



## iSN-812-MTCP/iSN-813-MTCP iSN-811C-MTCP/iSN-813-MRTU

IR temperature sensing module

### Features

- Non-contact temperature measurement
- Modbus RTU protocol support for the iSN-81x-MRTU series
- Modbus TCP, RESTful, and MQTT protocol support for the iSN-81x-MTCP series
- Web-based configuration and monitoring interface for the iSN-81x-MTCP series
- Temperature threshold alarm function Integrated thermal imaging and field imaging



### Introduction

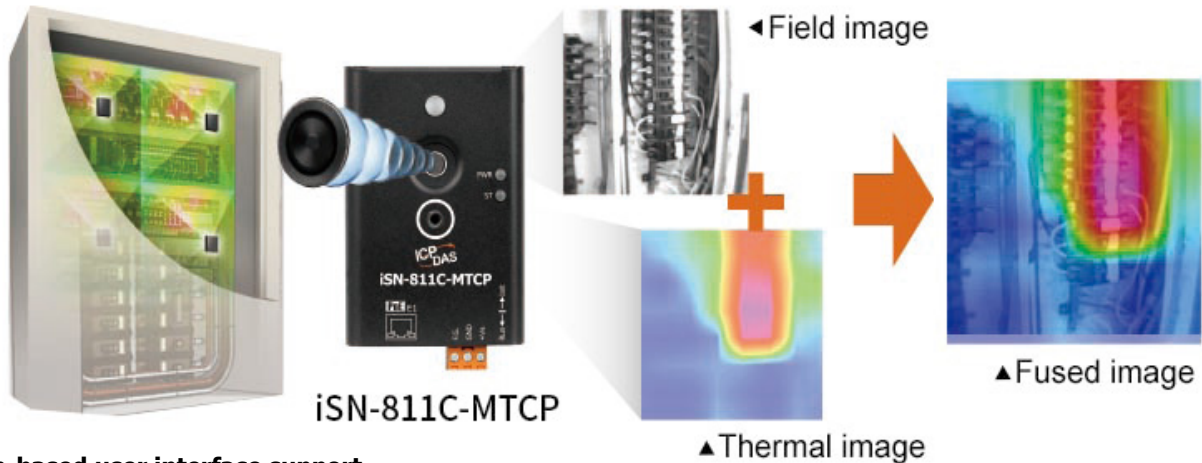
The iSN-81x-MRTU and iSN-81x-MTCP series are non-contact infrared temperature sensing modules that integrate infrared and visible light imaging technologies, providing precise and reliable temperature monitoring solutions for industrial equipment.

#### Non-Contact Temperature Measurement

Using infrared technology, temperature can be accurately measured without direct contact with the object, making it particularly suitable for high-temperature, moving, or hard-to-reach objects, ensuring the safety of operators.

#### Combination of Temperature and Imaging

With a built-in camera, infrared images are combined with visible light images, allowing managers to clearly understand the temperature distribution of equipment and intuitively analyze abnormal conditions.



#### Web-based user interface support

The iSN-81x-MTCP features a built-in web interface, allowing for easy module configuration and the viewing of temperature and imaging data.

HeatMap: Integrated thermal imaging and field imaging

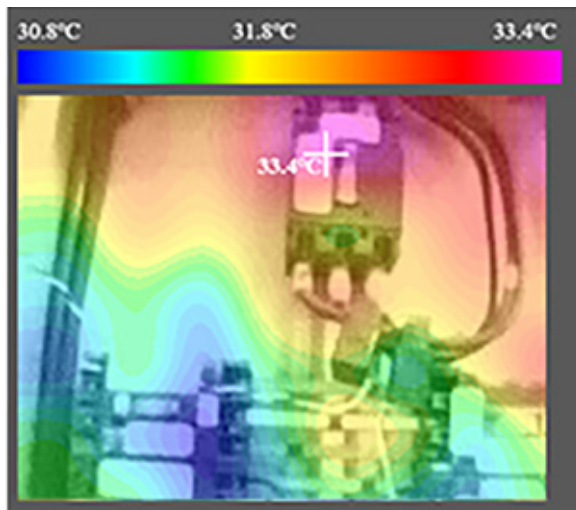
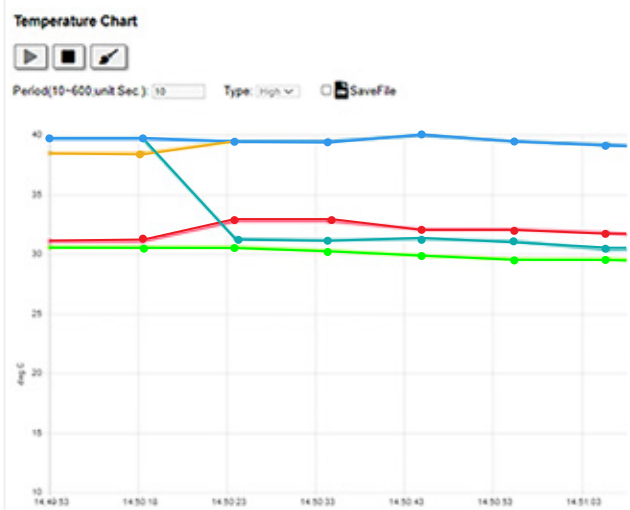


Chart: Monitor and record temperature trends



## Applications

- Supports Modbus / MQTT / RESTful Communication Protocols



Industrial Standards

Local Area Network

Centralized Management



IOT Standards

Proactive Sending

Distributed management

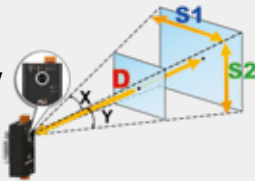


Cross-platform Applications

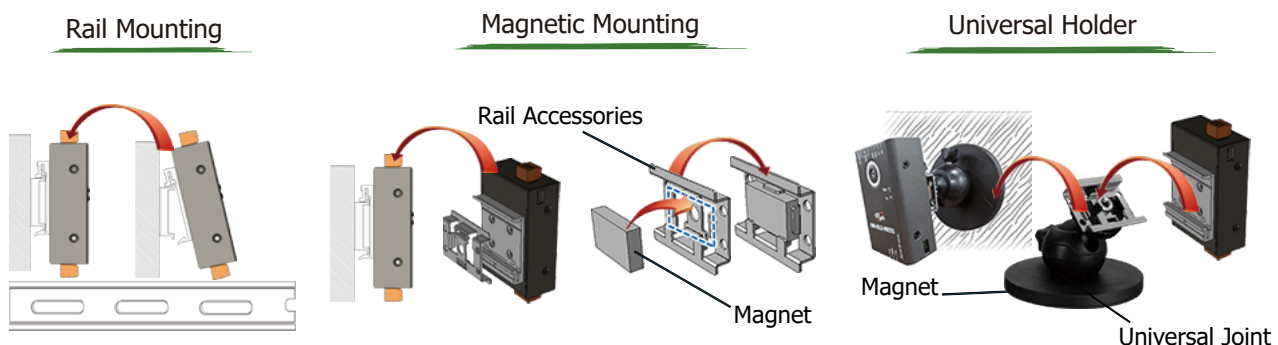
Distributed Management



## System Specifications

Model	iSN-812-MRTU	iSN-811C-MTCP	iSN-812-MTCP	iSN-813-MTCP
<b>Interface</b>				
Ports	RS-485	Ethernet, IEEE 802.3af, Class 1		
Protocol	Modbus RTU	Modbus TCP / MQTT / RESTful		
<b>Temperature Measurement</b>				
Range	-40° C ~ 300° C	-20° C ~ 250° C	-40° C ~ 300° C	-20° ~ 300° C
Accuracy	±5°C Max.			
Resolution	0.1°C			
Pixels	768 (32 x 24)	64 (8 x 8)	768 (32 x 24)	4800 (60 x 80)
Recommended Distance	≤ 2M	≤ 1M	≤ 2M	≤ 6M
FOV 	<b>X:</b> 110° D : S1 = 1 : 2.86 <b>Y:</b> 75° D : S2 = 1 : 1.53	<b>X:</b> 60° D : S1 = 1 : 1.15 <b>Y:</b> 60° D : S2 = 1 : 1.15	<b>X:</b> 110° D : S1 = 1 : 2.86 <b>Y:</b> 75° D : S2 = 1 : 1.53	<b>X:</b> 90° D : S1 = 1 : 2 <b>Y:</b> 67° D : S2 = 1 : 1.32
<b>Motion picture (camera)</b>				
Pixels	-	QVGA (320 x 240)	-	-
Fill light	-	Yes	-	-
<b>Power</b>				
Input Range	+10 ~ +30 VDC			
Consumption	0.9W	1.2W	0.6W	1W
<b>Mechanical</b>				
Installation	Din-rail or magnetic(Optional), universal joint(Optional)			
Dimensions (mm)	52 x 94 x 34 (W x H x D)	52 x 86 x 34 (W x H x D)		
<b>Environment</b>				
Operating Temperature	-10 ~ +70°C			
Storage Temperature	-20 ~ +80°C			
Humidity	10% ~ 95% RH, Non-condensing			

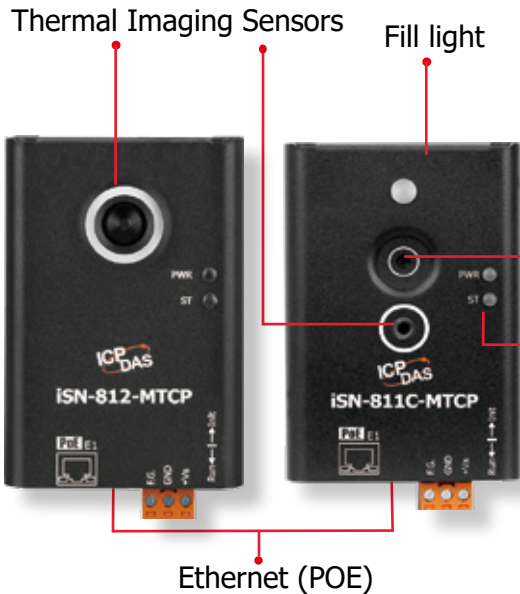
## Various installation options for various fields



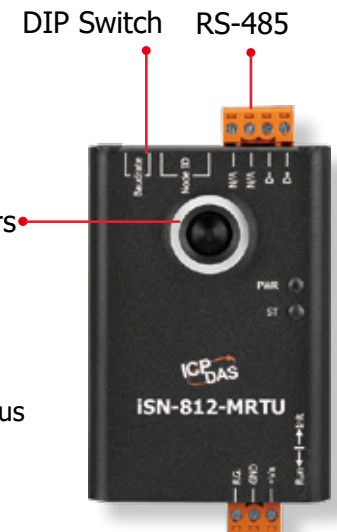


## Pin Assignments

### ■ iSN-81X-MTCP



### ■ iSN-81X-MRTU

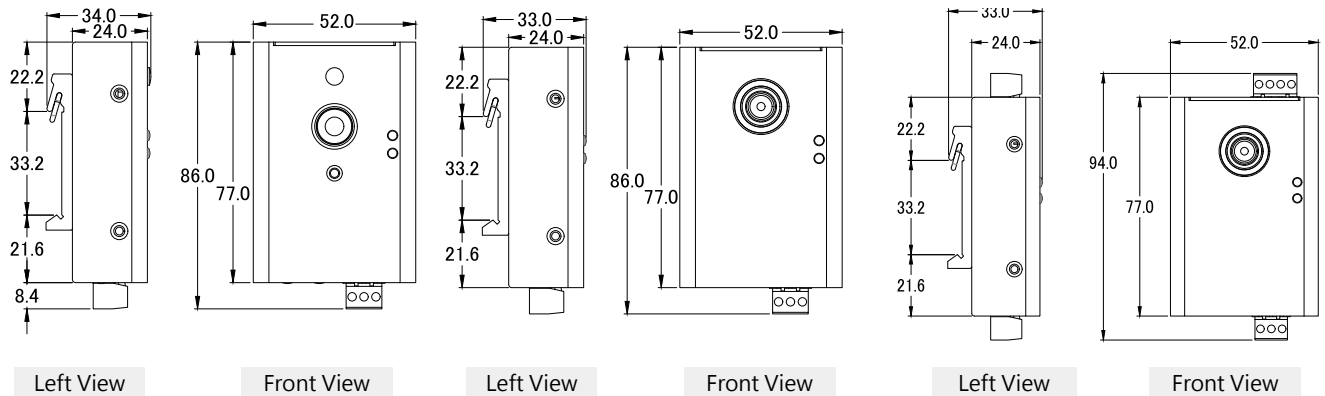


## Dimensions (Units: mm)

### ■ iSN-811C-MTCP

### ■ iSN-812-MTCP/iSN-813-MTCP

### ■ iSN-812-MRTU



## Accessories

ASO-0054 CR	ASO-0060 CR	WM01-M CR
<p>Universal Joint Bracket(RoHS)</p>	<p>Magnetic Base Universal Joint Bracket(RoHS)</p>	<p>44 mm Magnetic Mounting Kit(RoHS)</p>

## Ordering Information

<b>iSN-811C-MTCP CR</b>	Modbus TCP; IR temperature sensing module with camera; 64 Pixels (RoHS)
<b>iSN-812-MTCP CR</b>	Modbus TCP; IR temperature sensing module; 768 Pixels (RoHS)
<b>iSN-812-MRTU CR</b>	Modbus RTU; IR temperature sensing module; 768 Pixels (RoHS)
<b>iSN-813-MTCP CR</b>	Modbus TCP; IR temperature sensing module; 4800 Pixels (RoHS)