

iSN-201-E/iSN-201-WF

Ambient Light, Temperature and Humidity Sensor Module

Features

- Illuminance Measurement Range: 0 to 20,000 Lux
- Temperature Measurement Range: -20 to +60°C
- Humidity Measurement Range: 0 to 100% RH
- Supports the DCON and Modbus RTU/TCP Protocols
- Supports the MQTT Protocol for Ethernet Interface
- Includes RS-485/Ethernet Communication Interfaces
- Includes redundant power inputs: PoE (IEEE 802.3af, Class 1) and DC input
- Supports Web Configuration and Firmware Update via Ethernet
- Compatible with IEEE802.11b/g/n standards (iSN-201-WF only)
- Support infrastructure and limit-AP modes for wireless networks (iSN-201-WF only)
- Ceiling Mounting

Introduction

The iSN-201 series modules can be used for measuring indoor illumination, temperature and humidity. A wide range of interface connections can be selected to suit individual needs, including RS-485/ Ethernet/Wi-Fi models. The various models provide support for the DCON and Modbus RTU/TCP protocols, and can be easily integrated into existing HMI/SCADA/ central control systems.

The screw-free quick-connect connector and the DIP and rotary switches make the modules easy to install, repair, and maintain. The white minimalist exterior design ensures that it easy to match with interior decoration.



Applications

The WISE-5231 and electric curtain combination with the illumination meter iSN-201-E can easily be setup through a simple web interface and logic control. The two-way interlocking mode integrates the electric curtains and the Building Management System (BMS), and collects environmental sensing data simultaneously. When detecting the indoor temperature or humidity rises or the intensity of sunshine is strong, it will automatically activate the pulling motion of the electric curtain, or enable a personalized scenario to control all curtains or specific curtain combinations in the home environment. In addition, the user can edit the scenario and set up the curtain automation at scheduled times.

Specifications

Model	iSN-201-E	iSN-201-WF
Illuminance Measurement		
Range	0 to 20,000 Lux	
Resolution	1 Lux	
Accuracy	±5%	
Temperature Measurement		
Measurement Range	-40 to +120°C	
Fire Alarm	65°C (Programmable)	
Resolution	0.1°C	
Accuracy	Typical: ±0.5°C; refer to figure 2	
Relative Humidity Measurement		
Range	0 to 100% RH	
Resolution	0.1% RH	
Accuracy	Typical: ±3% RH @ 20 ~ 80% RH; refer to figure 1	

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Model	iSN-201-E	iSN-201-WF
Relay Output		
Channels	1	
Type	Power Relay, Form C	
Max. Load Current	NO: 10 A @ 250 VAC NC: 6 A @ 250 VAC	
Load Wattage	Incandescent Bulb: 1500 W Max.; Fluorescent Lamp: 300 W Max.	
Communication		
Node Address	Hardware: 96 to 127 / Software: 1 to 255	
Protocol	DCON, Modbus RTU, Modbus TCP, MQTT	
Wired Interface	Yes, RS-485 X 1 and Ethernet/PoE X1	
Wireless Interface	-	Wi-Fi
Supported Standard	-	IEEE 802.11 b/g/n
Wireless Mode	-	Infrastructure/Limited AP
Wireless Security	-	WEP, WPA ,WPA2
Transmission Range	-	50 m(LOS)
LED Indicators		
LED Indicators	Yes,1 as Power, 1 as Alarm Indicator. 1 as Communication Indicator.	
EMS Protection		
ESD (IEC 61000-4-2)	±4 kV Contact for each Terminal, ±8 kV Air for Random Point	
EFT (IEC 61000-4-4)	±4 kV for Power Line	
Power Requirements		
Power Supply	10 to 48 VDC, PoE	
Reverse Polarity Protection	Yes	
Power Consumption	2 W	2.3 W
Mechanical		
Installation	Ceiling /surface mounted	
Protection Class	IP20	
Dimensions(D x H)	Ø 150 mm x 53 mm	
Environment		
Operating Temperature	0 to +75°C	
Storage Temperature	-30 to +80°C	
Humidity	10 to 90% RH, Non-condensing	

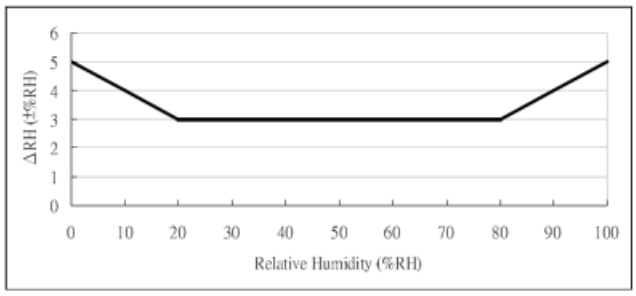


Figure 1: Maximum RH-tolerance at 25°C per sensor

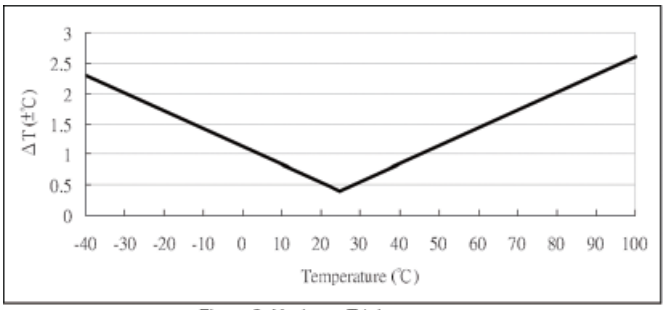
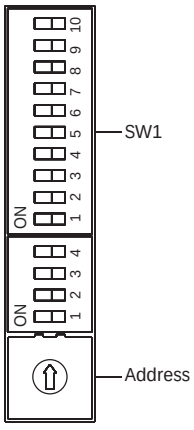


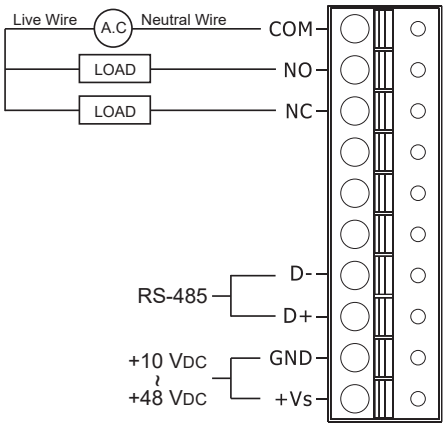
Figure 2: Maximum T-tolerance per sensor

DIP Switch Settings



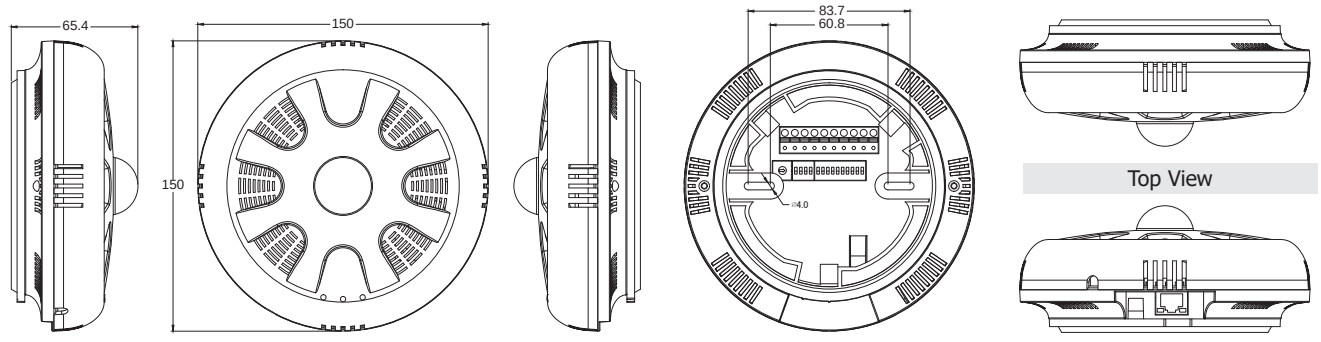
SW1	ON	OFF
1	DCON	Modbus
2	SW Config.	HW Config.
3	High Node	Low Node
4	INIT	Run
5	Reserved	
6		
7		
8		
9		
10		

Pin Assignments & Wire Connections



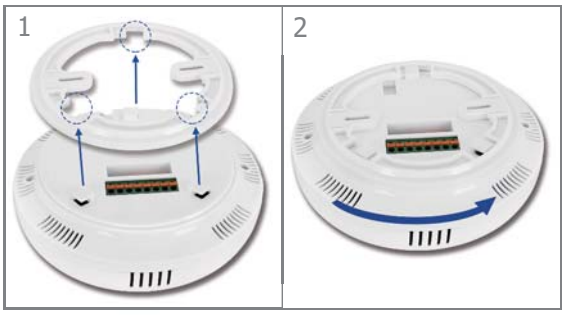
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Dimensions (Units: mm)

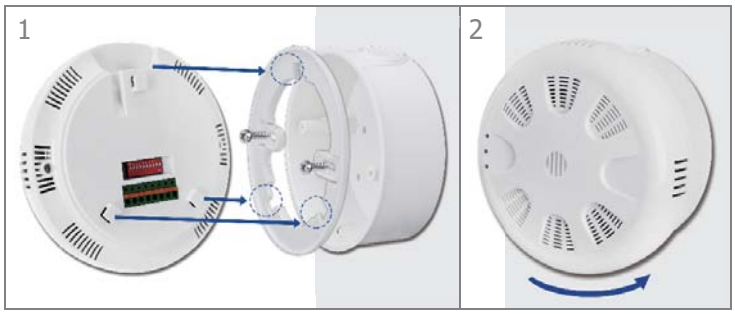


Installation

Ceiling Mounting

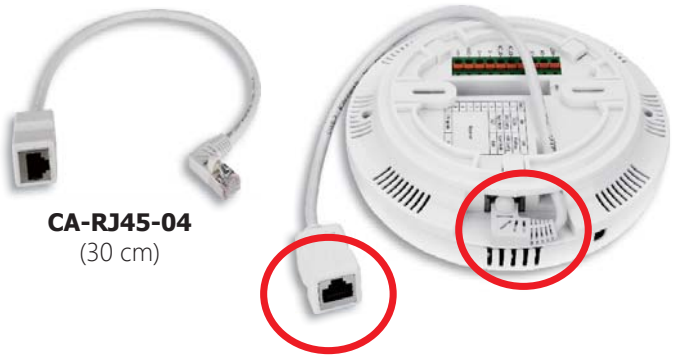


Wall Mounting (+ External Wall Box EWB-C150)



CL-2xx-E + RJ45 Cable:

CL-2xx-E (Ethernet Type) are with optional angle-bent RJ45 cable to smoothly install the Ethernet plug in the hole of the ceiling-mounted.



CA-RJ45-04
(30 cm)

Ordering Information

iSN-201-E	Illuminance, Temperature and Humidity Sensor Module (Ethernet)
iSN-201-WF	Illuminance, Temperature and Humidity Sensor Module (RS-485, Ethernet, Wi-Fi) (RoHS) (Asia Only)

Accessories

EWB-C150 	External Wall Box for the iSN-301 series	**CA-RJ45-04** 	RJ45 Cable, Male-Female, 30 cm (90º)

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