# DL-302



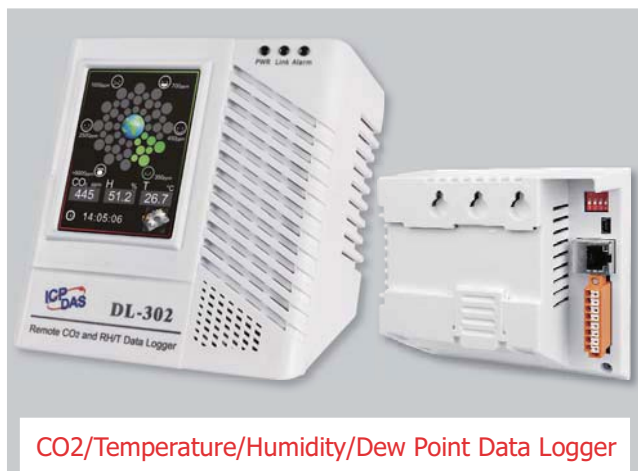## CO2/Temperature/Humidity/Dew Point Data Logger

## Features

- Simultaneous Display for CO2, Temperature, Humidity and Dew Point
- NDIR Technology improves CO2 Measurement Accuracy and Stability
- CO2 Measurement Range: 0 to 9999 ppm
- 2.8" LCD Touch Screen
- RTC (Real Time Clock)
- Data Logger can store up to 450,000 CO2, Temperature, Humidity and Dew Point Records
- RS-485/Ethernet/PoE Communication Interface
- DCON, Modbus RTU, Modbus TCP Protocols
- Relay Output for CO2 Alarm Output
- Desktop, DIN-Rail or Wall Mounting
- Windows Software Included
- Built-in Web Server

## Introduction

The DL-302 is a data logger module designed to accurately measure CO2, temperature and humidity. It contains RS-485, Ethernet and PoE communication interfaces together with a 2.8" LCD Touch Screen display that can be used to display a variety of CO2, temperature, humidity and dew point data. The data storage memory can store up to 450,000 CO2, temperature, humidity and dew point records. The Data Logger Utility is included to allow retrieval and display of data in a powerful chart format that can be exported to Excel.

## 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

## Specifications

| Model | DL-302 |
|---|---|
| Types | CO2, Temperature, Relative Humidity, Dew Point |
| **CO2 Measurement** | |
| Range | 0 to 9999 ppm (NDIR) |
| Resolution | 1 ppm |
| Accuracy | ±30 ppm ±3% of measured value |
| Response Time | 20 sec |
| Warm-up Time | 60 sec |
| **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 |
| **System** | |
| CO2 Alarm | Yes |
| Real Time Clock | Yes |
| Data Logger | Yes, 450,000 Records |
| Relay Output | Form A×1, SPST<br>30 $V_{DC}$ @ 16 A or 250 $V_{AC}$ @ 16 A |
| Interface | RS-485/Ethernet/PoE |
| **Main Machine Interface** | |
| LCD | 2.8 TFT (Resolution 240 x 320 x 16), Defective Pixels <= 3 |
| Backlight Life | 20,000 hours |
| Brightness | 160 cd/m2 |
| Touch Panel | Yes |
| **Electrical** | |
| Powered from Terminal Block or PoE | +12 to +48 $V_{DC}$ or IEEE 802.3af, Class 1 (48 V) |
| Power Consumption | 1.2 W |
| **Mechanical** | |
| Dimensions (L x W x H) | 114 mm x 106 mm x 56 mm |
| Installation | Desktop, DIN-Rail or Wall Mounting |
| **Environment** | |
| Operating Temperature | 0 to +50°C |
| Storage Temperature | -30 to +75°C |
| Humidity | 10 to 90% RH, Non-condensing |

## Ordering Information

| DL-302 CR | Remote CO2/Temperature/Humidity/Dew Point Data Logger with Safety Alarm (RoHS) |
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