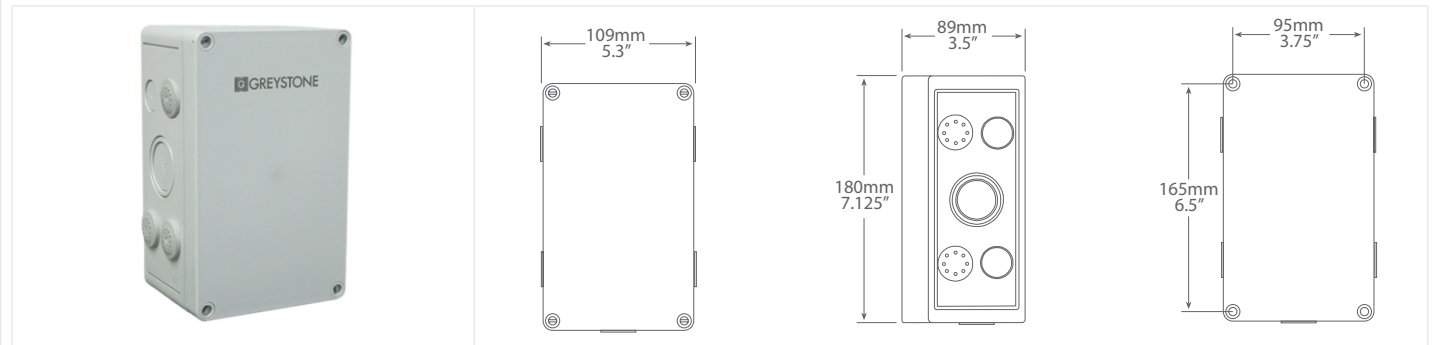


OUTSIDE CARBON DIOXIDE DETECTOR



CDD4 SERIES

PRODUCT DESCRIPTION

The CDD4 series uses a highly accurate and reliable Non-dispersive Infrared (NDIR) sensor combined with state-of-the-art digital linearization and temperature compensated circuitry in a vented, weatherproof enclosure to monitor outside CO₂ levels. A linear analog signal output of 4-20 mA, 0-5 or 0-10 Vdc is provided for connection to a building automation system. Optional features such as temperature sensor and adjustable relay output are available.

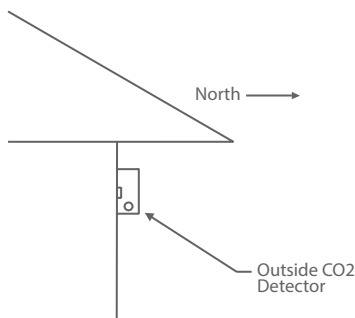
TYPICAL INSTALLATION

For complete installation and wiring details, please refer to the product installation instructions.

The CDD4 should be mounted on an outside North facing wall, under the eaves which will provide protection from direct sunlight and wind.

The CDD4 can be mounted directly to buildings wall face using the provided mounting holes. There are 0.85" knockouts for conduit connection.

The basic CDD4 has a 3 wire configuration with a screw block terminal provided for connection to the Building Automation System.

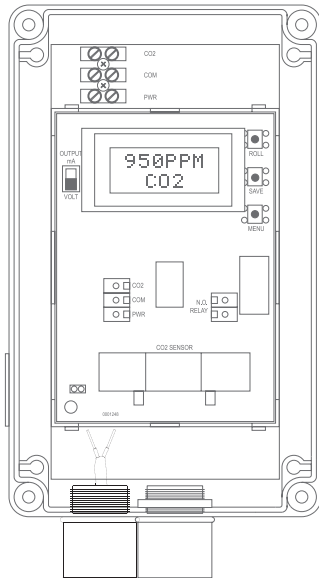


SPECIFICATIONS

RANGE	0 - 2000ppm (Factory default) programmable span from 2000 to 20,000ppm
ACCURACY	±75ppm or 10% of reading (whichever is greater)
SENSOR	Dual Channel Non-Dispersive Infrared (NDIR), diffusion sampling
TEMPERATURE DEPENDENCE	0.2% FS per °C
STABILITY	<5% FS over life of sensor
SENSOR LIFE SPAN	15 years typical
PRESSURE DEPENDENCE	0.13% of reading per mm Hg
ALTITUDE CORRECTION	Programmable from 0-5000 ft via keypad
RESPONSE TIME	<2 minutes for 90% step change typical
WARM-UP TIME	<30 minutes
POWER SUPPLY	20-28 Vac/dc (non-isolated half-wave rectified)
OUTPUT SIGNALS	4-20 mA active (sourcing), 0-5 Vdc or 0-10 Vdc (field selectable)
CONSUMPTION	Heated: 1.0A max @ 24 Vdc 1.1 A max @ 24 Vac Unheated: 100 mA max @ 24 Vdc 185 mA max @ 24 Vac
OUTPUT DRIVE CAPABILITY	Current: 550Ω max Voltage: 10,000Ω min
OUTPUT RESOLUTION	10 bit PWM
PROTECTION CIRCUITRY	Reverse voltage & overvoltage protected
OPERATING CONDITIONS	Heated: -40 to 50°C (-40 to 122°F) Unheated: 0 to 50°C (32 to 122°F) 0 to 95 %RH non-condensing
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	IP65 (NEMA 4X)
ENCLOSURE DIMENSIONS	110mm W x 180mm H x 89mm D (4.3" x 7.125" x 3.5")
OPTIONAL TEMPERATURE SIGNAL	Sensing Element: Various RTD's or thermistors as 2 wire resistance output
OPTIONAL RELAY OUTPUT	Contact Ratings: Form A contact (N.O.), 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc Trip Point: Programmable 500-15,000ppm Hysteresis: Programmable 25-500ppm
CONCEALED LCD DISPLAY (USED FOR SETTING PARAMETERS)	Resolution: 1ppm CO ₂ Size: 35mm W x 15mm H (1.4" x 0.6") Backlight: Enable or disable via keypad
COUNTRY OF ORIGIN	Canada



WIRING INFORMATION



TERMINAL	FUNCTION
CO ₂	Analog Output
COM	COMMON
PWR	Power Supply
N.O.	Relay Output
RELAY	Relay Output

ORDERING

PRODUCT	CDD4B	Outside Carbon Dioxide Detector, 0-20,000 ppm
ENCLOSURE	300 400	Heated Unheated
SENSOR	T2 T5 T6 T7 T8 T12 T13 T14 T20 T24 T59	100Ω Platinum, IEC 751, 385 Alpha, thin film, 3 wire 1801Ω NTC Thermistor, ±0.2°C 3000Ω NTC Thermistor, ±0.2°C 10,000Ω Type 3, NTC Thermistor, ±0.2°C 2.252KΩ NTC Thermistor, ±0.2°C 1000Ω Platinum, IEC 751, 385 Alpha, thin film 1000Ω Nickel, Class B, DIN 43760 10,000Ω Type 3, NTC Thermistor, ±0.2°C c/w 11,000 shunt resistor 20,000Ω NTC Thermistor, ±0.2°C 10,000Ω Type 2, NTC Thermistor, ±0.2°C 10,000Ω @ 25°C, ±1%, B = 3435 ±1% (25/85)
OPTIONS	R	Relay Output

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

PART NUMBER

5-YEAR CALIBRATION GUARANTEE

Based on the results of years of testing of ACLP software, Greystone now offers a 5-year calibration guarantee on all its CDD series wall and duct mount sensors used for CO₂ based ventilation control when operated in an environment that can utilize ACLP software. If the sensor is found to be out of calibration more than 150 PPM as compared to a calibration gas or recently calibrated reference, Greystone will provide a free factory calibration of the sensor if returned to Greystone. This guarantee only applies if the sensor is operated in an environment where inside levels periodically drop to outside concentrations (i.e. during evenings or weekends when there is no occupancy) as is required by ACLP software. If a space does not experience a periodic drop to outside levels (i.e. where occupancy is 24 hours, 7 days/week) a dual sensor channel should be selected.