RIO-2017 is an analog input remote I/O module supports Bluemix IoT and Web API. The analog input channel can be configured as current and voltage and it is auto calibrated and 2500Vrms isolated. In addition to the analog input, RIO-2017 also has one relay output. Therefore it is suitable for remote data acquisition and control. RIO-2017 supports web RESTful interface for web based application to access its analog and digital I/O.

**H/W Specifications**

**Ethernet**
- Type: 10/100Mbps, RJ45
- Protection: 1500V Magnetic isolation
- Protocol: Modbus / TCP, UDP, HTTP, DHCP

**Isolation Analog Input**
- Channel Number: 8
- Input Type: Differential input
- Input Mode: Voltage / Current (0~20mA)
- Resolution: 16-bit
- Input Range: Unipolar: 0~150mV, 0~500mV, 0~1V, 0~5V, 0~10V
  Bipolar: +/-150mV, +/-500mV, +/-1V, +/-5V, +/-10V
- Current: 0~20mA
- Input Impedance: 20M Ohm (voltage), 120 Ohm (current)
- Accuracy: +/- 1% FSR
- Isolation: 1500VDC

**Relay Output**
- No. of Channels: 1
- Contact Rating: 30VDC@1A or 125VAC@0.5A

**Mechanical**
- Power: 9 – 48VDC terminal block
- Protection: Auto polarity and surge protect
- Dimension: 108 x 78 x 25 mm (H x W x D)

**Features**
- Remote analog input module with Web API and MQTT
- One 10/100Mbps Ethernet port
- 8 channels 16-bit A/D
- Isolation up to 2500Vrms
- One channel relay output port
- Form A or form B relay with contact rating 30VDC@1A or 125VAC@0.5A
- DIN Rail mounting
- Windows configuration utility for bluemix settings

**Access Control Guidelines**

**Default Access Ports**
- Telnet Console Port: 5001
- HTTP Port: 5003

**Access Through HTTP GET / POST Protocols**
- REST Web API

**Operation Mode**
- MQTT auto data and event publish and log
- Stand-alone alarm relay control
- C / C++ programmable controller (RIO-2010PG)

**Ordering Information**
- RIO-2017BM
  Bluemix ready remote analog input module