

ToF Rangefinder Module For Various IoT Applications

iSN-301 series modules offer distance measurement based on ToF technology, facilitating project planning & execution.

Non-contacting distance measurement
Measuring range : 5 cm to 4 m
Adjustable time intervals for signal emissions
Configurable threshold ranges for distances
Support DCON and Modbus RTU protocols



iSN-301H/V



Mechanical Details



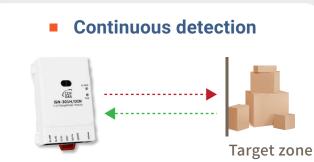
Installation Type & Detection Direction



iSN-301H/V

iSN-301 series enables non-contacting distance measurement using time-of-flight (ToF) technology. It activates LED indicators with changes in distance measurements, and the region of interest is configurable for field-of-view (FoV). The modules integrate with the master on the same RS-485 network using DCON or Modbus RTU.

Features

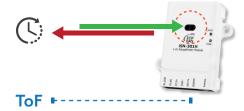


ToF and PIR differ in principles. ToF-based iSN-301 enables continuous detection in the presence of obstacles without object movement to activate functions. ToF distance measurement

ISN-301

ISN-301H/DIN

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ToF-based iSN-301 measures distances to the target based on the round-trip time of light signals.

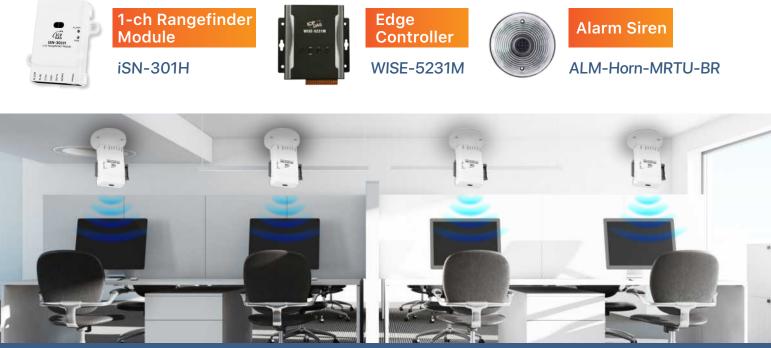
- Non-contacting ToF distance measurement
- Support DCON and Modbus RTU protocols
- Configurable threshold ranges for distances
- Adjustable measuring distance & time intervals for signal emissions

- Communication-capable (RS-485)
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- Configurable region of interest
- Installation types : horizontal, vertical
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- Provide one relay output



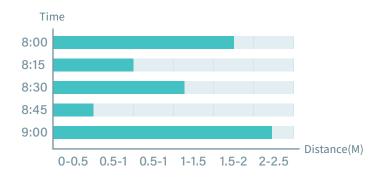
Vehicle Presence Detection

ToF-based iSN-301 series measures distance changes to the target zone based on the round-trip time of light signals. It enables continuous detection in the presence of obstacles with no object movement required. In contrast, the PIR sensor module relies on motion detection.



Obstacle Detection in Target Zones

iSN-301 series offers adjustable detection zones and threshold ranges for distances, enabling human presence detection in target zones or seats based on changes in distance measurements.





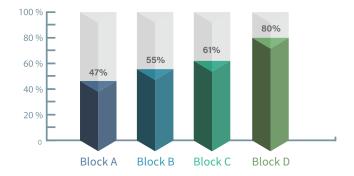
Grain Silo Level Measurement

ToF Rangefinder Module tracks inventory in grain silos by measuring the distance changes. When used with the WISE-5231 Controller, notifications about storage levels are sent to the personnel for timely responses.



Recycling Bin Level Measurement

iSN-301 series offers one relay output that can be used with signaling devices to indicate bin levels. The modules transmit data to the control center, facilitating efficient schedule planning with eLogger software.



Selection Guide	Horizontal		er	ertic	
1-ch Rangefinder Module			C C C C C C C C C C C C C C C C C C C	CASE INN-SOLVOIR BRASOLVOIR	
Model	iSN-301H	iSN-301H/DIN	iSN-301V	iSN-301V/DIN	
Range	5cm ~ 4m				
FoV	At an installation height of 2m, the object's min. diameter is 80cm At an installation height of 4m, the object's min. diameter is 150cm				
Precision	±5% (±20 cm)				
Resolution	1 mm				
Update Time	160 ~ 6000 ms, programmable				
Detection Direction	Horizontal		-	Vertical	
Ports	1 x RS-485				
Baud Rate	Software configuration : 1200 ~ 115200 bps				
Data Format	N,8,1 / O,8,1 / E,8,1 / N,8,2				
Protocol	Modbus RTU or DCON				
Node Address Reversed Polarity Protection	0 ~ 255 for software configuration, 96 ~ 127 for hardware configuration Yes				
Input Range	10 ~ 30 VDC				
Power Consumption	1.2W Max.				
Installation	Wall Mounting	DIN-Rail	Wall Mounting	DIN-Rail	
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Related Products : PIR Motion Sensor Module					
			Si o	4M 4M 360° 14m DIA	
PIR-230-E PIR-231-E PIR-230-WF PIR-231-WF				PIR-234-E/WF PIR-234L-E/WF	
Built-in PIR sensorsHigh-sensitivity typ	for smart control e for motion detectio	-	ol using PIR / Temp sen time delay / brightness		
1 PIR sensor			4 PII	R sensors	
	技 ICP DAS CO 073366 ⊠ info@icpd		as.com		

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