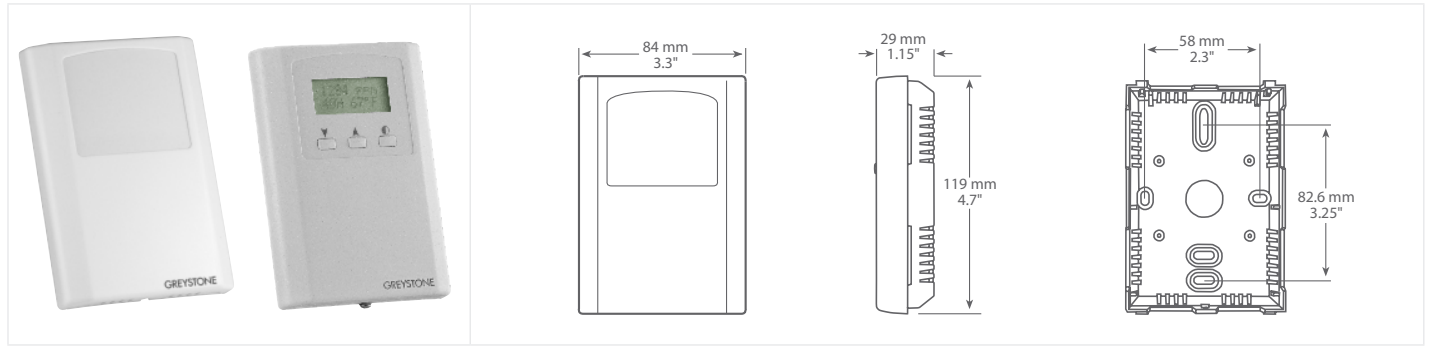




ROOM CARBON DIOXIDE DETECTOR WITH BACnet® OR MODBUS COMMUNICATIONS



CDD3 SERIES

PRODUCT DESCRIPTION

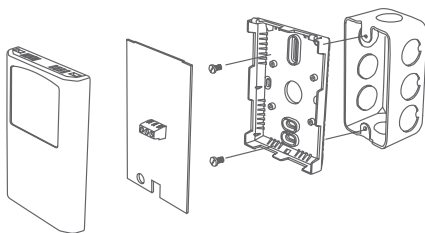
The CDD3 series uses a highly accurate and reliable Non-Dispersive Infrared (NDIR) sensor combined with state-of-the-art digital linearization and temperature compensated circuitry in an attractive, low profile enclosure for room applications to monitor room CO₂ levels. A BACnet® or Modbus Communications signal is provided for connection to a building automation system. Optional features such as temperature, humidity, setpoint adjustment, manual override, and adjustable relay output are available.

TYPICAL INSTALLATION

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

The CDD3 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 basic CDD3 has a screw block terminal provided for connection to the Building Automation System.

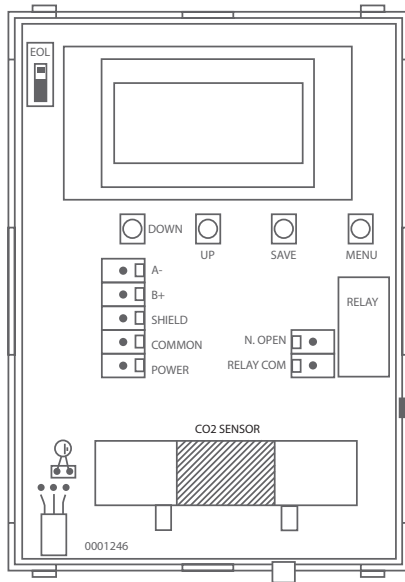


SPECIFICATIONS

CO₂ SIGNAL	<p>Measurement Type: Non-dispersive infrared (NDIR) Range: 0-2000ppm Standard Accuracy: ± 30ppm @ 1000ppm @ 22°C (72°F) when compared to certified calibration gas Temperature Dependence: 0.2% FS per °C Stability: <2% FS over life of sensor (15 years typical) Pressure Dependence: < 0.13% of reading per mm Hg Altitude Correction: Programmable from 0-5000 ft via BACnet® or Modbus Response Time: <2 minutes for 90% step change typical Warm-up Time: <2 minutes</p>
NETWORK INTERFACE	<p>Hardware: 2-wire RS-485 Software: BACnet® - MAS/TP protocol Modbus - MS/TP (RTU or ASCII) Baud Rate: BACnet® - Locally set to 9600, 19200, 38400, or 76800 Modbus - Locally set to 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, or 76800 Address Range: BACnet® - Locally set to 0-127 (factory default is 3), (63 devices max on one daisy chain), Modbus - Locally set to 1-255 (factory default is 1), (255 devices max on one daisy chain)</p>
OPTIONAL TEMPERATURE SIGNAL	<p>Sensing Element: Precision 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 50°C (32 to 122°F)</p>
OPTIONAL RH SIGNAL	<p>Sensing Element: Thermoset polymer based capacitive Accuracy: ±2 %RH Range: 0 to 100 %RH, non-condensing Resolution: 1 %RH Hysteresis: ±3 %RH Response Time: 15 seconds typical Stability: ±1.2 %RH typical @ 50 %RH in 5 years</p>
OPTIONAL RELAY OUTPUT	<p>Contact Ratings: Form A contact (N.O.), 2 Amps @ 140 Vac/30 Vdc Relay Trip Point: Programmable 500 - 1500ppm via BACnet® or Modbus Relay Hysteresis: Programmable 25-200ppm via BACnet® or Modbus</p>
OPTIONAL LCD DISPLAY	<p>Resolution: 1ppm CO₂, 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</p>
OPTIONAL OVERRIDE SWITCH	Front panel push-button available as BACnet® object or Modbus register
OPTIONAL SETPOINT CONTROL	Front panel push-buttons available as 0 to 100% as BACnet® object or Modbus register
POWER SUPPLY	24 Vdc ±20% or 24 Vac ±10% (non-isolated half-wave rectified)
CONSUMPTIONS	80 mA max @ 24 Vdc, 140 mA max @ 24 Vac with all options
PROTECTION CIRCUITRY	Reverse voltage and transient protected
OPERATING CONDITIONS	0 to 50°C (32 to 122°F), 0 to 90 %RH non-condensing
SENSOR COVERAGE AREA	100m ² (1000ft ²) 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



WIRING INFORMATION



TERMINAL	FUNCTION
PWR	Analog Output
COM	Common
A(-)	Network Output
B(+)	Network Output
Shld	Network Output

ORDERING

PRODUCT	CDD3A10 Room Carbon Dioxide Sensor with BACnet® Communications CDD3B10 Room Carbon Dioxide Sensor with Modbus Communications
DISPLAY	0 Concealed 1 Viewable
CONFIGURATIONS	- CO ₂ Only RH CO ₂ , Humidity & Temperature T CO ₂ & Temperature
OPTIONS (MULTIPLE SELECTIONS CAN BE MADE) (LEAVE BLANK IF NO OPTIONS REQUIRED)	P Setpoint control, 2 button up/down S Exposed push button momentary switch - N.O. R Relay output

PART NUMBER

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