(eg. 20.9% v/v @ 30% rH, 20.04% v/v @ 99% rH / 40°C)
Operating Pressure	90 – 110kPa
Effect of Position	No effect in typical application
Long Term Drift	
Zero	No drift
Sensitivity	< 5% signal loss over operating life
Calibration Gas	Oxygen (O ₂)
Bump Test Gas	Air mixture
Warm Up Time	< 30 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on ideal test environment; observed performance may vary based on the actual monitoring system and the sampling conditions employed.

Find out more

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Cross Sensitivities

Each Midas® sensor is potentially cross sensitive to other gases and this may cause a gas reading when exposed to other gases than those originally designated. The table below presents typical readings that will be observed when a new sensor cartridge is exposed to the cross sensitive gas (or a mixture of gases containing the cross sensitive species)

Gas Measured	Chemical Formula	Concentration Applied(ppm)	Reading (% O ₂)
Carbon Dioxide	CO ₂	300	Enhance O ₂ reading by 0.3% / % CO ₂
Hydrogen	H ₂	100%v/v	-9
Methane	CH ₄	100%v/v	No response
Nitrogen Dioxide	NO ₂	25ppm in air	No response

Interference differs from cartridge to cartridge and over cell life. It is not recommended to calibrate with cross sensitivity factors. The target gas should be used for calibration.