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# Industrial LED Message Display

Industrial Innovation and Network Transformation  
Next Generation IoT Applications



Modbus

PROFIBUS

PROFINET

CAN open

# Introduction

The iKAN series is a family of industrial LED display devices that deliver industrial-grade anti-noise capabilities, as well as reliability and stability. The display device is highly suitable for presenting formatted messages in indoor and semi-outdoor environments, such as offices, factories, train stations, and shopping malls.

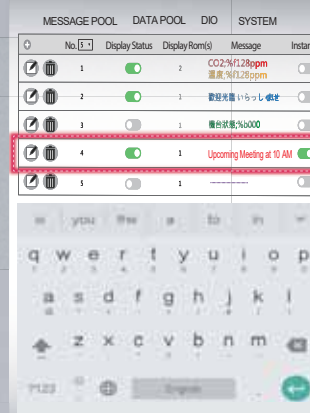
## Features

- Can be remotely controlled via a PLC, PC or smartphone
- 168 variables available for displaying real-time data in a message
- Supports CGI commands to display faces or for license plate recognition
- Supports multiple languages (Glyphs for Arabic, Indian and Thai alphabets are not included)
- Able to store up to 128 messages with priority configuration
- Able to display physical values converted with user-defined gain and offset factors
- 7 text colors including red, blue, yellow, green, light blue, purple and white
- Supports Modbus/PROFIBUS/CANopen/CGI protocols
- Supports Ethernet/RS-232/PROFIBUS/CAN bus interfaces
- Able to display real-time data obtained from a PLC or SCADA host in a text message



### Smart Control with a Smartphone

The iKAN display allows you to edit messages and control the display using your smartphone. This is very useful when you need to quickly and efficiently display an emergency message to a large number of readers.



No.	Display Status	Display Rom(s)	Message	Instant
1	<input checked="" type="checkbox"/>	2	CO2:%f1.28ppm 温度:%f1.28ppm	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	1	歡迎光臨 いらっしゃいませ	<input type="checkbox"/>
3	<input type="checkbox"/>	1	■ 水位量:%b000	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	1	Upcoming Meeting at 10 AM	<input checked="" type="checkbox"/>
5	<input type="checkbox"/>	1		<input type="checkbox"/>



### 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.



# Industrial IoT Message Display

What You Select is What You Configure, Build Your Application Quickly and Easily

CO2: 586ppm PM2.5: 1 $\mu$ g/m<sup>3</sup>  
Temp.: 28 $^{\circ}$ C RH: 21% CO: 1ppm

Displaying real-time data without a PC

Suggested sensor modules



## Real-time Data in a Text Message

Each model in the iKAN series provides storage space for up to 128 messages with priority configuration, and 168 variables to allow data written from a PC or a PLC to be displayed in a formatted message in real-time.

### Message Pool

128 messages with priority configuration.

CO2: %i128 ppm  
Pre-Temp.: %f130 $^{\circ}$ C

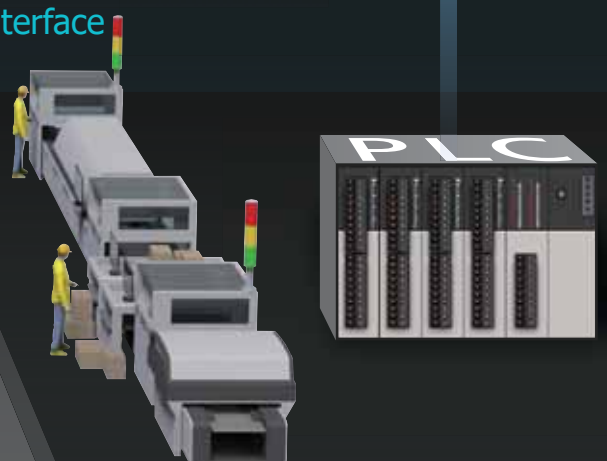


### Data Pool

Space for 40 Coil, 64 Float, and 64 Integer variables is provided.

#128:586  
#130:128  
#132:.....  
#134:.....

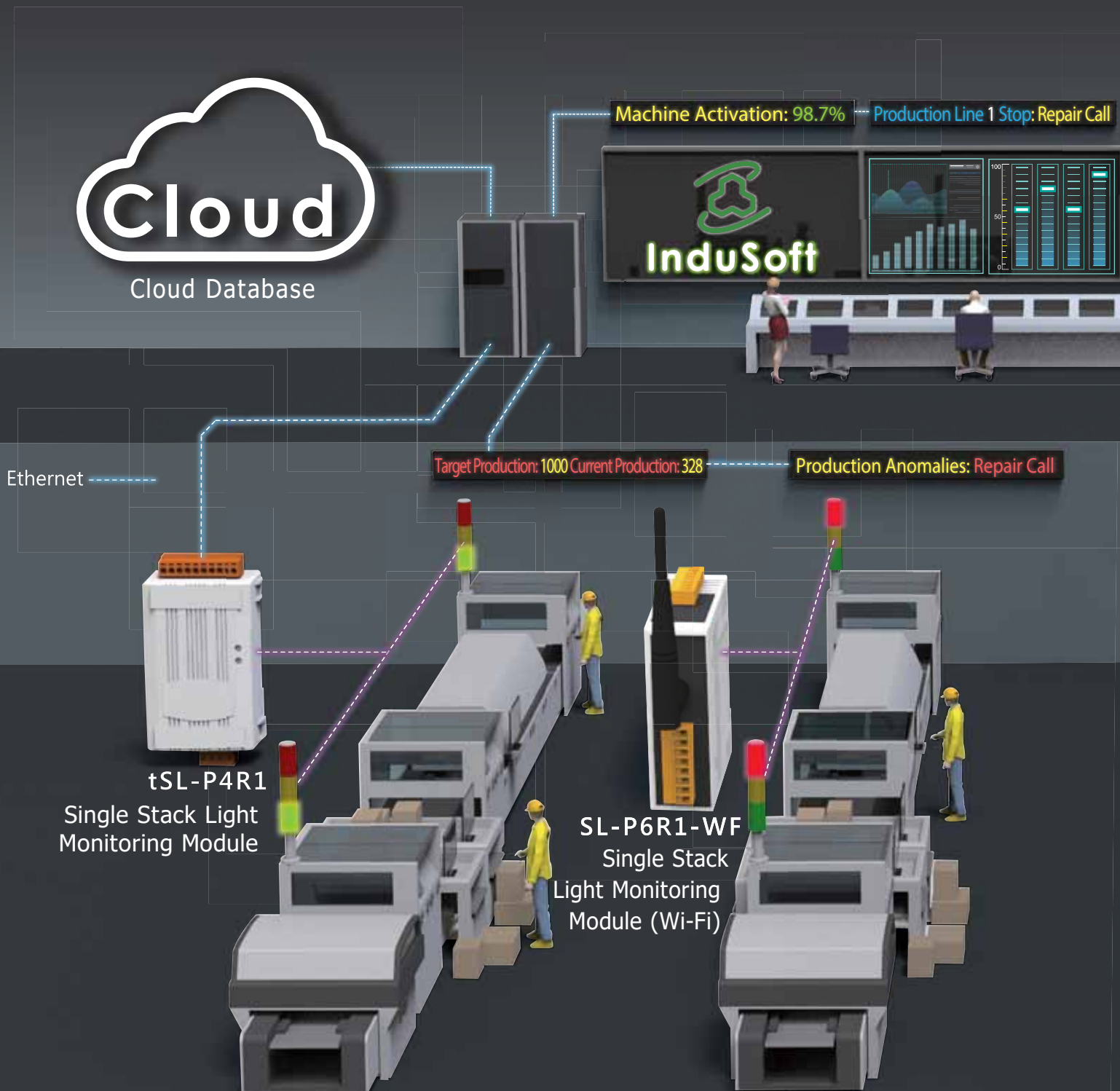
## Easy and Effective Management via the Built-in Web Interface



# Overall Equipment Effectiveness Application

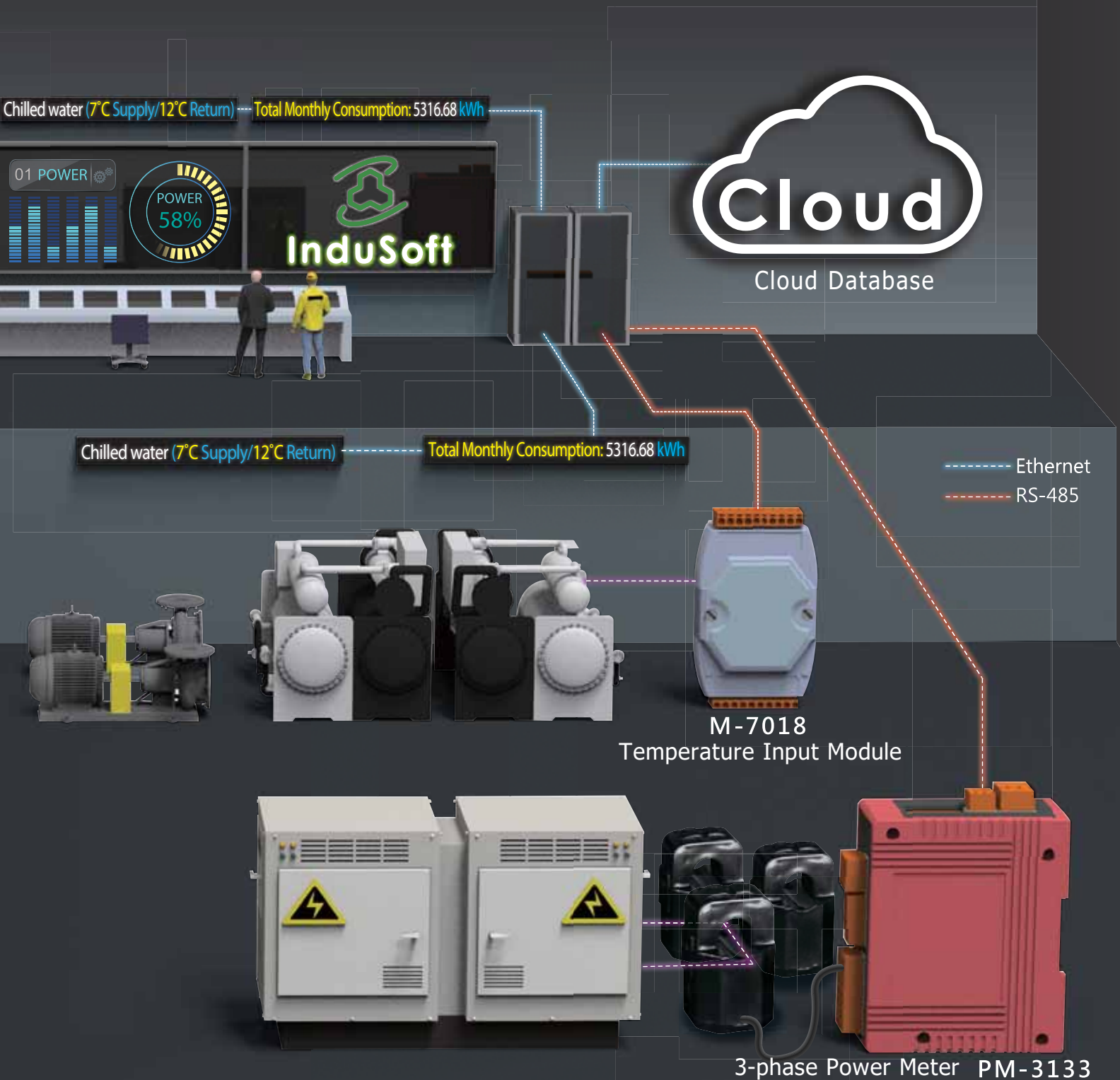
A SCADA system is commonly used in a factory control room to collect field data, such as the temperature, flow, pressure, and vibration. When an iKAN device is installed in the field, it can display information from the SCADA system to help the operators quickly obtain detailed information about the operating status of the device. This also raises the effectiveness of the real-time management performance for the devices, thereby extending the lifetime of the device.

Furthermore, if the system suffers a malfunction, the iKAN device can be used to display information about the failure together with any repair instructions, which can shorten the repair time and reduce any losses caused if the production line must be stopped



# Factory Energy Management Application

The iKAN device can display either real-time or historical data related to the chiller liquid flow, chilled water temperature, and power consumption, etc., which is then acquired and analyzed using SCADA software. This helps the engineers to identify the current performance and power consumption of the chiller, which can help in determining a suitable time for maintenance on the chiller. Any abnormal data can also be displayed on the iKAN device to inform the engineers of any problems, preventing any loss due to power overloading.



## Air Quality Monitoring

The iKAN device can obtain and display data from ICP DAS DL sensor modules, including details of the CO, CO2, and PM2.5 levels, the temperature, and the humidity, etc., without requiring any programming skills or knowledge, meaning that the operators will know how to handle any issues when environmental conditions are abnormal.

Indoor Air Quality: Good  
CO2: 586 ppm RH: 72.6%



DL-303

CO/CO2/Temperature/Humidity Data Logger



## Parking Management

The iKAN display supports CGI commands for License Plate Recognition (LPR) technology. The device can retrieve the data recognized by the camera and display a personalized welcome message. Furthermore, the iKAN can work in conjunction with the remote parking management system to display additional direction information to guide the driver to a vacant parking space, allowing the driver to quickly locate the space, thereby saving time.

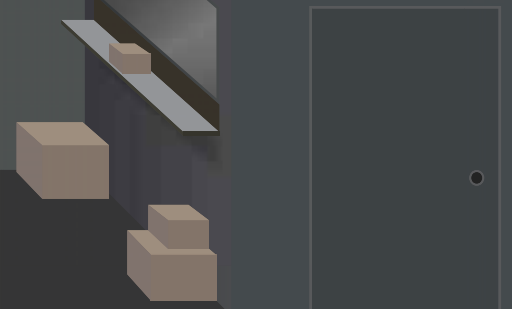


IP Camera with LPR ability

You can park in A123

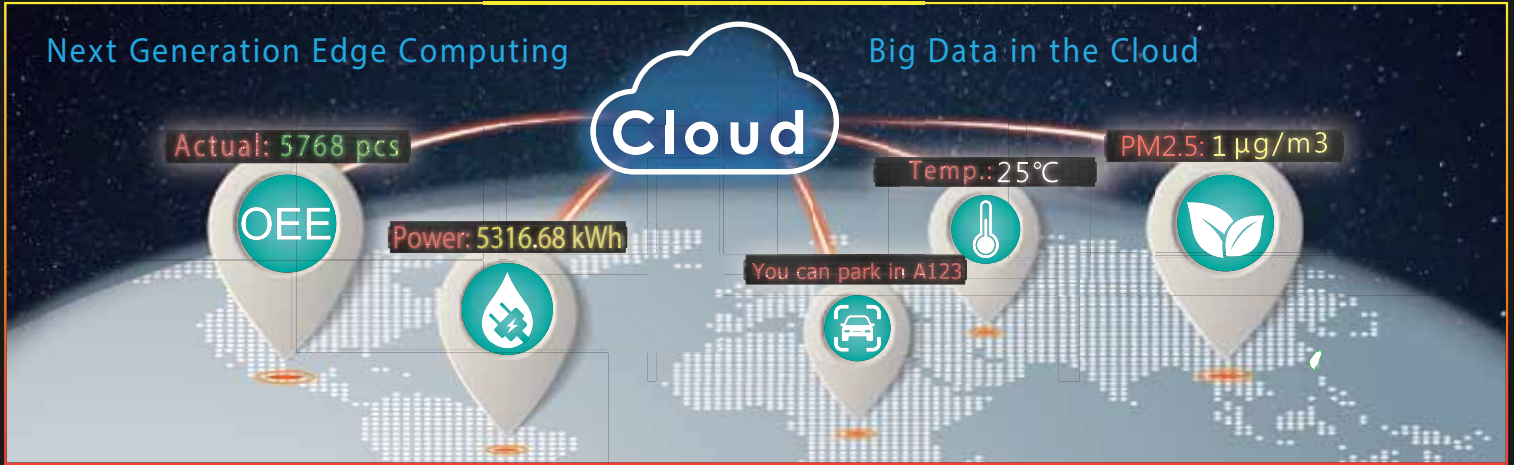


Security Room



Next Generation Edge Computing

Big Data in the Cloud



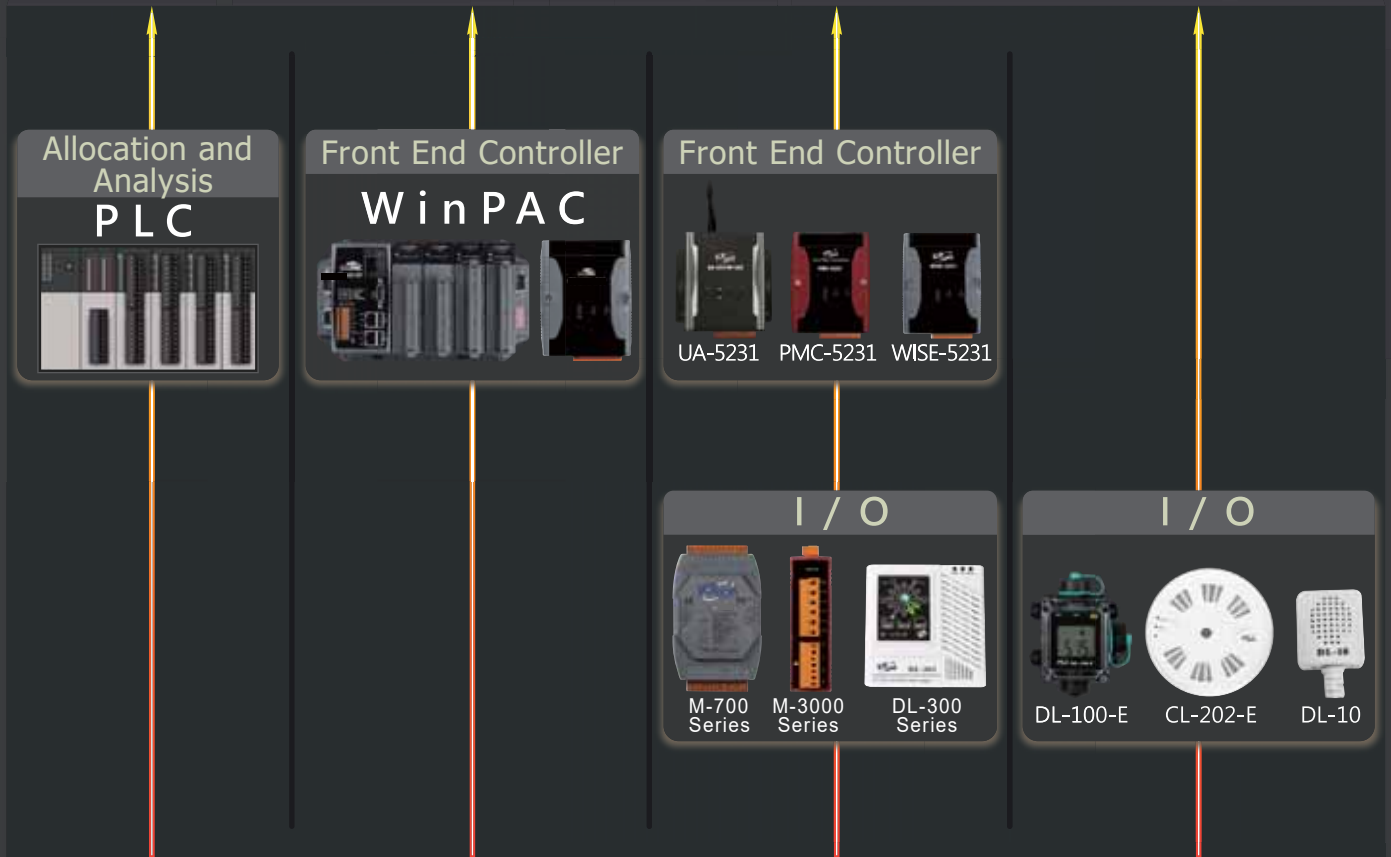
## System Structure

### iKAN Display Family

iKAN PROFIBUS  
PROFINET Series

iKAN CANopen Series

iKAN Modbus Series



Water Flow



Power



Temperature



CO2 Level



CO Level



Particulate Matter



License Plate Recognition

# iKAN-X XX S-XXX-IP65

## Selection Guide

**Rows:**  
 1: One Row  
 2: Two Rows

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

**LED Size:**  
 S: Small Size  
 Null: Normal Size

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

**IP Rating:**  
 Null: None  
 IP65: IP65

### Modbus LED Display

Model	Mechanical				Installation	Display	Communication Interfaces		
	Dimensions (mm) (W × H × D)	Weight	Housing Material	Installation			Ethernet		COM Ports
iKAN-116	1346 × 160 × 49	4 Kg	Aluminum	Wall mounting	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 × 320 × 50	4 Kg							
iKAN-216	1346 × 320 × 49	8 Kg							
iKAN-224	1986 × 320 × 49	12 Kg							

### PROFIBUS LED Display

Model	Mechanical				Installation	Display	Communication Interfaces		
	Dimensions (mm) (W × H × D)	Weight	Housing Material	Installation			Ethernet		COM Ports
iKAN-116-PFB/PFN	1346 × 160 × 49	4 Kg	Aluminum	Wall mounting	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 × 1; PROFIBUS × 1	Baud Rate: 9.6 k, 19.2 k, 45.45 k, 93.75 k, 187.5 k, 500 k, 1.5 M, 3 M, 6 M, 12 M;  Protocol: DP-V0
iKAN-116S-PFB/PFN	834 × 115 × 37.5	2 Kg							
iKAN-124-PFB/PFN	1986 × 160 × 49	4.6 Kg							
iKAN-124S-PFB/PFN	1218 × 115 × 37.5	2.5 Kg							
iKAN-208-PFB/PFN	707 × 320 × 50	4 Kg							
iKAN-216-PFB/PFN	1346 × 320 × 49	8 Kg							
iKAN-224-PFB/PFN	1986 × 320 × 49	12 Kg							

### CANopen LED Display

Model	Mechanical				Installation	Display	Communication Interfaces		
	Dimensions (mm) (W × H × D)	Weight	Housing Material	Installation			Ethernet		COM Ports
iKAN-116-CPS	1346 × 160 × 49	4 Kg	Aluminum	Wall mounting	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 × 1; CAN × 1	Baud Rate: 10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 Mbps;  Protocol: CANopen DS-301 ver4.02, DS-401 ver2.1
iKAN-116S-CPS	834 × 115 × 37.5	2 Kg							
iKAN-124-CPS	1986 × 160 × 49	4.6 Kg							
iKAN-124S-CPS	1218 × 115 × 37.5	2.5 Kg							
iKAN-208-CPS	707 × 320 × 50	4 Kg							
iKAN-216-CPS	1346 × 320 × 49	8 Kg							
iKAN-224-CPS	1986 × 320 × 49	12 Kg							



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