



Midas® Sensor Cartridge Specifications

Carbonyl Sulfide (COS)

MIDAS-I-COS

Gas Measured	Carbonyl Sulfide (COS)
Cartridge Part Number	MIDAS-I-COS
Sensor Technology	Infrared sensor
Measuring Range (ppm)	COS 0 - 20ppm
Minimum Alarm 1 Set Point	5ppm
Linearity	± 10% of measuring range
Repeatability	± 10% of measuring range
Resolution	1ppm
Response Time $t_{62.5}$	≤ 30 seconds
Sensor Cartridge Life Expectancy	5 years
Sensor Cartridge Warranty	2 years
Operating Temperature	15°C to +35°C (32°F to 104°F)
Effect of Temperature	
Zero	± 3ppm
Sensitivity	± 15% of measuring range
Operating Humidity	15 to 90% non-condensing
Effect of Humidity	
Zero	± 3ppm
Sensitivity	± 15% of measuring range
Operating Pressure	90 – 110kPa
Calibration Gas	Carbonyl Sulfide (10ppm COS)
Bump Test Gas	Carbonyl Sulfide (10ppm COS)
Warm Up Time	< 20 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 Measured	Chemical Formula	Concentration Applied(ppm)	Reading (ppm COS)
Carbon Monoxide	CO	3000	0
Hydrogen Sulfide	H ₂ S	5	0
Sulfur Dioxide	SO ₂	75	0
Nitrogen Dioxide	NO ₂	50	0
Chlorine	Cl ₂	1	0
Hydrogen	H ₂	500	0
Hydrogen Cyanide	HCN	100	0
Hydrogen Chloride	HCl	4	0
Ethylene	C ₂ H ₄	10000	6
Nitric Oxide	NO	50	0
<i>iso</i> -Propyl Alcohol (IPA)	C ₃ H ₇ OH	2000	0
Ethanol	C ₂ H ₆ O	1000	0
FC-3283	CF ₄ + C ₂ F ₆	500	0
Methanol	CH ₃ OH	20000	20

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.

NOTE: Minimum Midas firmware version is 2.16.b10 or later (2nd generation MIDAS (tricolor LCD), not compatible with 1st generation MIDAS (non-tricolor LCD versions)

Find out more

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