



Backplane  
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## Features

- Non-contact temperature measurement
- Temperature threshold detection
- Support Modbus RTU protocol
- Offers Wall-mount, magnetic and universal joint for installation

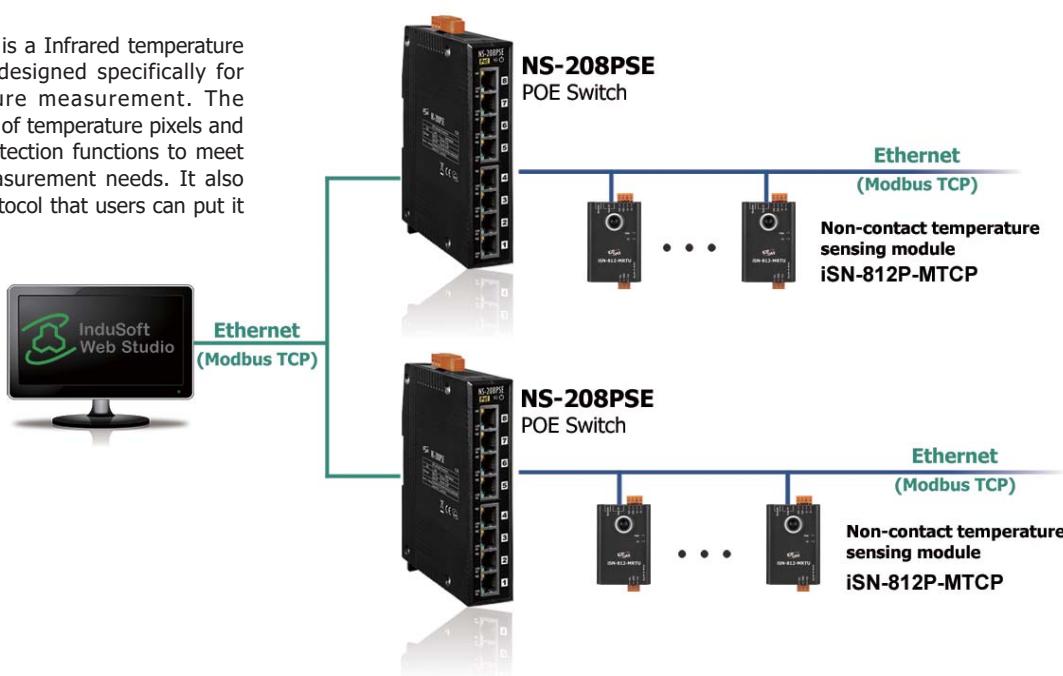


# iSN-811-MRTU/iSN-812-MRTU/ iSN-813-MRTU/iSN-814-MRTU

IR temperature sensing module

## Introduction

The iSN-81x-MRTU series is a Infrared temperature sensing module that is designed specifically for non-contact temperature measurement. The module provides a variety of temperature pixels and temperature threshold detection functions to meet various temperature measurement needs. It also provides Modbus RTU protocol that users can put it into SCADA system very easily.



## Applications

- Temperature monitoring
- Temperature trend analysis
- Big data analysis
- Predictive maintenance

## Realtime Monitoring of Panel Temperature

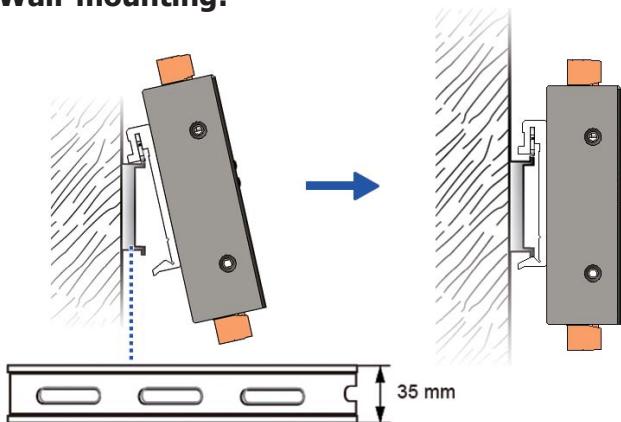
**Non-contact temperature sensing module**  
**iSN-81x-MRTU Series**

**Temperature data concentrator with Touch panel**  
**VPD-1xx-IRT Series**

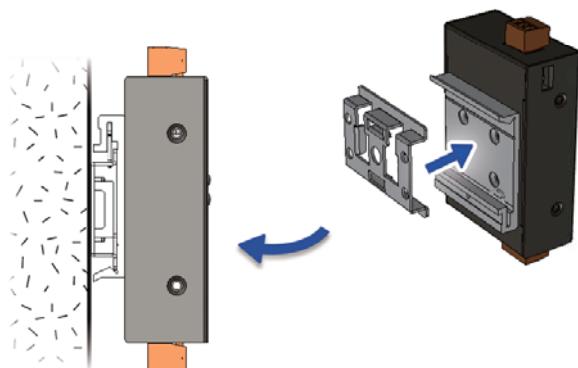
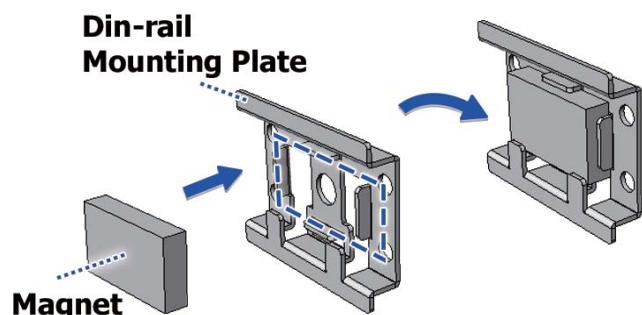


## ■ Pin Assignments

### Wall-mounting:



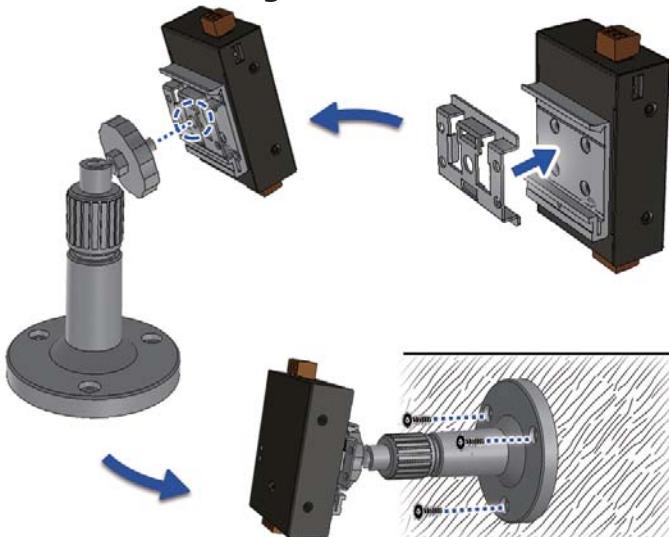
### Magnetic mounting:



## ■ System Specifications

| Model                          | iSN-811-MRTU   | iSN-812-MRTU  | iSN-813-MRTU | iSN-814-MRTU |
|--------------------------------|--|---------------|--------------|--------------|
| <b>COM Ports</b>               |  |               |              |              |
| Baud Rate                      | 115200 bps Max.                                      |               |              |              |
| Ports                          | 1 x RS-485   |               |              |              |
| Protocol                       | Modbus RTU   |               |              |              |
| <b>Temperature Measurement</b> |  |               |              |              |
| Range                          | -20°C ~ 300°C  | -40°C ~ 300°C | 0°C ~ 200°C  | 10°C ~ 140°C |
| Accuracy                       | ±9.25°C Max.   | ±5°C Max.     | ±5°C Max.    | ±5°C Max.    |
| Resolution                     | 0.1°C  |               |              |              |
| Pixels                         | 64 (16x4)  | 768 (32x24)   | 1024 (32x32) | 4800 (80x60) |
| FOV                            | 120° x 25°   | 110° x 75°    | 90° x 90°    | 50° x 50°    |
| Effective Distance             | 1M   | 1M            | 1M           | 1M           |
| <b>Power</b>                   |  |               |              |              |
| Input Range                    | +10 ~ +30 VDC  |               |              |              |
| Consumption                    | 1.5W   | 1.5W          | 1.5W         | 1.5W         |
| <b>Mechanical</b>              |  |               |              |              |
| Installation                   | Wall-mounting or magnetic mounting, gimbled mounting |               |              |              |
| Dimensions (mm)                | 52 x 94 x 33 (W x H x D)                             |               |              |              |
| <b>Environment</b>             |  |               |              |              |
| Operating Temperature          | -10 ~ +70°C  |               |              |              |
| Storage Temperature            | -20 ~ +80°C  |               |              |              |
| Humidity                       | 10% ~ 95% RH, Non-condensing                         |               |              |              |

### Gimbal mounting:



## ■ Ordering Information

|                        |  |
|------------------------|--|
| <b>iSN-811-MRTU CR</b> | Modbus RTU, IR temperature sensing module; 64 Pixels (RS-485) (RoHS)   |
| <b>iSN-812-MRTU CR</b> | Modbus RTU, IR temperature sensing module; 768 Pixels (RS-485) (RoHS)  |
| <b>iSN-813-MRTU CR</b> | Modbus RTU, IR temperature sensing module; 1024 Pixels (RS-485) (RoHS) |
| <b>iSN-814-MRTU CR</b> | Modbus RTU, IR temperature sensing module; 4800 Pixels (RS-485) (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)           |