ICP DAS

IIoT -2-



Access Control Security
Factory Automation

IIoT






Vol. IIoT2_5.25.10_EN

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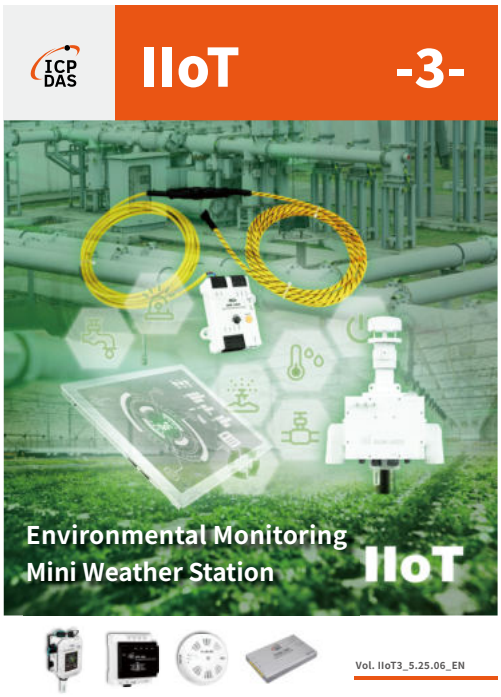
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IIoT2 Overview

IIoT is the new trend which extends the concept of the IoT to industrial settings and other industrial sectors. IIoT enables the collection, analysis, and exchange of data between devices and systems in industrial environments. To meet the requirements of IIoT, ICP DAS offers edge computing products, I/O sensors, communication modules to work together to create a network that can monitor, control and optimize a industrial operation.

1 Security Identification and Monitoring System: WISE/iCAM/MQ Series

The WISE (Edge Controller) series with iCAM (IP Camera) series to implement new surveillance solution. It can also be used with MQ (MQTT I/O module) series.



2 SL/tSL Series

The stack light monitoring module which support Modbus RTU, Modbus TCP and MQTT protocol.



3 ALM Series

The ALM series module with WISE series can make logic control alarms.



4 iKAN Series

The industrial LED message display which support Modbus protocol.(Multiple languages and seven colors are optional)



5 GAM Series

The bluetooth LE mitutoyo gauge data collector which support bluetooth protocol.



6 TCD Series

The temperature data loggers with K-type thermocouple sensors.



7 SG-3000 Series

The signal conditioning modules are used to accept wide range of input signals and provide 0 ~ 10 VDC, 0 ~ 20 mA, 4 ~ 20 mA output signals.



8 ACS Series

The No-touch infrared sensor switch provides multiple operating modes.



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Chapter 1. Security Identification and Monitoring System

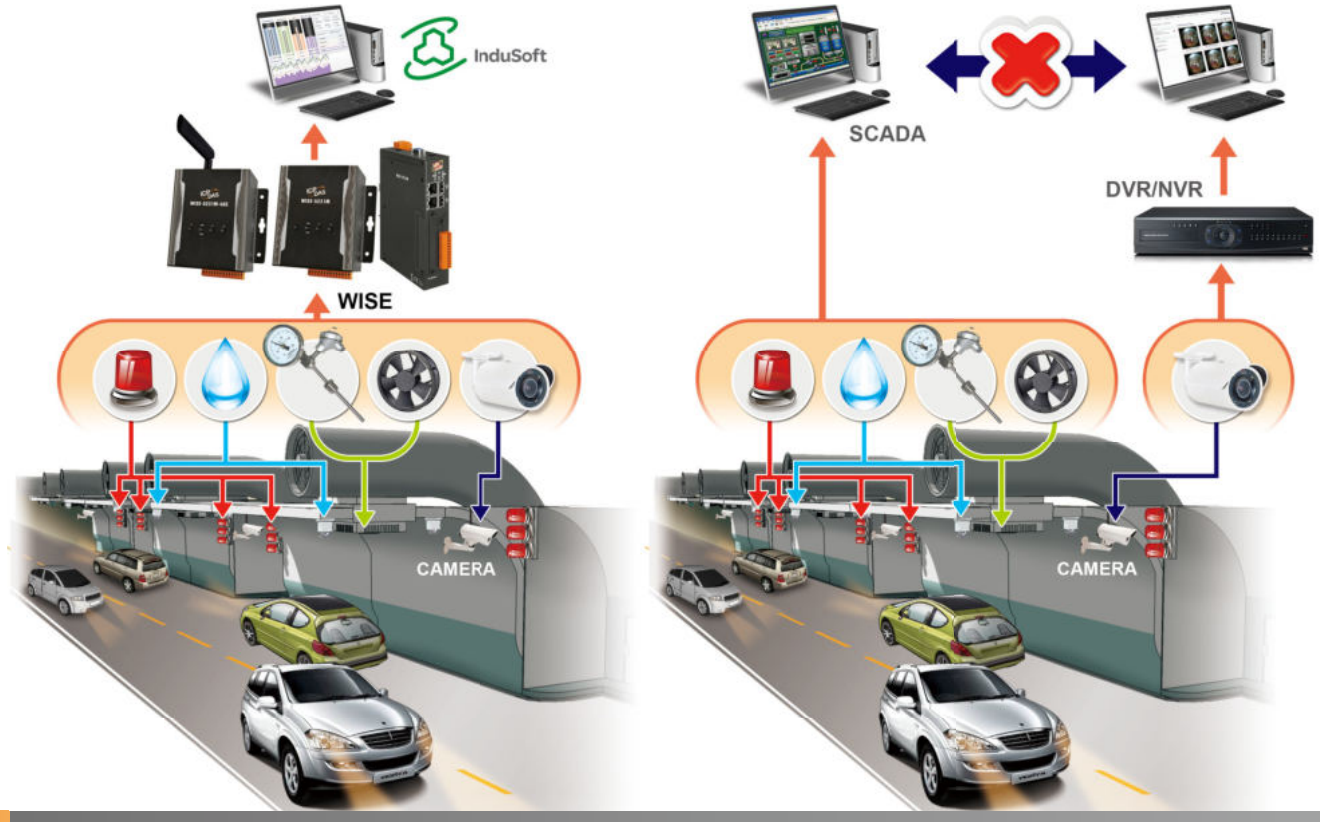
1-1 WISE Surveillance Solution

WISE IIoT Edge Controller + iCAM IP Camera

A general surveillance system on current market usually features separated systems: the camera DVR/NVR as a system, and the I/O monitoring as another system; each system operates independently. For now the DVR/NVR system of the camera usually records video for 24H/7Day without interruption, it requires huge storage space and sufficient network bandwidth; therefore the system implementation fee is usually high. In addition, when playback a certain video, it does not allow to search the suspicious activities of related I/O (temperature, doors and windows switch, water level, etc.) at the same time.

ICP DAS WISE surveillance solution integrates logic control, I/O, camera and data log in one single WISE controller. WISE allows two-way interactions between the I/O and the camera; it enables to record a piece of video or to take images when there is an event triggered by either I/O condition or ROI (Region of Interest) by camera. In this way, the storage size can be reduced significantly and the connection between I/O event and Video/Image can be built for easy query.

ICP DAS WISE Surveillance Solution	Regular Surveillance Solution
1. One WISE controller to integrate camera and I/O	1. Two independent systems: SCADA & DVR/NVR
2. Records key video and image, only needs a few storage memory.	2. Record video 24H/7Days, needs huge storage memory.
3. Two-way interaction between I/O and Video/Image	3. I/O and Video/Image are independent
4. Can work stand along or be integrated into a SCADA system	4. Needs a host PC to run the SCADA
5. One stop shopping/service for ● Controller: WISE Series ● I/O Modules: Various options for RS-485, Ethernet interfaces ● Camera: Bullet, Fisheye, Dual Lens ● SCADA: InduSoft	5. Buy from different venders for SCADA, I/O Modules, DVR/NVR

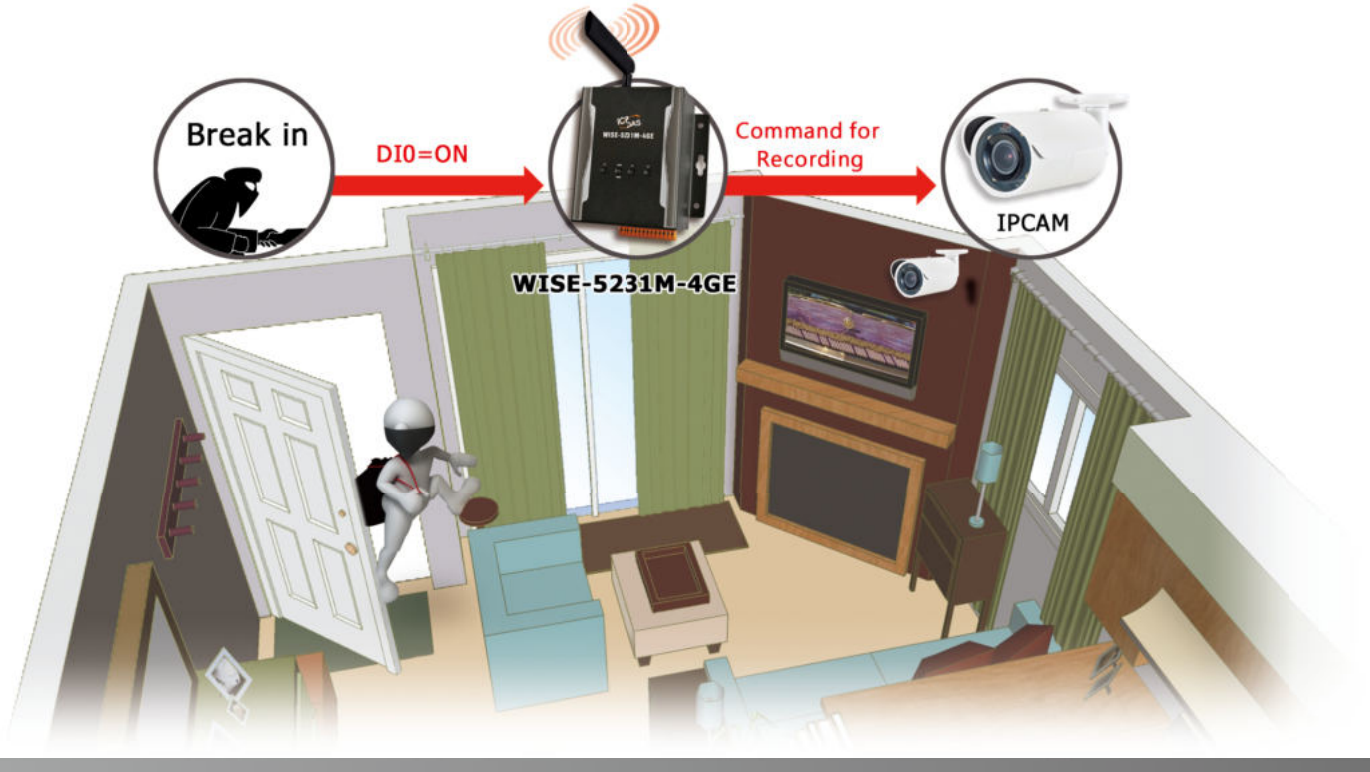


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Perform Interlocking Operations of I/O & Video Recording by IP Camera

WISE-523x/WISE-2x4xM supports ICP DAS iCAM IP Camera series. Users can trigger the connected IP camera to perform snapshot or video recording with IF-THEN-ELSE logic rules. WISE-523x/WISE-2x4xM provides the IP Camera Status webpage to display the event list ordered by time, and you can just click and play the images or videos on the browser. In additional, WISE-523x/WISE-2x4xM provides remote backup mechanism to upload images and videos to the remote FTP server automatically.





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OSD (On Screen Display)

WISE-523x/2x4xM can connect with iCAM series IP cameras. There are two methods to get images and videos:

(1) If-Then-Else rule sends commands to trigger camera to take snapshots and/or a video.

(2) Camera takes snapshots and/or a video when senses motion event. And then sends the snapshots and/or video to the WISE controller.





iCAM-ZMR8422X



iCAM-MR6422X



iCAM-MR6322

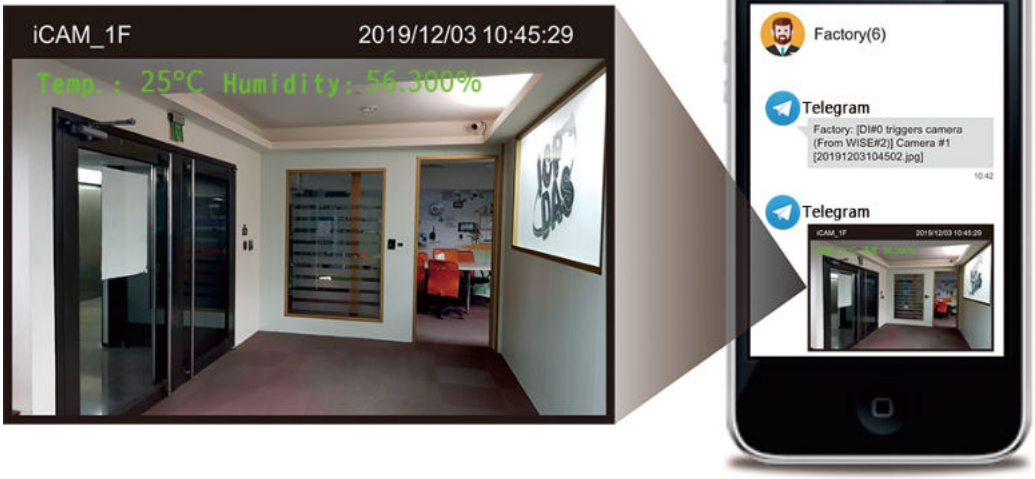
Camera Name on OSD	Yes
Time Stamp on OSD	Yes
Text Message on OSD	Yes, user defined (Chinese and English fonts)

OSD with camera name, time stamp and user's defined text message.

DI#0 triggers camera
From WISE#1
<IF>
XV-Board XV310 DI0=Status Change
<THEN>
iCAM-MR6322(192.168.255.2:80) Snapshot Capture(One Time)
<ELSE>
No action

◀ If-Then-Else rule

▼ Telegram APP chat room



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1-2 IP Camera : iCAM Series

Auto Focus IR IP Bullet Camera



iCAM-ZMR8422X

Bullet Type, Auto focus with zoom

2MP | 1080P Full HD | IP67 | ONVIF | PoE 802.3af

Features

- Full HD 2.0 megapixel CMOS image sensor
- 1080P True H.264 AVC High Profile video compression
- H.264 and Motion JPEG multi-profile video streaming
- Auto focus with zoom / focus motorized lens
- 3D noise reduction (MCTF), 2D WDR function
- HDR function up to 100dB
- Digital PTZ and ROI (Region of Interest) supported
- Day and Night IR-cut removable LED, radiant distance up to 30m
- Built-in 4GB MicroSD Card
- ONVIF Profile S supported
- IP67-rated Housing

iCAM-ZMR8422X is a day and night 2MP auto-focused vandal resistant bullet IR IP camera. It features a full HD 2.0 megapixel CMOS image sensor. The camera has built-in IR-cut filter which allows clearer images at day and night operations even in the low lux condition. The high efficiency IR LED radiant distance can extend up to 30 meters. Its auto-focus feature allows users to automatically focus the camera from a distant location. With motorized lens, all you need to do with zoom/focus adjustments is simply a click on browsers.

IR IP Dome Camera





iCAM-MR6422X iCAM-MR6322

Dome Type / Vari-Focal **Dome Type / Fixed**

2MP | 1080P Full HD | IP67 | ONVIF | PoE 802.3af

Features

- Full HD 2 megapixel CMOS image sensor
- 1080P High Profile video compression
- H.264/MJPEG multi-profile video streaming
- HDR function up to 100dB
- IR cut filter for day/night operations, radiant distance up to 30m
- Built-in 4GB MicroSD Memory Card
- ONVIF Profile S supported
- IP67-rated Housing
- Lens: iCAM-MR6322 4mm
  iCAM-MR6422X 2.8 – 12mm
- Aperture: iCAM-MR6322 F1.4
  iCAM-MR6422X F2.0
- IR Angle: iCAM-MR6322 60°
  iCAM-MR6422X 60°/ 90°

iCAM-MR6422X / **iCAM-MR6322** are the IR Dome IP Camera which have built-in Sense up+ technology to deliver stunning video in low-light conditions. It features 1080p at 30 frames per second and intelligent video surveillance (IVS) functions. Utilizing intelligent image signal processing, HDR, AGC control, and 3D Noise Reduction, the combination successfully delivers the ultimate low-light image without motion blur. Support PoE, privacy masking, white balance, as well as the minimum illumination 0.117 Lux at F1.4 for iCAM-MR6422X, and 0.13 Lux at F2.0 for iCAM-MR6322.

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Selection Guide:



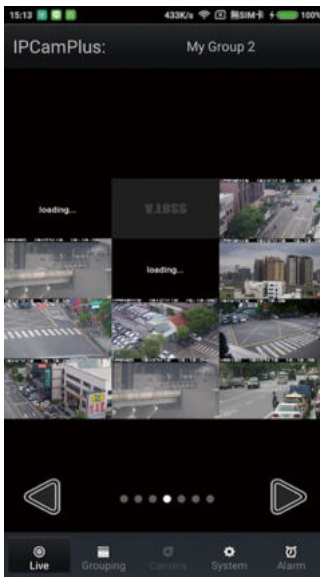


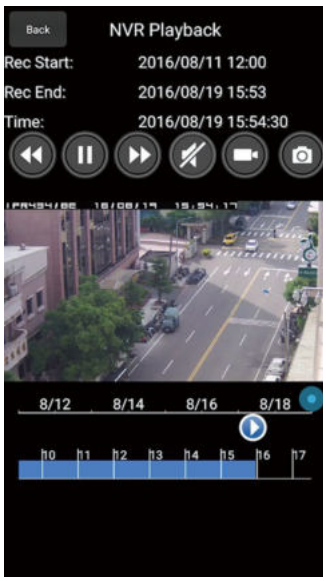
Model	iCAM-ZMR8422X	iCAM-MR6422X	iCAM-MR6322
Lens/Night vision (infrared LED)			
Focal Length	Vari-Focal: 2.8 to 8 mm	Vari-Focal: 2.8 – 8 mm	Fixed-Focal: 4 mm
Aperture	F1.6, Bullet	F1.4, Dome	F2.0, Dome
Angle of View	Horizontal: 102.3°W–51.6°T Vertical: 51.3°W–24.9° T Diagonal: 128.2°W–57.3°T	Horizontal: 102°W–34°T Vertical: 54°W–20° T Diagonal: 122°W–39°T	Horizontal: 90° Vertical: 45° Diagonal: 107°
Beam Spread	60°	60° , 90°	60°
Radiant Distance	30 M		
Infrared Cut Filter	Auto/Day(Color)/Night (Mono)/Schedule		
Image Sensor	1/2.7" CMOS image sensor		
Video Streaming			
Protocol/ Video Compression/ Number of streams	RTSP, RTCP, ONVIF Profile S, H2.64 & MJPEG, 4 configurable streams, configurable frame rate and bandwidth, multi-profile video streaming		
OSD (On Screen Display)	Text overlay for date, time, camera name and user defined text		
General			
IP Rating	IP67		
Certifications	CE, FCC(EMI CLASS B)		
Encryption	Base64 HTTP encryption, HTTPS encryption		
Dimension(mm)	68(W) × 69(H) × 214(D) mm	Ø 120 × 106(H) mm	Ø110 × 89(H) mm

Android and iOS Mobile APP: IPCamPlus

iCAM-ZMR8422X/iCAM-MR6422X / iCAM-MR6322 provide smart phone APP for Android and iOS platform. Apps allow you to catch the firsthand notifications and to take over all event situations in realtime. Furthermore, using the App can also allow you to reward the recorded video remotely. While the alarm is triggerred, App will send a notifi cation message to the user immediately.









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1-3 Smart Access Control

WISE IIoT Edge Controller
+ Access Control Reader + Camera + Alarm



ICP DAS Smart Access Control System can solve problems of traditional systems. In traditional systems, the controllers need to be developed by professional software engineers, and the control projects need to collect all statuses of the sensors and handle the communication of the I/O modules. When expanding the system in the future, it needs a lot of human power and time to modify the projects, which costs more and gets poor benefits. Moreover, the integration is not easy due to the sensors and image monitoring are mostly separated.

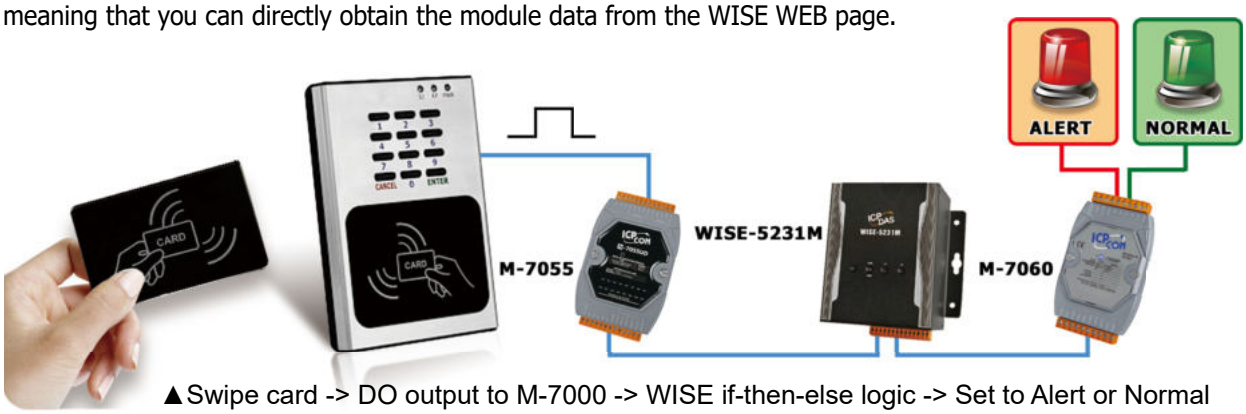
The WISE-523x/WISE-2x4xM IIoT Edge controller in the ICP DAS Access Control System support I-7000/M-7000 I/O modules in default and no programming is required to implement logic content to display the sensor status of the I/O modules on the webpage. The WISE has built-in IF-THEN-ELSE Logic Rule Engine, which can be easily selected on the webpage to complete the access control system. More importantly, the WISE also supports two-way CGI command communication mechanism, which can easily integrate IP camera images.



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Using ACS series card reader to connect M-7000 I/O to achieve multi-group alarm loops

1. Multi-condition door access: Supports 3 conditions for door opening card only, password only, or card + password. It can be configured using an access control application or attendance application.
2. Provides the PC software for authorization and password management, and supports updating card recorder information to a remote database via an Ethernet connection.
3. Supports electric door lock control and allows you to connect this via an M-7000 I/O module to detect trigger conditions for the WISE if-then-else logic control.
4. WISE supports most M-7000 I/O modules, so you can select a module from the supported list that can be found on the WISE WEB page, and WISE will automatically create the corresponding WEB UI and handle the communication, meaning that you can directly obtain the module data from the WISE WEB page.



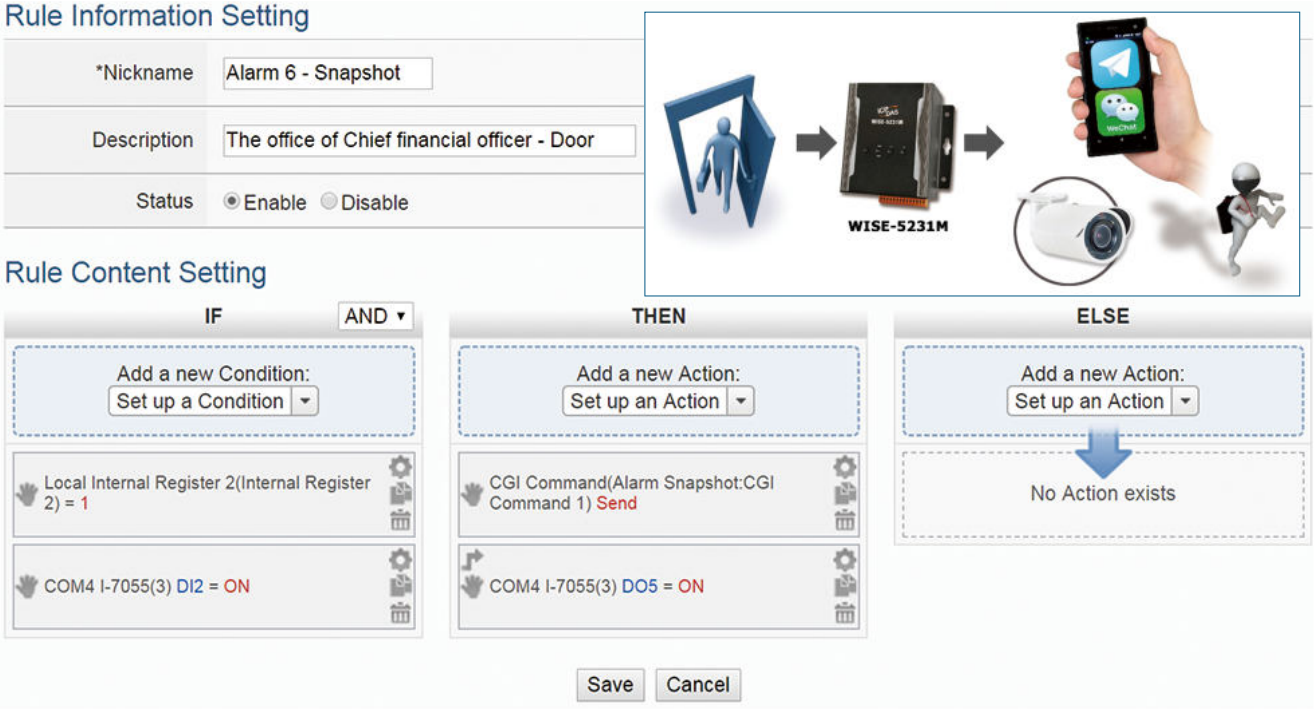
▲Swipe card -> DO output to M-7000 -> WISE if-then-else logic -> Set to Alert or Normal



◄ The M-7041 module transmits the data from door/window sensors and infrared motion detectors to the WISE-523x.

WISE provides logic control to achieve the access control, camera capture and the alert notify of the mobile phone

1. The WISE logic control function can set the status of I/O module as a logical control condition: Using the WISE logic control function can implement the access control function easily by clicking on the webpage without any additional programming.
2. WISE uses CGI commands to let iCAM capture images with the simple and fast setting.



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1-4 IIoT and Smart Phone Integration Solution

WISE + Sensor +

The **WISE-523x/WISE-2x4xM** series is the **IIoT Edge Controller** designed by ICP DAS for industrial IoT application. In addition to the simple, easy-to-use, flexible and full-featured features of the past, the new features of Instant Messaging (IM) technology with Mobile phone were also released. The I/O data and pictures taken by the WISE/Camera can be instantly pushed to the LINE/WeChat/Telegram contacts and chat rooms on the smart phone.





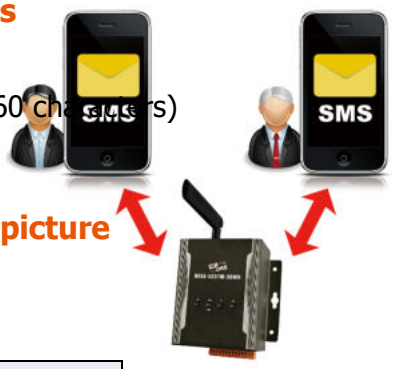


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WISE message notification to smart phone

SMS : Sends alert messages and receives commands

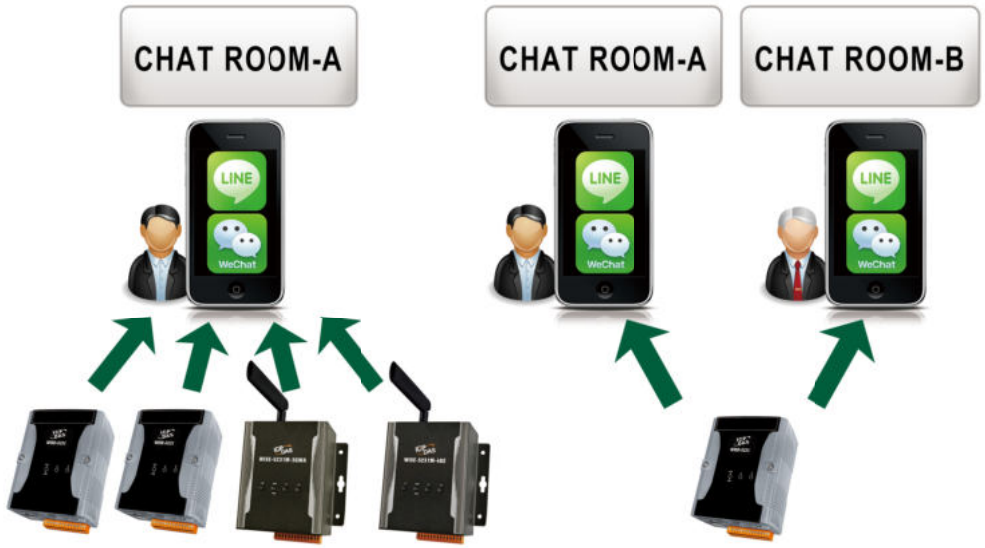
- The same SMS can be sent to multiple phone numbers
- The same SMS can include multiple variable values (SMS < 160 characters)
- Phone number must be authorized to send SMS commands



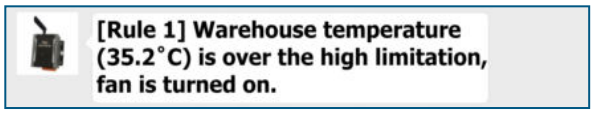
LINE/WeChat/Telegram: Sends alert messages and picture

- **Object: Contact, Chat Room**
- **Content:**

	LINE	WeChat	Telegram
Text	Pricing is based on usage plans	6000 / day, **Expandable**	**20 / Minute**
Picture	N/A		
Video	N/A		



- **When:**
  - **Triggered by WISE If-Then-Else rules**
  - **Triggered by camera motion detection**







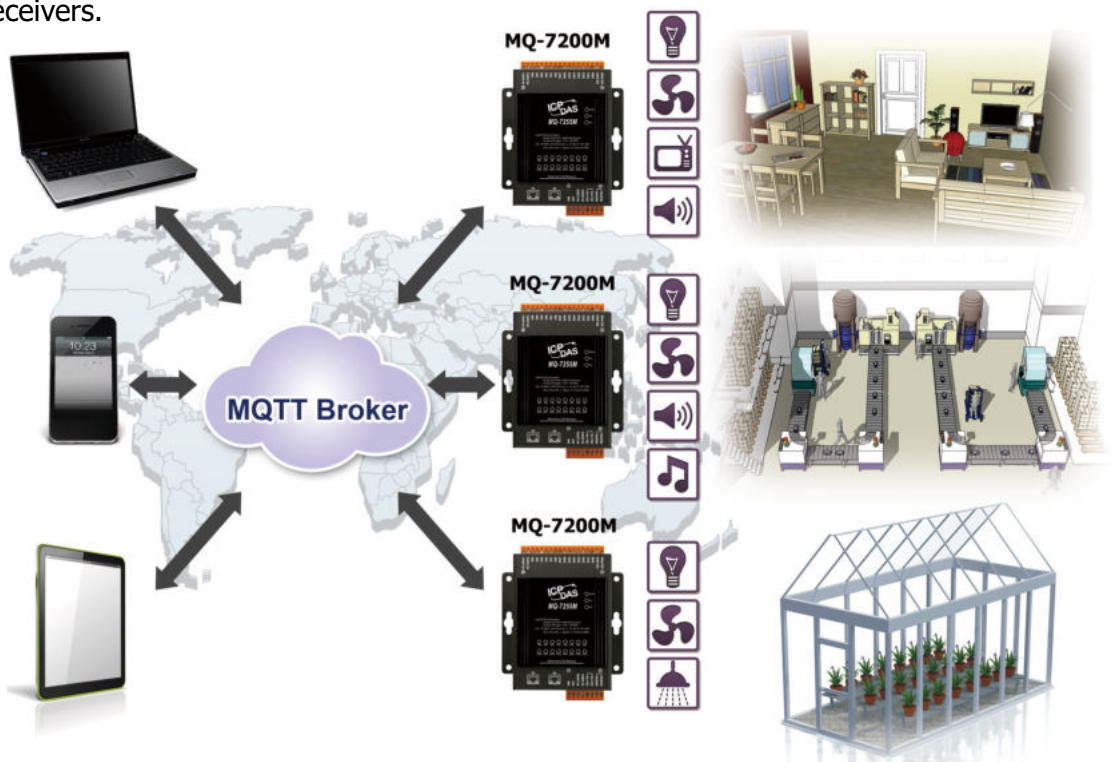
☑ WeChat Function Using Note

An Enterprise WeChat account in China is required for WISE to send the messages to the members under the enterprise WeChat account.

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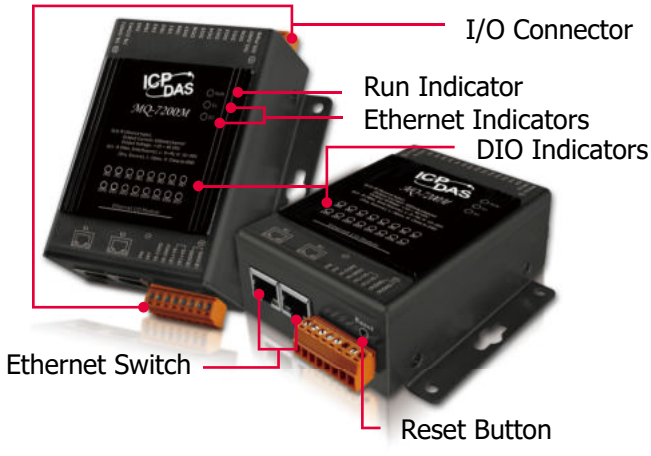
1-5 MQTT I/O Module: MQ Series

The MQ-7200M series is an Ethernet I/O module with multiple digital I/O channels for connecting a variety of digital sensors. It supports the MQTT protocol for Industrial Internet of Things (IIoT) applications. MQTT is a lightweight protocol for machine-to-machine (M2M) connectivity that uses publish/subscribe messaging model. It is ideal for mobile applications due to its small size, low power consumption, minimized data packets, and efficient distribution of information to one or more receivers.

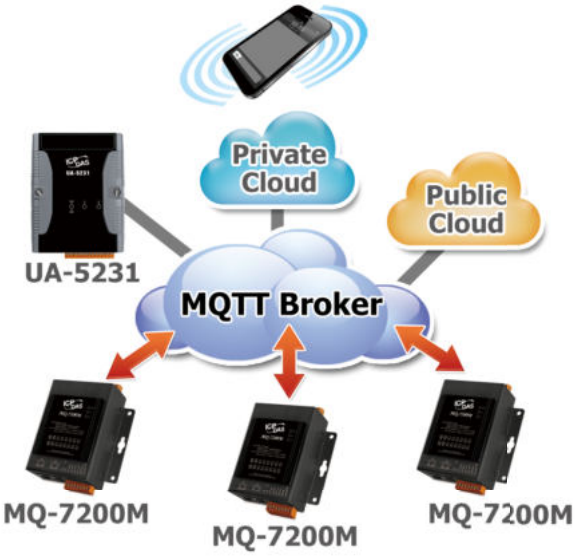


With MQTT support, the MQ-7200M module enables lightweight, reliable, and low-latency communication between devices. The module can publish Digital I/O (DIO) status updates to an MQTT broker and subscribe to control messages for Digital Outputs (DO). Users can easily control and monitor remote sensors connected to the MQ-7200M modules using MQTT client tools on computers or mobile devices. This provides a flexible and scalable solution for IIoT applications requiring distributed control and monitoring.

Appearance:



Applications:

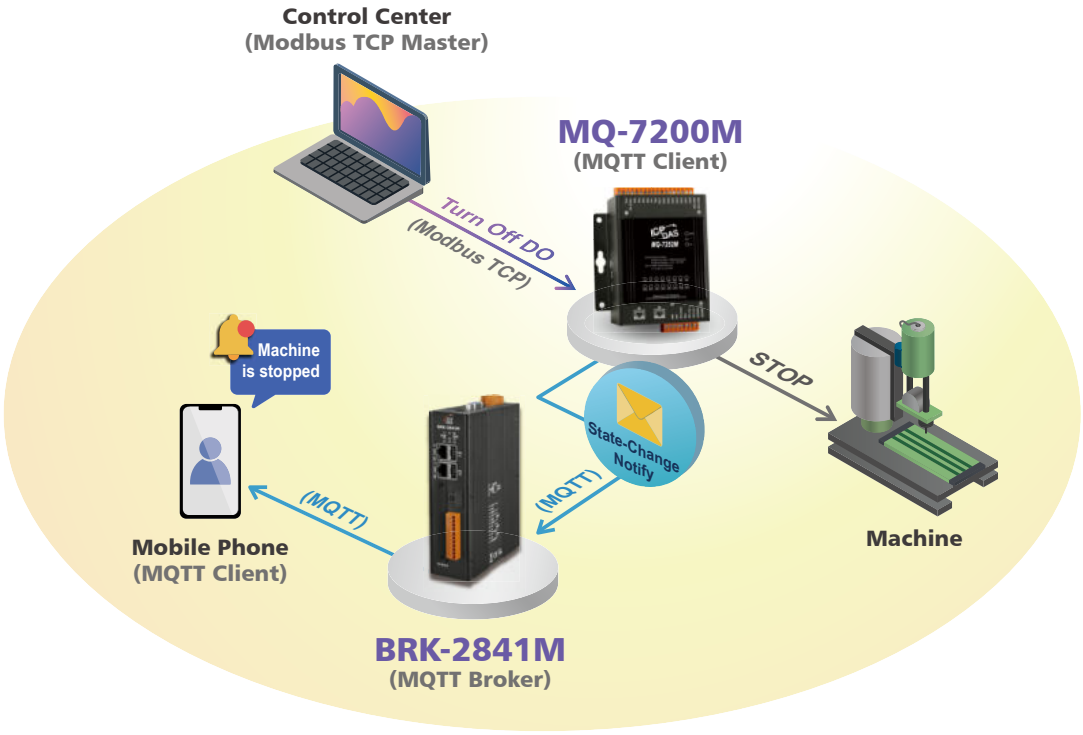


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Features:

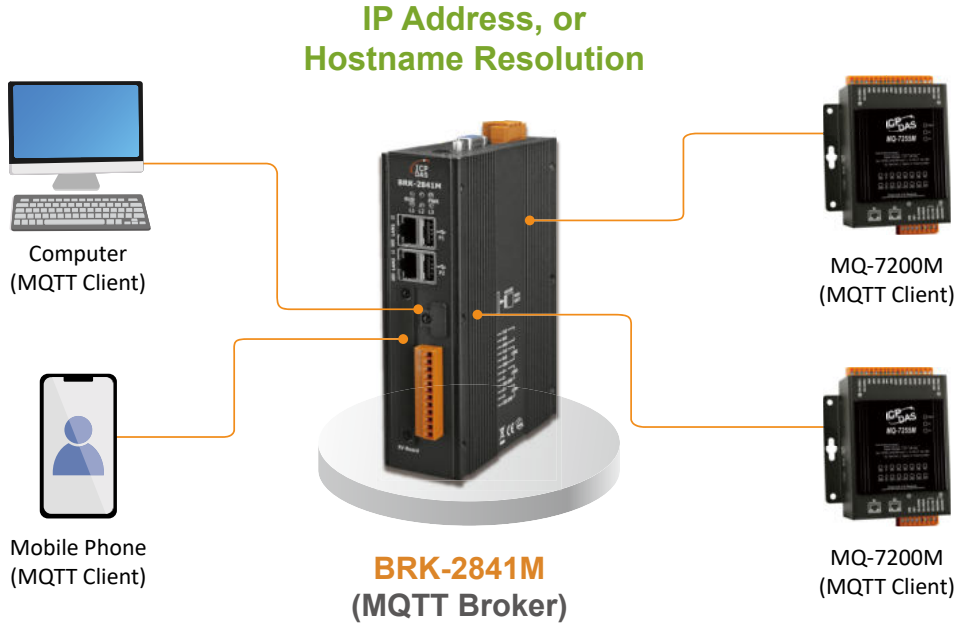
• Support MQTT and Modbus TCP for Flexible System Integration

Support both the MQTT client (compliant with the MQTT V3.1 protocol) and the widely used Modbus TCP protocol for industrial automation. These protocols work simultaneously, providing flexibility and simplifying system integration. This enables seamless remote monitoring and control via SCADA systems or IIoT platforms.



• Automatic Hostname Resolution for Simplified MQTT Connectivity

The MQ-7200M modules automatically query the DNS server to resolve the MQTT broker's hostname into an IP address and establish the connection. They support both IP and hostname configuration for the MQTT broker, simplifying network setup and increasing flexibility. By using a hostname, the broker can easily switch to a new IP address without reconfiguring each device, improving system reliability and uptime while reducing administrative overhead.



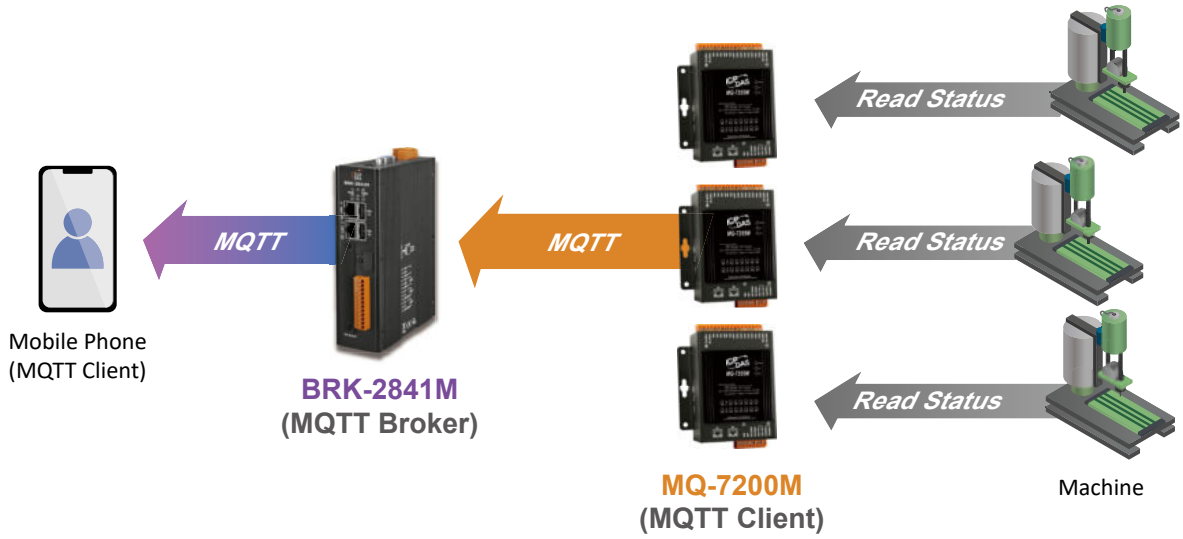
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• Automatic Connection Management for Reliable MQTT Integration

The module automatically sends a keep-alive packet to the broker to ensure the connection remains active. If the connection is lost, the module automatically reconnects to the broker. These features are built into the module and are enabled without the need for additional programming, making MQTT system integration faster and easier. This not only simplifies setup, but also ensures continuous communication, increases system reliability, and minimizes the risk of connection loss.

• Efficient and Scalable MQTT-Based Status Updates

I/O status can be published via MQTT messages either when a status change occurs or at periodic intervals. With no busy polling, this results in faster response times and more efficient use of system resources. It is also highly scalable, allowing systems with a large number of devices to operate smoothly without significantly increasing network load, as each device communicates only when needed.



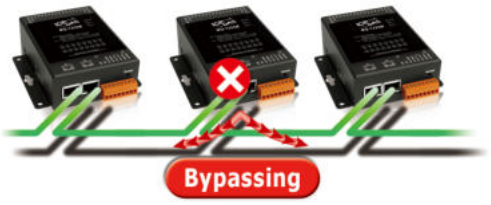
• Daisy-Chain Ethernet Cabling for Total Cost Reduction

With two built-in Ethernet switch ports, the MQ-7200 modules can be easily daisy-chained to extend the Ethernet network. This reduces overall costs by eliminating the need for additional switches, making the modules ideal for compact or space-constrained environments. Integration simplifies cabling, lowers hardware and installation costs, reduces network management complexity and provides greater flexibility to expand or adapt the network.



• LAN Bypass for Stable Ethernet Communication

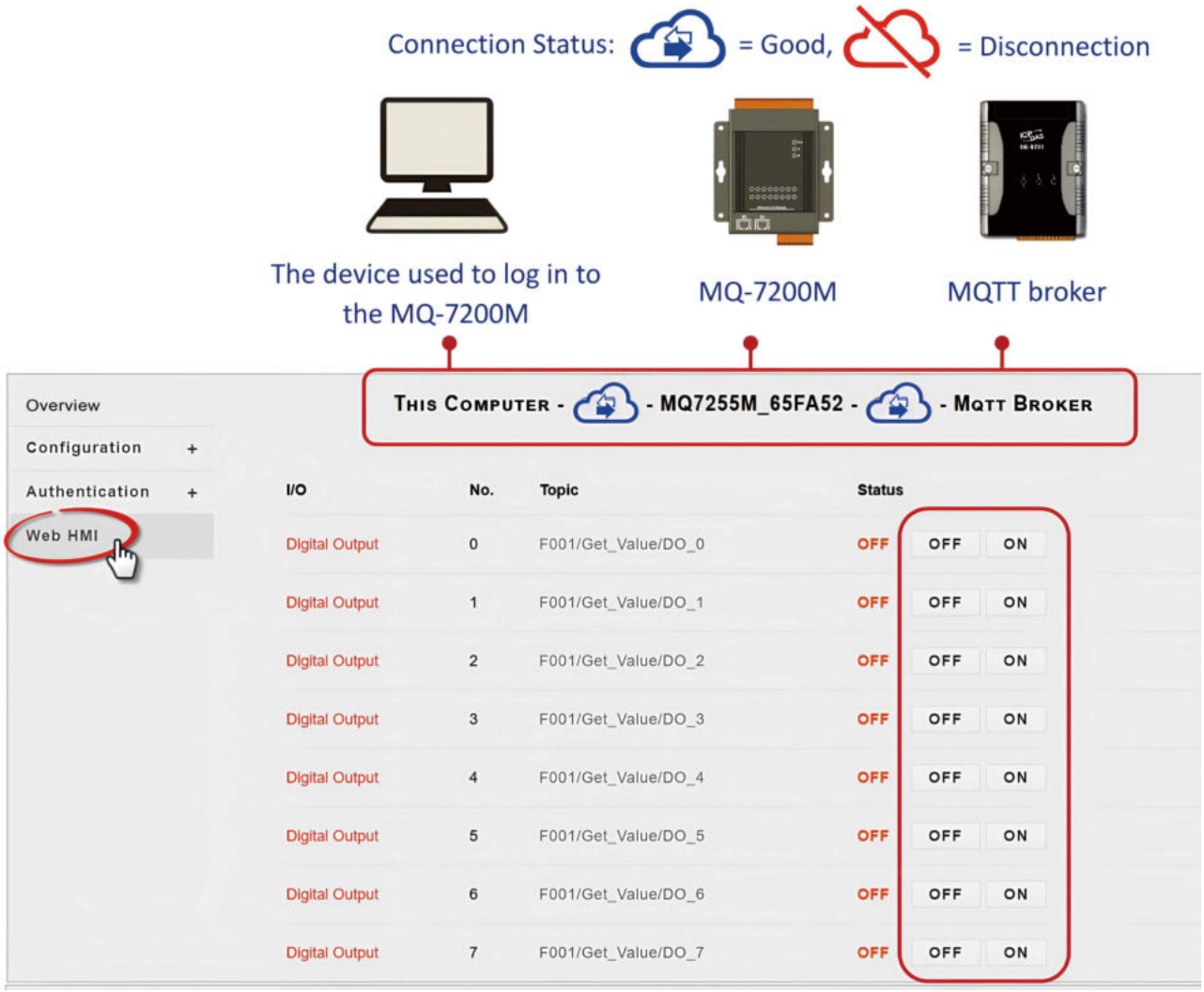
The LAN bypass function is automatically activated during a power failure, ensuring continuous communication on the Ethernet ports and keeping the system operational. This minimizes downtime and enhances the overall reliability and robustness of the system.



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• Built-in WEB Server for Easy Configuration

The MQ-7200M modules include a web-based interface that allows users to configure the device, monitor network connectivity and I/O status, and control the DO lines using popular web browsers on both mobile devices and computers. Its intuitive design also allows for quick I/O testing without programming, making it especially useful for pre-project setup or troubleshooting I/O operations.



More Features

- Short-Circuit Protection on Digital Outputs
- Overvoltage Protection on Digital Outputs and Inputs
- LED Indicators for I/O Status Monitoring and Easy Diagnostics
- Reset Button for Easy Restoration of Factory Settings
- Dual Watchdog with Power-On and Safe Value
- Fast Startup (< 5 seconds) for Immediate Operation
- Wide Power Input Range (+12 to +48 VDC)
- Lower Power Consumption for Energy Saving
- Two Pairs (4 Pins) of Power Inputs for Flexible Wiring
- Power Reverse Polarity Protection for Improved Safety
- Wide Operating Temperature Range (-25 ~ +75°C)
- Up to +/- 4kV Contact EMS Protection on Each Terminal
- Metal Enclosure for Enhanced Durability and Protection
- DIN-Rail and Wall Mounting for Stable and Quick Installation

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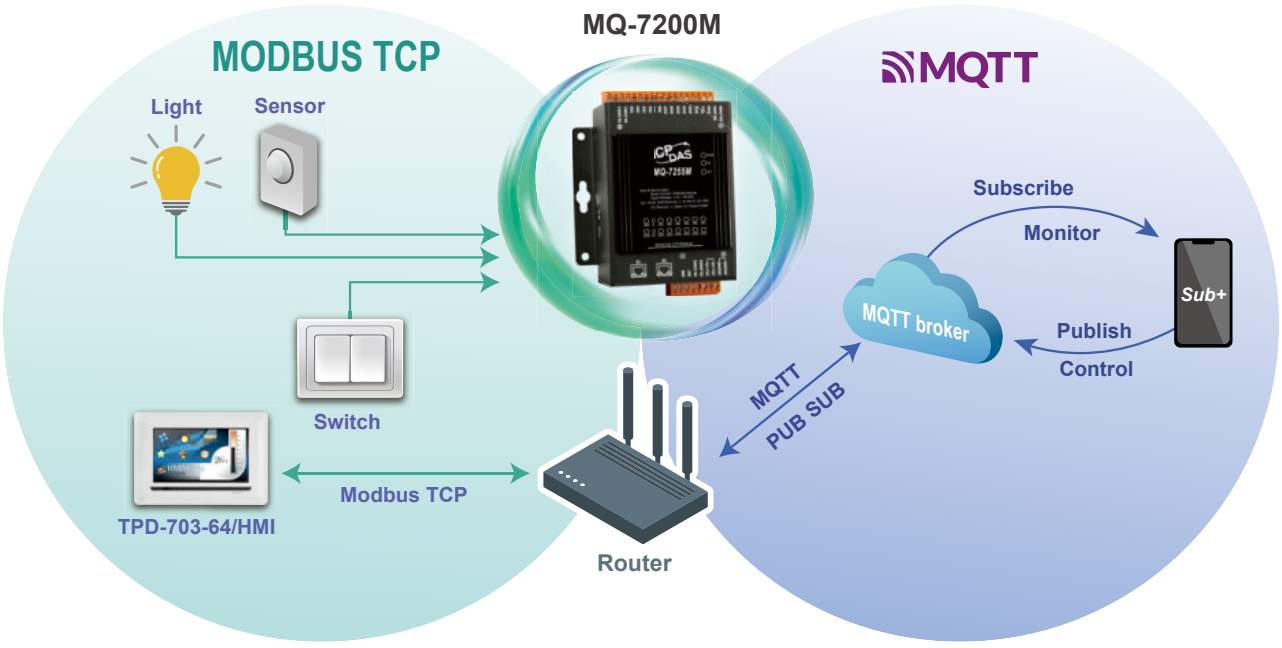
Application:

Versatile Smart Home Connectivity with MQTT and Modbus

In a smart home environment, MQTT and Modbus are commonly used data transmission protocols, each suited to different scenarios:

MQTT is a lightweight protocol designed for real-time data transmission, especially for devices with limited bandwidth. The MQ-7200M publishes I/O status to a centralized broker, which then distributes these updates to subscribed clients. This publish-subscribe model is ideal for smart home devices that may temporarily lose and then resume a connection. A key advantage of MQTT is that it establishes outgoing-only connections to the broker, eliminating the need for incoming connections, preventing unauthorized access, and enhancing local network security.

Modbus operates on a request-response model, where a client sends a request to MQ-7200M, and the MQ-7200M responds with data. This protocol is ideal for tasks such as turning lights on or off or retrieving sensor data from the MQ-7200M. Modbus is particularly well suited for local network communication, providing reliable and easy control and monitoring of devices.



Selection Guide:

Module Name	DI			DO			
	Channels	Type	Sink/Source	Channels	Type	Sink/Source	Load Current @ 25 °C
MQ-7244M	8	Wet	Sink/Source	8	Open Collector	Sink	650 mA/ Channel
MQ-7252M		Wet				Source	
MQ-7255M		Dry, Wet				Source	
MQ-7251M	16	Wet	Sink/Source	-	-	-	-
MQ-7253M		Dry	Source				
MQ-7260AM	6	Dry, Wet	Sink/Source	6	Power Relay	Form A	5A

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Chapter 2. Factory Automation

2-1 Stack Light Monitoring Module: SL/tSL Series



ICP DAS's Stack Light Monitoring

Modules Light Up Smart Factories



tSL-PA4R1

RS-485/Ethernet



SL-P6R1-WF

Wi-Fi / RS-485 / Ethernet

The best helper for the Andon system

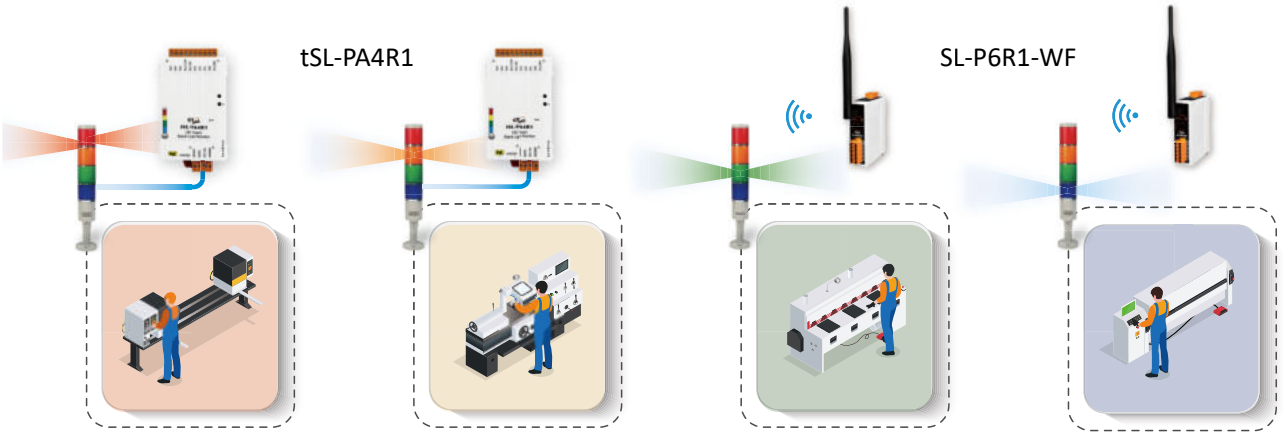
- Stack lights status monitoring
- Easy device expansion
- Support wired/ wireless communication
- Support Modbus RTU/TCP, MQTT communication protocols
- Status monitoring for up to 81 user-defined color segment combinations
- Report the duration of the previous status for MES & ERP to calculate the availability



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Product introduction

The normal operation of the machine is related to the availability and production cost of the machine. However, there is a severe shortage of labor, which, in turn, increases the cost of labor. Fortunately, with the help of ICP DAS's stack light monitoring modules, users can monitor the status of machine lights, and if an abnormal situation occurs, an alarm will be immediately triggered. Thus, it is possible to reduce labor costs for monitoring machines and their idle time. ICP DAS's stack light monitoring modules are divided into two series: tiny tSL series with 4-channels and wireless SL series with 6-channels respectively. The modules contain 4 or 6-channels of DC/AC digital input and 1-channel of relay output. They can communicate via RS-485, Ethernet, or Wi-Fi, monitor the machine status without affecting its operation, and check the operational status of field equipment in real-time; all this ultimately allows users to build a smart factory.



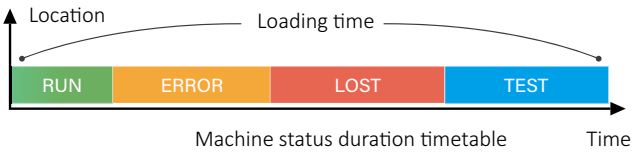
Customizable color signals

Users can set the values of various color signals, such as operating, idle, processing, and processing error, and then convert the signal combinations into a status value. ICP DAS' modules can directly read the results according to the status value, without the need to read each signal one by one, and issue an alarm when equipment error is detected, informing the on-site personnel to solve the problem immediately.

Providing accurate data for MES and ERP to calculate the availability

The stack light monitoring modules provide information about the duration of the previous light status. By status duration, users can control the amount of time that the machine spends in operating, troubleshooting, and processing. Then, MES and ERP can be combined for availability calculation and problem analysis.

- Availability = Operating time/ Loading time x 100%



Detection of the flashing status

ICP DAS's stack light monitoring modules have the edge computing function that can determine the on/off status of the stack lights as well as the flashing status.

Low network load

In addition to supporting the standard Modbus communication protocol, the ICP DAS's stack light monitoring modules also support the MQTT communication protocol. In the past, it was required to poll light status regularly. But now, with the help of ICP DAS's modules, when the light status changes, information about this will be immediately sent back to the control center, which has helped to significantly reduce the load on the network.



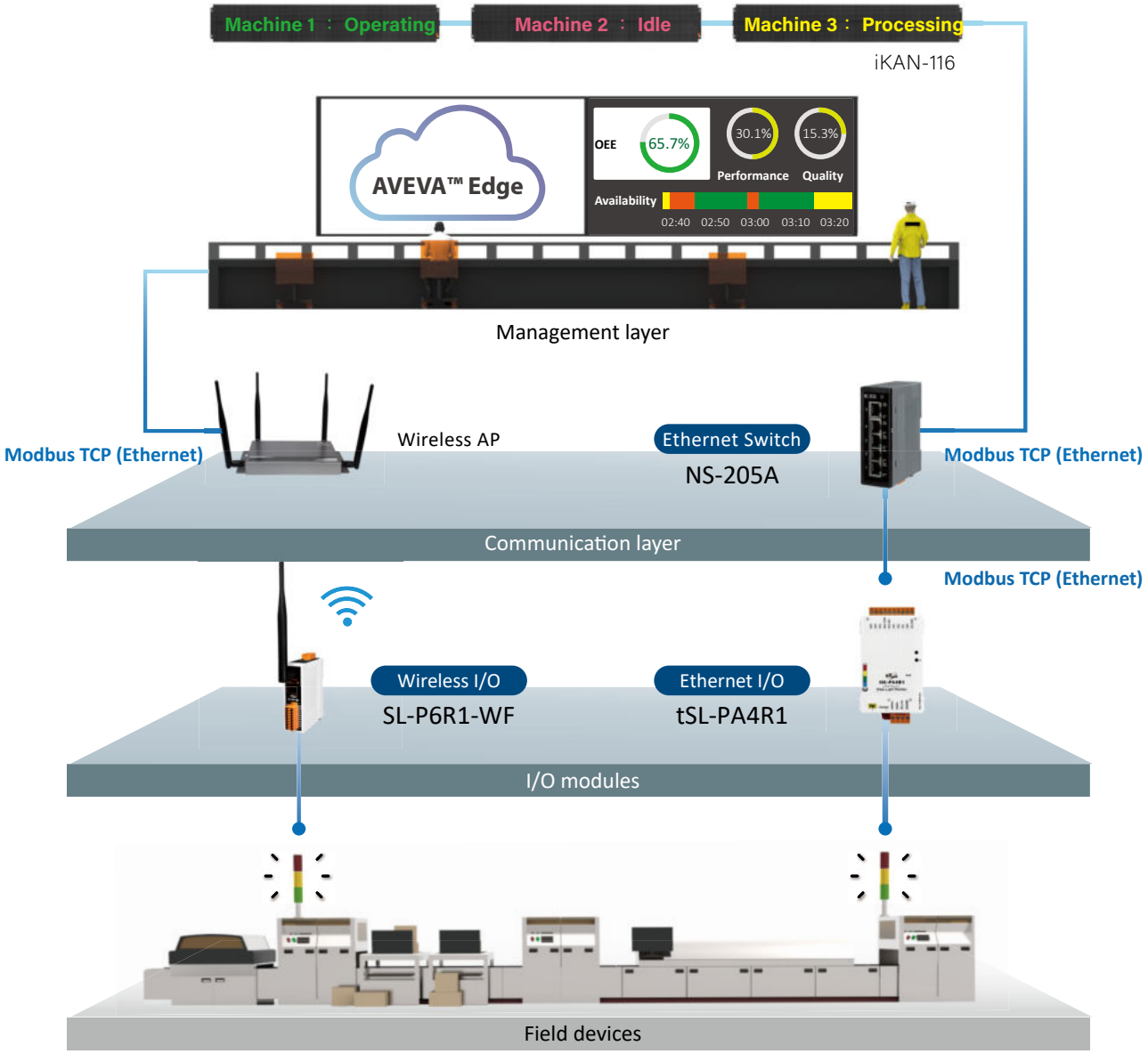
Web-based configuration interface

The tiny tSL series products and wireless SL series products have a built-in web server that allows users to easily install and configure them without the need for additional software or programming skills. Users can quickly login to the module through a web browser on a smartphone or computer to set up configurations.

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OEE optimization

With the help of ICP DAS's modules, the machine operational status monitoring system can transmit information to the SCADA system in the control center through wired/wireless communication methods and display the machine status in real-time on the iKAN display on the field side. In this way, personnel can easily monitor the machine's status and quickly troubleshoot equipment, which reduces machine idle time and helps achieve production goals.



Recommended products



Industrial LED Display

iKAN Series



Ethernet Switch

NS-205A



Edge Controller

WISE-5231M-4GE

AVEVA™ Edge

AVEVA Edge

SCADA

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Application scope

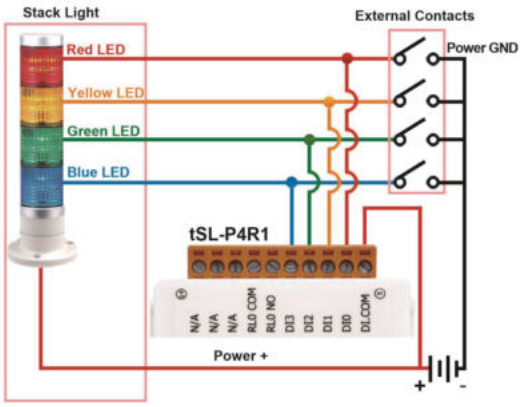
The stack light monitoring modules can be applied to control the factory machines. They will display the real-time status of machines in the factory and control center and issue an alarm when an equipment error is detected, reducing the machine's idle time. Also, the monitoring modules provide stack lights status reports for management personnel to analyze the availability and achieve the preventive maintenance and diagnosis, thereby helping to build a smart factory.



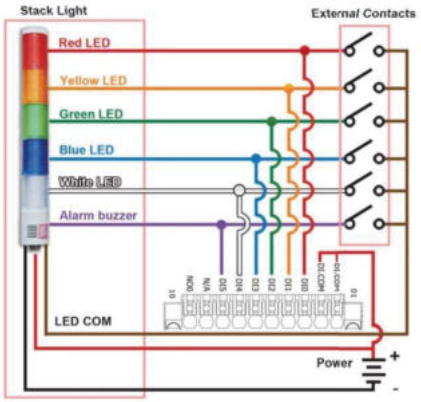
Factory automation | Machine automation | Remote maintenance | Remote diagnosis | Equipment testing

Connection methods

tSL SERIES



SL SERIES



Selection guide

Model		tSL-P4R1	tSL-PA4R1	SL-P6R1-WF	SL-PA6R1-WF
Channel	DI	4(DC)	4(AC)	6(DC)	6(AC)
	DO	1(Power Relay)	1(Power Relay)	1(Power Relay)	1(Power Relay)
Communication interface		RS-485, Ethernet, PoE		RS-485, Ethernet, PoE, Wi-Fi	
Dimension(mm)		52 x 98 x 27(W x L x H)		33 x 108 x 127(W x L x H)	
Wi-Fi Transmission distance		N/A		50mm	
Communication protocol		Modbus RTU(RS-485), Modbus TCP (Ethernet, Wi-Fi), MQTT (Ethernet)			
Installation method		DIN-Rail mounting			
Operating temperature		-25°C ~ +75 °C			
Power input		PoE/DC			
Built-in Web configuration interface		Yes(Ethernet)			

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2-2 Voice Alert Module: ALM Series





ALM-04-MRTU **ALM-06-WF**

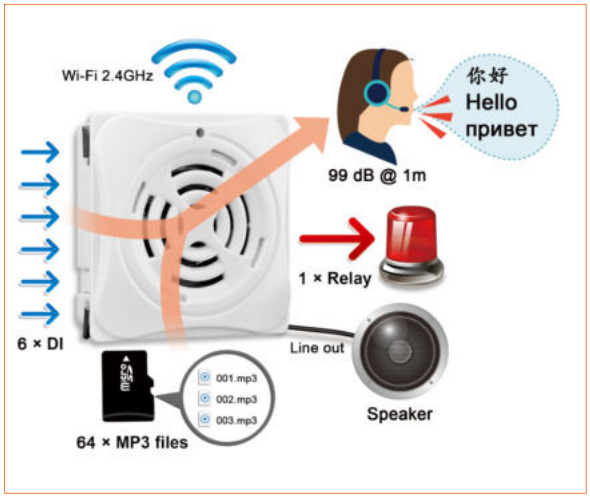
Features:

- 4/6 x DI, 1 x Relay output
- MP3 Audio, external Line Out
- Support up to 64 audio files
- 8 Alarm modes
- ALM-06-WF
  - Support 6 Single channel or 31 Binary + 1 single channel
  - WiFi communication Support AP (Access Point) and STA (Station) modes
  - Modbus TCP protocol
  - Support PC Utility, Android APP
- ALM-04-MRTU
  - RS-485 Interface
  - Modbus RTU protocol
  - Support 4 Single channel or 15 Binary channel

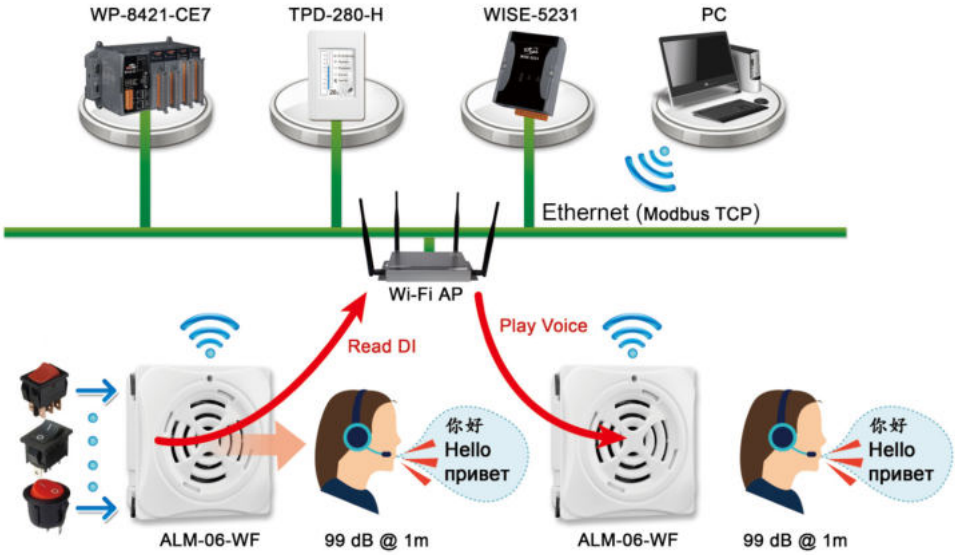
Introduction:

ALM Series is equipped with a 4 GB microSD card to store MP3 files. ALM Series can play the MP3 files when the DI status matches the pre-defined conditions. The built-in speaker power is only 3W. It is about 99 dB, 1 meter away the module. When requires for louder sound, the module also features audio line out to external speaker.

ALM Series provides 8 modes to define the DI conditions to play MP3 files. And every condition not only plays the MP3 files but also can be configured to turn on the built-in relay to trigger a warning lamp. That means with ALM Series can have both voice and light warning.



Applications:



Model	RS-485	Wi-Fi (2.4 GHz)	DI (Dry)	DO	Audio Playback	Sound Device	Sound Pressure Level/Output
ALM-06-WF	-	Yes	6	Relay DC 50 V/ 100 mA x 1	MP3/ 64x Files	Speaker	99dB @ 1KHz/1meter/3W
ALM-04-MRTU	Yes	-	4				

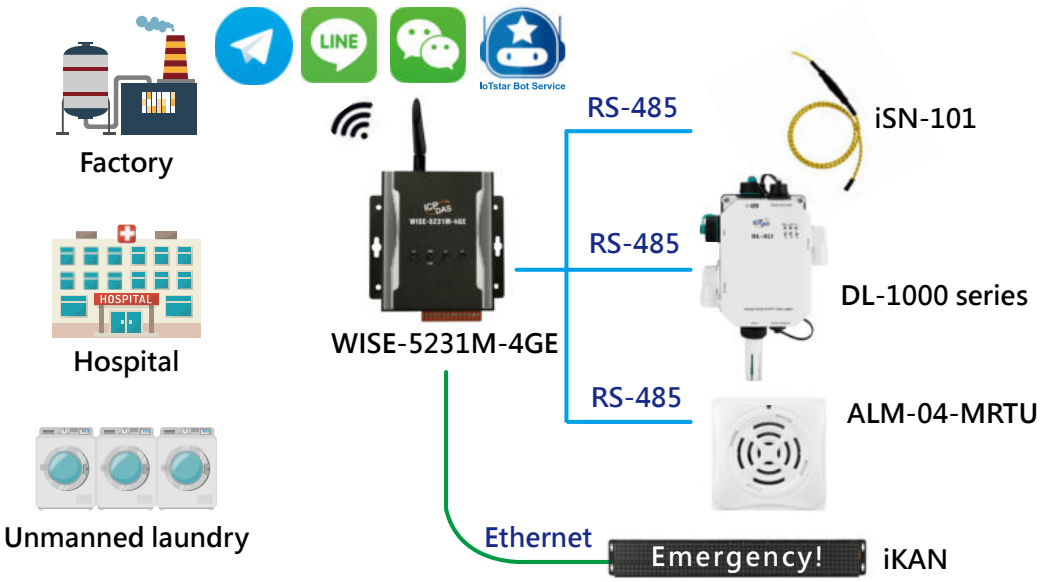
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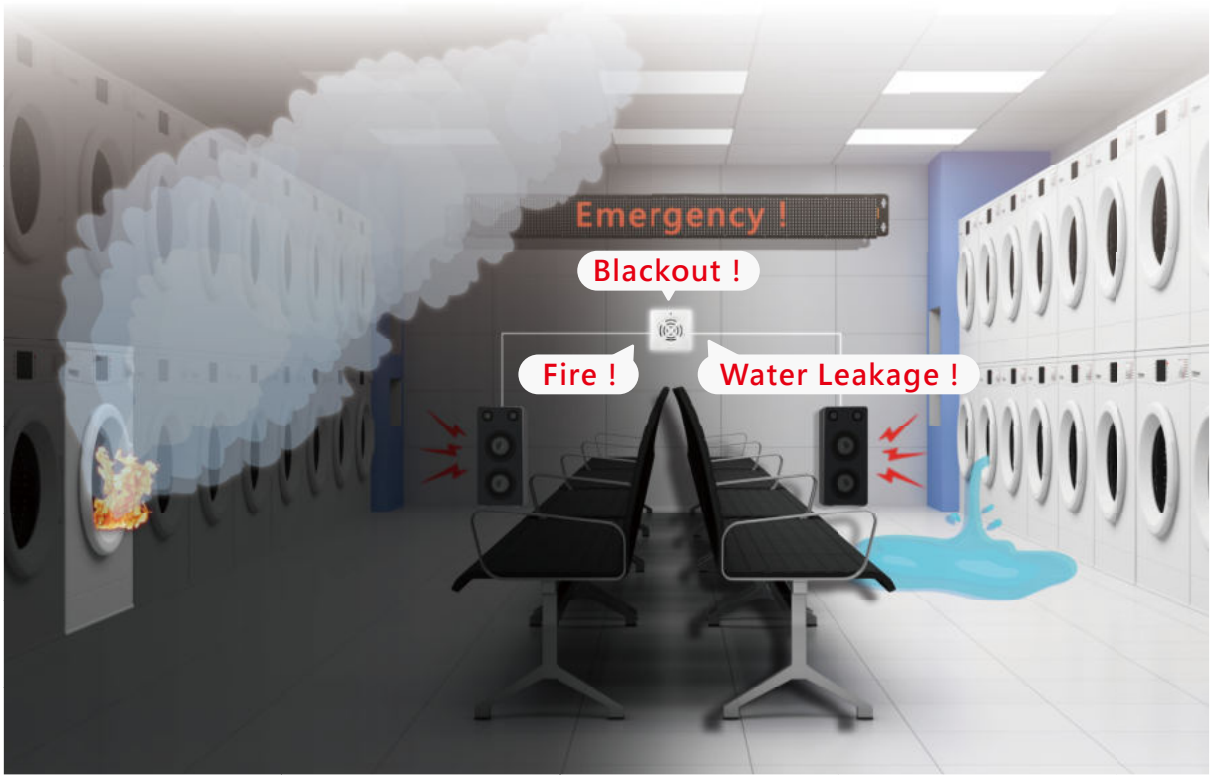
Application of Environmental iAlarm – Visual and Sound notify

When an abnormal emergency occurs in a public area, the WISE-5231M-4GE controller can work with the DL-1000 temperature and humidity module, iSN-101 water leakage module, and ALM smart buzzer to real-time detect issues such as high temperatures or leaks. Using WISE's IF-THEN-ELSE logic, it triggers actions and auto-sends alerts via LINE/WeChat/Telegram to the management and security team, while issuing voice alarms to ensure safety and quick response.

Solution Advantages :

- **Real-time Abnormal Monitoring:** Achieve precise monitoring and rapid response to abnormal conditions such as temperature, humidity, and water leakage in public areas, ensuring environmental safety.
- **Efficient Alert Delivery:** Automated alarm systems can notify management and security personnel in real time when abnormalities occur, ensuring a timely response.
- **Powerful On-Site Alerts:** Provides high-volume voice alerts to clearly warn crowds in both quiet and noisy environments, preventing delayed responses.





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Emergency Visual Alert Module: ALM-Horn Series

IP43



ALM-Horn-BR
ALM-Horn-RGB
ALM-Horn-WF-BR
ALM-Horn-MRTU-BR

Features:

- **ALM-Horn-BR : Standard Version (Non-COMM.)**
  - Piezo Buzzer Output
  - 4 Selectable Alarm Tones
  - Maximum Sound Pressure Level of 120dB
  - Water-clear Upper Cover with 8 Blue + 8 RED Ultra Bright LED
  - Equipped with Dry Contact Input, N.O. or N.C. Mode is Selectable, Open Collector Output
- **Special For ALM-Horn-WF-BR (Wi-Fi Version)**
  - Complies with the Complies with the IEEE 802.11b/g/n Standards
  - Support WEP、WPA and WPA2
  - Conduct the Communication Detection and Module Configuration via Wi-Fi
  - Support Modbus TCP and Remote Alarm Commands
  - Support Access Point(AP, 1 Client)and Station(STA)
- **Special For ALM-Horn-MRTU-BR (RS-485 Version)**
  - Support RS-485 Interface
  - Support Modbus RTU and Remote Alarm Commands
- **Special For ALM-Horn-RGB (Ethernet Version)**
  - Support PoE Ethernet Interface
  - Support Modbus TCP and Remote Alarm Commands
  - 8 user define RGB 3 color Ultrabright LED

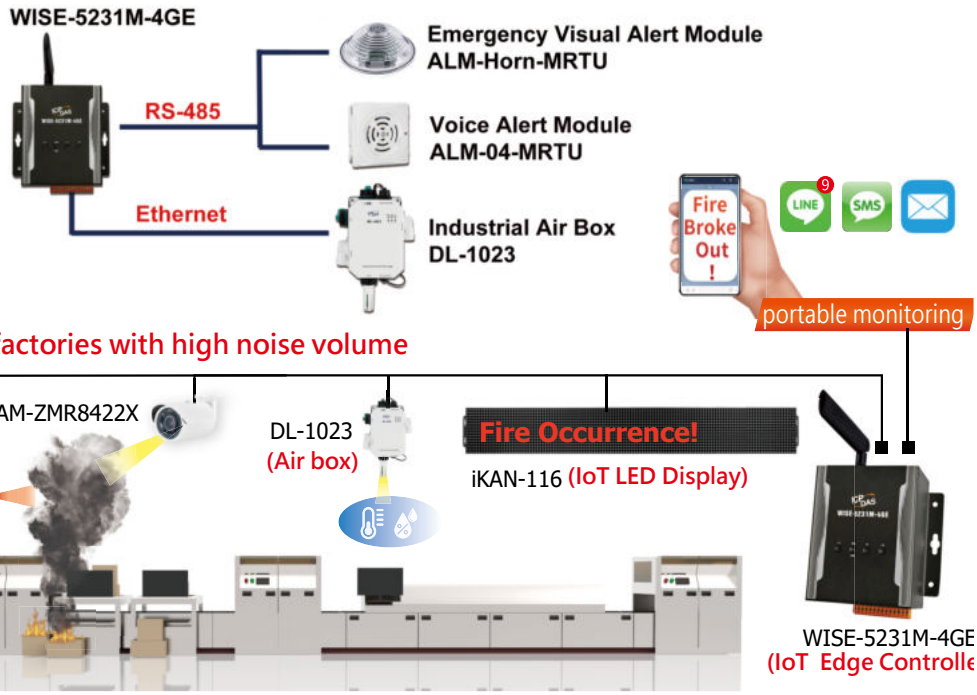
Introduction:

The ALM-Horn Series include 4 models, -BR with water clear upper cover, Blue + Red LED, ALM-Horn as standard siren, ALM-Horn-WF have WLAN connection complies with the IEEE802.11b/g/n standards, support Modbus TCP protocol & HTML, ALM-Horn-MRTU have RS-485 interface support Modbus RTU protocol, ALM-Horn-RGB have PoE Ethernet interface support Modbus TCP protocol.

ALM-Horn series device include 1-channel digital input for any dry contact output such as SA, BA, FA..etc, and 1-channel digital output Each device has 4 kinds of alarm tone, NC/NO input mode select by switchs. The ALM-Horn-WF & -MRTU &-RGB support Modbus protocol, Which makes perfect integration for monitoring or control in SCADA software, HMI Modbus & Utilitys. ALM-Horn series have High Sound Pressure output, wide input power range & IP43 waterproof.

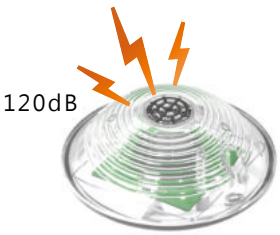
Applications:

- Fire Alarm System
- Building Automation
- Security Automation
- Machine Automation
- Factory Automation
- Testing Equipment

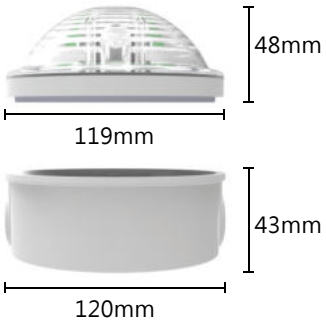


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Selection Guide:







ALM-Horn Series

EWB-C150 Expansion module box

Module	ALM-Horn-BR	ALM-Horn-WF-BR	ALM-Horn-MRTU-BR	ALM-Horn-RGB
Audio				
Sound Pressure Level	120 ±5 dB @10cm/3.0 KHz (W/O waterproof membrane)			
LED	Water clear upper cover with 8 RED UltraBright RED LED -BR: With 8 Blue + 8 RED UltraBright LED			Water clear upper cover with 8 RGB Ultrabright 3 color LED
Volume Control	no			
Digital Input				
Channels / Input Type	1 / Dry Contact: Sink			
Dry Contact Level	NO: Open, NC: Close to GND			
Photo-Isolation	3750 VDC			
Input Condition	Pulse Width must > 150mSec or more			
Digital Output				
Channels / Output Type	1 / Open Collector (Sink)			
Max Load Current	400 mA			
Load Voltage	+3.5 VDC ~ +30 VDC			
Dip Switch Select				
SW1,2	4 kinds of alarm Tone			
SW4	Input Mode (NO/NC) select			
Interface				
Type	-	Wi-Fi 2.4G	RS-485	Ethernet
Encryption	-	WEP, WPA and WPA2	-	Password and IP Filter
Protocol	-	-	Modbus RTU	Modbus TCP, Modbus UDP, HTTP
Service		TCP, Modbus TCP, HTML	-	-
LED Indicators				
Power/Status	2 colors LED, Blue for System status, Red for Alarm status.			System status, network communication, PoE power indicator
Mechanism				
Dimensions (Ø x H)	119 mm x 119 mm x 48 mm			
Installation	Panel Mount/Wall Mount			
Ingress Protection Rating	IP43			
Power Requirements				
Input Voltage Range	12 ~ 48 VDC with Reverse Protection (Vin to GND)			
PoE	N/A			Y, Class 3 MAX 6.6W
Consumption	0.4 W Standby.	0.7 W Standby.	0.48 W Standby.	0.7 W Standby.

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2-3 Industrial LED Message Display: iKAN Series



iKAN-116S/iKAN-124S



iKAN-116/iKAN-124 Series



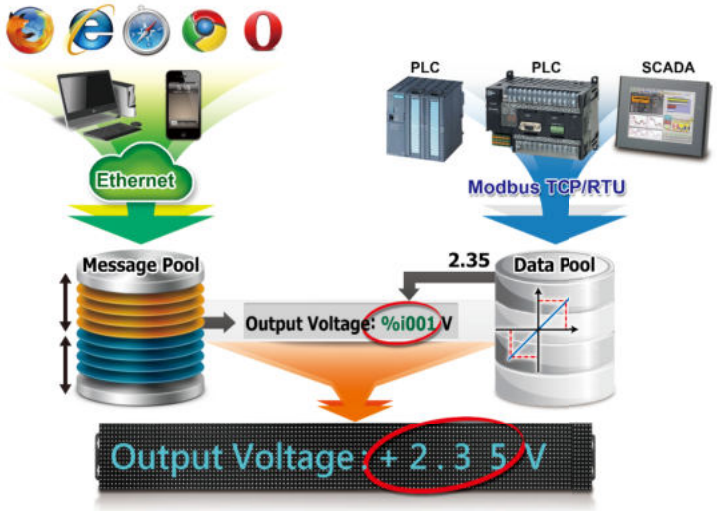
iKAN-208/iKAN-216/iKAN-224 Series

Features:

- Support multiple languages: text height of 16/11.5 cm
- 7 colors, including red, blue, yellow, green, light blue, purple and white
- Able to store up to 128 messages with priority configuration
- Convert 8 Modbus numbers into ASCII messages Instantly
- Integrate both text and variables in a single message
- Support Modbus TCP/RTU/CGI protocols
- Built-in RTC (Real Time Clock)
- Web-based User Interface
- Can be remotely controlled via a PLC, PC, or smart phone

Introduction:

The iKAN series is a family of industrial Modbus LED message display devices that deliver industrial-grade anti-noise capabilities as well as reliability and stability. ASCII characters and Unicode characters, which can be used to display multiple languages, are supported for presenting formatted messages. Support for the popular Modbus industrial protocol is provided meaning that iKAN display devices can easily integrate into existing PLC and SCADA environments. The iKAN series allows data written from a PC or a PLC to display on a formatted message in real-time. Seven colors are available for the text, which can be used to indicate different degrees of importance of the message, as well as significantly increase the readability of the message in an industrial arena.



Built-in RTC

Date and time, 24 hour format including second, minute, hour, date, day of the week, month, year.



Smart Phone Controllable

Messages can be edited using a standard web browser on a PC, mobile device, or smartphone without any limitations related to specific control tools or programs.



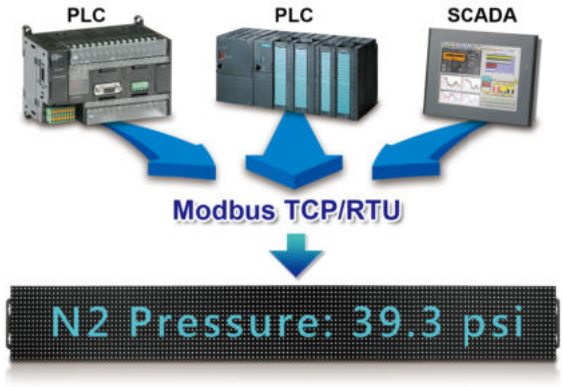
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IP65 Rating

The iKAN IP65 model is totally waterproof and dustproof so it can be installed in dirty, soiled, or semi-outdoor environments, such as eaves, open halls, outdoor canopies, or beneath a sunroof.

Support Modbus TCP/RTU protocols

The popular Modbus industrial protocols are provided. iKAN can be easily integrated into PLC/SCADA.



Indoor Air Quality Display

The iKAN device can be used to display indoor air quality monitoring data from ICP DAS DL sensor modules, including details of the CO, CO2, and PM2.5 levels, the temperature, and the humidity, without requiring any programming skills or knowledge.



Message Editing

• Edit default messages:

A maximum of 128 messages with priority can be preconfigured from the first moment that the iKAN display is switched on. When the display is in operation, the focus needs only be on message management rather than the need to frequently update the messages.



• Convert 8 Modbus data into ASCII character messages Instantly:

8 Modbus control registers sets can be assigned to 4 messages; each of which contains up to 64 ASCII characters. It allows the Modbus controller to write text message to be displayed on the iKAN device.

Message Priority

Messages with instant priority have a higher priority than other messages. Once a message with instant priority is enabled, the common message currently being displayed will be suspended until the instant message is disabled. This feature allows the most important information to be displayed in an emergency situation.

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Selection Guide

iKAN-X XX S A - XXX - IP65

ROWS:
1: One Row
2: Two Row

LED Size:
S: Small Size
Null: Normal Size

Protocol Interfaces:
Null:Modbus
PFB:Modbus+PROFIBUS
PFN:Modbus+PROFINET
CPS:Modbus+CANOpen

Characters (1 Row)
08: 8 Characters
16: 16 Characters
24: 24 Characters

RoHS Compliant:
A: Non RoHS Compliant
Null: RoHS Compliant

IP Rating
Null:None
IP65: IP65



iKAN-116 series
- One Row
- 16 Characters



iKAN-124 series
- One Row
- 24 Characters

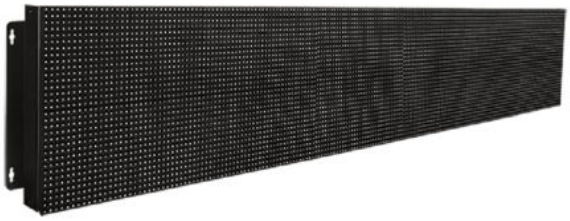
Modbus LED Display (RoHS Compliant)

Model	Mechanical				Display	Communication Interfaces		
	Dimensions (mm) (W × H × D)	Weight	Housing Material	Installation	Message Pool	Ethernet		COM Ports
iKAN-116	1346 × 160 × 49	4 Kg	Aluminum	Wall mountin	128 common messages (Allows you to set Priority) Up to 20 Unicode characters or 50 ASCII characters each	2 × RJ-45, 10/100 Base-TX	Modbus TCP Slave Max. 8 connections	RS-485 × 2
iKAN-116S	834 × 115 × 37.5	2 Kg						
iKAN-124	1986 × 160 × 49	4.6 Kg						
iKAN-124S	1218 × 115 × 37.5	2.5 Kg						
iKAN-208	707 x 320 x 50	4 Kg						
iKAN-216	1346 × 320 × 49	8 Kg						
iKAN-224	1986 × 320 × 49	12 Kg						

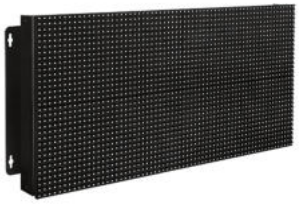
Modbus LED Display (Non RoHS Compliant)

Model	Mechanical				Display	Communication Interfaces		
	Dimensions (mm) (W × H × D)	Weight	Housing Material	Installation	Message Pool	Ethernet		COM Ports
iKAN-116A	1346 × 160 × 49	4 Kg	Aluminum	Wall mountin	128 common messages (Allows you to set Priority) Up to 20 Unicode characters or 50 ASCII characters each	2 × RJ-45, 10/100 Base-TX	Modbus TCP Slave Max. 8 connections	RS-485 × 2
iKAN-124A	1986 × 160 × 49	4.6 Kg						
iKAN-208A	707 x 320 x 50	4 Kg						
iKAN-216A	1346 × 320 × 49	8 Kg						
iKAN-224A	1986 × 320 × 49	12 Kg						

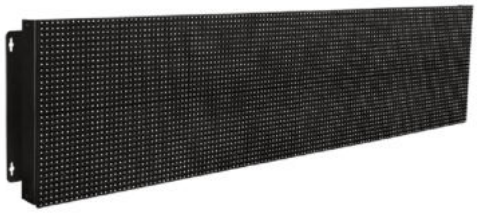
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iKAN-224 series
- Two Row
- 24 Characters



iKAN-208 series
- Two Row
- 8 Characters



iKAN-216 series
- Two Row
- 16 Characters

Modbus LED Display (Call Sale) (RoHS Compliant)								
Model	**Mechanical**				**Display**	**Communication Interfaces**		
	Dimensions (mm) (W × H × D)	**Weight**	**Housing Material**	**Installation**	**Message Pool**	**Ethernet**		**COM Ports**
iKAN-116-IP65	1346 × 160 × 49	4 Kg	Aluminum	Wall mountin	128 common messages (Allows you to set Priority) Up to 20 Unicode characters or 50 ASCII characters each	2 × RJ-45, 10/100 Base-TX	Modbus TCP Slave Max. 8 connections	RS-485 × 2
iKAN-124-IP65	1986 × 160 × 49	4.6 Kg						
iKAN-208-IP65	707 x 320 x 50	4 Kg						
iKAN-216-IP65	1346 × 320 × 49	8 Kg						
iKAN-224-IP65	1986 × 320 × 49	12 Kg						

Modbus LED Display (Call Sale) (Non RoHS Compliant)								
Model	**Mechanical**				**Display**	**Communication Interfaces**		
	Dimensions (mm) (W × H × D)	**Weight**	**Housing Material**	**Installation**	**Message Pool**	**Ethernet**		**COM Ports**
iKAN-116A-IP65	1346 × 160 × 49	4 Kg	Aluminum	Wall mountin	128 common messages (Allows you to set Priority) Up to 20 Unicode characters or 50 ASCII characters each	2 × RJ-45, 10/100 Base-TX	Modbus TCP Slave Max. 8 connections	RS-485 × 2
iKAN-124A-IP65	1986 × 160 × 49	4.6 Kg						
iKAN-208A-IP65	707 x 320 x 50	4 Kg						
iKAN-216A-IP65	1346 × 320 × 49	8 Kg						
iKAN-224A-IP65	1986 × 320 × 49	12 Kg						

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2-4 Bluetooth LE Mitutoyo Gauge Data Collector: GAM Series



GAM-100

Features:

- Frequency: ISM 2.4 GHz
- Standard: Bluetooth 4.0
- Wireless transmission range up to 20 meters (Line of Sigh)
- Compatible with Mitutoyo SPC interface
- LED indicators for Battery / RF link / Charge LEDs
- Support different transmission rate: 1/2/5/10 Hz
- Support Trigger button and 3.5 mm foot switch connector to log data
- Support different trigger mode: Single and Continuous
- Power by micro USB chargeable Li-ion battery
- Battery Usage Life: 100 HR/ 10 Hz
- Support Android APP for gauge data acquisition and configuration

Introduction

The GAM-100 is a Bluetooth Low Energy (Bluetooth LE/Bluetooth 4.0) gauge master for Mitutoyo gauges, with SPC output. The gauge master connects Mitutoyo gauges by SPC interface. A smart phone or tablet can use Bluetooth to get Mitutoyo gauge date through the gauge master. With the built-in micro USB chargeable Li-ion battery, the gauge master can work for 100 hours. To get and log the data, an Android APP is designed for a mobile device. The data can be kept in the local memory storage or uploaded to the remote MySQL server.

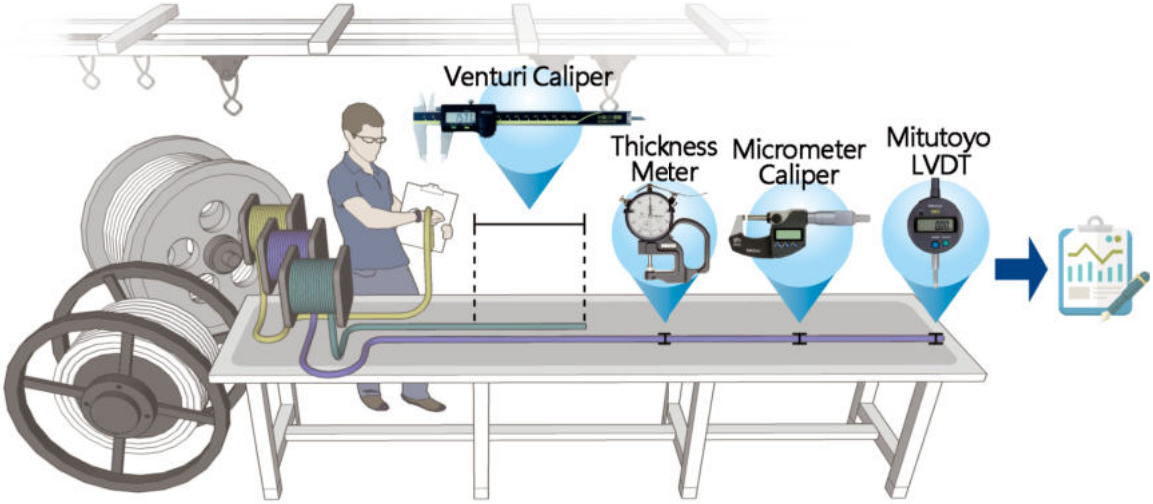
Android APP

- Device search function
- Real-time gauge data display
- Trigger mode setting
- Upload data to remote MySQL server
- Device number setting
- Work order generating
- Gauge data record (*.csv)



Application

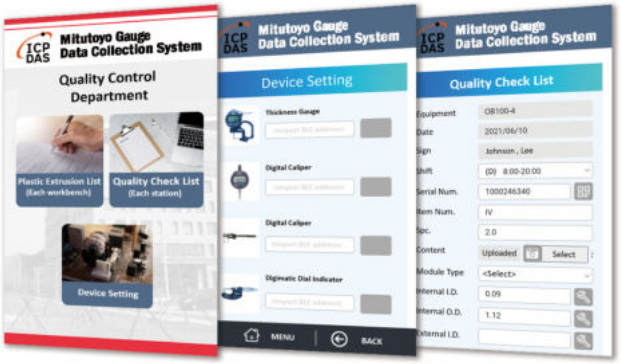
The cable factory uses Mitutoyo thickness gauges, micrometer calipers, vernier calipers, and other gauges, to conduct quality inspections during the production process. During the process, it is necessary to hold the product and the measurement tool at the same time to record the data in the form by handwriting until the test is completed, which is laborious and time-consuming. To optimize the quality of the inspection process, ICP DAS provides a GAM-100 that is integrated with a work-order system. It performs measurement triggering and data recording of Mitutoyo gauges, and then forwards data to a remote database for big data analysis purposes, including AI modeling, production history, consumption ratio... and other extended applications.



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Application Features

- Customized work order, automated data collection.
- GAM-100 binds to work-order, and imports automatically.
- Support footswitch to trigger measurement, improve operation convenience.
- Data record based on work orders and equipment bound, and synchronous write MySQL database.
- Reduce the time consumption of data recording and improve the accuracy of data.
- Provide the basis for production efficiency analysis and process improvement.



Application Architecture



Specification

Model	GAM-100
CPU	32 bit, Microprocessor
RF Standard	
Wireless Standard	Bluetooth 4.0
Transmit Range	20 m (LOS)
Antenna	Chip Antenna
Sampling Rate	1, 2, 5, or 10 Hz, confi gured by APP
LED Indicators	1 x Battery, 1 x RF link, 1 x Battery Charge
Mitutoyo Gauges	293-230-30/500-171-30/543-782/547-361S/543-401B/573-701
Power	
Power Supply	Li-ion battery charged by DC 5V Micro USB interface
Battery Usage Life	100 hours / 10 Hz
Mechanism	
Casing	Plastic
Dimensions (W x L x H)	84 mm x 59 mm x 22 mm
Environment	
Operating Temperature	0°C ~ +45°C
Storage Temperature	0°C ~ +45°C
Humidity	10~90%

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2-5 Temperature Data Logger: TCD Series



TCD-104/S400/B
4-ch K-type Thermocouple



TCD-108/S400/B
8-ch K-type Thermocouple

Features:

- 4/8-channel K-type thermocouple (±0.5℃ Accuracy)
- hermocouple length: 50 cm
- Sampling Rate: 50 ms to 60000 seconds
- Max. recording for each channel: : 450,000 / 300,000
- Powered by 4x AAA batteries : (60 hours @ 50 ms sampling rate)
- 400℃ operating temperature with thermal insulation box
- Easy-to-use software interface
- Traceable temperature data

Introduction:

TCD-104/TCD-108 temperature measurement module can provide high-precision temperature measuring capability with standard K-type thermocouple. Besides, TCD-104/TCD-108 has built-in over-temperature protection, intelligent temperature data logging capability, automatic analysis result output (highest Tin temperature, tinning time, heating rate, etc.).



Applications:

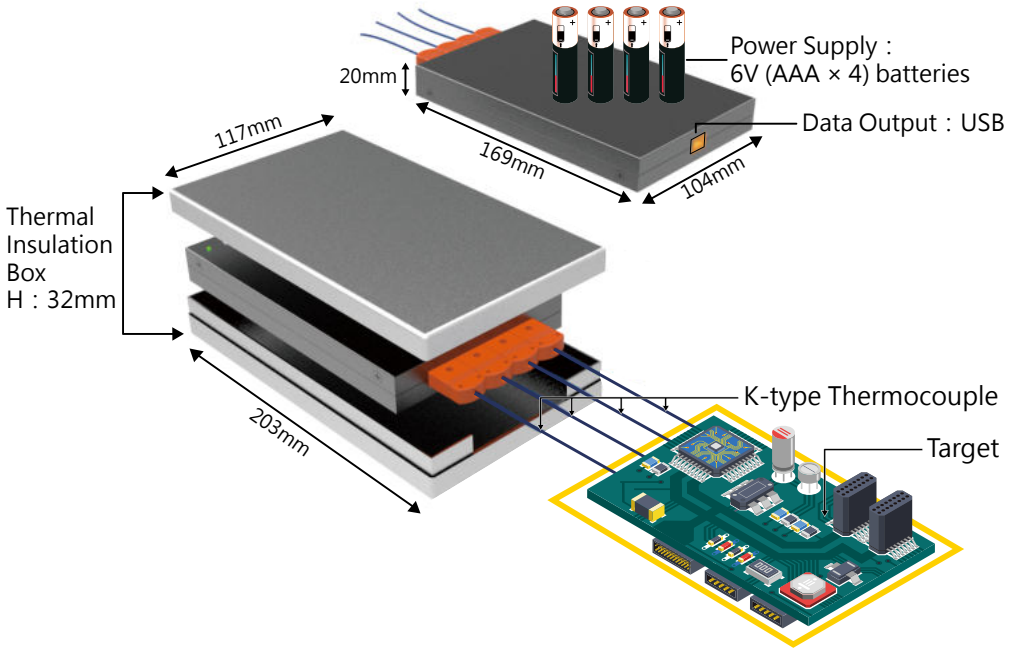
SMD assembly manufacturing, PC board manufacturing, footwear manufacturing, food industry, pharmaceutical industry and any temperature measurement required industries.



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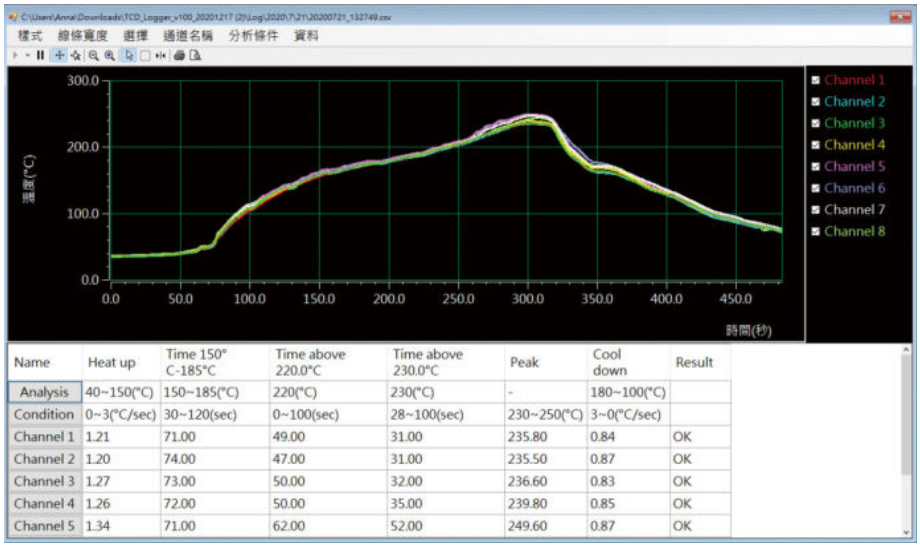
Appearance:

TCD-104 and TCD-108 are temperature data loggers with 4/8-channel K-type thermocouple sensors. They are powered by 4x AAA batteries for working more than 60 hours. With an optional thermal insulation box, they can operate in 400℃ environment. TCD-104 and TCD-108 are suitable for the industries that concern the temperature change in their manufacturing process, especially heating curve in ovens.



Software: iTCLogger Utility

iTCLogger Utility is used to configure and download the data from TCD-104 and TCD-108 via the USB. It can display the trend chart and calculate some static values, like max., min, mean



Name	Heat up	Time 150° C-185°C	Time above 220.0°C	Time above 230.0°C	Peak	Cool down	Result
Analysis	40~150(°C)	150~185(°C)	220(°C)	230(°C)	-	180~100(°C)	
Condition	0~3(°C/sec)	30~120(sec)	0~100(sec)	28~100(sec)	230~250(°C)	3~0(°C/sec)	
Channel 1	1.21	71.00	49.00	31.00	235.80	0.84	OK
Channel 2	1.20	74.00	47.00	31.00	235.50	0.87	OK
Channel 3	1.27	73.00	50.00	32.00	236.60	0.83	OK
Channel 4	1.26	72.00	50.00	35.00	239.80	0.85	OK
Channel 5	1.34	71.00	62.00	52.00	249.60	0.87	OK

Selection Guide:

Model	Channel	Data Logger	Thermocouple Type	Cable Length	Communication
TCD-104/S400/B	4	450,000 records	K-Type	50 cm	USB
TCD-108/S400/B	8	300,000 records			

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2-6 Signal Conditioning Modules: SG-3000

SG-3000 series signal conditioning modules are used to accept wide range of input signals, such as voltage, current, temperature (thermocouple and RTD) and provide 0 ~ 10 VDC, 0 ~ 20 mA, 4 ~ 20 mA output signals.

It gives following good features for industrial applications:

- 3-way (power/input/output) isolation (1000 VDC)
- Wide operating temperature (-25 ~ +75°C)
- DIN-Rail mounting
- Input and output connectors on the opposite side
- Signal range configurable by switch



Selection Guide:

Analog Conditioning Modules

Models	Input			Output		
	Channel	Signal	Bandwidth	Channel	Voltage	Current
SG-3011-G	1	Thermocouple	10 Hz	1	0 ~ 10 VDC	0 ~ 20 mA
SG-3011H-G			500 Hz/10 Hz			
SG-3013-G	1	RTD	-	1	0 ~ 5 VDC 0 ~ 10 VDC	0 ~ 20 mA 4 ~ 20 mA
SG-3016-G	1	Strain Gauge	600 Hz	1	±5 VDC, ±10 VDC, 0 ~ 5 VDC, 0 ~ 10 VDC	0 ~ 20 mA
SG-3016-80-G			80 Hz			
SG-3071-G	1	Voltage (±5 VDC, ±10 VDC)	1 kHz	1	±5 VDC, ±10 VDC	0 ~ 20 mA 4 ~ 20 mA
SG-3081-G	1	Current (0 ~ 20 mA, 4 ~ 20 mA)	1 kHz	1	0 ~ 5 VDC, 0 ~ 10 VDC	0 ~ 20 mA 4 ~ 20 mA
SG-3383	1	4 ~ 20 mA	2.5 kHz	3	-	4 ~ 20 mA

Analog Conditioning Modules (Vibration)

Models	Input for Accelerometer					Output	
	Channel	Signal	Excitation	Bandwidth	Supported Accelerometer	Channel	Signal
SG-3037-G	3	Voltage (0 ~ 24 VDC)	24 VDC	50 kHz	iSN-703-F1-L015 (3-axis)	3	±10 VDC
SG-3227	2	IEPE (0 ~ 28 VDC)	2/4/6/10 mA	x1, x10 Gain: 80 kHz x100 Gain: 50 kHz	iSN-701-F15-L030 iSN-701-F15-L060 (1-axis)	2	±10 VDC

Analog Conditioning Modules (Current PWM regulator)

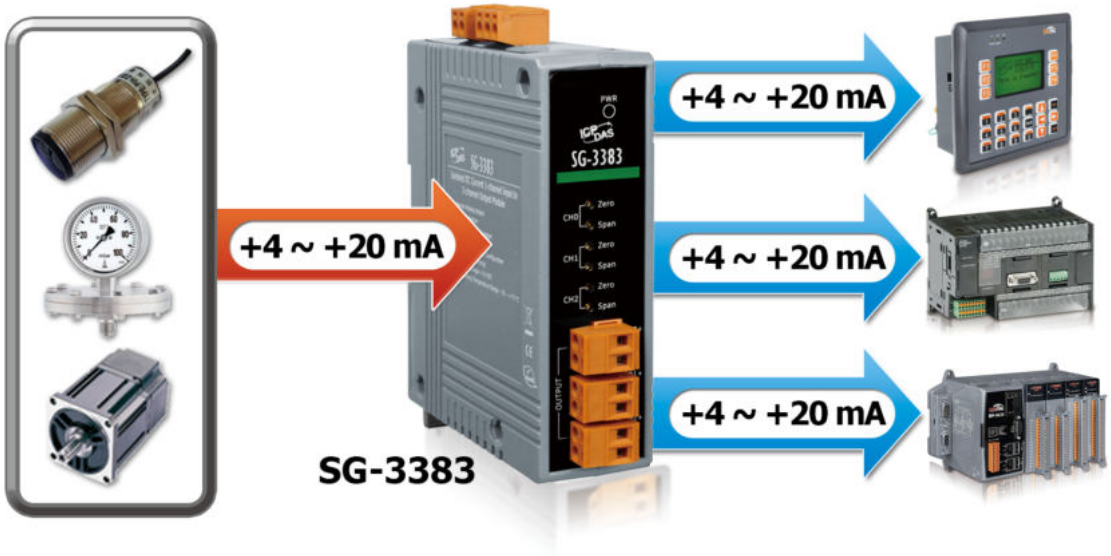
Models	Input		Output	
	Channel	Signal	Channel	Type
SG-3784M	4	4 ~ 20 mA	4	PWM, Open Collector
tSG-3781B	1	4 ~ 20 mA	1	PWM, Open Collector
tSG-3781L	1	4 ~ 20 mA	1	PWM, Open Collector

Power Conditioning Modules

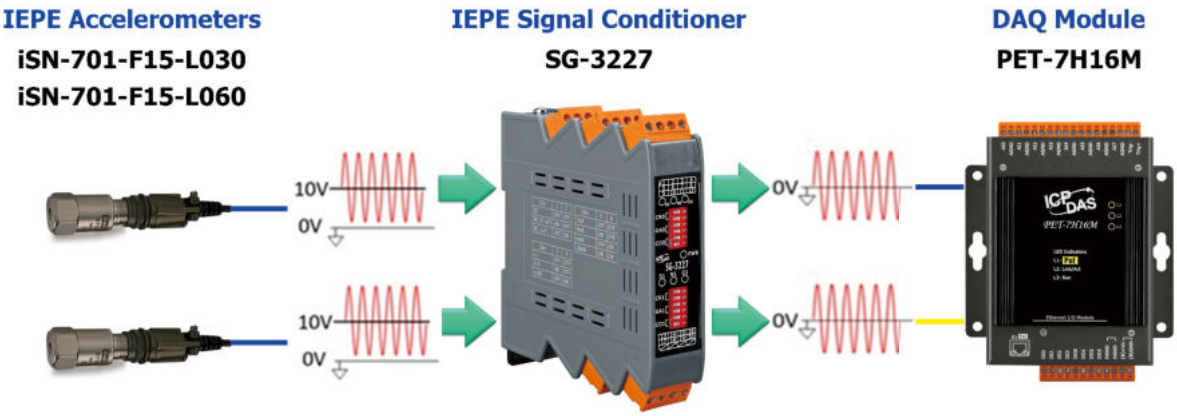
Models	PW-3090-24S-R	PW-3090-12S-R	PW-3090-5S-R	PW-3090-5D-R	PW-3090-15D-R
Pictures					
Input	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)	18 ~ 36 V (non-regulated)
Output	24 V @ 0.4 A (Max.)	12 V @ 0.8 A (Max.)	5 V @ 2 A (Max.)	±5 VDC @ 1 A (Max.)	±15 VDC @ 0.3A(Max.)
Isolation	1000 VDC				
Efficiency	83% Typical				
Operating Temperature	-25 ~ +75°C				
Dimensions (W × H × D)	25 mm × 114 mm × 70 mm				

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Application:







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2-7 No-touch Infrared Sensor Switch



ACS-20W-MRTU



ACS-20B-MRTU

Features:

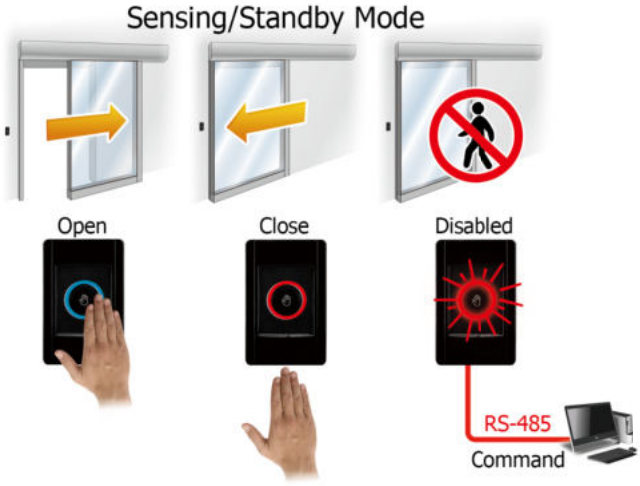
- Special infrared code to against interference
- Multiple operating modes: Sensing/Standby, Lock, Toggle Switch
- Provides 8 lockup periods each day
- Double-color status indicator
- Induction distance: 1 ~ 12 cm
- Relay hold time: 0.5 ~ 20 sec
- With Relay (N.C. and N.O. output)
- The switches time recording: 1,600 records
- Communication interface and protocol: RS-485/Modbus RTU

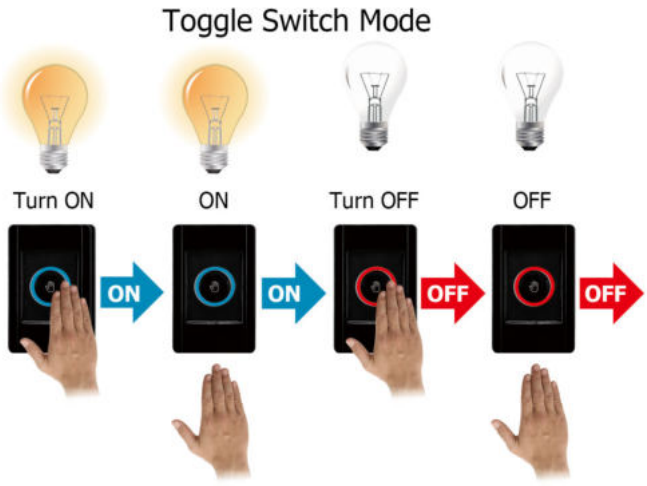
The No-touch Infrared Sensor Switch from ICP DAS can be used to open a door using palm induction, which makes it more convenient when entering or exiting a room or building. The inductive distance and the delay time for door opening are adjustable, and has red and blue indicator lights to show the status of the switch. As people enter and exit the door using the No-touch Infrared Sensor Switches, a time stamp recording the action can be simultaneously logged.

The No-touch Infrared Sensor Switch includes an RS-485 interface and provides Modbus RTU communication, which can remotely enable/disable the switch and get the induction time records by the access control system.

Additionally, the No-touch Infrared Sensor Switch is not only used for access control system but also help you control other electronic devices. While it is triggered in toggle mode at the first time, the switch outputs ON signal, and next time outputs OFF signal.

The No-touch Infrared Sensor Switch can be used with electric doors to prevent issues related to the spread of infectious bacteria via touch. The switches can be used in medical institutions, retail stores, the food industry, industrial plants, and offices, etc. to provide an excellent sanitary environment.

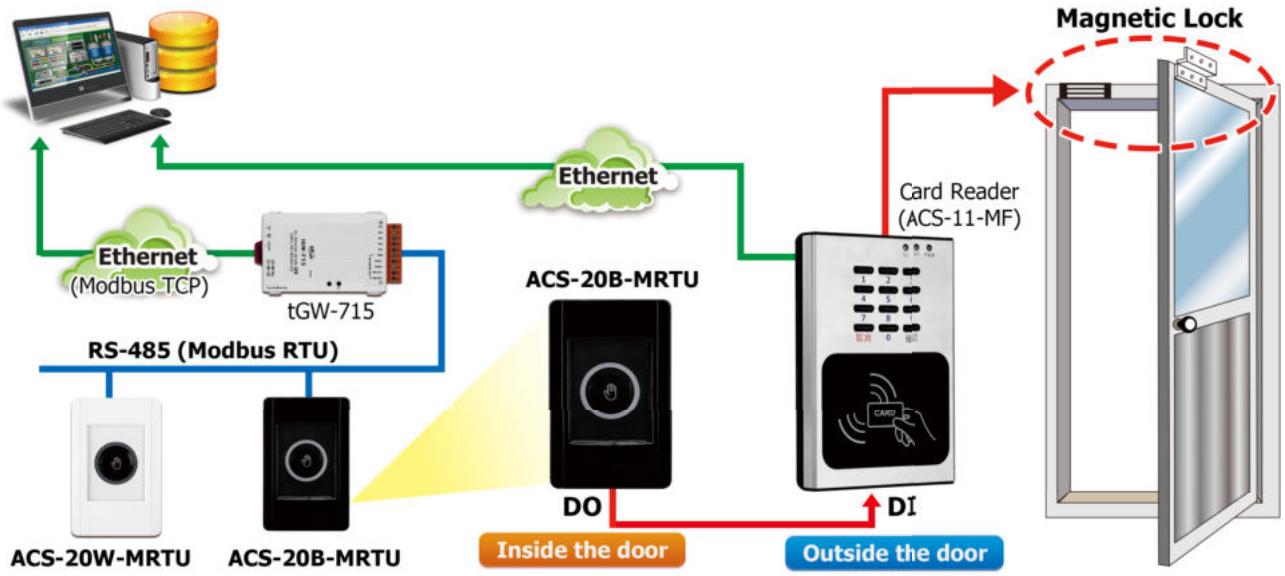


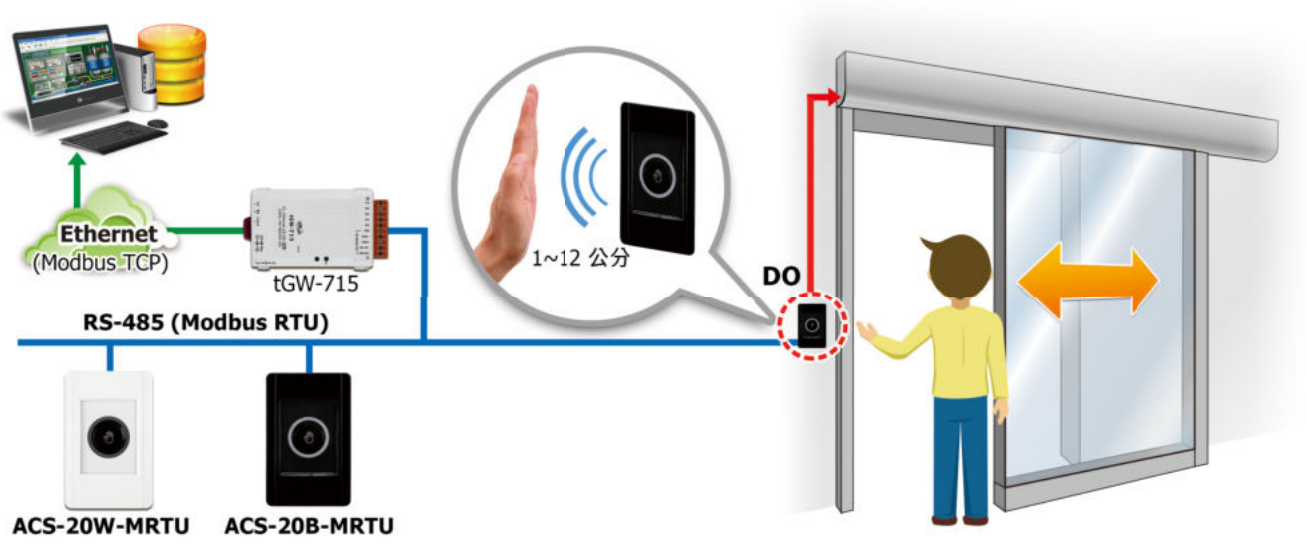


Specification		Description
Induction distance		1 ~ 12 cm (adjustable)
Relay hold time		0.5 ~ 20 sec (adjustable)
Indicator LED light		Red (Standby); Blue (Sensing)
Relay	Type	Form C
	Rated Current	0.5 A @ 120 VAC, 2 A @ 30 VDC
The switches recording times		1,600 records
Communication interface and Protocol		RS-485 / Modbus RTU
Power Input		+10 ~ +30 VDC
Dimensions (W × L × H)		75 mm × 119 mm × 24 mm

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Applications:





External Wall Box and Outlet Box:

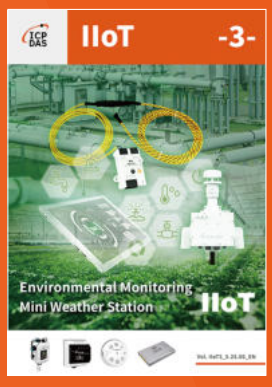
External Wall Box		Outlet Box	
 EWB-T28-BK		 OB120	
 EWB-T28			

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IIoT 1
Software . Controller / Server

- Cloud Management Software: IoTstar
- SCADA System Software: AVEVA Edge
- Condition Monitoring Solution: ExoWISE
- Edge Controller WISE Series:
- Communication Server: UA Series
- MQTT Communication Server: BRK Series



IIoT 3
Environmental Monitoring / Mini Weather Station

- Smart Environmental Monitoring: CL Series
- Air Box: DL Series
- Mini Weather StationMotion: DLW Series
- Detector: PIR Series
- Industrial Sensor Network Detection: iSN Series
- Wireless Environmental Solution: iWSN/iXN/iSOS Series



Energy Management Solution

- InduSoft SCADA Software
- Smart Power Meter Concentrator
- Smart Power Meter
- True RMS Input Module
- TouchPAD Devices - VPD Series



Industrial Fieldbus

- RS-485
- Industrial Ethernet
- Profinet
- CAN bus
- CANopen
- Devicenet
- J1939
- PROFIBUS
- HART
- Ethernet/IP
- BACnet



ZigBee Wireless Product Solutions

- ZigBee Wireless Network
- Applications
- ZigBee Converters
- ZigBee Repeater
- ZigBee Bridge
- ZigBee I/O Group Module
- ZigBee I/O Module
- ZigBee Modbus Data Concentrator
- Accessories



UA Series / BRK Series: IIoT Cloud Solution

- IIoT Cloud Solution Products
- IIoT Communication Server: UA-2000 /5000/7000 SeriesSupport Logic Control IFTTT
- MQTT Communication Server: BRK-2000 Series
- OPC UA I/O Module: U-7000 Series



WISE - Intelligent IIoT Edge Controller & I/O Module

- WISE IIoT Edge Controller & I/O Module
- Cloud Management
- Applications
- Product Specification
- Solution Integration



Smart Building, Smart Home Automation

- Video Intercom & Access Control
- Touch HMI - TouchPAD Series
- Smart Lighting Control
- Energy Saving - PM/PMC Series
- Environmental - DL/CL Series
- Motion Detector - PIR Series
- Wi-Fi Wireless - WF Series
- Infrared Wireless - IR Series
- ZigBee Wireless - ZT Series
- IIoT Server & Concentrator
- LED Display - iKAN Series

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