



**iSN-301H**  
**iSN-301H/DIN**  
**iSN-301V**  
**iSN-301V/DIN**  
1-ch Rangefinder Module

## Features

- Non-contact Distance Measurement (Time-of-Flight)
- Distance Measurement: 5 cm ~ 4 m
- Typical Full Field-of-View (FoV): 15°
- Programmable Region-of-Interest (ROI) Size and Position
- Supports the DCON and the Modbus RTU Protocols



## Introduction

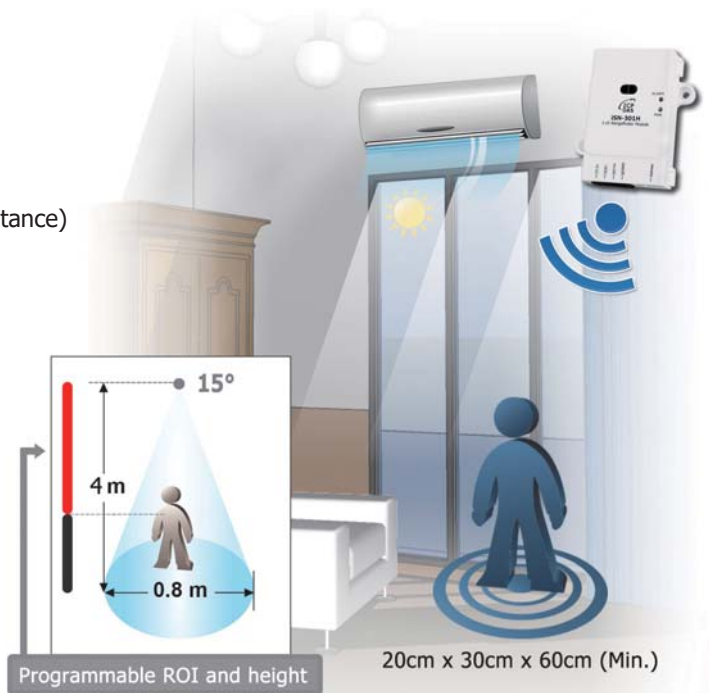
The iSN-301 is a Time-of-Flight sensing module that is designed specifically for non-contact distance measurement. It can measure distance up to 4 meters. The module can be configured to trigger LED alarm when the distance is too short or too long. It is possible to program the size and position of the ROI to adjust the sensor FoV. The module can be easily integrated with the host controller connected in the same RS-485 network via DCON or Modbus RTU protocol.

## Specifications

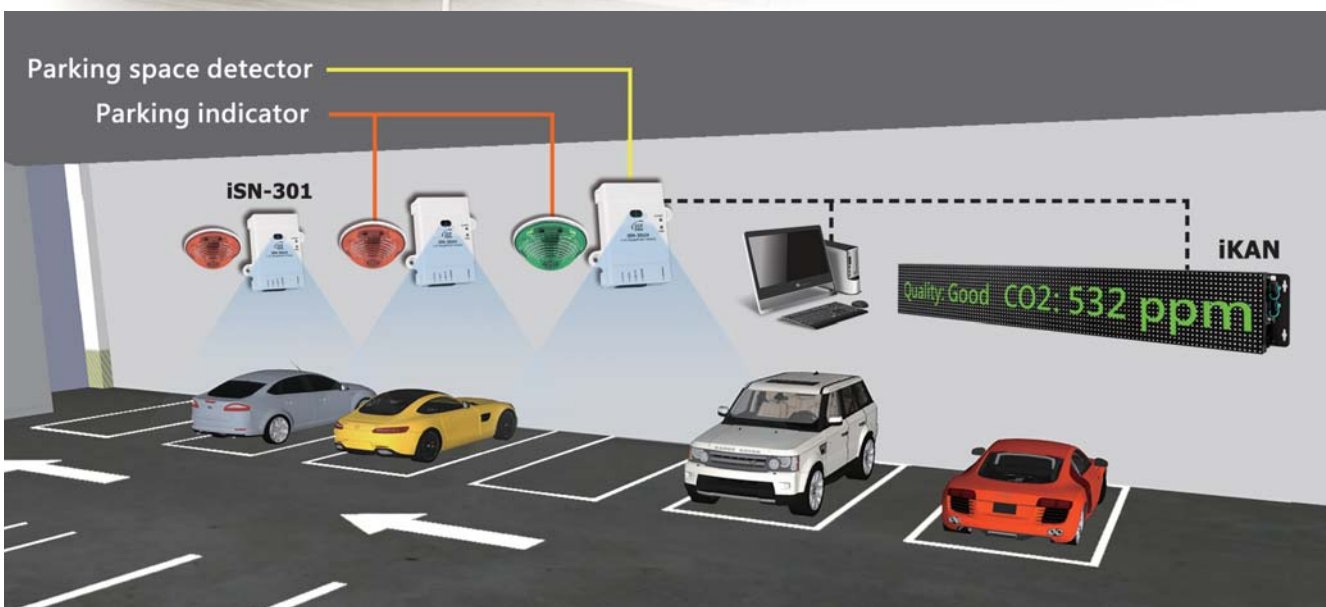
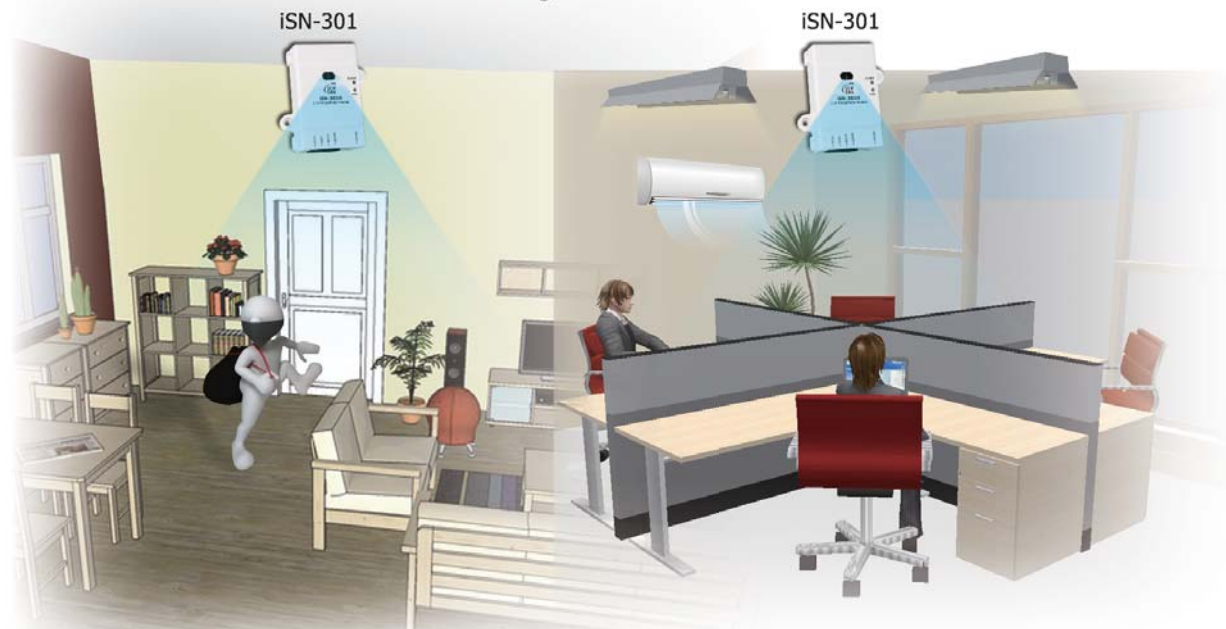
Model	iSN-301H	iSN-301H/DIN	iSN-301V	iSN-301V/DIN
<b>Distance Measurement</b>				
Accuracy	±5% (±20 cm)			
Range	5 cm ~ 4 m			
Resolution	1 mm			
Update Time	160 ~ 6000 ms, programmable			
Detection Field of View	15°; Diameter 0.8 meters Max.			
Sensor Direction	Horizontal	Horizontal	Vertical	Vertical
<b>Communication</b>				
Ports	1 x RS-485			
Baud Rate	Software Configurable: 1200 ~ 115200 bps			
Data Format	N,8,1 / O,8,1 / E,8,1 / N,8,2			
Protocol	Modbus RTU or DCON			
Node Addresses	0 ~ 255 for software configuration 96 ~ 127 for hardware configuration			
<b>LED Indicators</b>				
Status	1 as Power Indicator. 1 as Alarm Indicator.			
<b>EMS Protection</b>				
EFT (IEC 61000-4-4)	±4 kV for Power			
ESD (IEC 61000-4-2)	±8 kV Air for Random Point			
<b>Power</b>				
Reverse Polarity Protection	Yes			
Input Range	10 to 30 VDC			
Consumption	1.2 W Max.			
<b>Mechanical</b>				
Dimensions (W x L x H) (mm)	70 x 78 x 24	52 x 84 x 27	70 x 78 x 24	52 x 84 x 27
Installation	Wall Mounting	DIN-Rail	Wall Mounting	DIN-Rail
<b>Environment</b>				
Operating Temperature	-25 to +75°C			
Storage Temperature	-40 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

## Applications

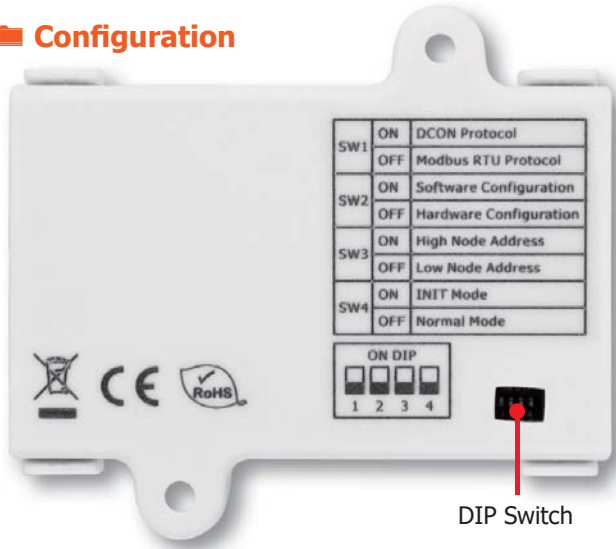
- Lighting and exhaust fans in toilets and restrooms
- Sanitary (robust user detection whatever the target reflectance)
- Common lighting in staircases
- Lighting in parking areas
- Garden lighting
- Lighting for changing rooms in shops
- Corridor lighting, and many more situations
- Smart building (people detection)



## 1-ch Rangefinder Module



## Configuration

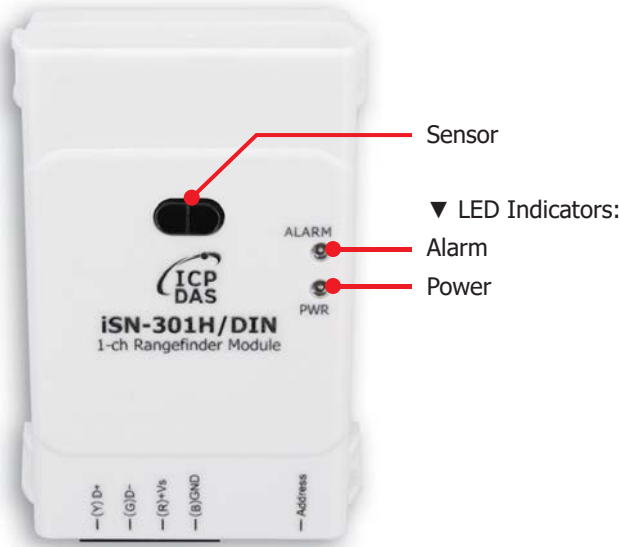


DIP Switch Description			
SW1	ON	DCON Protocol	
	OFF	Modbus RTU Protocol	
SW2	ON	Software Configuration	
	OFF	Hardware Configuration	
SW3	ON	High Node Address	
	OFF	Low Node Address	
SW4	ON	INIT Mode	
	OFF	Normal Mode	

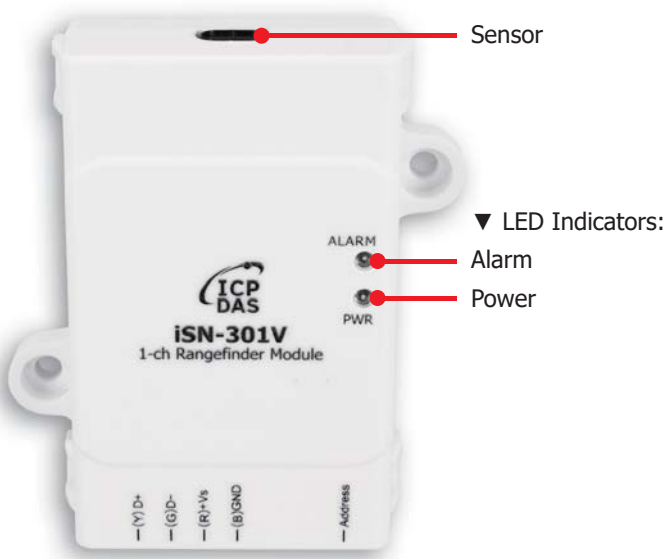
	ON DIP 1 2 3 4	0 ~ F for Address 96 ~ 111 (Low Node Address)
	ON DIP 1 2 3 4	0 ~ F for Address 112 ~ 127 (High Node Address)

## Appearance

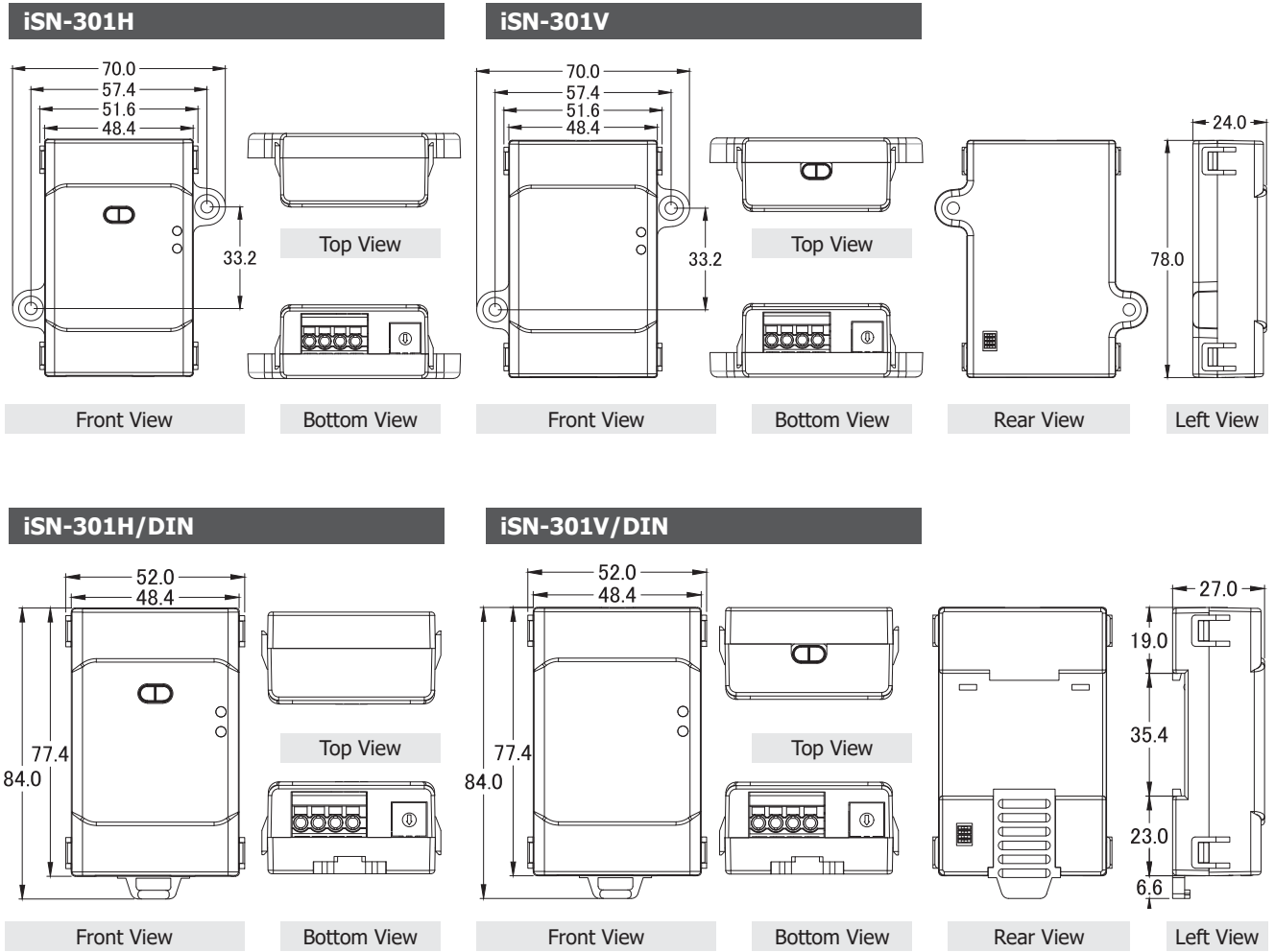
### iSN-301H / iSN-301H/DIN



### iSN-301V / iSN-301V/DIN







## ■ Dimensions (Units: mm)



## ■ Ordering Information

<b>iSN-301H CR</b>	1-ch Rangefinder Module (Horizontal) (RoHS)
<b>iSN-301V CR</b>	1-ch Rangefinder Module (Vertical) (RoHS)
<b>iSN-301H/DIN CR</b>	1-ch Rangefinder Module (Horizontal) (DIN Rail mount) (RoHS)
<b>iSN-301V/DIN CR</b>	1-ch Rangefinder Module (Vertical) (DIN Rail mount) (RoHS)

## ■ Accessories

	tM-7520U CR	RS-232 to RS-485 converter (RoHS)		I-7514U CR	4-channel RS-485 Hub (RoHS)
	tM-7561 CR	USB to RS-485 converter (RoHS)		ASO-0029	Universal Joint Bracket (RoHS)