



CL-MC09A

Temp. + RH + RADON (CO2 optional)

CL-MC10A

Temp. + RH + PAR (CO2 optional)

CL-MC10C

Temperature + Relative Humidity + CO2

CL-MC10D

Temp. + RH + CO2 + Particulate Matter (PM)

Installation Guide

Safety Precautions

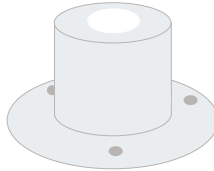
Please read this section carefully before installation or use. Keep this manual for future reference.

- Operate indoors only and keep the sensor away from water or excessive dust.
- Avoid placing the station near heat sources, fans, or windows to ensure accurate readings.
- Do not disassemble, modify, or expose the unit to extreme conditions.
- Handle the unit with care. Dropping the device may damage internal components.
- Ensure all wiring and power sources comply with local electrical standards.
- Only use the supplied power adapter.
- Exposure to high concentrations of CO₂, particulate matter, and radon may be hazardous.
- This sensor is for **monitoring only** and not safety-critical CO₂ detection.

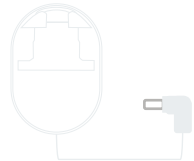
In the Box



Sensor
(CL-MC09A; CL-MC10A;
CL-MC10C; CL-MC10D,)



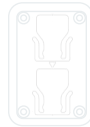
PAR Sensor
(*for CL-MC10A)



Power Adapter



Wall Mount Screws

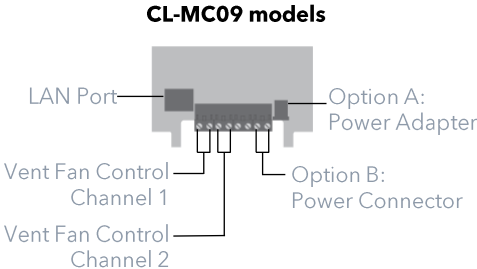
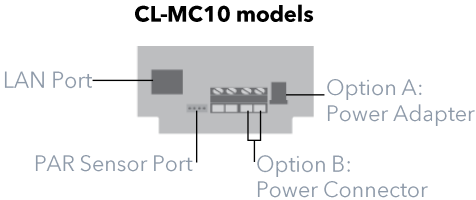
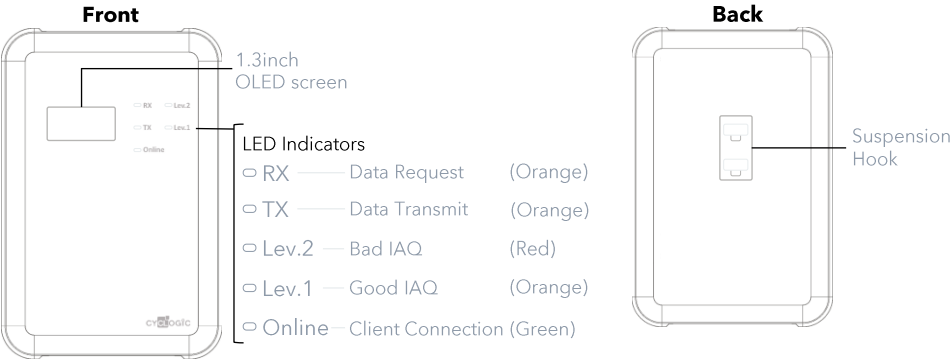


Wall Suspension
Mounting Base



Installation Guide

| | |
|----------------------|---|
| Range of Products | CL-MC09A, CL-MC10A, CL-MC10C, CL-ML10D |
| Dimensions | H: 5.9 in(150mm) x W:3.9 in(100mm) x D:2.2 in(55mm) |
| Net Weight | 25 oz (700g) |
| Display Screen | 1.3 in (33mm) OLED |
| Rated Supply Voltage | 12V - 24V DC |
| Device Mounting | Wall mounted |
| Connection Type | Modbus TCP |
| Case Color | Off-white |
| Case Material | Flame-resistant ABS UL94V-0 |



| | | |
|-------------------|-----------------------------------|-------------------------------------|
| Temperature | Measurement Range | -40F to 176F (-40C to 80C) |
| | Accuracy | ±0.5C |
| | Resolution or sensitivity | 0.1C |
| | Repeatability | ±0.2C |
| Relative Humidity | Measurement Range | 0% to 100% RH |
| | Accuracy | ±2% RH |
| | Resolution or sensitivity | 0.1% RH |
| | Repeatability | ±1% RH |
| | Hysteresis | ±0.3% RH |
| | Long-term Stability | ±0.5% RH/year |
| CO2 | Measurement Range | 0 to 5,000 ppm |
| | Accuracy | 400-5000ppm±75ppm / 10% of reading |
| PM | Measurement Range | 0.3 – 1.0 / 1.0 – 2.5 / 2.5 – 10 µm |
| | Particle Counting Efficiency | 50% @ 0.3µm 98% @ ≥ 0.5µm |
| | Part. Eff. Range (PM2.5 standard) | 0 – 500 µg/m³ |
| | Part. Max. Range (PM2.5 standard) | ≥ 1000 µg/m³ |
| | Particle Resolution | 1 µg/m³ |
| | Particle Standard Volume | 0.1 Liter (L) |
| Radon | Measurement Range | 0.2 – 99.9pCi/L (7 – 3,700Bq/m³) |
| | Accuracy | <±15% (min. error <±0.7pCi/L) |
| | Operating Range | 10C – 40C, RH < 80% |
| | Sensitivity | 0.3cpm/pCi/L |
| | Reproducibility | <±15% at 10pCi/L |
| PAR | Spectral Range | 350 – 1100nm |
| | Accuracy | ±5% of reading |
| | Range | 0 – 2000W/m2 |
| | Sensitivity | 1000µV/W/m2 |
| | Cable Length | 59 inches (1.5m) |
| | Shell Material | Aluminum alloy |

The display will cycle through each sensor indicating their measurements:

| Category | Category Detail | Value | Details |
|----------|--|-------|-----------|
| TEMP. | Comfort/Cold/Too Cold/Hot/Too Hot | 00.0 | C or F |
| HUMID. | Comfort/Dry/Too Dry/Humid/Too Humid | 00.0% | RH% |
| CO2 | Good/Moderate/Unhealthy/Very Unhealthy/Hazardous | 0000 | ppm |
| PM 2.5 | Good/Moderate/Unhealthy/Very Unhealthy/Hazardous | 000 | µg/m³ |
| PM 10 | Good/Moderate/Unhealthy/Very Unhealthy/Hazardous | 000 | µg/m³ |
| PPFD | µmol/m²/s | 0000 | µmol/m²/s |
| RADON | Good/Unhealthy/Hazardous | 000.0 | Bq/m³ |



Installation

1. Choose a Location
 - Install the sensor 4 – 6 ft. (1.5m) above the ground.
 - Avoid areas with direct sunlight, vents, doors, opened windows, any appliance, burners, or water sources.
2. Mounting Options
 - Use the included screws to mount the wall suspension mounting base to the wall.
 - Latch the suspension hook (back of the sensor) on to the wall suspension mounting base.

Device Setup & Calibration

1. Check the SSID displayed on the sensor display.
 - ZyAir-XXXX
2. On a mobile phone, enter the **Wi-Fi settings** and connect to the same SSID name as displayed on the sensor display.
 - The default password is **abcd1234**
 - Select the "Auto reconnect" option on the mobile phone.
3. When the connection is complete, enter any web browser (e.g. Chrome, Safari, or etc.) and enter **192.168.4.1** in the web address bar.
4. On the Network tab, enter the Modbus TCP settings that the sensor will be connected to and click Save.
5. If calibration is needed for temperature or humidity, enter the Calibration tab and adjust the calibration value in the temperature and humidity fields.
6. The default Radon Setpoint can be adjusted. When detected radon levels exceed the setpoint, the radon fan will automatically activate and deactivate when levels are at setpoint again. (Radon Setpoint adjustment is accessible with the use of a Cycliclog Radon Kit)

🏠 ← → ↻ 192.168.4.1

Smart Sensor
 ZyAir by CYCLOGIC

Network Calibration Radon

Current IP:
 Current Subnet:
 Current Gateway:

IP

Subnet

Gateway

Network Calibration Radon

Current Temp. Calib.: 0.00
 Input Range: -10.0 – 10.0

Temperature

Current Humid. Calib.: 0.00
 Input Range: -10.0 – 10.0

Humidity

Network Calibration Radon

Current Setpoint: 120
 Input Range: 0 – 200

Radon Setpoint

1. Function Code Type

| Function Code (Hex Code) | Function Name |
|--------------------------|------------------------|
| 03 (03h) | Read Holding Registers |
| 04 (04h) | Read Input Registers |
| 06 (06h) | Preset Single Register |

2. Read Sensor Data - Function Code 04h

| Address | Length (Byte) | Name | Notes |
|---------|---------------|-------------|--------------------------|
| 30001 | 2 | Temperature | Actual data=Rcv. Data÷10 |
| 30002 | 2 | Humidity | Actual data=Rcv. Data÷10 |
| 30003 | 2 | CO2 | - |
| 30004 | 2 | PM1.0 | - |
| 30005 | 2 | PM 2.5 | - |
| 30006 | 2 | PM 10 | - |
| 30007 | 2 | PPFD | μmol/m2/s x 10 |
| 30008 | 2 | Radon | Actual data=Rcv. Data÷10 |

3. Read and Writeable Modbus Address - Function Code 03h and 06h

| Address | Length (Byte) | Name | Notes |
|---------|---------------|--------------------|----------------------------|
| 40002 | 2 | Calibration Temp. | Actual data=Rcv. Data - 10 |
| 40003 | 2 | Calibration Humid. | Actual data=Rcv. Data - 10 |
| 40004 | 2 | Radon Setpoint | 0 – 200 |

Maintenance and Care

- **Cleaning:** Wipe with a dry or slightly damp cloth. Avoid using solvents or sprays.
- **Calibration:** Sensors are factory-calibrated. If calibration is needed, refer to page 6.

Technical Support

For support inquiries, visit <https://www.cyclogic.net/>

- **E-mail:** help@cyclogic.net

Limited Warranty

1. This device is warranted to be free of defects in materials and workmanship for a period of up to one year from the original purchase date. This warranty does not cover damage caused by normal wear, misuse, abuse or incorrect repair. To claim under this limited warranty and to obtain warranty service, please contact customer service to obtain instructions on how to pack and ship the product back to Cyclogic.
2. The following situations will not be covered by warranty:
 - A. Issues arising after the warranty period has ended e.g. natural wear and aging of materials.
 - B. Malfunction or damage caused by improper handling or not operating the device according to the instructions.
 - C. Damage occurring from operating the device outside the recommended temperature and humidity range, damage from contact with water (including uncontrolled water intrusion e.g., water vapor and water-related causes), damage from applying excessive force to the device or any cables and connectors.
 - D. Failure or damage caused by unauthorized removal of the product.
 - E. Damage caused by Force Majeure or acts of God including lightning, flood, tornado, earthquake, or hurricane.