

iSN-301H **iSN-301V**
iSN-301H/DIN **iSN-301V/DIN**

1-ch Rangefinder Module

Features

- Non-contact Distance Measurement (Time-of-Filght)
- Distance Measurement: 5 cm ~ 4 m
- Typical Full Field-of-View (FoV): 27°
- Programmable Region-of-Interest (ROI) Size and Position
- Supports the DCON and the Modbus RTU Protocols
- Provide Relay Output for Distance Alarm

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. If alarm is triggered, the controller immediately activates the output relay. 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.

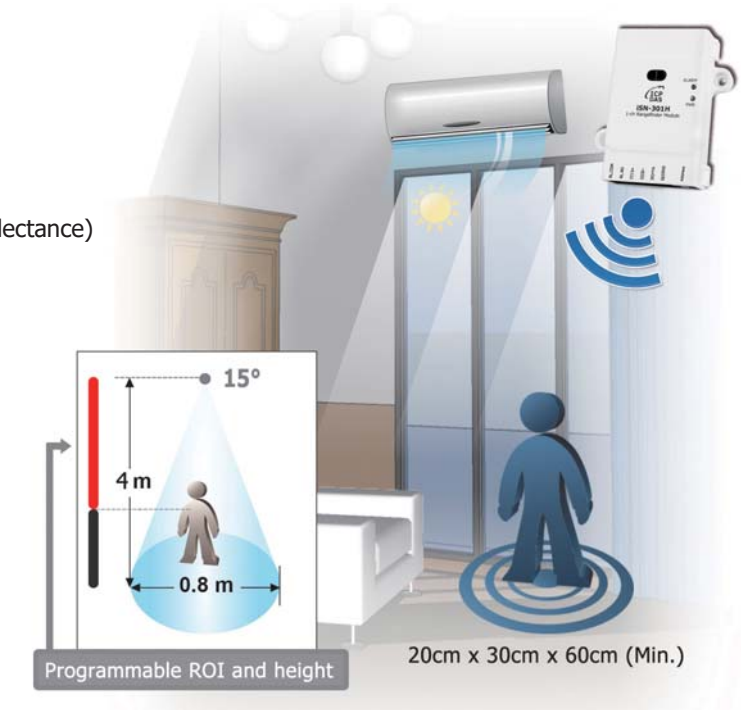
Specifications

Model	iSN-301H	iSN-301H/DIN	iSN-301V	iSN-301V/DIN
EMS Protection				
EFT (IEC 61000-4-4)	±4 kV for Power			
ESD (IEC 61000-4-2)	±8 kV Air for Random Point			
LED Indicators				
Status	1 as Power Indicator. 1 as Alarm Indicator.			
Distance Measurement				
Detection Range	5 cm ~ 4 m			
Detection Field of View	15°; Diameter 0.8 meters Max.			
Accuracy	±5% (±20 cm)			
Resolution	1 mm			
Update Time	20 ~5000 ms, programmable			
Sensor Direction	Horizontal	Horizontal	Vertical	Vertical
Relay Output				
Type	Signal Relay, Form A x1, SPST 0.25 A @ 250 VAC 0.5 A @ 125 VAC 2 A @ 30 VDC			
COM Ports				
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			
Power				
Reverse Polarity Protection	Yes			
Input Range	10 to 30 VDC			
Consumption	1.2 W Max.			
Mechanical				
Dimensions (mm)	70 x 78 x 24 (W x L x H)	52 x 84 x 27 (W x L x H)	70 x 78 x 24 (W x L x H)	52 x 84 x 27 (W x L x H)
Installation	Wall Mounting	DIN-Rail	Wall Mounting	DIN-Rail
Environment				
Operating Temperature	-25 to +75°C			
Storage Temperature	-40 to +80°C			
Humidity	10 to 90% RH, Non-condensing			

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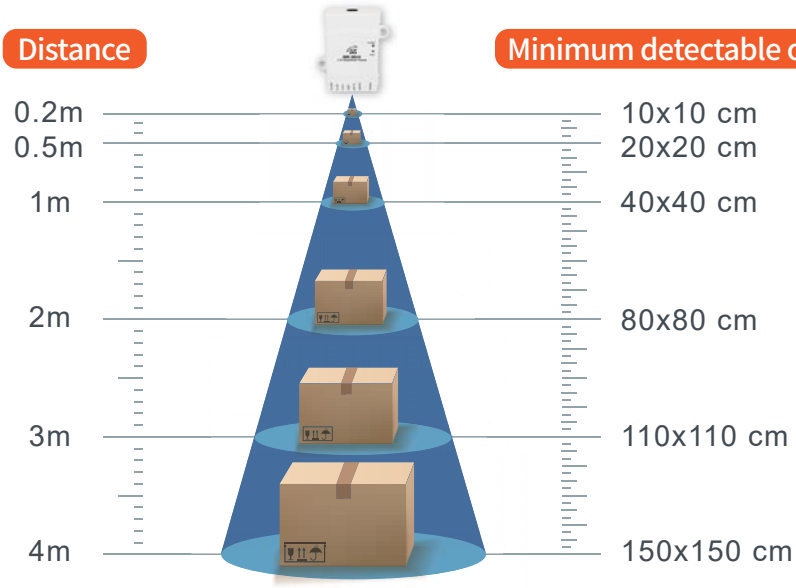
Applications

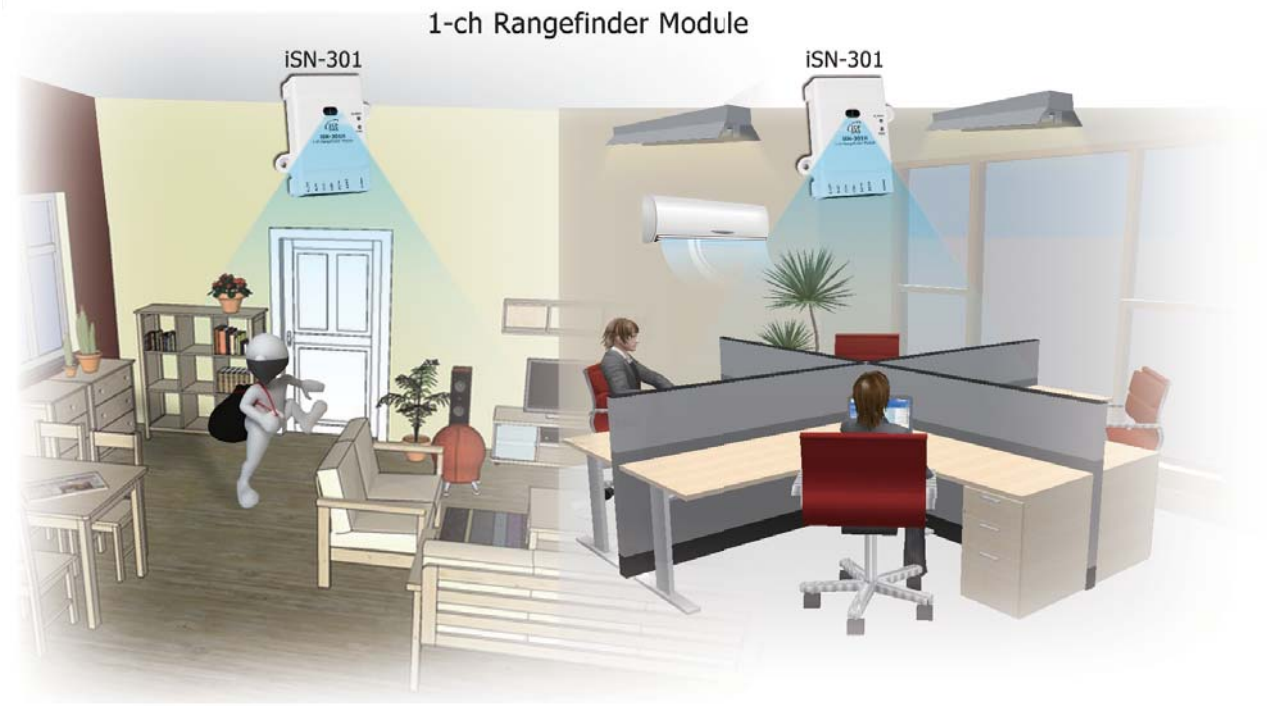
- Lighting and exhaust fans in toilets and restrooms
- Sanitary (robust user detection whatever the target reflectance)
- Common lighting in staircases
- Lighting in parking areas
- Garden lighting
- Lighting for changing rooms in shops
- Corridor lighting, and many more situations
- Smart building (people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



iSN-301H
iSN-301V

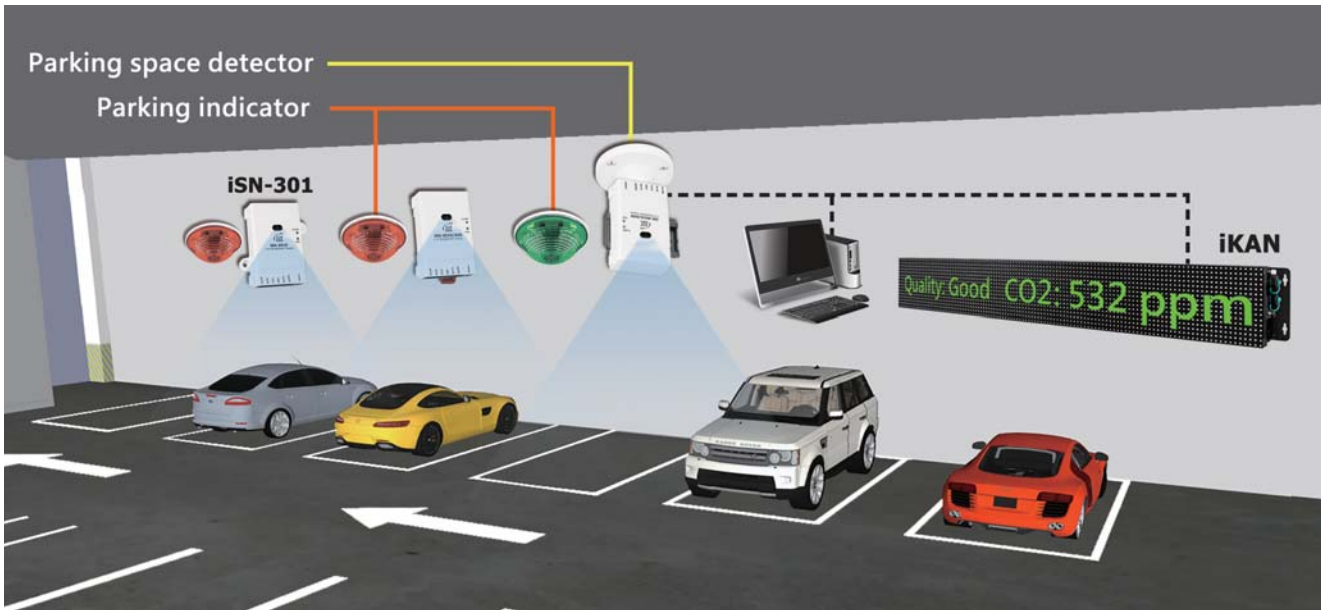
Measurement range



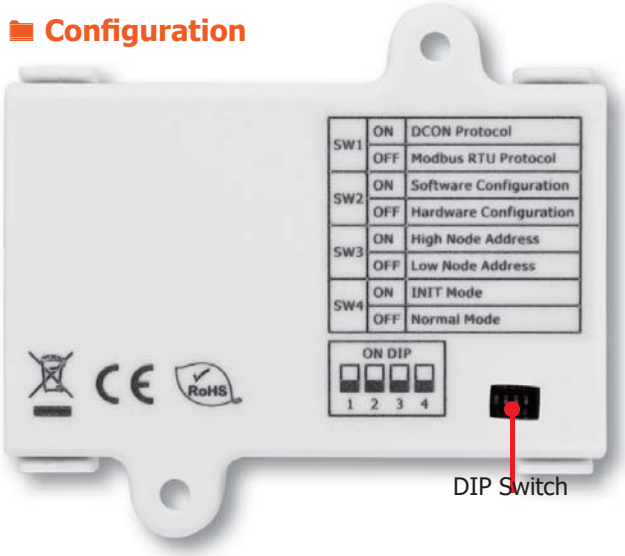


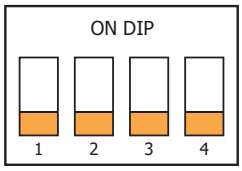
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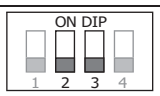
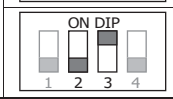
Applications



Configuration

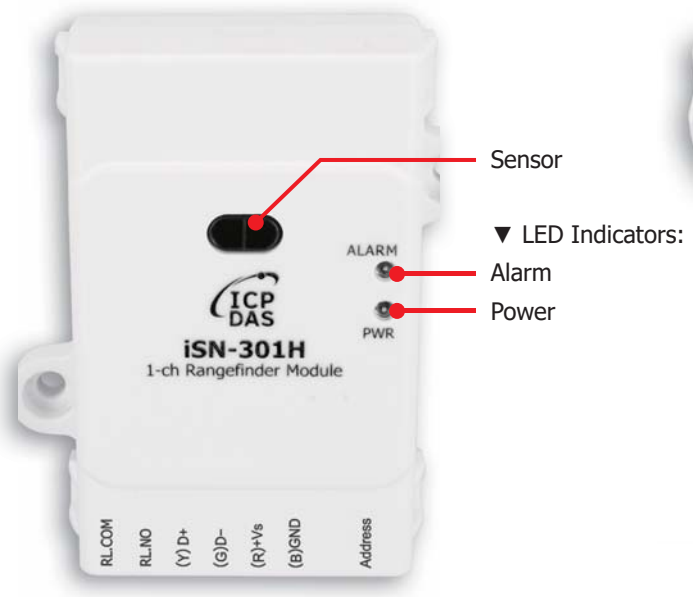


DIP Switch Description			
	SW1	ON	DCON Protocol
		OFF	Modbus RTU Protocol
	SW2	ON	Software Configuration
		OFF	Hardware Configuration
	SW3	ON	High Node Address
		OFF	Low Node Address
	SW4	ON	INIT Mode
		OFF	Normal Mode

		0 ~ F for Address 96 ~ 111 (Low Node Address)
		0 ~ F for Address 112 ~ 127 (High Node Address)

Appearance

iSN-301H / iSN-301H/DIN

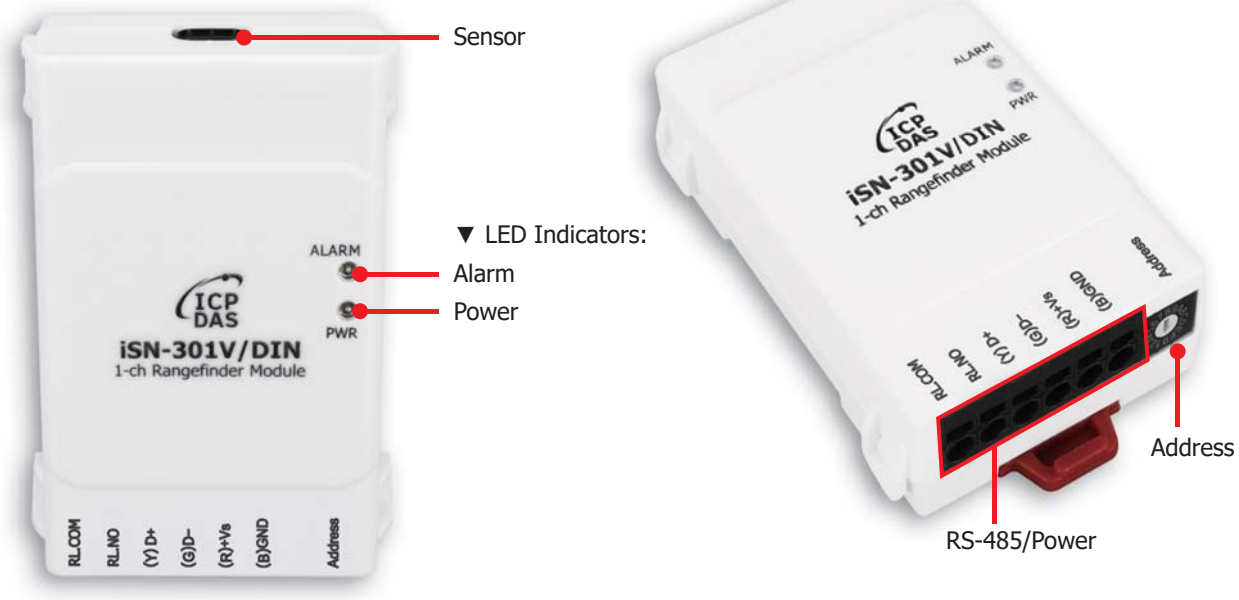




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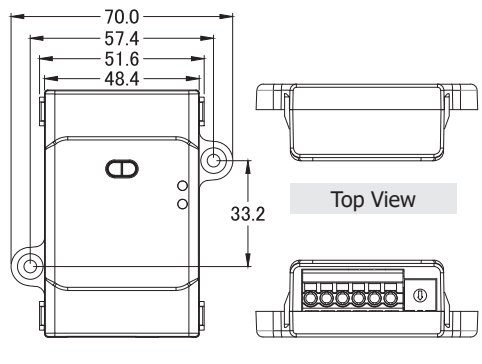
Appearance

iSN-301V / iSN-301V/DIN



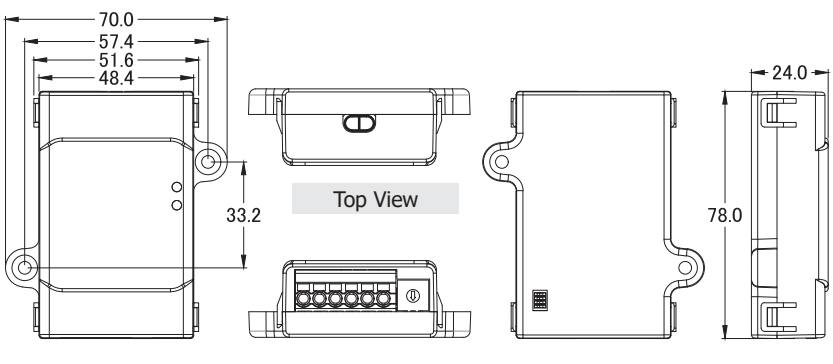
Dimensions (Units: mm)

iSN-301H



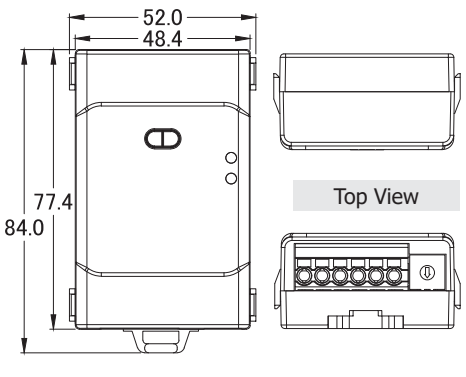
Front View | Top View | Bottom View

iSN-301V



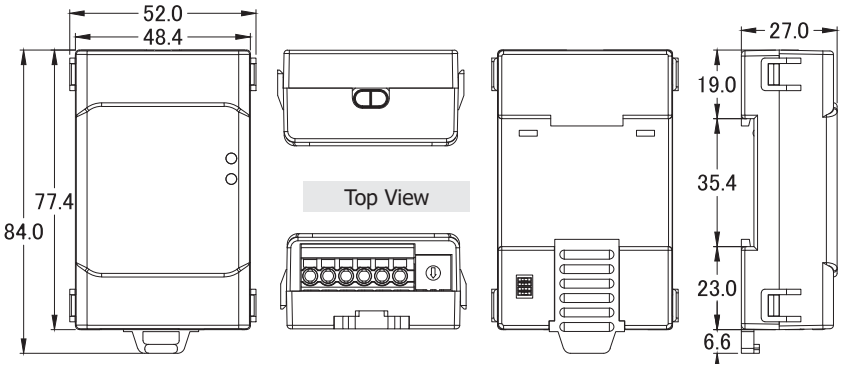
Front View | Top View | Bottom View | Rear View | Left View

iSN-301H/DIN



Front View | Top View | Bottom View

iSN-301V/DIN



Front View | Top View | Bottom View | Rear View | Left View

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Ordering Information

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

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