MIDAS S2 CARBON DIOXIDE (CO_2)

Sensor Cartridge Specifications

Selectable gases	Carbon Dioxide (CO_2)
Cartridge Part Number	MIDAS S2-E-CO2 2-year extended warranty
Sensor Technology	Electrochemical sensor
Measuring Range	CO_2 0 – 2%vol
Default Alarm 1	CO_2 0.25%vol
Default Alarm 2	CO_2 0.5%vol
LDL, LAL	CO_2 0.15%vol
Resolution	CO_2 0.05%vol
Accuracy	≤ ± 10% of measured value
Response Time $t_{62\cdot5}$	Typical 25 seconds
Sensor Cartridge Life Expectancy (Expiration Period)	24 months under typical application conditions Extendable for 1 year through calibration after 24 months
Operating Temperature Effect of Temperature Sensitivity	0°C to +40°C (32°F to 104°F) ≤ ± 20% of measured value at 20°C
Operating Humidity	10 to 90% non-condensing
Operating Pressure	90 – 110kPa
Calibration Gas	CO_2 1%vol
Warm Up Time	< 20 minutes
Storage Temperature	+5°C to +25°C (+41°F to +77°F)

The sensor data listed is based on the test data with CO_2 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.

Honeywell

Midas S2 Carbon Dioxide (CO_2) Sensor Cartridge Specifications

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 (%vol CO_2)
Carbon Monoxide	CO	500	0
Chlorine	Cl_2	2	0
Hydrogen	H2	1000	0
Hydrogen Sulfide	H_2S	75	0
Methane	CH_4	20000	0
Nitrogen Dioxide	NO_2	50	0
Sulfur Dioxide	SO_2	50	0
Methanol	CH_3OH	10000	0
Hydrogen Chloride	HCl	4	0
Silane	SiH_4	10	0
Ammonia	NH_3	50	0
Phosphine	PH_3	0.6	0
Ozone	O_3	0.2	0
Hydrogen Fluoride	HF	6	0
Ethylene Oxide	ETO	20	0
Nitric Oxide	NO	50	0
Hydrogen Cyanide	HCN	10	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
2101 CityWest Blvd
Houston, TX 77042
www.honeywell.com

Midas S2-E-CO2 | Rev 1 | 5/24

Honeywell