



DL-301-IP65/ DL-302-IP65/DL-303-IP65

CO/CO2/Temperature/Humidity/Dew Point IP65 Data Logger

Features

- Simultaneous Display for CO, CO2, Temperature, Humidity and Dew Point
- Measurement Range
 - CO: 0 ~ 1000 ppm
 - CO2: 0 ~ 9999 ppm
- Non-dispersive Infrared (NDIR) CO2 Sensor
- 2.8" LCD Touch Screen
- Able to store up to 450,000 records with date and time stamps
- Touch-screen and Web-based Configuration Interface
- Free Software Utility, iOS APP and Android App Included
- Able to Display Multilingual Messages on the Screen
- Supports the DCON, Modbus RTU, Modbus TCP and MQTT Protocols
- Includes RS-485/Ethernet/PoE Communication Interfaces
- Relay Output for Audible/Visual Alarm or IAQ Device Control
- IP 65 Protection Approval

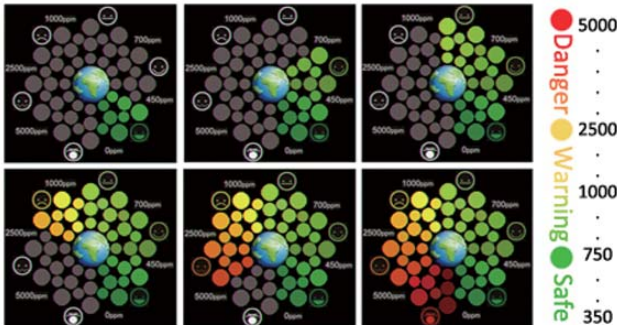


Introduction

The DL-300 series of Data Logger devices can be used to record CO, CO2, Temperature, Humidity and Dew Point information, including date and time stamps, and are able to store up to 450,000 downloadable records. Real-time data can be accessed from the DL-300 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 popular 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 DL-300 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, and is easy to be maintained in a distributed control system.

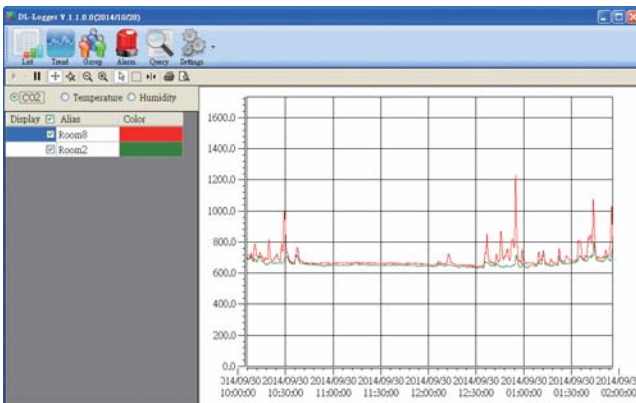
The IP65 version of DL-300 series is designed for industrial applications in harsh environments that provides IP65 grade protection approval. The rugged RJ-45 ensures tight, robust connections, and guarantees reliable operation, even for applications that are subject to high vibration and shock.

Large 2.8" LCD Touch Screen, with clear Color Chart to indicate the CO/CO2 Level

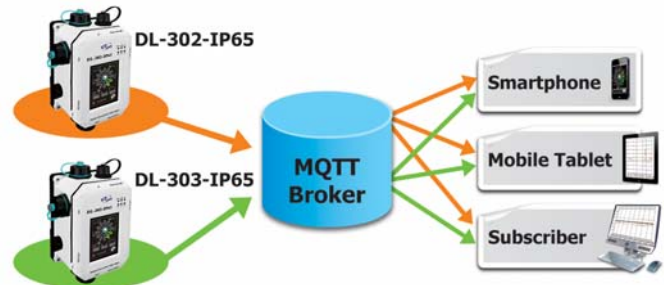


Simple and powerful utility

The DL300 Utility can be used to configure the modules, monitor real-time data, group DL-300 modules so that the status of distribution groups can be viewed and managed. The utility also allows the log data to be downloaded and exported to a .CSV file that can then be imported into any industry-standard software or spread sheet for analysis.



Supports the MQTT Protocol for IoT Applications



Multi-platform Remote Access Software

Real-time data from the DL-300 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.



Display Messages in Multiple Languages

The display-message-on-screen function supports multiple language character sets based on UTF-8 encoding. Either pre-configured messages or dynamic messages can be remotely displayed using Modbus commands, or a dynamic message can be sent via the web-based interface.



Applications

Mushroom Farm

Mushroom growth yield requires long time to monitor the environment of CO₂ concentration, temperature and humidity values, and its growth environment is high humidity condition. The general equipment cannot work in such environment, but the DL-302-IP65 can be used to record CO₂, temperature, humidity and dew point information with date and time stamps in the operating temperature from -20°C to +50°C, and are able to store up to 450,000 downloadable records. The WISE-5231-3GWA features timer and schedule functions. It allows user to schedule specific date or time for control logic execution, or perform specific tasks such as time delay. With calendar user interface provided, schedule setting can be more efficient and flexible. This does not require programming, only some simple settings will be able to achieve the farm production control and quality control, production resume ... and so on.



Specifications

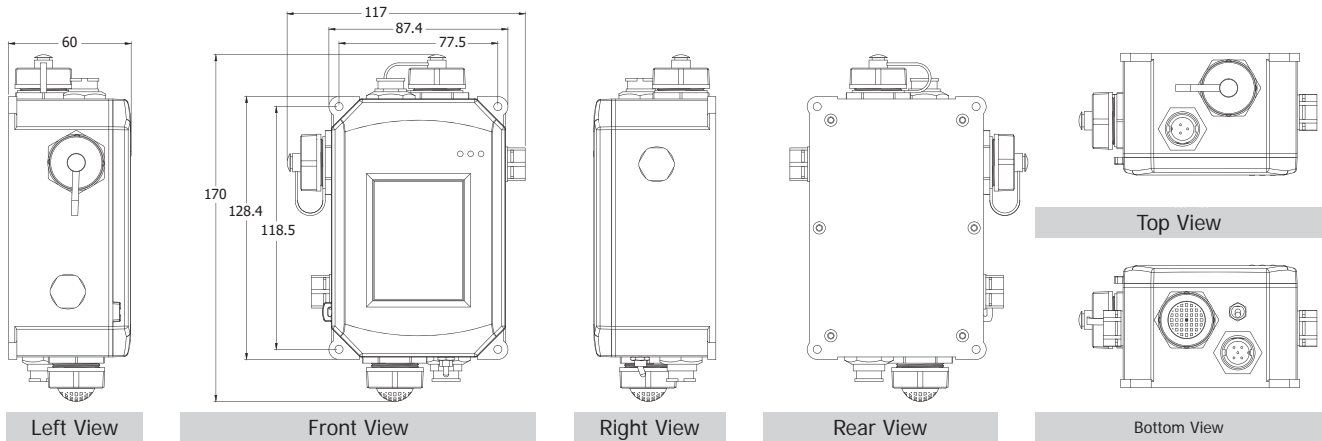
Model	DL-301-IP65	DL-302-IP65	DL-303-IP65
CO Measurement			
Range	0 to 1000 ppm (Electrochemical)	-	0 to 1000 ppm (Electrochemical)
Resolution	1 ppm	-	1 ppm
Accuracy	±5% of measured value	-	±5% of measured value
Response Time	30 seconds	-	30 seconds
Warm-up Time	60 seconds	-	60 seconds
CO₂ Measurement			
Range	-	0 to 9999 ppm (NDIR)	-
Resolution	-	1 ppm	-
Accuracy	-	±70 ppm ±5% of measured value	-
Response Time	-	120 sec	-
Warm-up Time	-	60 sec	-
Temperature Measurement			
Range	-	-20 to +50°C	-
Resolution	-	0.1°C	-
Accuracy	-	±0.6°C	-
Relative Humidity Measurement			
Range	-	0 to 100% RH, Non-condensing	-
Resolution	-	0.1% RH, Non-condensing	-
Accuracy	-	±5% RH, Non-condensing	-

Model	DL-301-IP65	DL-302-IP65	DL-303-IP65	
Dew Point				
Range	Calculated using temperature and relative humidity			
Resolution	0.1°C			
System				
CO Alarm	Yes	-	Yes	
CO2 Alarm	-	Yes	Yes	
Real-time Clock	Yes			
Data Logger	Yes, 450,000 Records			
Relay Output	PhotoMos Relay × 4 100 VDC @ 1			
Interface	RS-485/Ethernet/PoE			
Main Machine Interface				
LCD	2.8 TFT (Resolution 240 × 320 × 16), Defective Pixels <= 3			
Backlight Life	20,000 hours			
Brightness	160 cd/m2			
Touch Panel	Yes			
Electrical				
Powered from Terminal Block	+12 to +48 VDC			
Powered from PoE	IEEE 802.3af, Class 1 (48 V)			
Power Consumption	PoE	2.6 W (Max.)	2.7 W (Max.)	2.9 W (Max.)
	Non-PoE	2.8 W (Max.)	2.8 W (Max.)	3.0 W (Max.)
Mechanical				
Dimensions (L x W x H)	170 mm x 117 mm x 60 mm			
Installation	DIN-Rail or Wall Mounting			
Environment				
Operating Temperature	-20 to +50°C			
Storage Temperature	-30 to +75°C			
Humidity	10 to 90% RH, Non-condensing			
Protection Class	IP65			

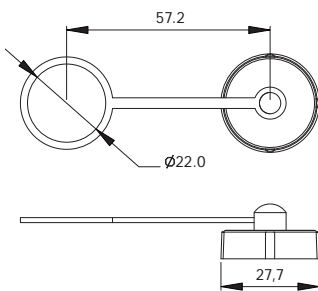
Appearance



■ Dimensions (Units: mm)

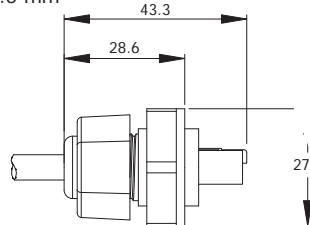


IP65 Ethernet Cap with Tether



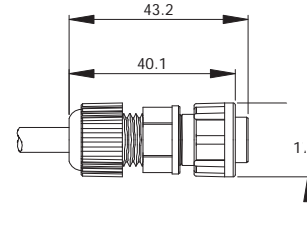
IP65 Ethernet Plug

Cable Dia:
Max. 7.0 mm
Min. 5.5 mm



IP65 PWR Plug

Cable Dia:
Max. 6.5 mm
Min. 5.0 mm



■ Ordering Information

DL-301-IP65 CR	Remote CO/Temperature/Humidity/Dew Point IP65 Data Logger with Safety Alarm (RoHS)
DL-302-IP65 CR	Remote CO2/Temperature/Humidity/Dew Point IP65 Data Logger with Safety Alarm (RoHS)
DL-303-IP65 CR	Remote CO/CO2/Temperature/Humidity/Dew Point IP65 Data Logger with Safety Alarm (RoHS)

■ Accessories

Mode Name	NS-205-IP67	NS-205PSE-IP67	NS-208PSE-IP67	NS-208-IP67
Picture				
PoE	-	802.3af x 4	802.3af x 8	-
Input Voltage Range	+10 VDC ~ +30 VDC (1 kV Isolated)	+46 VDC ~ +53 VDC		+12 VDC ~ +53 VDC
Installation	Wall Mounting	Wall Mounting	Wall Mounting	
Dimensions (W x L x H)(Unit: mm)	85 x 76 x 137	85 x 76 x 137	190 x 155 x 104	

MDR-60-48	48 V/1.25 A, 60 W Power Supply with DIN-Rail Mounting
DIN-KA52F-48	48 V/0.52 A, 25 W Power Supply with DIN-Rail Mounting
DR-120-48	48 V/2.5 A, 120 W Power Supply with DIN-Rail Mounting

IP67 RJ-45 Plug	IP67 Power Plug	Cap with Tether
4SASO-001	4SIO1K0000013	4SASO-0004