


# 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 Dew point
- 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
- Supports AES-128 Encryption for the Wireless Communication (Passive)
- Supports ZigBee Repeater Function
- Surge and ESD Protection

## Introduction

The DL-100TMS-ZT is a temperature and humidity data logger module that periodically measures and records temperature and humidity according to user-defined settings. The LCD sequentially displays temperature, humidity, dew point temperature, wireless parameters, and other information.
In addition, the module supports the Modbus RTU protocol. Users can use SCADA software to send Modbus commands via the wireless communication interface of the ZT-2550 or ZT-2570 to retrieve the current temperature and humidity values. Alternatively,
the DL-100TMS-ZT Utility provided by ICP DAS can be used with the ZT-2550 to retrieve the temperature and humidity records stored in the module and save the data as CSV (.csv) or text (.txt) files.

## Applications

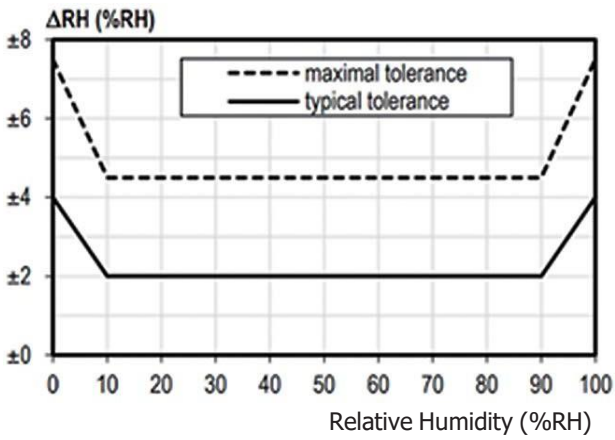




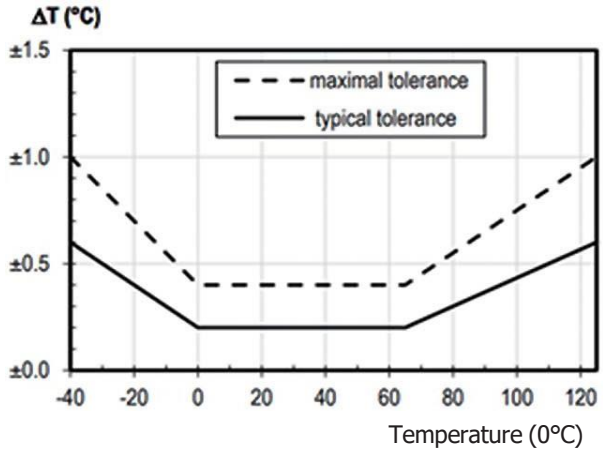
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## Specifications

| 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 |
| **Dew Point** | |
| Range | Calculated using temperature and relative humidity |
| Resolution | 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.



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## Installatio

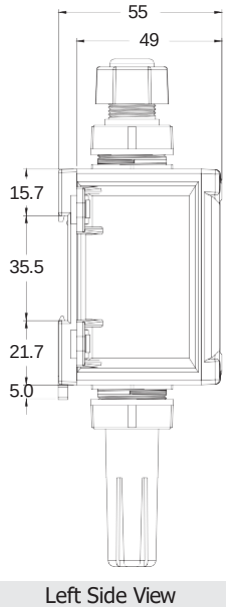



DIN-Rail Mounting

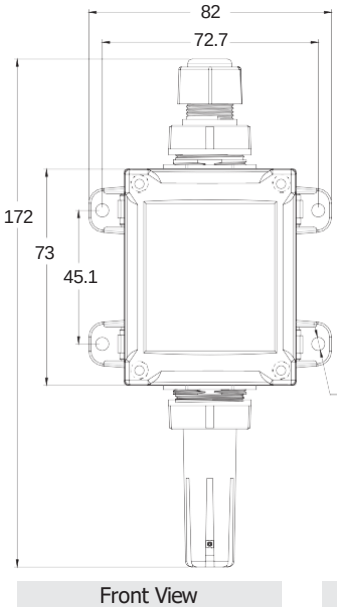



Wall mount

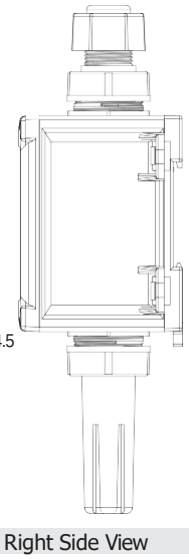
## Dimensions (Units: mm)



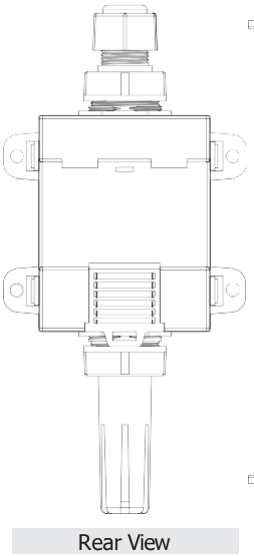

Left Side View



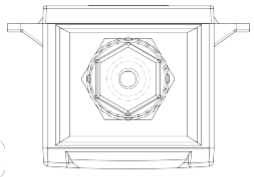

Front View



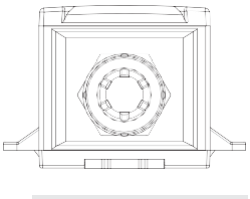
Right Side View



Rear View



Top View



Bottom View

## 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) |



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