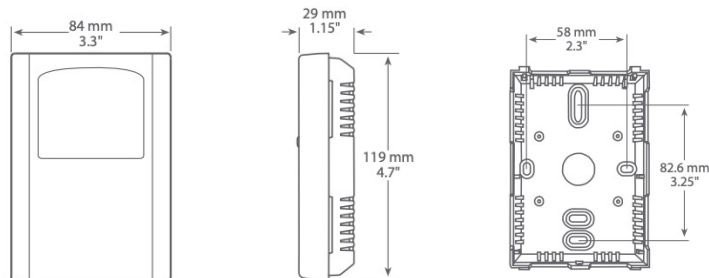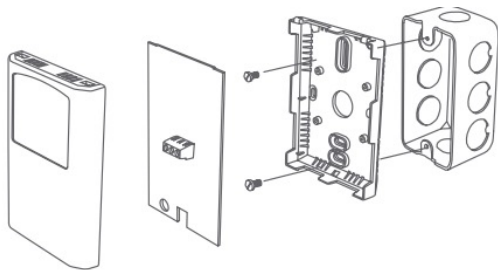# AZ-CD2RMC

ROOM CARBON DIOXIDE DETECTOR

DESCRIPTION

The room CO2 transmitter device uses a highly accurate and reliable nondispersive infrared (NDIR) sensor in an attractive, low profile enclosure for room applications to monitor CO2 levels. The sensor uses dual wavelength optics and LTA (long term adjustment) signal processing technology to deliver industry leading long-term accuracy and reliability. These technology features ensure optimum measurement stability for both periodic and constant occupancy applications, so the device is equally suitable for a classroom or a hospital room. Standard features include a field selectable output signal of either 4-20 mA, 0-5 Vdc or 0-10 Vdc for the highest versatility, programmable CO2 measurement span, a backlit alpha-numeric LCD and easy menu operation for configuration. Optional features include a resistive temperature sensor output (with LCD display of temperature in either °C or °F), 2 button setpoint adjustment, a control relay with programmable setpoint, hysteresis and time delay, and a dry-contact override switch.
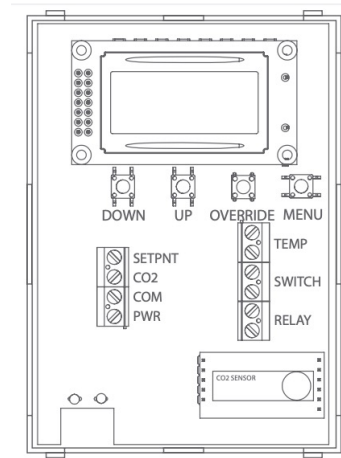

TYPICAL INSTALLATION

For complete installation and wiring details, please refer to the product installation instructions. The AZ-CD2RMC 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 CD2RMC has a 3 wire configuration with a screw block terminal provided for connection to the Building Automation System.

WIRING INFORMATION

TERMINAL	FUNCTION
SETPT	RESISTANCE OUTPUT
CO 2	ANALOG OUTPUT
COM	COMMON
PWR	SUPPLY VOLTAGE
TEMP	RESISTANCE OUTPUT
SWITCH	DIGITAL OUTPUT
RELAY	DIGITAL OUTPUT

D-VAC Sales Inc.

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AZ-CD2RMC

ROOM CARBON DIOXIDE DETECTOR

ORDERING

Product	**CD2RMC**	Room Carbon Dioxide Sensor
Display	C V	Concealed LCD (Not Available if setpoint selected) Viewable LCD
Optional Temperature Sensor	XX 02 05 06 07 08 12 13 14 20 24 59	None 100 Ω Platinum, IEC 751, 385 Alpha, thin film, 3-wire 1801 Ω NTC Thermistor, ±0.2°C 3000 Ω NTC Thermistor, ±0.2°C 10,000 Ω Type 3, NTC Thermistor, ±0.2°C 2.252K Ω NTC Thermistor, ±0.2°C 1000 Ω Platinum, IEC 751, 385 Alpha, thin film 1000 Ω Nickel, Class B, DIN 43760 10,000 Ω Type 3, NTC Thermistor, ±0.2°C c/w 11,000 shunt resistor 20,000 Ω NTC Thermistor, ±0.2°C 10,000 Ω Type 2, NTC Thermistor, ±0.2°C 10,000 Ω, 25°C, ±1%, B = 3435 ±1% (25/85)
Optional Relay	X R	None Adjustable Relay
Optional Override	X S	None Override
Optional Setpoint Adjustment	XXX P00 P01 P02	None 0 to 10,000Ω 20,000 to 30,000Ω 2,000 to 3,000Ω
Accessories	CDD1-CALKIT-GS	Calibration kit (Gas not included) for calibrating CD & CDD series CO2 Transmitters

PART NUMBER

D-VAC Sales Inc.

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AZ-CD2RMC

ROOM CARBON DIOXIDE DETECTOR

SPECIFICATIONS

GAS TYPE DETECTED	CARBON DIOXIDE (CO 2)
SENSOR TYPE	DUAL CHANNEL NON-DISPERSIVE INFRARED (NDIR)
SENSOR ACCURACY	± (30PPM + 3% OF MEASURED VALUE)
MEASURMENT RANGE	0-2000PPM, ADJUSTABLE 1000-10000PPM
TEMPERATURE DEPENDENCY	±2.5 PPM/°C
RESPONSE TIME	20 SECONDS (T63)
WARM-UP TIME	1 MINUTE
SENSOR COVERAGE AREA	100 M2 (1000FT2) TYPICAL
SENSOR LIFE SPAN	>15 YEARS
TRANSMITTER ACCURACY	±0.25% OF SPAN (INCLUDING LINEARITY, HYSTERESIS AND REPEATABILITY)
POWER SUPPLY	24 VDC ±20% OR 24 VAC ± 10% (NON-ISOLATED HALF WAVE RECTIFIED)
PROTECTION CIRCUITRY	Reverse voltage protected and transient protected
INPUT VOLTAGE EFFECT	Negligible over specified operating range
OUTPUT SIGNAL TYPE	4-20 mA (3-wire), 0-5 or 0-10 Vdc (field selectable)
OPTIONAL RELAY OUTPUT	Contact Ratings: Form A contact (N.O.), 2 Amps @ 140 Vac/30 Vdc Relay Trip Point: CDD5A & B - Programmable 500 - 2000ppm via keypad CDD5C & D - Programmable 500-15,000ppm via keypad Relay Hysteresis: CDD5A & B - Programmable 25-200ppm via keypad CDD5C & D - Programmable 25-500ppm via keypad
CURRENT CONSUMPTION	Current: 75 mA @ 24 Vdc max, 150 mA @ 24 Vac max Voltage: 50 mA @ 24 Vdc max, 100 mA @ 24 Vac max
OUTPUT DRIVE @ 24 VDC	Current: 550Ω max Voltage: 10,000Ω min
AMBIENT OPERATING RANGE	0 to 50°C (32 to 122°F), 0 to 95 %RH non-condensing
STORAGE TEMPERATURE	-40 to 70°C (-40 to 158°F)
LCD DISPLAY	Units: ppm (CO2), °C/°F (optional temperature/setpoint) Range: 0 to 10000ppm, 0 to 50°C (32 to 122°F) Size: 35mm W x 15mm H (1.4" x 0.6"), 2 lin x 8 character, alpha-numeric Digit Height: 2-line x 8 character
OPTIONAL TEMPERATURE SENSOR	Type: Thermistor and RTD (see ordering chart) Accuracy: See ordering chart Output: 2-wire resistive
OPTIONAL RELAY (2-WIRE OUTPUT)	Rating: Form A (N.O.), 2 Amps @ 140 Vac / 30 Vdc
OPTIONAL OVERRIDE SWITCH (2-WIRE OUTPUT)	Rating: 50 mA @ 12 Vdc max
OPTIONAL SETPOINT CONTROL	Type: Front panel up/down pushbuttons Range: ±10 resistive steps, range 16 to 26°C in 0.5°C increments or 60 to 80°F in 1°F increments Midpoint: Default 21°C/70°F, programmable 18 to 25°C (64 to 77°F) Resolution: Programmable 0.5 / 1°C/°F Action: Programmable direct or reverse acting
ENCLOSURE	Material: ABS, White Dimensions: 84mm W x 119mm H x 29mm D (3.3" x 4.7" x 1.15") Protection: IP30 (NEMA 1)
WIRING	Screw terminal block (14 to 22 AWG)
APPROVALS	CE
COUNTRY OF ORIGIN	CANADA

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