**H/W Specifications**

**Network Interface**
- Type: 1 x 10/100Mbps, RJ45 connector
- Protection: 1.5KV magnetic isolation

**RS-485 Interface**
- Isolation Protection: 2500Vms
- Direction Control: Auto, by hardware
- Connector: Terminal block
- Baud Rate: 1.2~460.8Kbps
- Parity: None, Even, Odd, Mark, Space
- Data Bits: 5, 6, 7, 8
- Stop Bits: 1, 1.5, 2
- Auto polarity and surge protect

**Mechanical**
- No. of Channels: 1
- Contact Rating: 30VDC@1A or 125VAC@0.5A
- Isolation: 1500VDC

**Relay Output**
- No. of Channels: 1
- Form A or Form B relay with contact rating 30VDC@1A or 125VAC@0.5A
- Isolation up to 2500Vrms
- 8 x 16-bit A/D
- Accuracy: +/-0.1% FSR
- Input Impedance: 20M Ohm (voltage), 120 Ohm (current)
- Current: 0~20mA
- Bipolar: +/-150mV, +/-500mV, +/-1V, +/-5V, +/-10V
- Unipolar: 0~150mV, 0~500mV, 0~1V, 0~5V, 0~10V
- Input Range:
- Resolution: 16-bit
- Input Mode: Voltage / Current
- Input Type: Differential input
- Operation Mode:
  - Modbus TCP / RTU slave
  - Web direct I/O control
  - MQTT auto data and event publish and log
  - Stand-alone alarm relay control and email alert
  - C / C++ programmable controller (RIO-2010PG)

**Programming**
- 8 x 16-bit A/D
- 8 x 16-bit D/A
- 1 x relay output
- Form A or Form B relay with contact rating 30VDC@1A or 125VAC@0.5A
- Temperature Sensor: Maxim DS18B20 (optional accessory)
- CPU: 32-bit, Cortex M3 series
- Connector: 3-pin header (VDD, DQ, GND)
- Contact Rating: 30VDC@1A or 125VAC@0.5A
- LED Indicators: Yes
- Stand-alone alarm relay control and email alert
- 16 isolated digital input and 1-wire temperature measurement

**Access Control Guidelines**

**Default Access Ports**
- Modbus / TCP Port: 502
- Telnet Console Port: 5001
- HTTP Port: 5003

**Access Through Modbus Protocols**
- Modbus TCP / RTU via RS-485 interface

**Access Through HTTP GET / POST Protocols**
- AJAX-enabled demo page for up-and-running web-based monitoring and controls

**Ordering Information**
- RIO-2010 Modbus / TCP Remote Digital I/O Module
- CBL-F10M9-20 (91-OP109M-001)
- Console Cable (10pin Header to DB9 Male, 20cm)
- DS18B20 (91-6DS18-001)
- Programmable Resolution 1-wire Digital Thermometer
- PWR-12V-1A (31-62100-000) 110~240VAC to 12VDC 1A Power Adapter

**Product Features**
- Web based remote I/O monitoring and control
- Web server and web interface ready
- Modbus, AJAX, MQTT
- Stand-alone alarm relay control and email alert
- Periodically data and event publishing to server (broker) via MQTT
- Form A or Form B relay with contact rating 30VDC@1A or 125VAC@0.5A
- 16 isolated digital input and 1-wire temperature measurement
- Remote analog input module with web access AJAX and Modbus / TCP
- 1 x 10/100Mbps Ethernet port
- 8 x 16-bit A/D
- Isolation up to 2500Vms
- 1 x relay output
- Form A or Form B relay with contact rating 30VDC@1A or 125VAC@0.5A
- Support web-based I/O control
- Optional DIN RAIL mounting kit (DK-35A)
- Windows configuration utility included

**Windows Utility Functionalities**
- Broadcast search
- Configuration
- User web page conversion

**Access Control Guidelines**

**Default Access Ports**
- Modbus / TCP Port: 502
- Telnet Console Port: 5001
- HTTP Port: 5003

**Access Through Modbus Protocols**
- Modbus TCP / via LAN interface
- Modbus / ASCII, Modbus / RTU via RS-485 interface

**Access Through HTTP GET / POST Protocols**
- AJAX-enabled demo page for up-and-running web-based monitoring and controls

**Ordering Information**
- RIO-2017 Analog Input Remote I/O Module
- ANI-2010 Analog Input Remote I/O Module
- DK-35A (36-DK35A-000)
- DIN RAIL Mounting Kit
- PWR-12V-1A (31-62100-000) 110~240VAC to 12VDC 1A Power Adapter
- Software Utility
  - Download from Artila web