CL-250-E / CL-251-E
CL-252-E / CL-253-E

RemoteO2/CO/CO2/Temperature/Humidity/Dew Point Data Logger

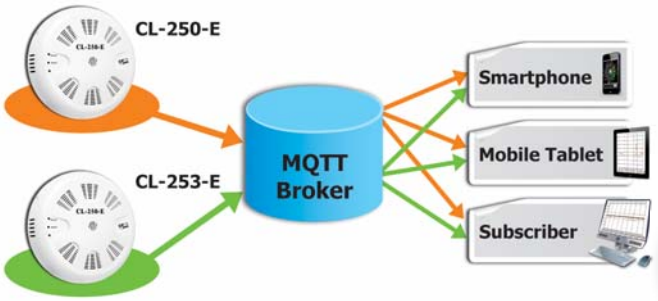
Features

- Able to record O2, CO, CO2, Temperature, Humidity and Dew Point Measurements
- Non-dispersive Infrared (NDIR) CO2 Sensor
- Up to 450,000 records with date and time stamps
- Simple and Powerful Software Utility, iOS APP and Android App Included
- Supports the DCON, Modbus RTU/TCP, and MQTT Protocols
- Includes RS-485/Ethernet/Communication Interfaces
- Relay Output for Alarm or IAQ Device Control
- Ceiling Mounting or Wall Mounting

Introduction

The CL-25X-E series of O2 and gas measurement module that measures oxygen gas (O2) in air. In addition, various fume concentrations related to human health can also be measured. For example: 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 Iso 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

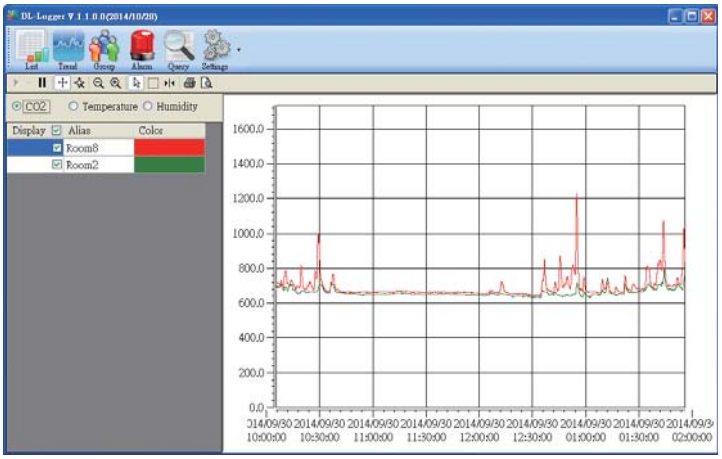


Multi-platform Remote Access Software

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.

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.



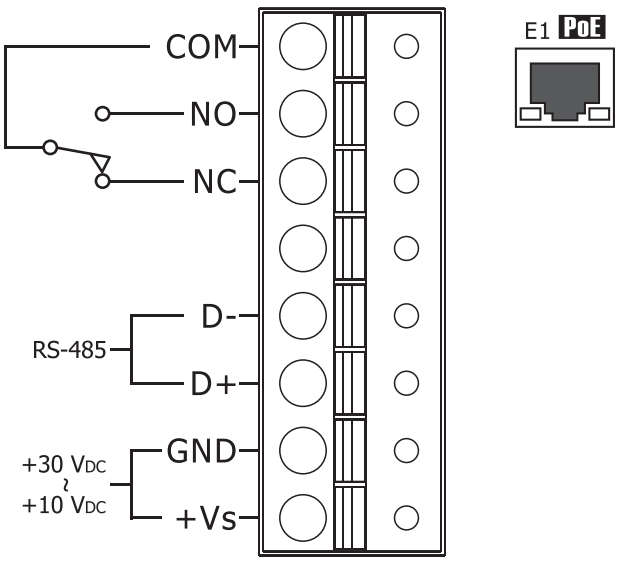
Specifications

Model	CL-250-E	CL-251-E	CL-252-E	CL-253-E
System				
Alarm	O2/CO/CO2/RH/T			
Data Logger	Yes, up to 450,000 records			
Real Time Clock	Yes			
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
Re-calibratable		No		No
Offset programmable		Yes		Yes
Replaceable (RMA)		Yes		Yes
Life Time		5 years		5 years
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			300 seconds	
Re-calibratable			Yes. Note: Customers can perform ABC (Automatic Baseline Calibration) by themselves.	
Offset programmable			Yes	
Replaceable (RMA)			Yes	
Life Time			15 years	
O2 Measurement				
Range	2% of FSR			
Resolution	0~25%			
Accuracy	0.01%			
Response Time	< 30 secs (typical)			
Warm-up Time	120 seconds			
Re-calibratable	5 years			
Offset programmable	No			
Replaceable (RMA)	Yes			
Life Time	Yes			
Humidity Measurement				
Range	0 to 100% RH, Non-condensi			
Resolution	0.1% RH, Non-condensing			
Accuracy	±5% RH, Non-condensing			
Life Time	10 years			

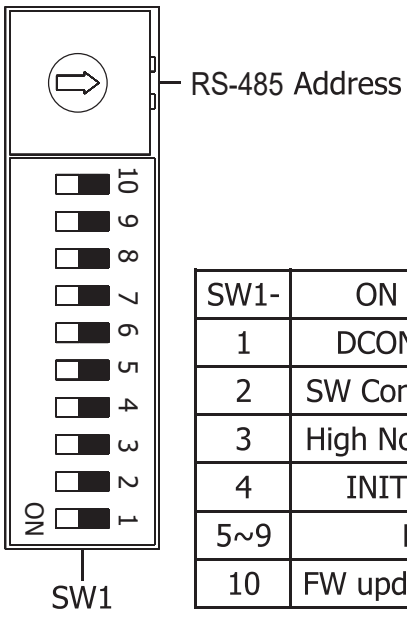
Specifications

Model	CL-250-E	CL-251-E	CL-252-E	CL-253-E
Dew Point				
Range	Calculated using temperature and relative humidity			
Resolution	0.1°C			
Ethernet				
Ports	10/100 Base-TX, 8-Pin RJ-45 x1 (Auto-negotiating, Auto-MDI/MDIX, LED indicators)			
Relay Output				
Channels	30 VDC @ 10 A or 150 VAC @ 10 A	30 VDC @ 10 A or 150 VAC @ 10 A	30 VDC @ 10 A or 150 VAC @ 10 A	30 VDC @ 10 A or 150 VAC @ 10 A
COM Ports				
Ports	1 x RS-485; 1 x Ethernet			
Protocol	DCON and Modbus/RTU (RS-485); Modbus TCP and MQTT (Ethernet)			
Power				
Consumption	Non-PoE: 2.2 W (Max.) / PoE: 2.4 W (Max.)			
Powered from Terminal Block	+10 ~ +30 VDC			
Mechanical				
Installation	Ceiling Mounting/Wall Mounting			
Dimensions (D x H)	Ø 150 mm x 53 mm			
Environment				
Operating Temperature	0 to +50°C			
Storage Temperature	-30 to +75°C			
Humidity	10 to 90% RH, Non-condensing			

Pin Assignments & Wire Connections

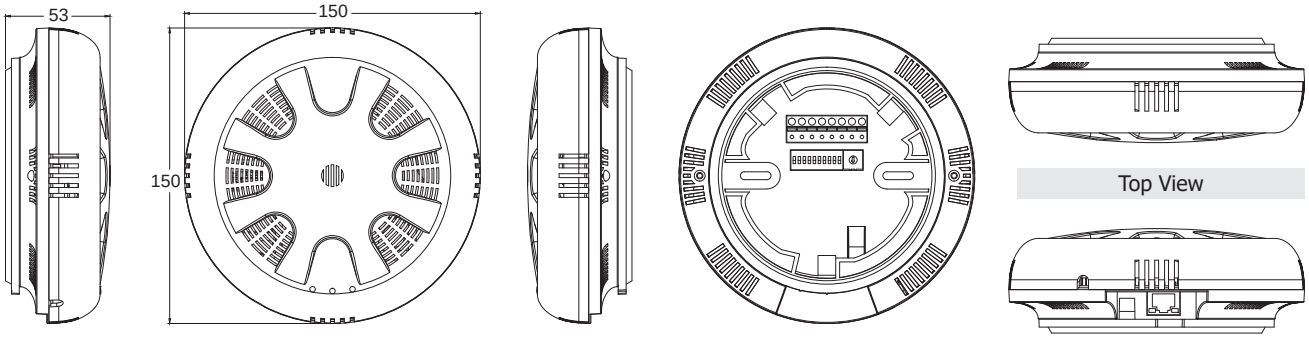


DIP Switch Settings



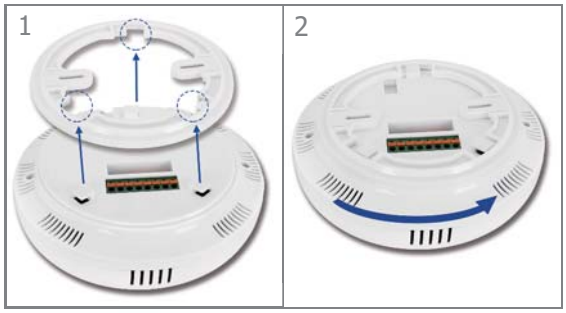
SW1-	ON	OFF
1	DCON	Modbus
2	SW Config	HW Config
3	High Node	Low Node
4	INIT	RUN
5~9	Reserved	
10	FW update	Null

Dimensions (Units: mm)

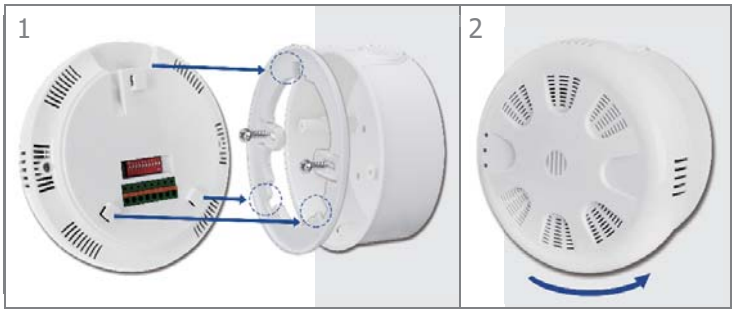


Installation

Ceiling Mounting

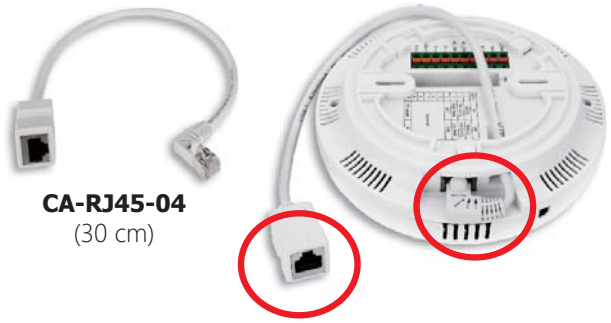


Wall Mounting (+ External Wall Box EWB-C150)



CL-2xx-E + RJ45 Cable:

CL-2xx-E (Ethernet Type) are with optional angle-bent RJ45 cable to smoothly install the Ethernet plug in the hole of the ceiling-mounted.



CA-RJ45-04
(30 cm)

Ordering Information

CL-250-E CR	Remote O2/Temperature/Humidity/Dew Point Data Logger Module (RoHS)
CL-251-E CR	Remote O2/CO/Temperature/Humidity/Dew Point Data Logger Module (RoHS)
CL-252-E CR	Remote O2/CO2/Temperature/Humidity/Dew Point Data Logger Module (RoHS)
CL-253-E CR	Remote O2/CO/CO2/Temperature/Humidity/Dew Point Data Logger Module (RoHS)

Accessories

EWB-C150 	External Wall Box for the CL-200 series
CA-RJ45-04 	RJ45 Cable, Male-Female, 30cm (90º)