

Infrared Temperature Sensing Modules

iSN-800 Series



iSN-811C-MTCP



iSN-812-MTCP

iSN-813-MTCP



iSN-812-MRUT



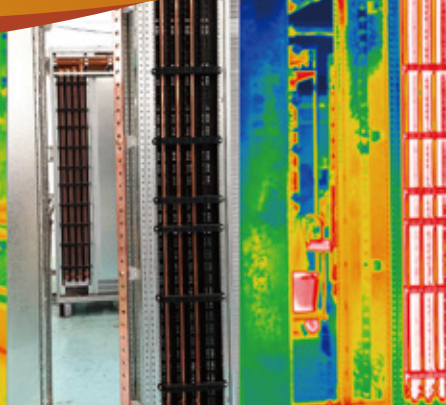
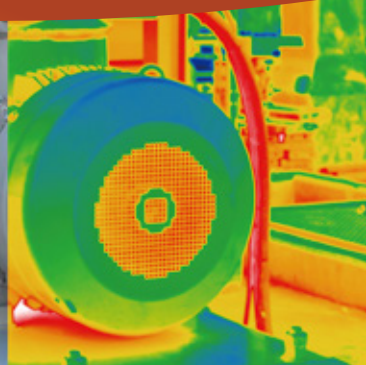
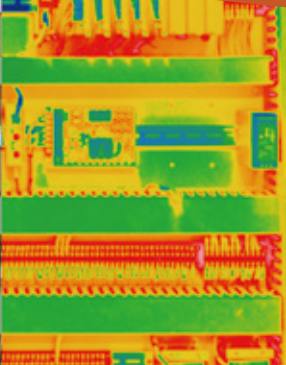
VPD-170-iRT
Data Concentrator

••• Make problems visible •••



••• Make safety visible •••

Panel Protection Monitoring,
IoT Smart Application



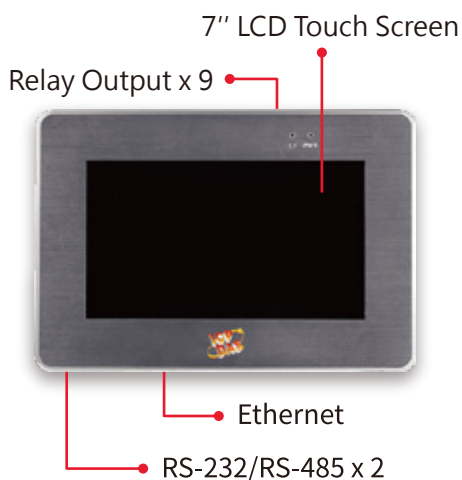
» Product Features

Infrared temperature sensors monitor control panels and equipment in real-time, reducing manual inspections and preventing abnormal shutdowns to ensure continuous operation.



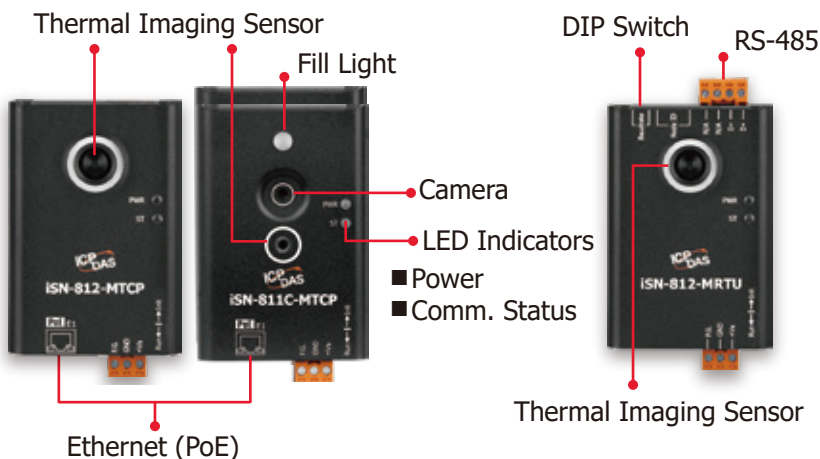
VPD-170-IRT

Data Concentrator



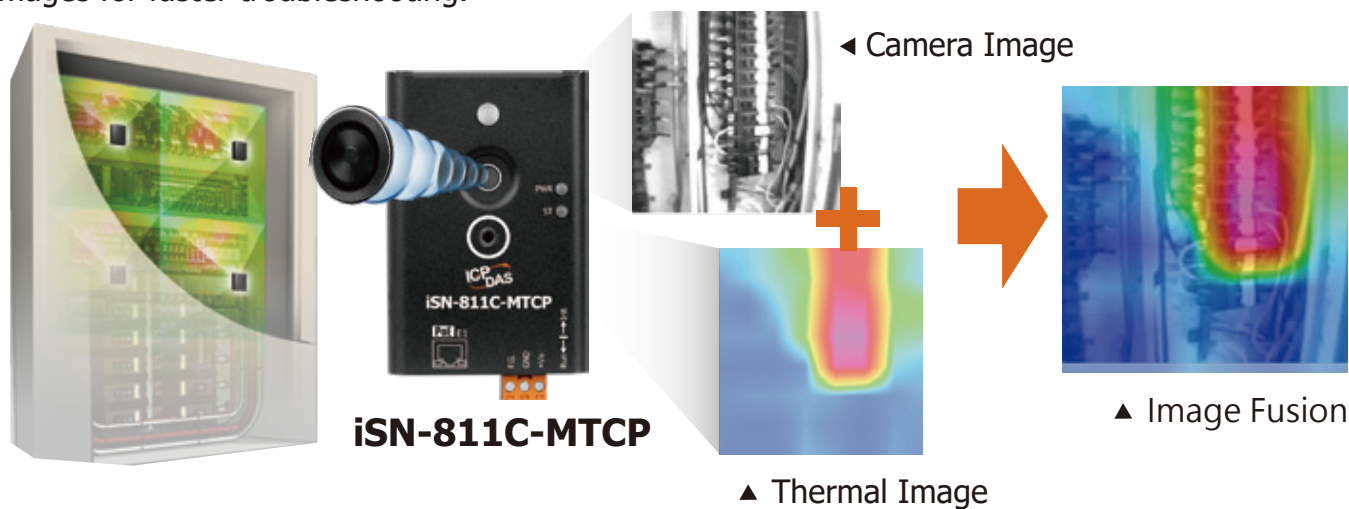
iSN-81x-MTCP / iSN-81x-MRTU

Infrared Temperature Sensing Modules



Real-Time Thermal & On-Site Image Abnormality Assessment

The iSN-800 series is ideal for detecting electrical and mechanical issues and supporting equipment inspections. It combines thermal imaging with a visible-light camera to deliver fused dual images for faster troubleshooting.



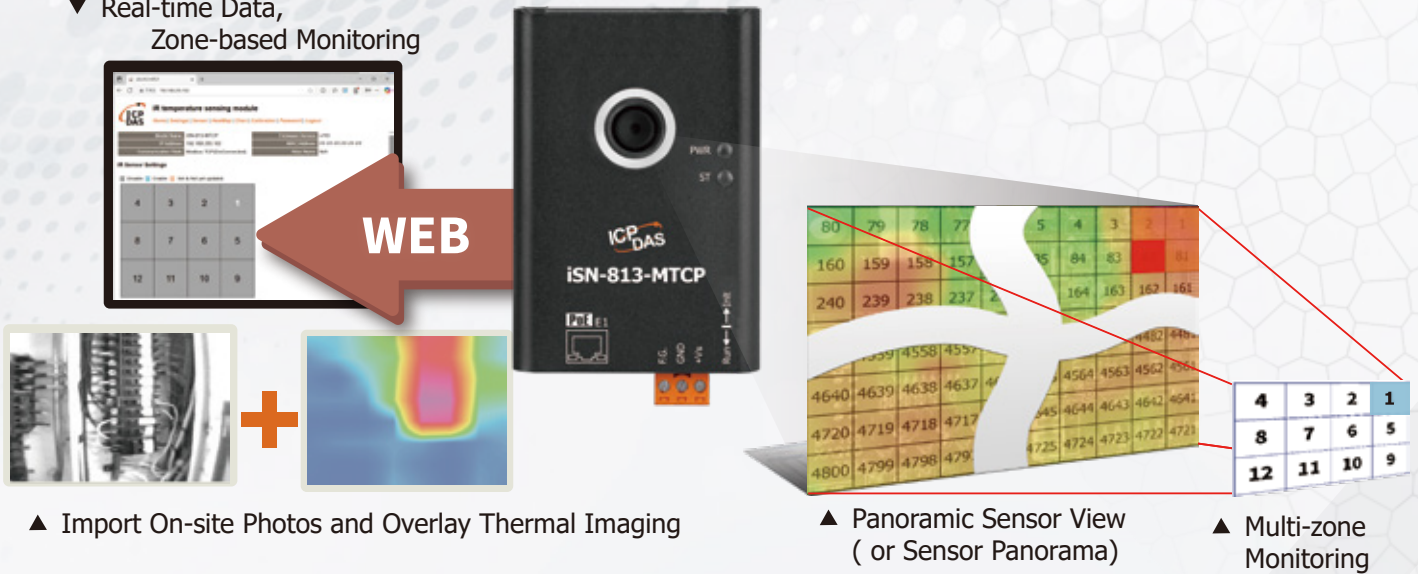
From Temperature Insight to Intelligent Decisions



Zone-Based Temperature Sensing for Proactive Safety

Define multiple pixel-based zones per image, each with min/max temperatures and its own alarm thresholds—enabling wide-area, fine-grained monitoring and proactive alerts via the built-in web UI and tools.

▼ Real-time Data,
 Zone-based Monitoring



Smart Control x Zero-Programming Notification Mechanism

Integrate WISE controllers to view thermal images on the web, define Regions of Interest (ROIs), and read max/min/avg temperatures—with remote alerts pushed on anomalies.



The iSN-800 series combines IIoT sensors and WISE edge computing controllers, enabling plant-wide monitoring expansion, remote visualization, and proactive alarm notifications when anomalies occur.

Infrared Thermal Imaging Temperature Measurement Solution

**Infrared:
Non-contact
Measurement**

**Array Sensor:
Large-area
Measurement**

**Temperature
Distribution
Image Integration**

**Standard Communication:
Modbus RTU /
TCP, RESTful, MQTT**

Remote Monitoring



SCADA



Messenger App
Real-time Push Notification



Cross-platform Browser

On-site Monitoring



Industrial LED Display
iKAN-116-IP65



Acoustic-Optical Alarm
ALM-Horn Series

Temperature Data Concentrator
VPD-170-IRT



Edge Computing Controller
WISE-2841M



Modbus RTU

Modbus TCP

RESTful / MQTT

iSN-812-
MRTU



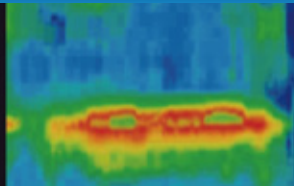
iSN-813-
MTCP



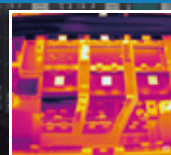
iSN-811C-
MTCP
(with Camera)



Infrared Temperature Sensing Module



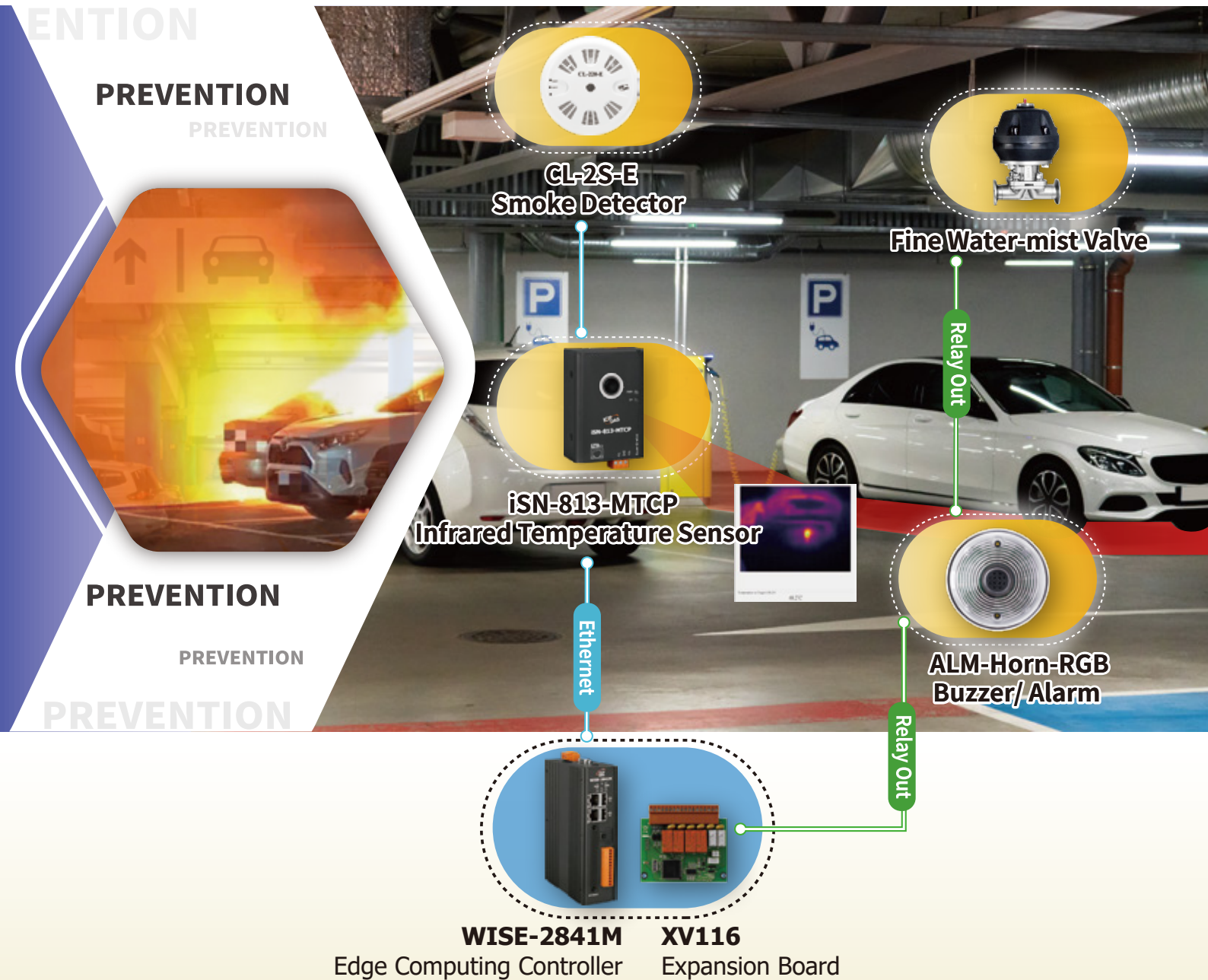
EV Battery Thermal Monitoring



Power Busbar Thermal Monitoring

EV Charging Station Thermal Hazard Prevention

EV lithium batteries can overheat due to improper charging, impact, or internal faults, potentially triggering thermal runaway and fire. Centralized EV parking/charging sites should reduce risk with smart monitoring, early-warning alerts, and rapid isolation measures to protect people and property.



Chassis Temperature Monitoring: Install the iSN-813-MTCP under the charging station to continuously track vehicle chassis temperature, providing early warnings of battery pack thermal abnormalities.

Smoke Detection & Alarm: The CL-2S-E detects smoke at an early stage, and when paired with thermal imaging, provides dual-layer, real-time protection against thermal hazards.

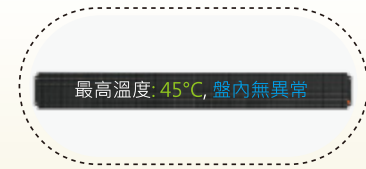
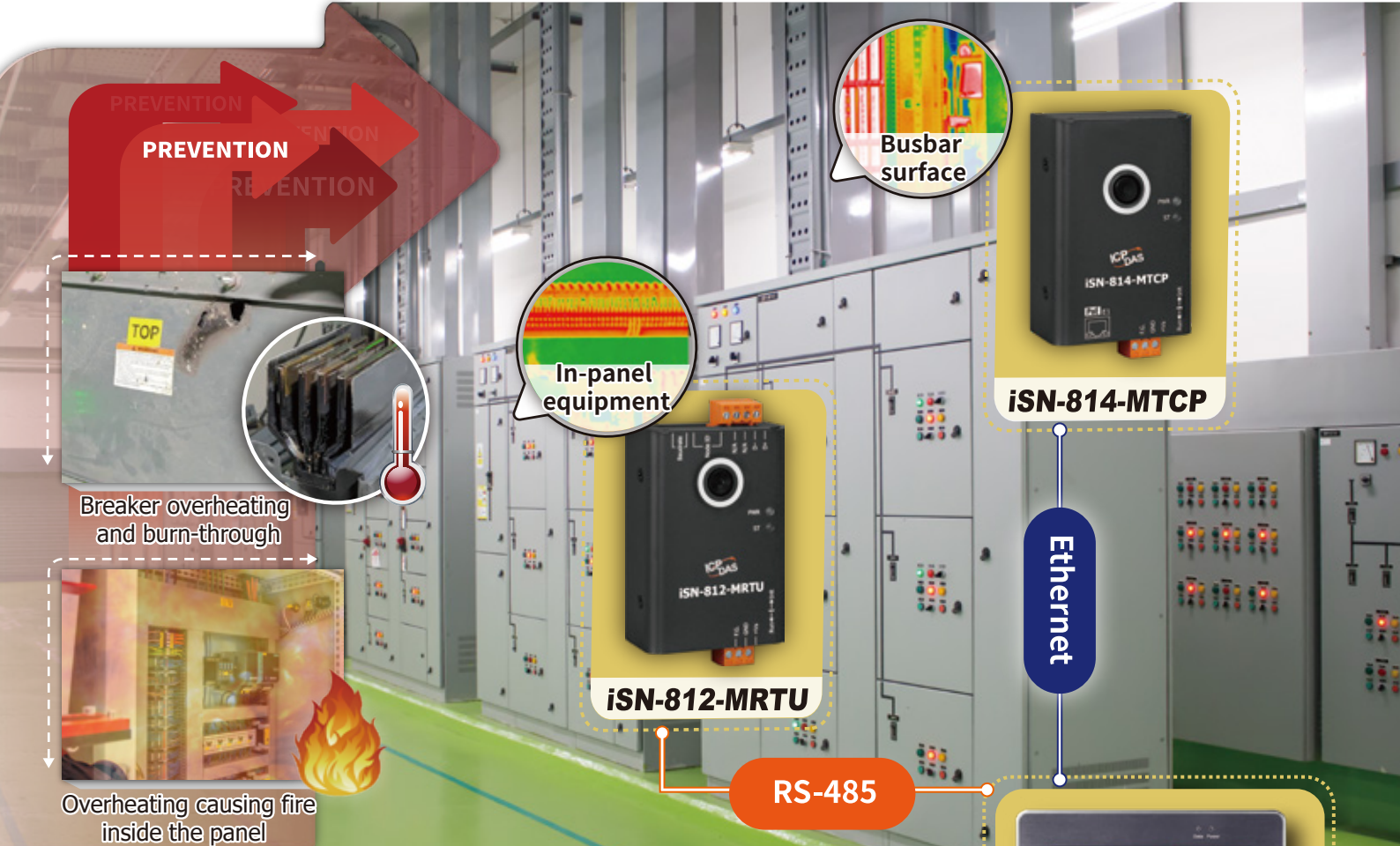
Edge Computing Technology: Edge computing aggregates temperature and smoke status locally and, upon anomalies, automatically activates the water-mist valve and audiovisual alarms to contain incident spread.



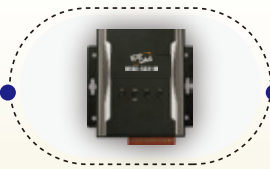
Power System Hotspot Detection & Predictive Maintenance



The iSN-81x Series uses thermal imaging to continuously monitor panels and busbars, detecting abnormal heat caused by loose connections, overloads, short circuits, or aging equipment in real time. It enables early risk mitigation, supports predictive maintenance, and reduces costs and operational fire risk for safer power facilities.



Industrial LED Display
iKAN-116-IP65



Edge Computing Controller
WISE-5231M

Ethernet



Infrared Temperature Concentrator
VPD-170-IRT

Power Busbar: Use the iSN-814-MTCP to monitor busbar overheating in real time from a safe distance, reducing shock risk.

In-Panel Temperature Monitoring: Use the iSN-812-MRTU for close-range, multi-point detection of loose connections and overloads to prevent failures.

Real-Time Information Display: The VPD-170-IRT centralizes temperature display and feeds an edge controller to sync LED info and push alarms.



The First Line of Fire Protection for E-Waste Piles

At e-waste recycling sites, an all-weather thermal imaging system uses infrared temperature sensors and smart algorithms to detect abnormal temperature changes and identify hotspots early—reducing fire risk from chemical reactions or lithium-battery self-ignition before flames appear.



Waste Pile Temperature Monitoring: Deploy multiple iSN-813-MTCP units in a 360° layout to cover blind spots, shadowed areas, and high-stacked zones.

Edge Computing Technology: Integrate the WISE-2841M to detect abnormal heat and automatically trigger alarms or fire suppression, instantly alerting on-duty staff.

Data Logging & Traceability: IoTstar consolidates all temperature data for later auditing and hazard-pattern analysis, helping improve safety management strategies.

Infrared Temperature Sensing Modules

Model			 						
		iSN-811C-MTCP (With Camera)	iSN-812-MRTU iSN-812-MTCP	iSN-813-MTCP	iSN-814-MTCP				
IR Sensor									
Pixel		64 (8 x 8)	768 (32 x 24)	4800 (80 x 60)	19200 (160 x 120)				
Temperature Range		-20°C ~ 250°C	-40°C ~ 300°C	-20°C ~ 300°C	-20°C ~ 300°C				
Accuracy/Resolution		±5°C Max. / 0.1°C							
Effective Distance		≤ 1 M	≤ 2 M	≤ 6 M	≤ 10 M				
FOV 	D: Target Distance	0.1 M	1 M	0.1 M	2 M	0.1 M	6 M	0.1 M	10 M
	X: Horizontal Range	0.115 M	1.15 M	0.286 M	5.72 M	0.2 M	12 M	0.19 M	19.3 M
	Y: Vertical Range	0.115 M	1.15 M	0.153 M	3.06 M	0.132 M	7.92 M	0.13 M	13 M
Camera									
Max. Resolution		QVGA (320 x 240)	---			---			
Fill Light		Yes	---			---			
Interface									
Port		Ethernet, PoE	RS-485 or Ethernet, PoE	Ethernet, PoE					
Protocol		Modbus TCP / MQTT / RESTful	Modbus RTU or Modbus TCP / MQTT / RESTful	Modbus TCP / MQTT / RESTful					

IR Temperature Data Concentrator

VPD-170-IRT



- ◆ High resolution color touch screen with thermal imaging and temperature alarm.
- ◆ Configure various functions for VPD-170-IRT and iSN-81x series modules.
- ◆ Multiple modules can be connected and set threshold about temperature.
- ◆ Support Modbus TCP Slave to integrate into remote monitoring host (SCADA).

Type	LCD 7" TFT (Resolution 800 x 480)	Relay Output	9 x Single Relay (Form A)
Ports	RS-232 x 1/RS-485 x 2/Ethernet x 1	Buzzer/Reset Button	Yes
Protocol	Modbus RTU / Modbus TCP	Protection	Front Panel: NEMA 4 / IP65

