



DL-100TMS-ZT

Features

- Measurement Ranges: -20 ~ +60°C and 0 ~ 100% RH
- Accuracy: ±0.4°C; ±2.0% RH
- LCD Display Shows Temperature, Humidity and Module ID
- 10 ~ 30 VDC Power Input
- IP66 Waterproof
- Data Logger Can Store Up to 510 Temperature and Humidity Records
- Modbus RTU Protocol
- ISM 2.4 GHz Operating Frequency
- Fully Compliant with 2.4G IEEE 802.15.4 / ZigBee 2007 Pro Specifications
- Wireless Transmission Range up to 100 m
- GUI Configuration Software (Windows Version)
- Supports AES-128 Encryption for the Wireless Communication (Passive)
- Supports ZigBee Repeater Function
- Surge and ESD Protection



Introduction

The DL-100TMS-ZT is a one-channel temperature and humidity data logger module. It contains a ZigBee communication interface and an LCM to display the module ID, temperature and humidity data, and allows you define the log time interval depending on your application.

The DL-100TMS-ZT supports the Modbus RTU protocol. We also provide software Utility that can be used to retrieve log data and display it in a chart on your desktop, and also allow you save the log data into an Excel format file.

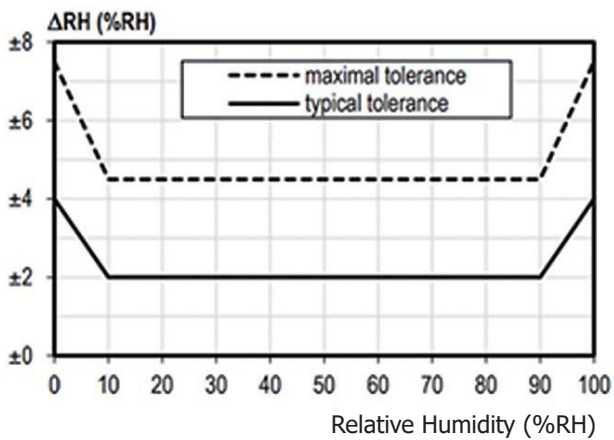
Applications

Greenhouse Automation

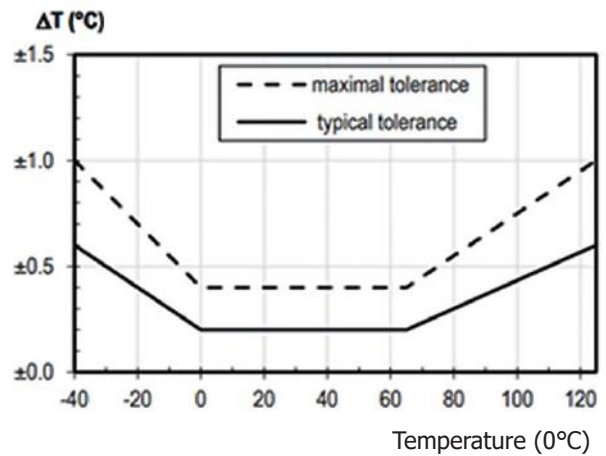


Specifications

| Model | DL-100TMS-ZT |
|-----------------------------|-----------------------------------|
| RF | |
| Wireless Standards | ZigBee 2007 Pro |
| Transmission Power | 11 dBm (Max. 19 dBm) |
| Antenna | 2.4 GHz - PCB Antenna (3dBi, 50Ω) |
| Transmission Distance (LoS) | 100 m |
| Protocols | Supports Modbus RTU |
| Humidity Sensor | |
| Measurement Range | 0 ~ 100% RH (Relative Humidity) |
| Resolution | 0.1% RH |
| Accuracy | Typical: ±2% RH |
| Precision | ±0.1% RH |
| Temperature Sensor | |
| Measurement Range | -20 ~ +60°C |
| Resolution | 0.1°C |
| Accuracy | Typical: ±0.4°C |
| Precision | ±0.1°C |
| EMS Protection | |
| ESD (IEC 61000-4-2) | ±4 kV Contact for each Terminal |
| EFT (IEC 61000-4-4) | ±1 kV for Power |
| Power | |
| Input Range | +10 VDC ~ +30 VDC |
| Power Consumption | 0.5 W Max. |
| Mechanical | |
| Dimensions (W x L x H) | 82 mm x 172 mm x 55 mm |
| Environmental | |
| Operating Temperature | -20 ~ +60°C |
| Storage Temperature | -25 ~ +75°C |
| Operating Humidity | 10 ~ 95% RH (Non-condensing) |



Maximum RH-tolerance at 25°C per sensor.



Maximum T-tolerance per sensor.

Installation

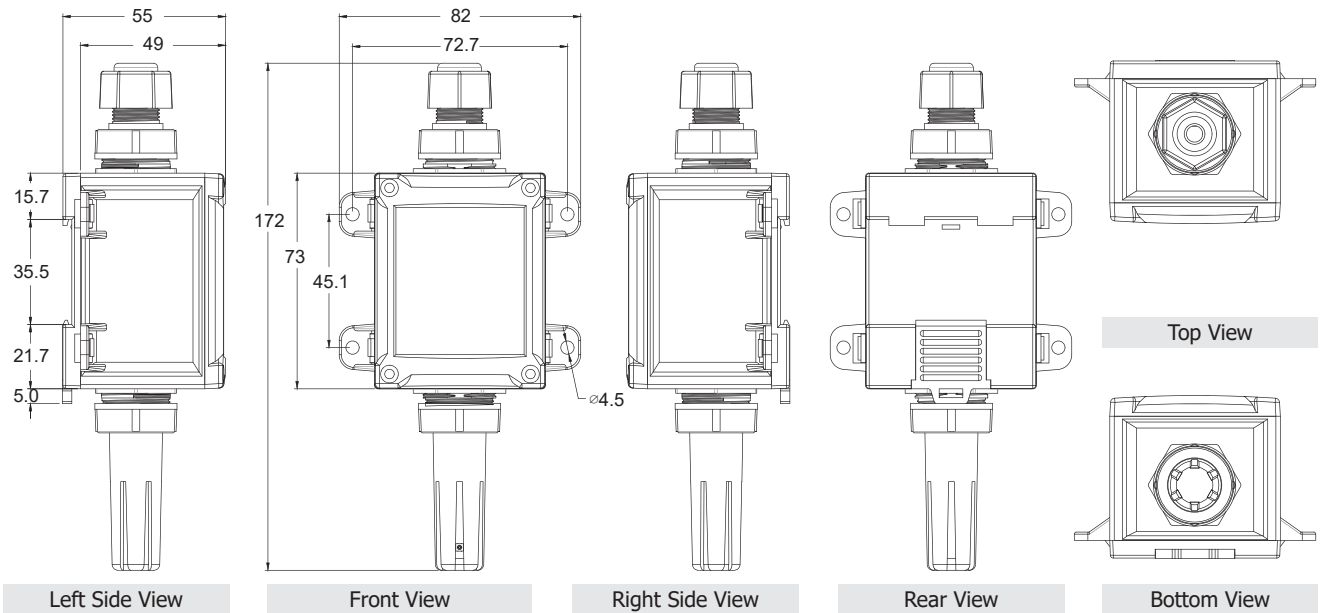


DIN-Rail Mounting



Wall mount





Dimensions (Units: mm)



Ordering Information

| | |
|---|---|
| DL-100TMS-ZT CR | ZigBee Temperature and Humidity Module (ZigBee Router) (RoHS) |
| Important Note: ZigBee Data Acquisition modules require a ZigBee host converter to coordinate the data transmission path. Remember to order a ZT-2550 or ZT-2570 ZigBee host converter when purchasing ZigBee Data Acquisition Products. | |

Optional Accessories

| | | | |
|--|--|---|--|
| MDR-20-24  | 24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting | ZT-2550 CR  | RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS) |
| ZT-2510 CR  | ZigBee Repeater (Slave, ZigBee Router) (RoHS) | ZT-2570 CR  | Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS) |