WISE-4000LAN Series

IoT Ethernet I/O Module



Main Features

- IEEE 802.3u 10/100Base-T(X)
- Industrial grade operating temperature -40~70°C
- Supported Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, HTTP, MQTT
- Supports RESTful web API in JSON format
- Supports local logging with RTC timestamp
- Supports mobile device web configuration in HTML5
- Supports 10~30V_{DC} power with reverse protection

Introduction

The WISE-4000LAN series is a newly designed IoT Ethernet I/O module which supports new RESTful web API for IoT applications. A HTML5 web configure interface enables users to configure WISE modules without the limitation of a platform or operation system. The built-in data logger function logs data with time information, then be retrieved in a bundle. Wide operating temperatures enable the WISE series to be implemented in more IoT data acquisition applications. As well as the new functions, the new mechanical design can let users install the module and doing diagnostics in an easier manner than before.

Specifications

Current Input

Channel WISE-4010LAN: 4 (differential)

Resolution 12-bit

Sampling Rate
 Accuracy
 Input Range
 Input Impedance
 10/100 Hz/channel
 ±0.2% of FSR @ 25°C
 0~20 mA, 4~20 mA
 120 Ω

Burn-out Detection
 Yes (4~20 mA only)

Supports Data Scaling and Averaging

Digital Input

Channels WISE-4050LAN: 4
 WISE-4060LAN: 4
 Logic level: Dry Contact 0: Open

1: Close to DI COM

Wet Contact 0: 0 ~ 3 VDC

1: 10 ~ 30 V_{DC} (3 mA min.)

■ Isolation 3,000 V_{rms}

Supports 32-bit Counter Input Function (Maximum frequency 3kHz)

Keep/Discard Counter Value when Power-off

Supports Frequency Input Function (Maximum frequency 3 kHz)

Supports Inverted DI Status

Digital Output

Channels
 WISE-4010LAN: 4

WISE-4050LAN: 4

(Open collector to 30 V, 500 mA max. for

resistance load)

■ Isolation 3,000 V_{rms} (WISE-4050LAN only)

Supports 1 kHz Pulse Output

Supports High-to-Low and Low-to-High Delay Output

Relay Output

Channels
 WISE-4060LAN: 4 (Form A)

■ Contact Rating 250 V_{AC} @ 5 A (Resistive Load) 30 V_{DC} @ 3 A ■ Isolation (b/t coil & contact) 3,000 V_{rms}

Relay On Time 10 ms
Relay Off Time 5 ms

Insulation Resistance
 Maximum Switching
 1 GΩ min. @ 500 V_{DC}
 60 operations/minute

Supports Pulse Output

Supports High-to-Low and Low-to-High Delay Output

Environment

Operating Temperature
 Storage Temperature
 Operating Humidity
 Storage Humidity
 Operating Humid

General

■ LAN IEEE 802.3u 10/100Base-T(X)

Connectors
 Plug-in screw terminal block (I/O and power)

• Watchdog Timer System (1.6 second) and Communication (programmable)

• Certification CE, FCC, RoHS

Dimensions (W x H x D) 80 x 98 x 25 mm

Enclosure PC

Mounting
 DIN 35 rail, wall, and stack

Power Input $10 \sim 30 \text{ V}_{DC}$

 Power Consumption
 WISE-4010LAN: 1.2 W @ 24 V_{DC}

 WISE-4050LAN: 2.2 W @ 24 V_{DC}

 WISE-4060LAN: 2.5 W @ 24 V_{DC}

Power Reversal Protection

- Supports Data Log Function Up to 10000 samples with timestamp

Supports User Defined Modbus Address

Supported Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, HTTP, MQTT

Supports RESTful Web API in JSON format

Supports Web Server in HTML5 with JavaScript & CSS3

Supports System Configuration Backup and User Access Control

Ordering Information

WISE-4010LAN-B 4-ch Current Input and 4-ch Digital Output

IoT Ethernet I/O Module

WISE-4050LAN-B
 4-ch Digital Input and 4-ch Digital Output

IoT Ethernet I/O Module

• WISE-4060LAN-B 4-ch Digital Input and 4-ch Relay Output IoT Ethernet I/O Module

Selection Table

Model Name	Current Input	Digital Input	Digital Output	Relay Output
WISE-4010LAN	4		4	
WISE-4050LAN		4	4	
WISE-4060LAN		4		4