

MIDAS S2 CARBONYL SULFIDE (COS)

Sensor Cartridge Specifications

Selectable gases	Carbonyl Sulfide (COS)
Cartridge Part Number	MIDAS S2-I-COS 2-year extended warranty
Sensor Technology	Infrared sensor
Measuring Range	COS 0 - 20ppm
Default Alarm 1	COS 5ppm
Default Alarm 2	COS 10ppm
LDL	COS 3ppm
LAL	COS 5ppm
Resolution	COS 1ppm
Accuracy	± 10% of measured value
Response Time $t_{62.5}$	Typical 30 seconds
Sensor Cartridge Life Expectancy (Expiration Period)	5 years
Operating Temperature	15°C to +35°C (32°F to 104°F)
Effect of Temperature Sensitivity	± 15% of measured value
Operating Humidity	0 to 90% non-condensing
Operating Pressure	90 – 110kPa
Calibration Gas	COS 10ppm
Warm Up Time	< 10 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on the test data with COS gas under normal Lab test conditions (20-25 C, 0 - 60%RH, normal atmosphere pressure); observed performance may vary based on the actual monitoring system and the sampling conditions employed.

Make sure to use this Module after 'Zero Calibration'.



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CROSS SENSITIVITIES

Each Midas S2 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	0
Nitric Oxide	NO	50	0
iso -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

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.

For more information

automation.honeywell.com

**Honeywell Process
Measurement and Control**

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