



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

IR temperature sensing module

### Features

- Non-contact temperature measurement
- Support Modbus RTU protocol for iSN-81x-MRTU series.
- Support Modbus TCP, RESTful and MQTT protocols for iSN-81x-MTCP series.
- Web-based configuration and monitoring interface (iSN-81x-MTCP series)
- Temperature threshold detection function
- Integrated thermal imaging and field image



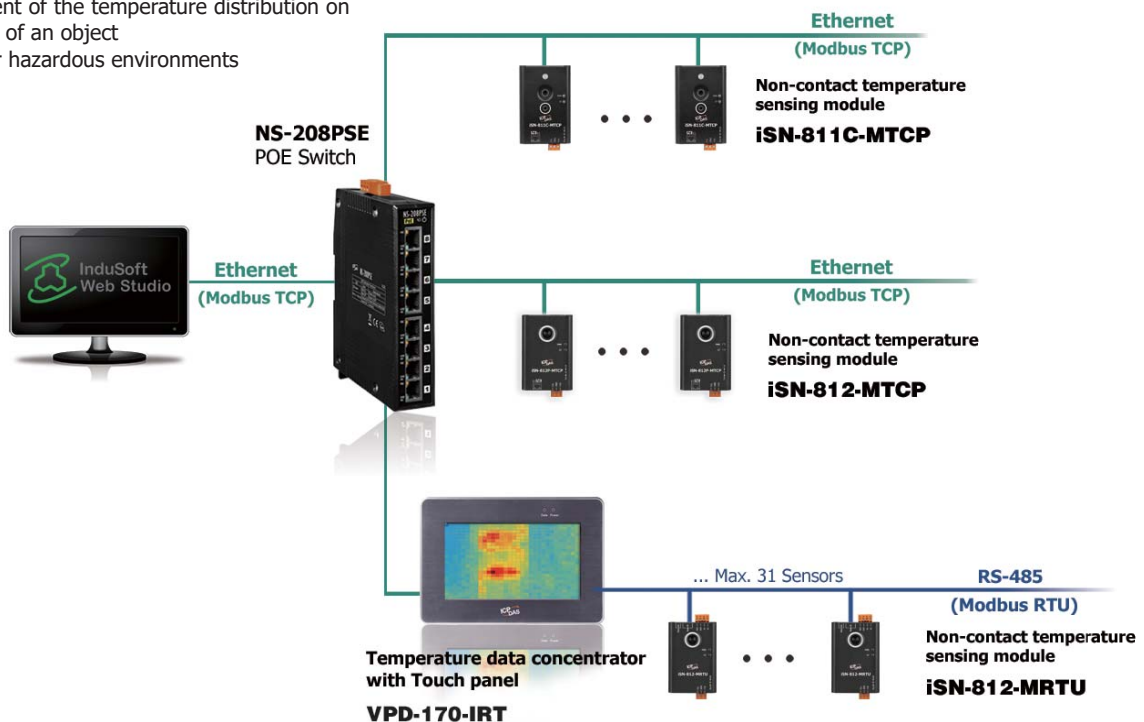
### Introduction

The iSN-81x series is a temperature measurement module developed for non-contact temperature measurement. Its diverse temperature pixels and temperature threshold detection functionality can meet various temperature measurement requirements. The iSN-81x series communicates through the Modbus RTU/TCP protocol, allowing for easy integration into SCADA systems and providing real-time temperature measurements of objects.

The iSN-81x-MTCP series supports RESTful and MQTT communication protocols. The iSN-81x-MTCP series sends measurement data to a remote database server using the RESTful method. When operating as an MQTT client, the iSN-81x-MTCP series sends measurement data to a Broker, enabling SCADA systems, management platforms, and IoT systems to easily subscribe to topics and access measurement data. The iSN-81x series is your reliable partner for equipment monitoring, data analysis, and anomaly detection in an industrial environment. Management personnel can assess whether the equipment monitored by the iSN-81x series is experiencing anomalies through measurement data. This helps with early warning and rapid response, reducing production losses caused by sudden anomalies. The long-term storage of historical data can also be used for automated decision-making or artificial intelligence training to determine whether components of monitoring equipment need replacement, achieving the goal of predictive maintenance. Whether you require real-time monitoring or long-term data analysis, the iSN-81x series can meet your needs.

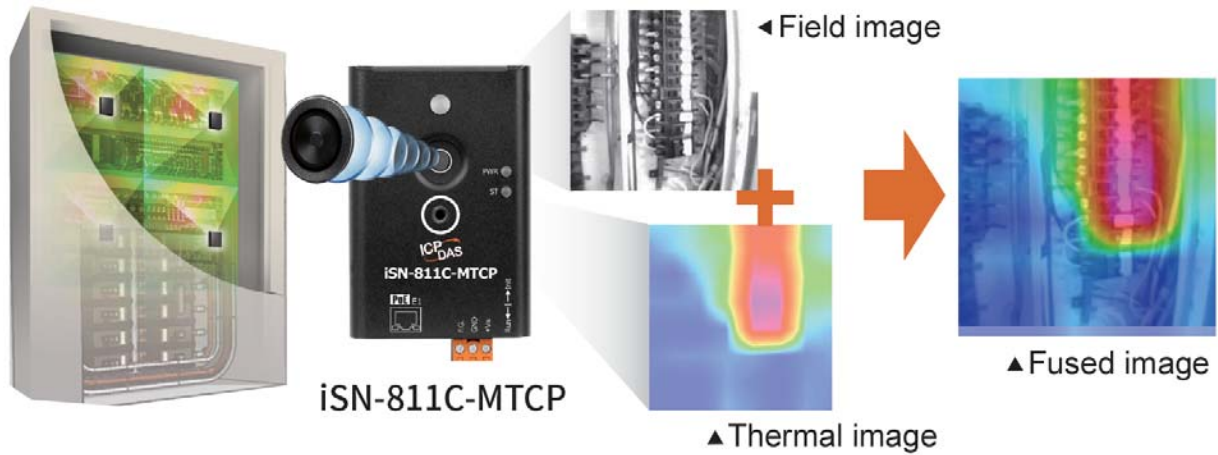
### Applications

- Temperature monitoring
- Measuring the temperature of moving objects
- Measurement of the temperature distribution on the surface of an object
- Suitable for hazardous environments

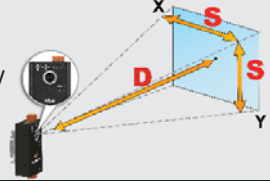


## ■ Integrated thermal imaging and field imaging for instant determination of field abnormal conditions

The iSN-811C-MTCP is the primary tool for dealing with electrical anomalies, mechanical overheating, equipment inspections and other troubleshooting issues. It uses a thermal sensor and camera to provide fused dual image information for faster problem identification.

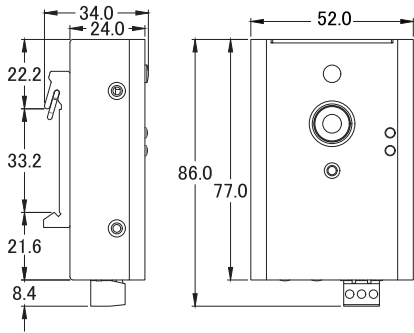


## ■ System Specifications

Model	iSN-811-MRTU	iSN-812-MRTU	iSN-811C-MTCP	iSN-812-MTCP
<b>COM Ports</b>				
Ports	RS-485		Ethernet, IEEE 802.3af,Class 1	
Protocol	Modbus RTU		Modbus TCP / MQTT / RESTful	
<b>Temperature Measurement</b>				
Range	-20°C ~ 250°C	-40°C ~ 300°C	-20°C ~ 250°C	-40° ~ 300°C
Accuracy	±5°C Max.			
Resolution	0.1°C			
Pixels	64 (8x8)	768 (32 x 24)	64 (8x8)	768 (32 x 24)
Effective Distance	1M			
FOV	 <b>X:</b> 60° / D : S = 1 : 1.15 <b>Y:</b> 60° / D : S = 1 : 1.15	 <b>X:</b> 110° / D : S = 1 : 2.86 <b>Y:</b> 75° / D : S = 1 : 1.53	 <b>X:</b> 60° / D : S = 1 : 1.15 <b>Y:</b> 60° / D : S = 1 : 1.15	 <b>X:</b> 110° / D : S = 1 : 2.86 <b>Y:</b> 75° / D : S = 1 : 1.53
<b>Motion picture (camera)</b>				
Pixels	-	-	QVGA (320 x 240)	-
Fill light	-	-	Yes	-
<b>Power</b>				
Input Range	+10 ~ +30 VDC			
Consumption	1.5W	1.5W	1.5W	1.5W
<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			

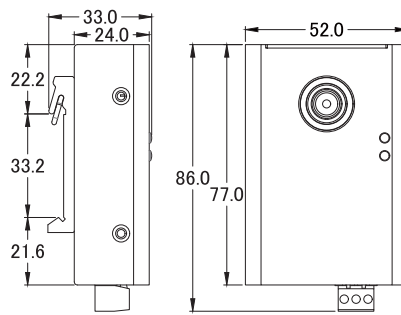
## ■ Dimensions (Units: mm)

### ■ iSN-811C-MTCP



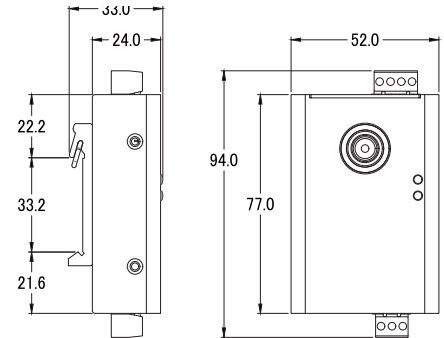
Left View

### ■ iSN-812-MTCP



Left View

### ■ iSN-812-MRTU

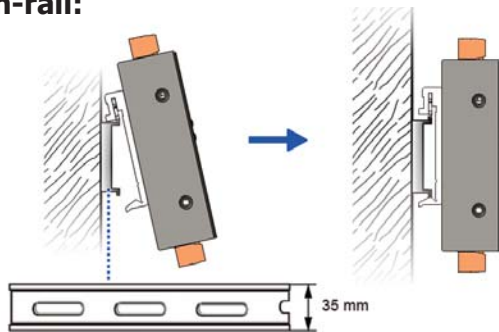


Left View

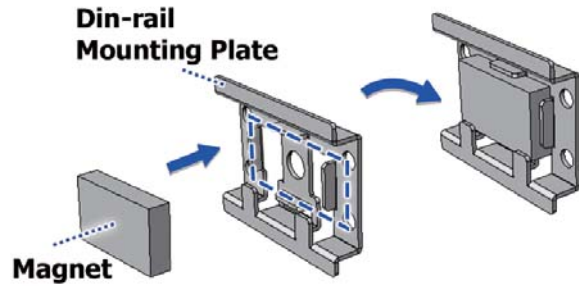
Front View

## ■ Pin Assignments

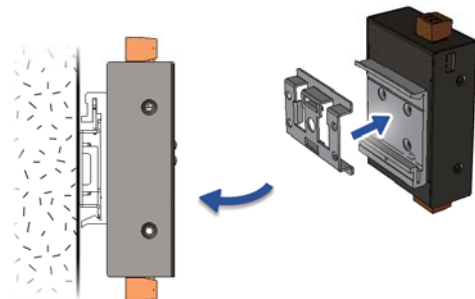
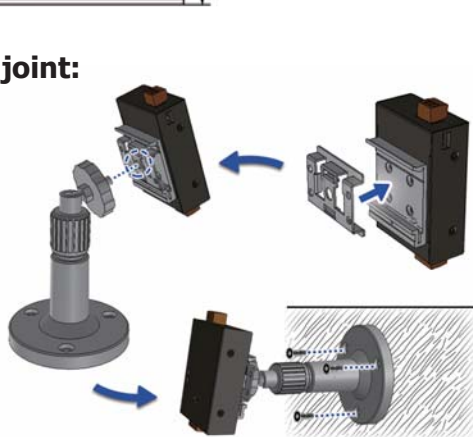
### Din-rail:



### Magnetic mounting:



### Universal joint:



## ■ 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)

## ■ Accessories

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