

CGAS-AP-CO2-2K Transmitter

Analog Transmitter with Non-dispersive Infrared Carbon Dioxide (CO₂) Sensor

Dimensions:	Size	4.9 x 4.9 x 2 in / 124.9 x 124.9 x 50 mm
	Weight	286 g / 10 oz
Construction:		Polycarbonate, white, low profile
Sensor:	Type	Non-dispersive Infrared (INDR)
	Life Span	Approximately 8 years (application dependent)
Gases Detected:		Carbon Dioxide (CO ₂)
Sensor Range:		0 –2,000 ppm
System Power:		3-wire: VDC: 16-30 VDC, 3-Watts, Class 2 4-wire: VAC: 12-27 VAC, 3-VA, Class 2
Operating Temperature:		0°C to +40°C (32°F to 104°F)
Operating Humidity:		15 to 85% non-condensing
Indicators:		LCD digital display, 2 line x 16 character, backlit, user configurable alarm blink
Signal:		Current: Linear 4-20 mA (maximum 216 ohm load, wiring plus termination resistor @ 12VDC) Maximum 316 ohm load, wiring plus termination resistor @ 12VAC
Relay and Audible (Option RBZ)		Internal 1 SPDT relay rated 30 volts, 2 amp max Internal buzzer rated 90 dB @ 10 cm / 4 in, enable/disable
Minimum Detection:		300 ppm
Accuracy:		±(50 ppm+3% of reading) in the range of 300~2,000 ppm CO ₂
Repeatability:		no data available
Sensitivity Drift:		<10% per year
Response Time (T₉₀):		2 min. (diffusion)
Resolution:		Display resolution: 1 ppm Sensor resolution: ±1 ppm
Warm Up Time:		3 minutes after power-up
Cross Sensitivity:		none
Safety:		Automatic resetting thermal overload fuse (reset capabilities to 500 times)
Wiring:		VDC or ground referenced VAC, 3-conductor shielded 18 awg stranded VAC 4-conductor shielded 18 awg stranded
Sensor Mounting:		Heavier than air, 3 to 5 ft / 91 to 152 cm from the floor (application dependent)
Monitoring Area:		3000 ft ² / 279 m ²
Suggested Alarm Points		Low Alarm: 1,000 ppm / Mid Alarm: 1,250 ppm / High Alarm: 1,500 ppm
Certifications:		CSA-C22.2 No. 205-12, UL508 (Edition 18):2018
(tested to)		EMC Directive 2014/30/EU, EN 50270:2015, Type 1, EN61010 RoHS compliant circuit boards This device complies with part 15 of the FCC Rules
Notes:		Never install gas detectors in the direct path of moving air.

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Conditions Affecting Infrared Sensors:

- Do not use in locations where corrosive chemicals such as chlorine, ammonia and other oxidizers are present, especially if there is a higher humidity level.
- High humidity can affect response and promote corrosion.
- Water or vapour condensation can impair sensor performance.
- Dust and dirt can compromise sensor performance.
- Excessive vibration or impact can damage the sensor.
- Continuous exposure to gas will not poison the sensor but it may require a long time to clear before accurate readings can be taken again.
- Carbon dioxide sensors require 99.9% nitrogen (N₂) for a true zero.