

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 (ppm)	O ₂ 0 – 25% v/v
Minimum Alarm 1 Set Point	5% v/v
Repeatability	< ± 0.1% v/v
Linearity	< ± 0.2% v/v
Response Time t_{92.5}	< 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 (continuous)	15 – 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	70 – 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)
Challenge Gas (Bump Test)	Air mixture
Warm Up Time	< 30 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

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 / Vapor	Chemical Formula	Concentration applied (ppm)	Reading (% O ₂)
Carbon Dioxide	CO ₂		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