


Related Products

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9.1 Ethernet LED Display

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 · Ethernet Modbus LED Display

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泓格科技 ICP DAS

9.1. Ethernet LED Display



Features

- Support RS-485 and Ethernet technology
- Simultaneously support Modbus RTU and Modbus TCP protocol
- Double Color
- Dynamic entry and exit effects
- User authentication, authorization
- Real-time pre-recorded message
- Built-in watchdog timer for harsh environment
- One buzzer inside
- Programmable

Introduction

EKAN-MD104 Modbus LED Display

Bigger, brighter, better! ICP DAS uses the full power of your IP connection. No custom protocols to learn or program. The EKAN-MD104 LED display is based on RS-485 and Ethernet technology, supports the Modbus RTU/TCP Protocol, and can accept up to 26 Modbus TCP clients at the same time. So you can control your display anywhere you have a connection. This saves you time and money. Even if you don't currently use the Modbus TCP Protocol, we provide the EKAN-MD104 Utility, the EZ Data Logger and the NAPOPC DA Server for easy system integrator. The user friendly feel of these programs will ensure that they can be seamlessly implemented into your facility's communications system. Using the EKAN-MD104 Utility, you can create your "Message (Regular and Emergency)", and "Variable Value" with the ease of a text editor. Leverage the power of your data, and make it work for you. Using the Modbus TCP Protocol, a different message will appear when an event or condition occurs, and people will know immediately. Whether you are announcing company regulations, factory production flow control, restaurant order control or campus message displays, you can keep people "in the know" using the EKAN-MD104 Modbus LED display. Let ICP DAS show you how powerful, useful, and flexible our displays can be for your application.

Display Message Easily

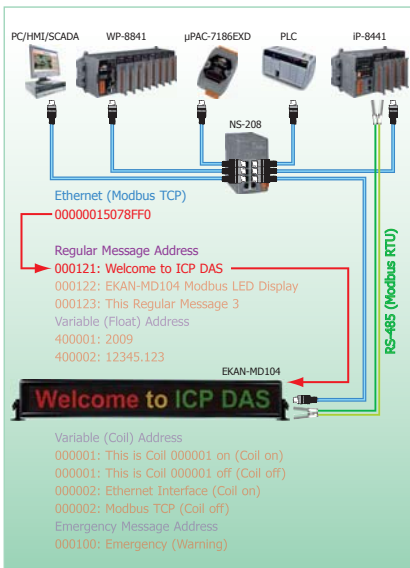
Prerecord a message and any variables including Boolean values, Integer values, and Float values in the EKAN-MD104 Modbus LED display. And the message will be display using the Modbus RTU/TCP Protocol.

The EKAN-MD104 Display supports the Modbus TCP Protocol

The Modbus TCP protocol is a variation of the Modbus protocol. It was developed in 1999 to allow the Internet community to access Ethernet devices. Most of SCADA (Supervisor Control And Data Acquisition) and HMI software supports Modbus. For example: Citect, ICONICS, iFIX, InduSoft, Intouch, Entivity Studio, Entivity Live, Entivity VLC, Trace Mode, Wizcon, and Wonderware etc.

What are the benefits of using Modbus RTU and Modbus TCP

1. Open source, no license fees.
2. Widely supported by SCADA and HMI software
3. Easy to use
4. Easily integrate variant devices
5. Low development cost
6. Wide knowledge case



Applications

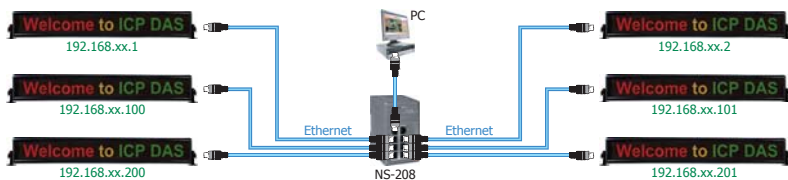
- Office Notification
- Factory production flow control
- ATM, Kiosk, Vending Machine Display
- Display for Data Acquisition Systems
- Game and Lottery machines
- Restaurant Notification
- Hotel Notification
- Fast food Notification
- Machinery & Equipment Display
- Transportation message Display
- Campus Message Display
- Company Regulation Announcements
- Manager messages to all employees
- Emergency Message Broadcast
- Productivity below target Announcement
- Quality result below standard Announcement
- Machine status and parts availability



EKAN-MD104 Display revolutionizes the Factory Automation Industry

As a manager, it is not easy to effectively communicate with our employees, especially when the factory environment is so noisy and the working area is so large. Our EKAN-MD104 display is an excellent choice for helping the manager to communicate with his/her employees in real time. The EKAN-MD104 displays provide an Ethernet interface to connect with your manufacturing systems. It displays "Must Know" production information. Relevant and important mission critical data can be disseminated not just to employees at remote workstations, but also to the entire production line team. ICP DAS also provides the EKAN-MD104 Utility, the EZ Data Logger, the NAPOCO DA Server for easy system integration. The user friendly feel of these programs will ensure that they can be seamlessly implemented into your facility's communications system.

Character Sets - ASCII, BIG5	
English	Welcome to ICP DAS
Italian	Bienvenuti a ICP DAS
French	Bienvenue a ICP DAS
Spanish	Bienvido a ICP DAS
Chinese	歡迎來到 ICP DAS



Software For PC

ICP DAS provides the EKAN-MD104 Utility, the EZ Data Logger, the NAPOCO DA Server to enable the user to control the EKAN-MD104.

EKAN-MD104 Utility

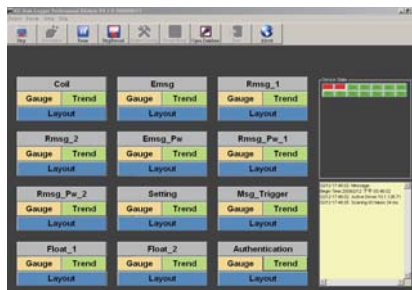
The EKAN-MD104 Utility is used to edit and upload messages to the EKAN-MD104 as a pre-recorded message, download pre-recorded messages from the EKAN-MD104, and test the EKAN-MD104 LED display. User could create the "Message (Regular/Emergency)" and "Variable(Float/Coil)" project file by EKAN-MD104 Utility. User can create many different Message project files so that message content can be changed quickly.



EZ Data Logger

The EZ Data Logger is a small data logger utility. With its user-friendly interface, users can quickly and easily build a data logger application without needing any programming skills. Click the link below for more details regarding the EZ Data Logger.

(http://www.icpdas.com/products/Software/ez_data_logger/ez_data_logger.htm)

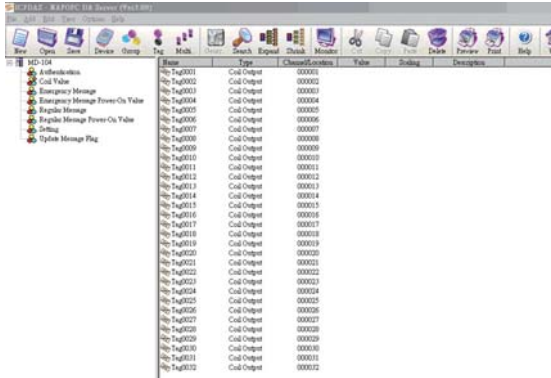


Specifications

Core	
CPU	80186, 80 MHz or compatible
SRAM	512 KB
Flash Memory	512 KB: Erase unit is one sector (64 Kb); 100,000 erase/write cycles
EEPROM	16 KB (8 blocks, each block has 256 bytes); Data retention > 40 years; 1,000,000 erase/write cycles.
Watchdog Timer	Yes
Communication Interface	
Ethernet	10/100 Base-TX, (Auto-negotiating, auto MDI/MDI-X, LED indicator)
COM0	RS-485 (D+, D-; self-tuner ASIC inside); non-isolated
COM 0 Settings	
Baud Rate	1200 – 115200 bps
Data Bit	8
Parity Check	Even, Odd, None
Stop Bit	1
Features	
Pixel Color	Basic Colors (Red, Yellow, Green, Mixed, Rainbow, Auto)
Display Effect	16 Different Display Effects
Character Sets	ASCII, BIG5
Character Array	ASCII (half-width characters): 16 x 2 – 16 x 10 matrix (Depends on the character)
	ASCII (wide-shaped character): 16 x 10 matrix
	BIG5: 16 x 10 matrix
Pixel Size (Diameter)	0.4 cm
Center-to-Center Pixel Spacing	0.4 cm
Authentication	Password-based
Buzzer	One internal buzzer
Message Capacity	20/40 (Regular/Emergency) Messages and 32/64/64 (Coll/Float/Integer) Variable
Protocol	Modbus TCP/Modbus RTU
Power	
Input Voltage Range	+9 V _{oc} – +19 V _{oc}
Power Consumption	16 W – 25 W
Mechanical	
Housing (L x H x D)	808 mm x 120 mm x 40 mm
Display Area (L x H)	760 mm x 85 mm
Display Weight	2460 g
Display Array	16 rows x 160 columns
Display Memory	10000 characters
Environment	
Operating Temperature	0 °C – +40 °C
Storage Temperature	-10 °C – +50 °C
Humidity	5 – 95% RH, non-condensing

NAPOPC DA Server

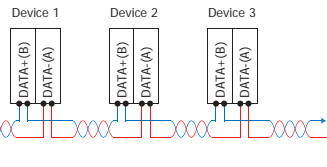
The NAPOPC DA Server uses an Explorer-style user interface to display a hierarchical tree of modules and groups with their associated tags. An individual group can be defined as a subdirectory containing one or more tags. Click the link below for more details regarding the NAPOPC DA Server. (<http://www.icpdas.com/products/Software/NAPOPC/napopc.htm>)



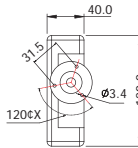
Wiring

2-wire
RS-485 Wiring

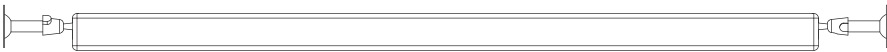
RS-485 Master
DATA+(B)
DATA-(A)
2-wire Only Device



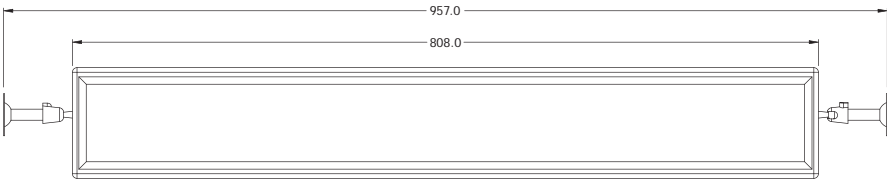
Dimensions (Unit: mm)



Right Side View



Top View



Front View

Ordering Information

EKAN-MD104-MT	Modbus LED Display Using Traditional Chinese Fonts
EKAN-MD104-MJ	Modbus LED Display Using Japanese Fonts
EKAN-MD104-MS	Modbus LED Display Using Simplified Chinese Fonts