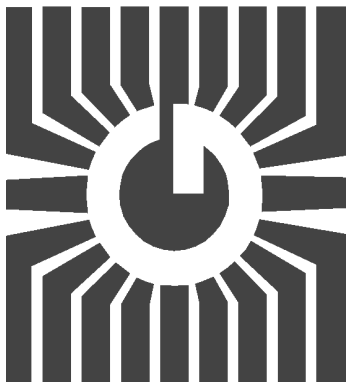


GREYSTONE
ACCURACY BY DESIGN



CARBON MONOXIDE (CO) DETECTORS



**Air quality starts
with sensing the problem**

Greystone's Carbon Monoxide (CO) detectors provide unsurpassed accuracy, reliability, and selection.

***Peace of mind
through reliable
gas sensors***

GREYSTONE HAS AN **ISO 9001** REGISTERED QUALITY SYSTEM

CO DETECTOR

Environmental, industrial and commercial indoor Carbon Monoxide (CO) gas detector. Available in both a space and duct mount version.



ABS Duct Enclosure for CO

APPLICATION:

To sense and transmit carbon monoxide levels to any compatible electronic analog control, DDC/PLC controller or automation system for the control of ventilation equipment.

FEATURES:

- Superior Electrochemical sensing elements
- Setup/calibration fully menu driven (requires LCD option)
- 0-300ppm standard (5%), other ranges available (Contact Greystone).
- 0-500ppm for (3%).
- Optional on board relays with field adjustable trip point.
- Optional LCD for displaying PPM level and menu options.
- Powered by either AC or DC source with no change to circuit required.
- Choice of three field selectable analog output signals, linearized over full range.
- Modbus communication option.
- Field replaceable calibrated sensor module.
- Optional test switch available

SPECIFICATIONS	CO DETECTOR – Product # CMD
Gas Detected	Carbon Monoxide (CO)
Range	0 – 300 ppm (5%), 0-500 ppm (3%)
Standard Accuracy at 0-50°C (32-122°F), 15-90% RH	±5 PPM or ±5% of reading for 0 – 300 ppm (Whichever is greater) ±5 PPM or ±3% of reading for 0 – 500 ppm (Whichever is greater)
Sensing Element Life Expectancy	Electrochemical 5-7 years in air
Operation Conditions	-20-50 °C (-4-122 °F) for 5% electrochemical, 0-50°C (32-122 °F) for 3% electrochemical, 15 - 95% RH non-condensing
Sample Method	Diffusion or flow through, sample tube for duct mounted units
Stability	< 5% signal loss/year
Manufacturing Process	ISO 9001 certified
Output Signal	4-20 mA active (sourcing), 0-5Vdc or 0 – 10 Vdc jumper selectable
Output Drive Capability	Current output – 500 ohms max 10 Kohm min for voltage output
Output Resolution	10 bit PWM (+/- 0.4 ppm)
LCD Display (optional)	LCD for displaying PPM and menu parameters 1 ppm resolution, 28 x 13 mm (1.1" w x 0.5" h) alpha-numeric 2 line x 8 characters
Field Calibration	By applying calibration gas standards (Contact Greystone for Calibration kit)
External Dimensions	ABS Space – 124.5 W x 183.5 H x 43 mm D (7.2" x 4.9" x 1.7") ABS duct – 124.5 x 183.5 x 250.5 mm (7.2" x 4.9" x 9.9") includes duct insertion tube

SPECIFICATIONS (Con't)	CO DETECTOR – Product # CMD
Agency Approvals	Sensor is UL Recognized Component for ANSVUL-2034 and UL-2075, E240671
Typical Coverage Area	700 m2 (7500 ft2) or 15 m (50 ft) radius
Response Time	< 30 seconds for 90% step change
Warm-up Time	200 seconds
Power Supply	15-30 Vac/dc (non-isolated half-wave rectified)
Consumption	80 mA max @ 24 Vdc with all options on 150 mA max @ 24 Vac with all options on
Input Voltage Effect	Negligible over specified operating range
Protection Circuitry	Reverse voltage protected and output limited Transient protection
Optional Relay Output	One or two Form C contact (N.O. and N.C.), 5 amps @ 250 Vac, 5 amps @ 30Vdc, p.f. = 1 Relay 1 Trip Point – Programmable 25, 40-350 ppm in 10 ppm increments Relay 2 Trip Point – Programmable 100-400 ppm in 10 ppm increments Relay Hysteresis – Programmable 10, 15, 25, 50 or 75 ppm Relay Delay – Programmable 0, 1, 2, 3, 4, or 5 minutes
Programming and Selection	Via internal push-buttons and jumpers or optional Modbus communication (LCD required)
Wiring Connections	Screw terminal block (14 to 22 AWG)

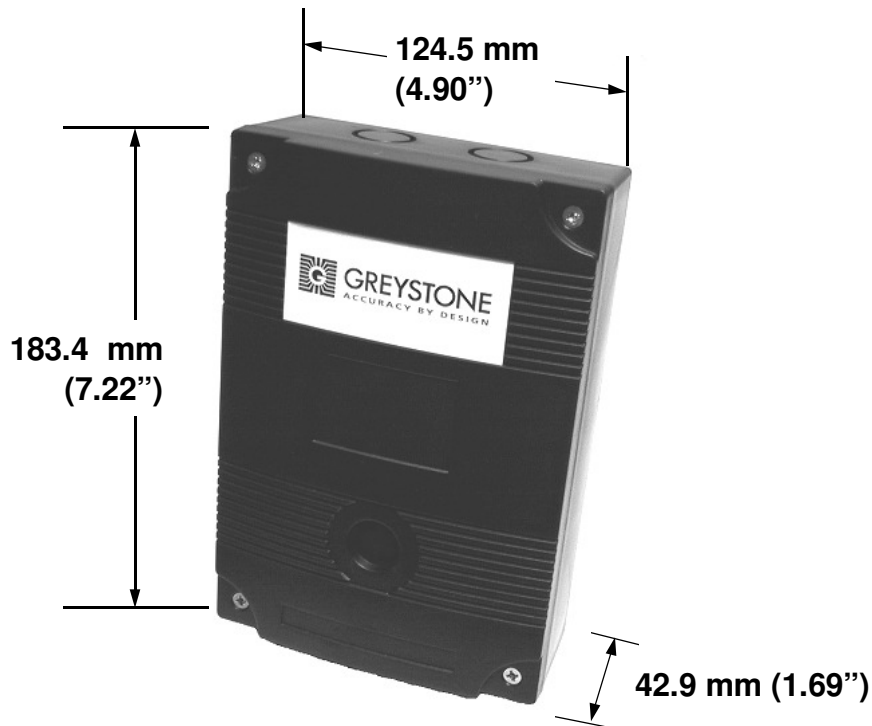
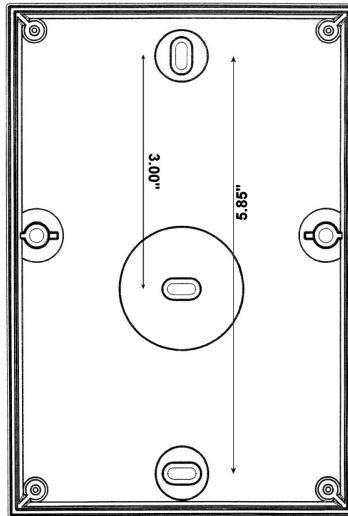
CARBON MONOXIDE (CO): PRODUCT ORDERING INFORMATION

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Example: Electro-chemical CO Space ABS No Relay No Options

Greystone Energy Systems, Inc. reserves the right to make design modifications without prior notice.

DIMENSIONS: nts



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RoHS
COMPLIANT



Greystone Energy Systems Inc. is one of North America's largest ISO registered manufacturers of HVAC sensors and transducers for Building Automation Management Systems.

We have conscientiously established a worldwide reputation as an industry leader by maintaining leading-edge design technology, prompt technical support, and a commitment to on-time deliveries. We take pride in our Quality Management System which is ISO 9001 certified, assuring our customers of consistent product reliability.

V.10/08

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