Industrial IoT Remote I/O (WAN-IO)

Model: RP2-1204M

12 Channel Isolated Input and 4 Channel Dry Contact Output with MQTT and Modbus interface.

System Feature

- Wi-Fi/Ethernet Connected Industrial IoT Device
  - Once the system is powered up, it will auto create a persistence connection to the server without user intervention.
  - Server can be placed either at public cloud, private cloud or LAN.
  - Device able to work behind firewall.

- Network link with MQTT Broker Server
  - Open Standard protocol and readily available either using paid version or free version of MQTT Broker Server.
  - Messaging format based on JSON format.
  - JSON messaging format is supported by various programming languages and easily integrated to any existing system.

- Modbus Slave Interface Port
  - Can run simultaneously with MQTT Broker Server.
  - Supported baud rate 4800 baud to 115200 baud.

- Opto-Isolated Input Port
  - Total 12 Input Port Channel

- Separated into 3 Groups with each having their own input common.
- Bi-directional opto-isolated allows use either common positive or common negative input.
- Accept input DC 12V~24V

- Relay dry contact Output
  - Total 4 Relay output channel
  - With one output common
  - Each output with 5A Max Contact
  - Total Max Current for all output is 5A

- Build in NTC Temperature sensor port.
  - Temperature measure with +/- 1.5℃.

- Auto fetch real time clock from Internet Time Server.
  - Auto connect with the Internet Time Server to fetch the Real time value (EPOC Time) when network is connected, and internet link is available.
  - Manually set time by server if internet link is not available.
  - Auto readjust the time drift periodically.
  - Append the EPOC time to all the messages.

- Easy setup and configuration
  - System configures with Web Browser.
  - Provide detailed device properties, E.g., model number, version number, etc.
  - Connectivity selection either using Wi-Fi and/or Modbus Slave Link.
  - MQTT Broker Server IP/Domain Name Setup.
  - DHCP/Fix IP.
  - Internet Time Server Setting.

- Other
  - Water/Dust resistance enclosure
  - Support wide supply input voltage, 12V DC to 24V DC.
  - All terminal block connector is detachable for easy installation
  - External water/dust resistance link indicator and configuration push button.
  - External configuration push button can be disabled.

NTC Temperature Sensor

Specification

Power and Enclosure Specification

Input Voltage	DC 12V to 24V Terminal Block Connector
System Power Consumption	5W Max
Operation Humidity	10%-95%RH
Operation Temperature	25°C to 55°C
Storage Humidity	10%-95%RH
Storage Temperature	0°C to 85°C
Enclosure Dimension	68mm (W) x 99.5mm (L) x 50mm (H) (Exclude Wire Glands Outlet)
Enclosure Type	Water/Dust resistance Durable Industrial PPM Casing

Input Channel

Total Channel	12
Input Type	Bi-directional Opto-Isolated, User can define either common positive or common negative
Arrangement	4 Channel per Group, total 3 groups. Each group will have individual common input
Input Range	12V to 24V DC

Output Channel

Total Channel	4
Output Type	Relay dry contact
Arrangement	One common output for all 4-output channel
Current Rating	Each channel, 5A Max. Total channel, 5A Max.

NTC Channel

Total Channel	1
Input Type	NTC Temperature Sensor B3950/20K
Tolerance	+/-1℃

Wi-Fi Specification

Frequency	2.4Ghz~2.5Ghz
Supported Wi-Fi Protocol	802.11 b/g/n
Antenna Type	Internal
Security Protocol	WPA/WPA2 personal, WPA/WPA2 Enterprise
Encryption Protocol	WEP/TKIP/AES

Modbus Interface

Protocol	Modbus RTU Slave
Baud Rate	4800 Baud to 115200 Baud, 8-N-1
Slave Address	1 to 247

Backend Server Connectivity

Server Connection	MQTT Broker with TCP, TCP-TLS, Web-Socket, SSL Web-Socket Connection
Encryption/Security	Public CA
Messaging Format	JSON
Other	NTP auto RTC update

Device Outer Dimension