WISE-4220-S231

**Wi-Fi IoT WSN with Temperature and Humidity Sensors**

**Features**
- Built-in temperature and humidity sensors
- 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

**Introduction**
The WISE-4220 series is an Ethernet-based wireless IoT device, integrated with IoT data acquisition, processing, and publishing functions. As well as various I/O and sensor types, the WISE-4220 series provides data pre-scaling, data logic, and data logger functions. These data can be accessed via mobile devices and be published to the cloud with security at anytime and 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 existing Ethernet network to wireless. The limited AP mode enables the WISE-4220 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-4220 without the limitation of OS/devices. You can use your mobile phone or tablet to directly configure the WISE-4220.

**RESTful Web Service with Security Socket**
As well as supporting Modbus/TCP, the WISE-4220 series also supports IoT communication protocol, RESTful service. Data can be polled or even be pushed automatically from the WISE-4220 when the I/O status is changed. The I/O status can be retrieved by internet media types like JSON. The WISE-4220 also supports HTTPS which has security that can be used in a Wide Area Network (WAN).

**Data Storage**
The WISE-4220 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 log or just stop the log function.

**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 setup their private cloud server using the provided RESTful API and their own platform.
Specifications

Temperature Sensor
- Operating Range: -25°C ~ 70°C (-13°F ~ 158°F)
- Resolution: 0.1 °C/°F/K
- Accuracy: ±1.0°C (±1.8°F) (vertical installation)

Humidity Sensor
- Operating Range: 10 ~ 90% RH
- Resolution: 0.1% RH
- Accuracy: ±4% for 0%~50% RH
  ±6% for 50%~60% RH
  ±10% for 60%~90% RH

General
- WLAN: IEEE 802.11b/g/n 2.4GHz
- Outdoor Range: 150m with line of sight
- Connectors: Plug-in screw terminal block (power)
- Watchdog Timer: System (1.6 second) and Communication (programmable)
- Certification: CE, FCC, IC, RED, NCC, SRRC, RCM, VCCI, TELEC (CC3200 listed antenna)
- Dimensions (W x H x D): 70 x 102 x 38 mm
- Enclosure: PC
- Mounting: DIN 35 rail, wall, stack, and pole
- Power Input: 10 ~ 50 Vdc
- Power Consumption: 1.2 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 HTTP
- Supports RESTful Web API in JSON format
- Supports Web Server in HTML5 with JavaScript & CSS3
- Supports System Configuration Backup and User Access 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-4220-S231A IoT WSN with Temperature and Humidity Sensors

Selection Table

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<tr>
<th>Model Name</th>
<th>Analog Input</th>
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<td>Temp. &amp; Humidity</td>
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Accessories
- PWR-242-AE: DIN-rail Power Supply (2.1A Output Current)
- PWR-244-AE: Panel Mount Power Supply (4.2A Output Current)

Dimensions

![Dimensions Diagram]