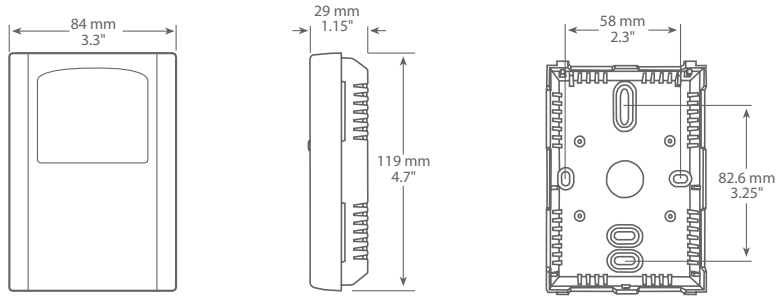
GREYSTONE
ENERGY SYSTEMS INC

ROOM CARBON DIOXIDE DETECTOR





CDD5 SERIES

PRODUCT DESCRIPTION

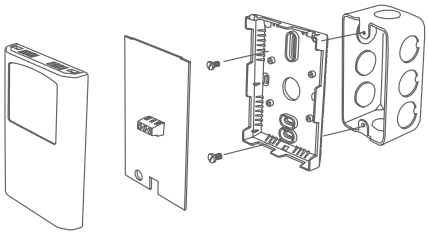
The CDD5 series uses a highly accurate and reliable Non-dispersive Infrared (NDIR) sensor to monitor CO_2, a precision thermistor to monitor temperature and a thermoset polymer based capacitance sensor to measure humidity levels combined with state-of-the-art digital linearization and temperature compensated circuitry in an attractive, low profile enclosure for room applications and provides 2 or 3 analog outputs. Optional setpoint slidepot, momentary override and adjustable relay output are also available.

TYPICAL INSTALLATION

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

The CDD5 series can be mounted directly to a single gang electrical box or directly to a wall. The backplate includes many mounting hole configurations to allow for mounting on a variety of electrical boxes.

The CDD5 has multiple screw block terminal provided for connection to the Building Automation System.



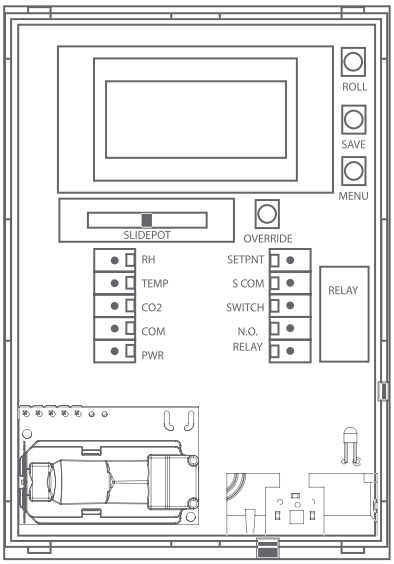
SPECIFICATIONS

CARBON DIOXIDE	**Measurement Type:** Dual Channel Non-dispersive Infrared **Range:** 0-10,000ppm adjustable, 0-2000ppm default **Standard Accuracy:** ± (30ppm + 3% of measured value) **Temperature Dependence:** ±2.5ppm/°C **Altitude Correction: Programmable from** 0-2250 m via menu **Response Time:** 20 seconds **Life Span** 15 years typical
TEMPERATURE	**Sensing Element:** Precision NTC thermistor **Accuracy:** ±0.2°C @ 0 to 50°C (±0.36°F @ 32 to 122°F) **Resolution:** 0.1°C (0.2°F) **Range:** 0 to 35°C (32 to 95°F) or 0 to 50°C (32 to 122°F) selectable via MENU
RH SIGNAL	**Accuracy:** ±2 %RH **Range:** 0 to 100 %RH, non-condensing **Resolution:** 1 %RH **Hysteresis:** ±0.8 %RH @25°C (77°F) **Response Time:** 8 seconds **Stability:** <0.25 %RH/year
OPTIONAL RELAY OUTPUT	**Contact Ratings:** Form A contact (N.O.), 2 Amps @ 30 Vac/Vdc **Relay Trip Point:** Programmable via keypad CO2: 500 - 9000ppm, default is 1000ppm RH: 20 to 90%RH Temp: 5 to 40°C (40 to 100°F) **Relay Hysteresis:** Programmable via keypad CO2: 25-500ppm, default is 50ppm RH: 5 to 20%RH Temp: 1 to 5°C (2 to 10°F)
OPTIONAL LCD DISPLAY	**Resolution:** 1ppm CO_2 1 %RH, 1°C (1°F) **Size:** 35mm W x 15mm H (1.4" x 0.6") alpha-numeric 2 line x 8 character **Backlight:** Enable or disable via keypad
OPTIONAL OVERRIDE SWITCH	Front panel push-button available as two-wire dry-contact output
OPTIONAL SETPOINT CONTROL	Front panel slidepot available as two-wire resistive output, 0-10 KΩ standard
POWER SUPPLY	20-28 Vdc/ac (non-isolated half-wave rectified)
OUTPUT SIGNALS	**Current:** 4-20 mA (Model CDD5A & E) **Voltage:** 0-5 Vdc or 0-10 Vdc (Model CDD5B & F)
CONSUMPTIONS	**Current:** 145 mA max @ 24 Vdc, 260 mA max @ 24 Vac (with all options) **Voltage:** 85 mA max @ 24 Vdc, 150 mA max @ 24 Vac (with all options)
OUTPUT DRIVE CAPABILITY	**Current:** 550Ω max **Voltage:** 10 KΩ min
OUTPUT RESOLUTION	10 bit PWM
PROTECTION CIRCUITRY	Reverse voltage and output limited
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 5 to 95 %RH non-condensing
SENSOR COVERAGE AREA	100m² (1000ft²) typical
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	White ABS, 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15"), IP30 (NEMA 1)
COUNTRY OF ORIGIN	Canada
APPROVAL	CE

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NOTE: This CO2 sensor incorporates a Self Calibration feature to correct CO2 sensor drift. This feature is recommended for applications where the CO2 level will be close to normal (400 ppm) at least one hour per day. If the monitored space is occupied 24 hours or consistently maintains higher or lower levels of CO2, it is recommended that this feature be turned off, but yearly calibration will be required.

WIRING INFORMATION



TERMINAL	FUNCTION
RH	Analog Output
TEMP	Analog Output
CO_2	Analog Output
COM	Common
PWR	Power Input
SETPNT	Resistive Output
S COM	Common
SWITCH	Digital Output
N.O.	Power Input
RELAY	Digital Output

Terminals only present if option ordered

ORDERING

			PART NUMBER
PRODUCT	**CDD5**	Room Carbon Dioxide Transmitter	
CONFIGURATION	**A10** **B10** **E10** **F10**	Humidity and Temperature, 4-20 mA (3X) Humidity and Temperature, 0-5/0-10 Vdc (3X) Temperature, 4-20 mA (2X) Temperature, 0-5/0-10 Vdc (2X)	
DISPLAY	**0** **1**	Concealed Viewable	
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE) (LEAVE BLANK IF NO OPTIONS REQUIRED)	**P** **S** **R**	Setpoint control, 2 wire resistive slidepot Exposed push button momentary switch - N.O. Relay output	

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

5-YEAR CALIBRATION GUARANTEE

Greystone offers a 5-year calibration guarantee on the CDD5 Series room mount CO2 sensors used for CO2 based ventilation control when operated in an environment that can utilize the self calibration 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 self calibration software. If a space does not experience a periodic drop to outside levels (i.e. where occupancy is 24 hours, 7 days/week) the auto-calibration should be turned off and a yearly calibration is required.

RoHS COMPLIANT

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