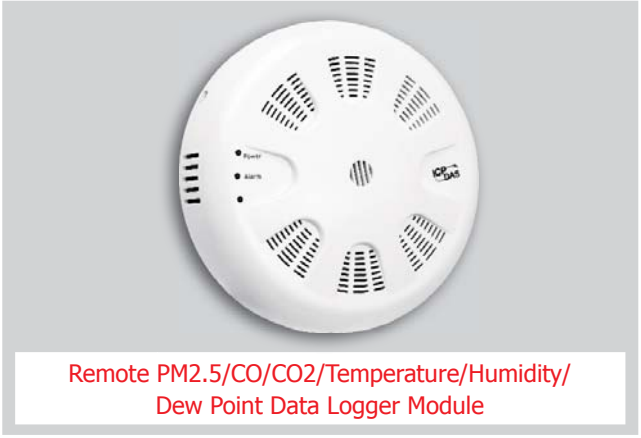
CL-211-E/212-E/213-E



Remote PM2.5/CO/CO2/Temperature/Humidity/
Dew Point Data Logger Module

Features

- Able to record PM2.5, CO, CO2, Temperature, Humidity and Dew Point Measurements
- Non-dispersive Infrared (NDIR) CO2 Sensor
- Up to 450,000 records with date and time stamps
- Supports the DCON, Modubs RTU/TCP, and MQTT Protocols
- Includes RS-485/Ethernet Communication Interfaces
- Relay Output for Alarm or IAQ Device Control

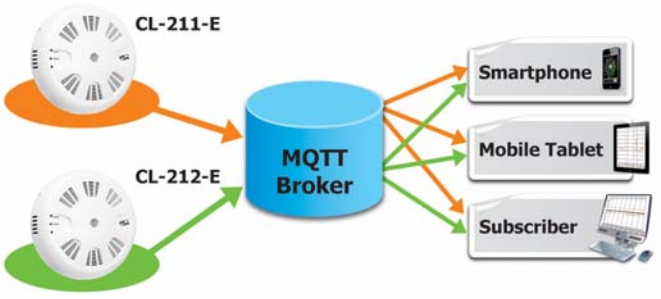
Introduction

The CL-200 series of data logger devices can be used to record PM2.5, CO, CO2, temperature, humidity and dew point information, including the date and time stamps, and are able to store up to 450,000 downloadable records.

Real-time data can be accessed from the CL-200 data logger from anywhere and at any time using the free Windows software, the iOS App, or the Android App, as long as they are connected to the same local network as the data logger.

Support is provided for common industrial protocols such as DCON, Modbus RTU, and Modbus TCP, as well as the emerging machine-to-machine (M2M)/)IoT (Internet of Things) connectivity protocol – MQTT. The CL-200 data logger can be connected via widely used communication interfaces including RS-485, Ethernet and PoE, meaning that the device can be easily integrated into existing HMI or SCADA systems, ensuring trouble-free maintenance in distributed control systems.

Supports the MQTT Protocol for IoT Applications



Multi-platform Remote Access Software

Real-time data from the CL-200 data logger can be accessed from anywhere and at any time using the DL300 Utility, the iOS or Android App, or via a regular web browser, as long as they are connected to the same local network as the data logger.

System Specifications

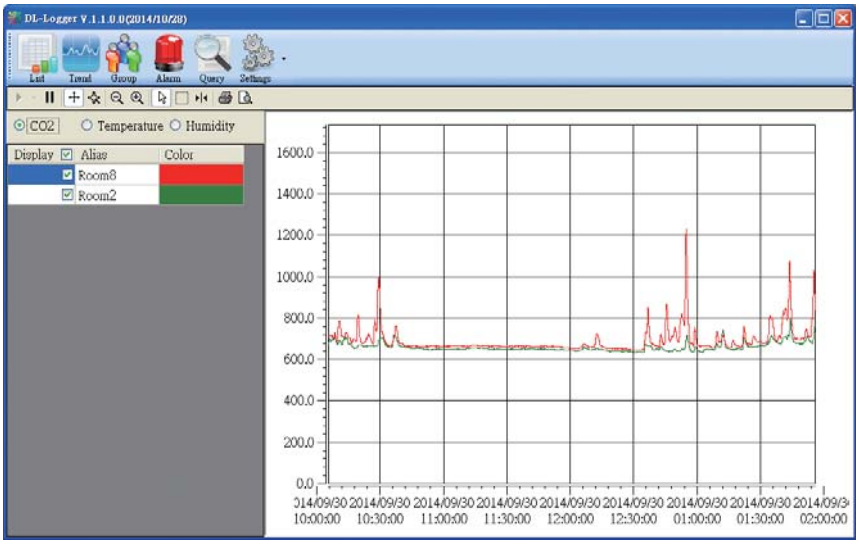
Model		CL-211-E	CL-212-E	CL-213-E
System				
PM2.5/CO/CO2/RH/T Alarm		Yes		
Real Time Clock		Yes		
Data Logger		Yes, up to 450,000 records		
Relay Output		Form A×1, SPST 30 VDC @ 16 A or 250 VAC @ 16 A		
Interface		RS-485/Ethernet		
Electrical				
Powered from Terminal Block		+12 to +48 VDC		
Power Consumption	Non-PoE	2.66 W (Max.)	2.9 W (Max.)	3.24 W (Max.)
	PoE	2.73 W (Max.)	3.22 W (Max.)	3.41 W (Max.)
Mechanical				
Installation		Ceiling Mounting/Wall Mounting		
Protection Class		IP20		
Dimensions (D x H)		Ø 150 mm x 53 mm		

I/O Specifications

Model	CL-211-E	CL-212-E	CL-213-E
Environment			
Operating Temperature	0 to +50°C		
Storage Temperature	-30 to +75°C		
Humidity	10 to 90% RH, Non-condensing		
PM2.5 Measurement			
Range	0 ~ 400 µg/m3		
Resolution	1µg/m3		
Response Time	<= 1 min.		
CO Measurement			
Range	0 to 1000 ppm (Electrochemical)	-	0 to 1000 ppm (Electrochemical)
Resolution	1 ppm	-	1 ppm
Accuracy	±5% of measured value	-	±5% of measured value
Response Time	30 seconds	-	30 seconds
Warm-up Time	60 seconds	-	60 seconds
CO2 Measurement			
Range	-	0 to 9999 ppm (NDIR)	
Resolution	-	1 ppm	
Accuracy	-	±40 ppm ±3% of measured value	
Response Time	-	120 seconds	
Warm-up Time	-	5 minutes	
Temperature Measurement			
Range	-10 to +50°C		
Resolution	0.1°C		
Accuracy	±0.6°C		
Relative Humidity Measurement			
Range	0 to 100% RH		
Resolution	0.1% RH		
Accuracy	±5% RH		
Dew Point			
Range	Calculated using temperature and relative humidity		
Resolution	0.1°C		

Simple and Powerful DL-300 Utility

The DL-300 Utility is a powerful tool that is designed for configuring the modules, monitoring real-time data, grouping DL-300 and CL-200 modules to view and manage the status of distribution groups, downloading log data, which can be exported to a CSV file that can then be imported into any industry-standard software or spreadsheet for analysis.

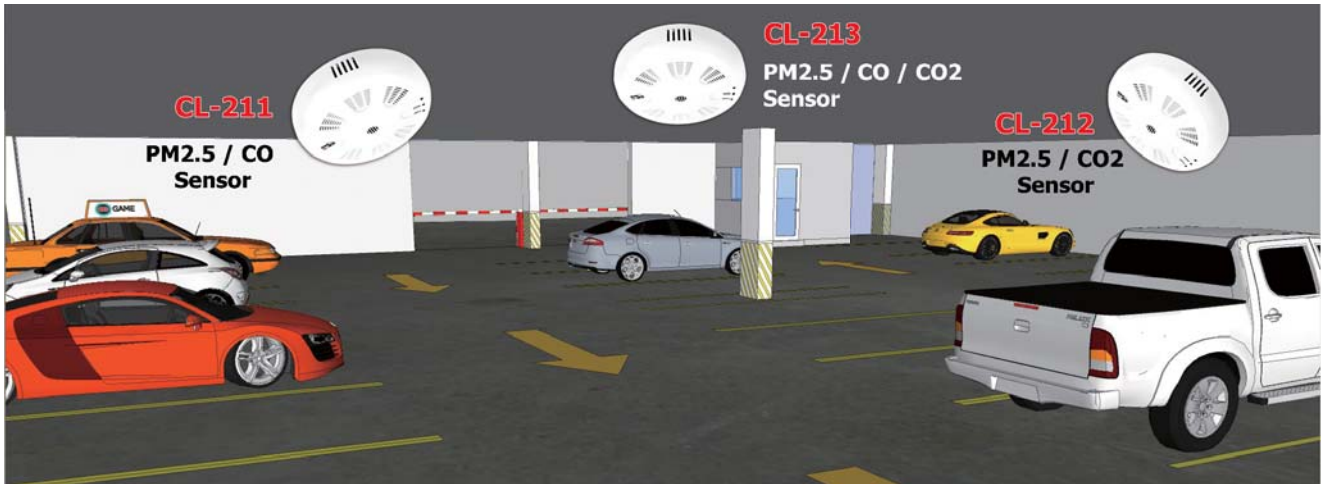


Applications

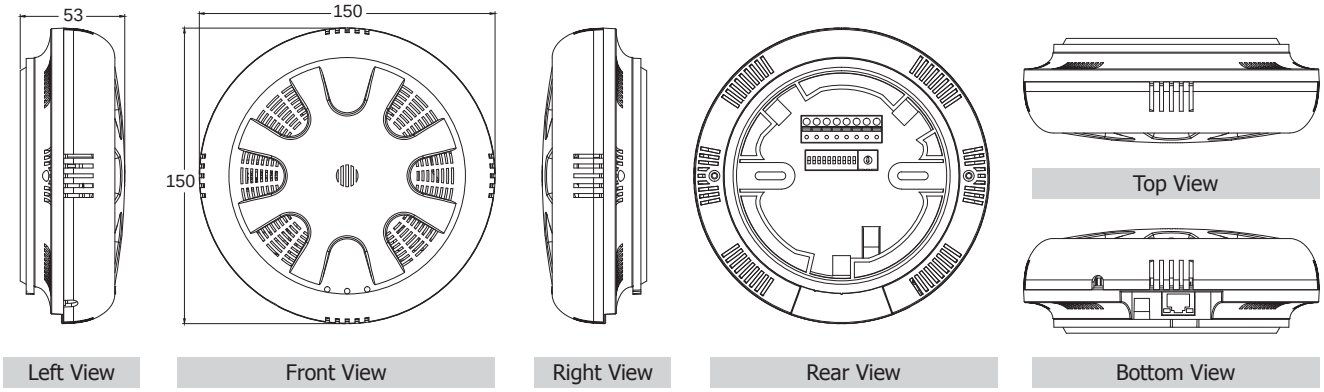
- Transportation of Food or Pharmaceuticals
- Food and Beverage Industry (HACCP)
- Blood Stations and Pharmacies
- Building and Energy Management
- Warehouse Management
- Museums, Archives and Galleries

Indoor or Underground Parking Lot Automatic Monitoring Solution

The air quality automation system for indoor or underground parking lot can use the CL-200 series modules to monitor the health and safity information, such as PM2.5, CO, CO2, temperature, humiditym, dew point, and more...

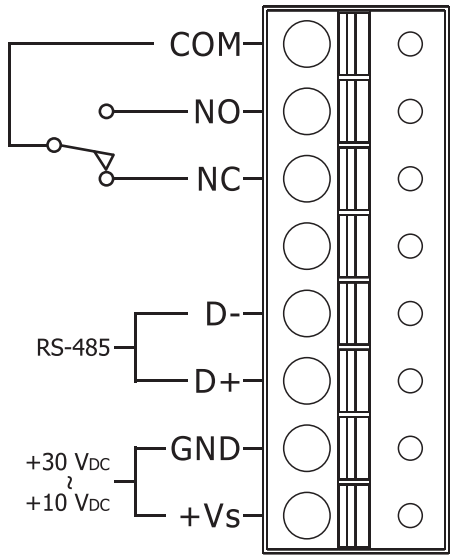


Dimensions (Units: mm)

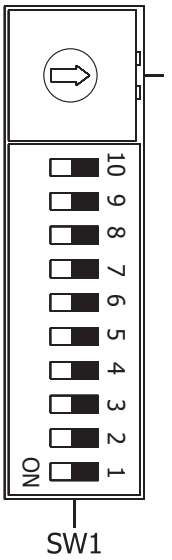


Left View | Front View | Right View | Rear View | Top View | Bottom View

Pin Assignments & Wire Connections



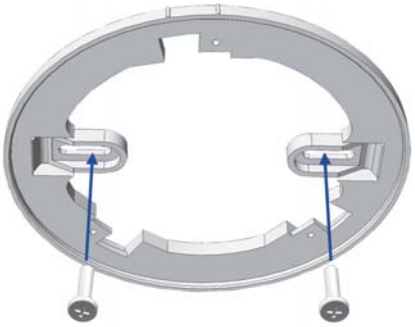
DIP Switch Settings



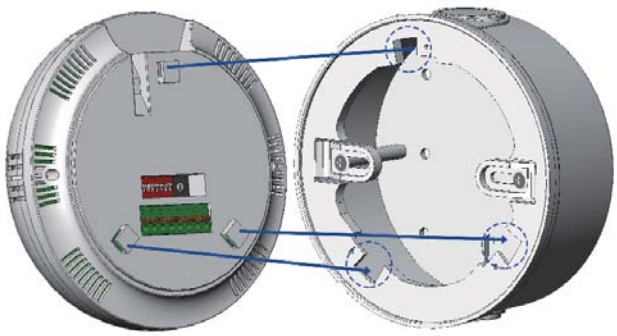
SW1-	ON	OFF
1	DCON	Modbus
2	SW Config	HW Config
3	High Node	Low Node
4	INIT	RUN
5~9	Reserved	
10	FW update	Null

Mounting

Ceiling Mounting

1. Align the locking guides 	2. Attach the mounting plate 
3. Turn the cover clockwise 	4. Lock the cover in place 

Wall Mounting
(Requires External Wall Box EWB-C150)

1 	2 

Ordering Information

CL-211-E CR	Remote PM2.5/CO/Temperature/Humidity/Dew Point Data Logger Module (RoHS)
CL-212-E CR	Remote PM2.5/CO2/Temperature/Humidity/Dew Point Data Logger Module (RoHS)
CL-213-E CR	Remote PM2.5/CO/CO2/Temperature/Humidity/Dew Point Data Logger Module (RoHS)

Accessories

EWB-C150	External Wall Box for the CL-200 series