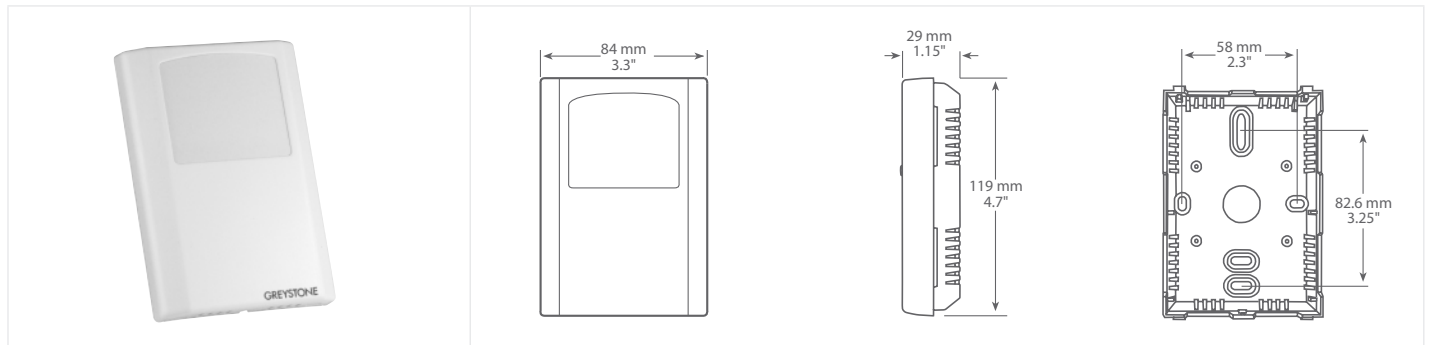




ROOM CARBON DIOXIDE TRANSMITTER



CERMC SERIES

PRODUCT DESCRIPTION

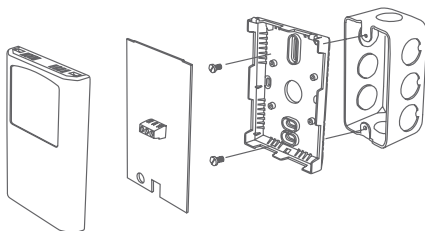
The CERMC series of CO₂ sensor uses a highly accurate and reliable Non-Dispersive Infrared (NDIR) sensor in an attractive, low-profile enclosure to monitor ambient CO₂ levels for room applications. The compact dual wavelength CO₂ sensor achieves excellent performance characteristics, including high accuracy and low power consumption to ensure stable long term operation. The CO₂ sensor features user selectable 4-20 mA or 0-5 Vdc or 0-10 Vdc for simple integration into any building automation system. The device is also available with an optional resistive temperature sensor.

TYPICAL INSTALLATION

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

The room CO₂ sensor series can be mounted directly to a single gang electrical box or directly to the wall. The backplate includes many mounting hole configurations to allow for mounting on a variety of electrical boxes.

The basic CO₂ sensor has a 3 wire configuration with a screw terminal block provided for connection to the Building Automation System.



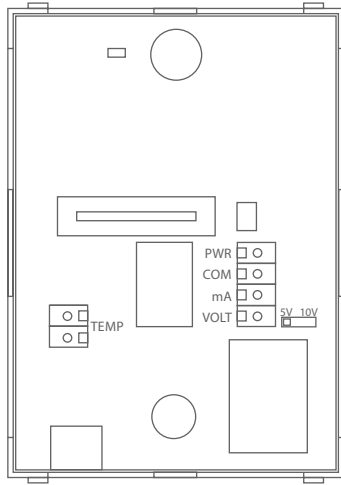
SPECIFICATIONS

CO ₂ SENSOR	Dual channel Non-Dispersive Infrared (NDIR)
RANGE	0-2000 ppm
ACCURACY	±(30ppm +3% of reading)
TEMPERATURE DEPENDENCY	±2.5 ppm/°C
RESPONSE TIME	20 seconds (T63)
WARM-UP TIME	1 minute
SENSOR COVERAGE AREA	100m ² (1000ft ²) typical
SENSOR LIFE SPAN	>15 years
POWER SUPPLY	24 Vac/dc ±15% (non-isolated half-wave rectified)
CONSUMPTION	80 mA max @ 24 Vdc, 160 mA max @ 24 Vac
PROTECTION CIRCUITRY	Reverse voltage and transient protected
OUTPUT SIGNALS	4-20 mA, 0-5 Vdc, 0-10 Vdc (field selectable)
DRIVE CAPABILITY @ 24 VDC	Current: 600Ω maximum Voltage: 10 KΩ minimum
OPTIONAL TEMPERATURE SENSOR	Various thermistors or RTD's as a 2 wire resistance output
OPERATING CONDITIONS	0to 50°C (32 to 122°F), 0-90 %RH non-condensing
STORAGE CONDITIONS	-40 to 70°C (-40 to 158°F), 0-85 %RH non-condensing
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
ENCLOSURE	ABS, UL94-V0, IP30 (NEMA 1)
APPROVALS	CE, RoHS
COUNTRY OF ORIGIN	Canada

This CO₂ sensor incorporates a Self Calibration feature to correct CO₂ sensor drift. This CO₂ sensor 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 levels of CO₂ level, the CD2 Series is recommended.



WIRING INFORMATION



TERMINAL	FUNCTION
PWR	+ 24 Vac/dc
COM	Common
mA	Current Output
VOLT	Voltage Output
TEMP	Resistance Output
SENSOR	Resistance Output

ORDERING

PRODUCT	CERMC	Room Carbon Dioxide Transmitter
SENSOR	00	No temperature selected
	02	100Ω Platinum RTD
	05	1801Ω Thermistor
	06	3000Ω Thermistor
	07	10,000Ω Thermistor, type 3
	08	2.25KΩ Thermistor
	12	1000Ω Platinum RTD
	13	1000Ω Nickel RTD
	14	10,000Ω Thermistor, Type 3 with 11K shunt resistor
	20	20,000Ω Thermistor
24	10,000Ω Thermistor, Type 2	
59	10,000Ω 25°C, ±1%, B = 3435 ±1% (25/85)	

PART NUMBER

CERMC

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