

ADVANTECH IoT Wireless I/O Module WISE-4060 User Manual

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WISE-4060

4-ch Digital Input and 4-ch Relay Output IoT Wireless I/O Module





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Introduction

The WISE-4060 is an Ethernet-based wireless IoT device, integrated with IoT data acquisition, processing, and publishing functions. As well as various I/O types, the WISE4060 provides data pre-scaling, data logic, and data logger functions. Data can be accessed via mobile devices and be securely published to the cloud anytime from anywhere.

Features

IEEE 802.11 b/g/n 2.4GHz Wi-Fi with AP Mode

The Wi-Fi interface is easily integrated with wired or wireless Ethernet devices, users only need to add a wireless router or AP to extend the existing Ethernet network to wireless. The limited AP mode enables the WISE-4000 to be accessed via other Wi-Fi devices directly as an AP.



HTML5 Web Configuration Interface

All the configuration interfaces are applied in web service, and the web pages are based on HTML5, so users can configure the WISE-4000 without the limitation of OS/devices. You can use your mobile phone or tablet to directly configure the WISE-4000.



Features

- 4-ch digital input and 4-ch relay output
- 2.4GHz Wi-Fi reducing the wiring cost during big data acquisition
- Easily extend the existing network by adding APs, and share existing Ethernet software
- · Configured by mobile devices directly without installing any software or Apps
- · Zero data loss using the log function with RTC time stamp
- Data can be automatically pushed to Dropbox or computer
- Supports RESTful web API in JSON format for IoT integration

RESTful Web Service with Security Socket

As well as supporting Modbus/TCP, the WISE-4060 series also supports IoT communication protocol, RESTful web service. data can be polled or even be pushed automatically from the WISE-4060 when the I/O status is changed. The I/O status can be retrieved over the web using JSON. The WISE-4060 also supports HTTPS which has security that can be used in a Wide Area Network (WAN).



Data Storage

The WISE-4000 can log up to 10,000 samples of data with a time stamp. The I/O data can be logged periodically, and also when the I/O status changes. Once the memory is full, users can choose to overwrite the old data to ring the log or just stop the log unction.



Cloud Storage

Data logger can push the data to file-based cloud services like Dropbox using pre-configured criteria. With RESTful API, the data can also be pushed to a private cloud server in the format of JSON. Users can set up their private cloud server using the provided RESTful API and their own platform.



Specifications

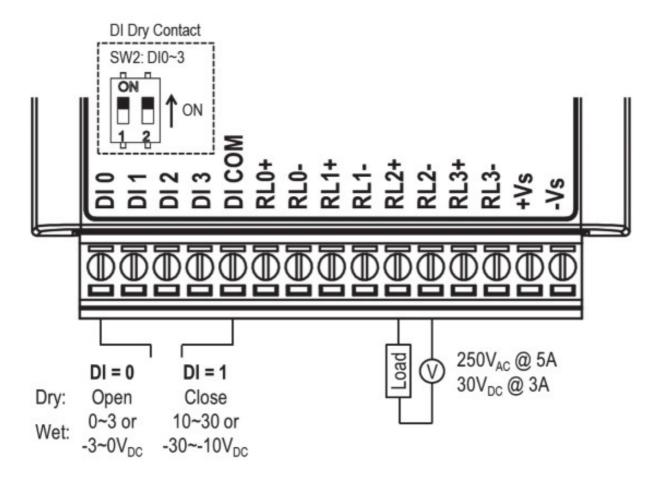
Digital Input		
Channels	4	
Logic Level	Dry Contact 0: Open 1: Close to DI COM Wet Contact 0: 0 ~ 3 VDC 1: 10 ~ 30 VDC (3 mA min.)	
Isolation	3,000 Vrms	
Supports 3 kHz Counter Input (32-bit + 1-bit overflow)	Supports 3 kHz Counter Input (32-bit + 1-bit overflow)	
Keep/Discard Counter Value when Power-off	Keep/Discard Counter Value when Power-off	
Supports 3 kHz Frequency Input	Supports 3 kHz Frequency Input	
Supports Inverted DI Status	Supports Inverted DI Status	

Relay Output		
Channels	Channels	
4 (Form A) (Resistive Load)	250 V _{AC} @ 5 A 30 V _{DC} @ 3 A	
Isolation (b/w coil & contacts) 3,000 VAC	3,000 V _{AC}	
Relay On Time	10 ms	
Relay Off Time	5 ms	
Insulation Resistance	1 GΩ min. @ 500 VDC	
Maximum Switching	60 operations/minute	
Supports Pulse Output		
Supports High-to-Low and Low-to-High Delay Output		

General			
WLAN	IEEE 802.11b/g/n 2.4GHz		
Outdoor Range	110 m with line of sight		
Connectors	Plug-in screw terminal block (I/O and power)		
Watchdog Timer	System (1.6 second) and Communication (programmable)		
Certification	CE, FCC, R&TTE, NCC, SRRC, RoHS, ANATEL		
Dimensions (W x H x D)	80 x 148 x 25 mm		
Enclosure	PC		
Mounting	DIN 35 rail, wall, and stack		
Power Input	10 ~ 30 VDC		
Power Consumption	2.5 W @ 24 VDC		
Power Reversal Protection			
Supports User Defined Modbus Address			
Supports Data Log Function	Up to 10000 samples with RTC time stamp		
Supported Protocols	Modbus/TCP, TCP/IP, UDP, DHCP, and HTTPMQTT		
Supports RESTful Web API in JSON format			
Supports Web Server in HTML5 with JavaScript & CSS3			
Supports System Configuration Backup and User A ccess Control			

Environment	
Operating Temperature	-25 ~ 70°C (-13~158°F)
Storage Temperature	-40 ~ 85°C (-40~185°F)
Operating Humidity	20 ~ 95% RH (non-condensing)
Storage Humidity	0 ~ 95% RH (non-condensing)

Pin Assignment



Ordering Information

WISE-4060-AE 4-ch Digital Input and 4-ch Relay Output IoT Wireless I/O Module

Selection Table

Model Name	Universal Input	Digital Input	Digital Output	Relay Output	RS-485
WISE-4012	4		2		
WISE-4050		4	4		
WISE-4051		8			1
WISE-4060		4		4	

Accessories	
PWR-242-AE	DIN-rail Power Supply (2.1A Output Current)
PWR-243-AE	Panel Mount Power Supply (3A Output Current)
PWR-244-AE	Panel Mount Power Supply (4.2A Output Current)



Online Download www.advantech.com/products

Documents / Resources



ADVANTECH IoT Wireless I/O Module WISE-4060 [pdf] User Manual ADVANTECH, 4-ch Digital Input, 4-ch Relay Output, IoT Wireless I O Module, WISE-4060

References

Advantech Co-Creating the Future of the IoT World

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