



DL-100TM-ZT

Features

- Measurement Ranges: -20 ~ +60°C and 0 ~ 100% RH
- Accuracy: ±0.4°C; ±3.0% RH
- LCD Display Shows Temperature, Humidity and Module ID
- 10 ~ 30 VDC Power Input
- IP66 Waterproof
- Data Logger Can Store Up to 4088 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 300 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-100TM-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-100TM-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-100TM-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)	300 m
Protocols	Supports Modbus
Humidity Sensor	
Measurement Range	0 ~ 100% RH (Relative Humidity)
Resolution	0.1% RH
Accuracy	Typical: ±3% RH
	Max.: Refer to Figure 1
Precision	±0.1% RH
Temperature Sensor	
Measurement Range	-20 ~ +60°C
Resolution	0.1°C
Accuracy	Typical: ±0.4°C
	Max.: refer to Figure 2.
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)	86 mm x 128 mm x 52 mm
Environmental	
Operating Temperature	-20 ~ +60°C
Storage Temperature	-25 ~ +75°C
Operating Humidity	10 ~ 95% RH(Non-condensing)

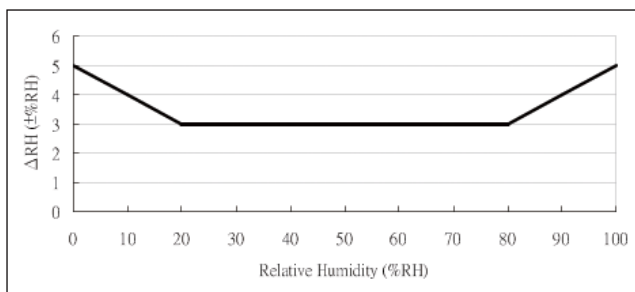


Figure 1: Maximum RH-tolerance at 25°C per sensor

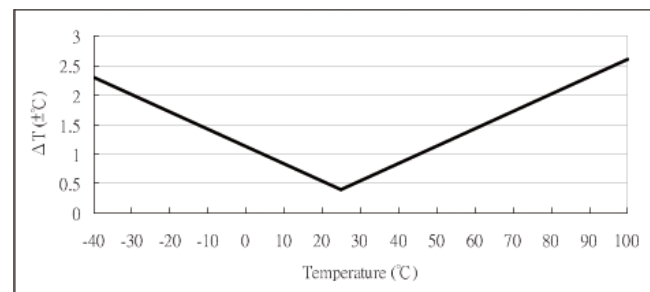


Figure 2: Maximum T-tolerance per sensor

Installation

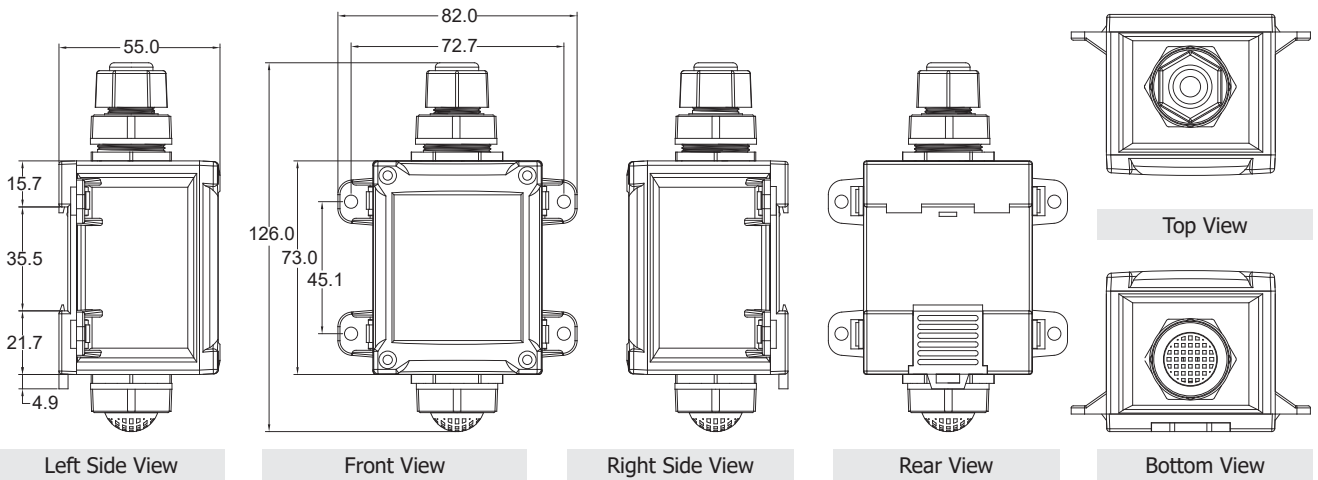


DIN-Rail Mounting



Wall mount

Dimensions (Units: mm)



Ordering Information

DL-100TM-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-2510 CR	ZigBee Repeater (Slave, ZigBee Router) (RoHS)
ZT-2550 CR	RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)
ZT-2570 CR	Ethernet/RS-485/RS-232 to ZigBee Converter (Host, ZigBee Coordinator) (RoHS)