PRODUCT OVERVIEW

The Temperature Module provides an inexpensive and accurate way to remotely monitor temperatures over an IP network.

It can be used for environmental temperature monitoring and simple control. Up to four digital temperature sensors can be connected, and it has two internal relays which can be used to control alarm signals, heaters, fans, etc.

Using a standard web browser, users can remotely view temperatures and control relays.

Additionally, computers, PLCs, and automation controllers can communicate with the Temperature Module using XML formatted text, or Modbus TCP/IP.

The unit can be configured to trigger relays or send email messages when a preset temperature is reached. It can even control relays in other ControlByWeb™ products located somewhere else on the network.

The Temperature Module is fully configured in minutes using a web browser. No additional software is needed.

Features:

- Connect up to four digital temperature sensors (one sensor included).
- Two relays for controlling alarms or other devices.
- No programming required.
- Built-in web server.
- Configurable control and status web page.
- Email alerts when temperature crosses preset threshold.
- Modbus TCP/IP support.
- XML formatted status and control.
- Password protected.
- Selectable TCP ports.
- 14-pin removable terminal connector included.
- Rugged DIN-Rail/wall mountable enclosure.
- Power supply options:
  - 9-28 VDC
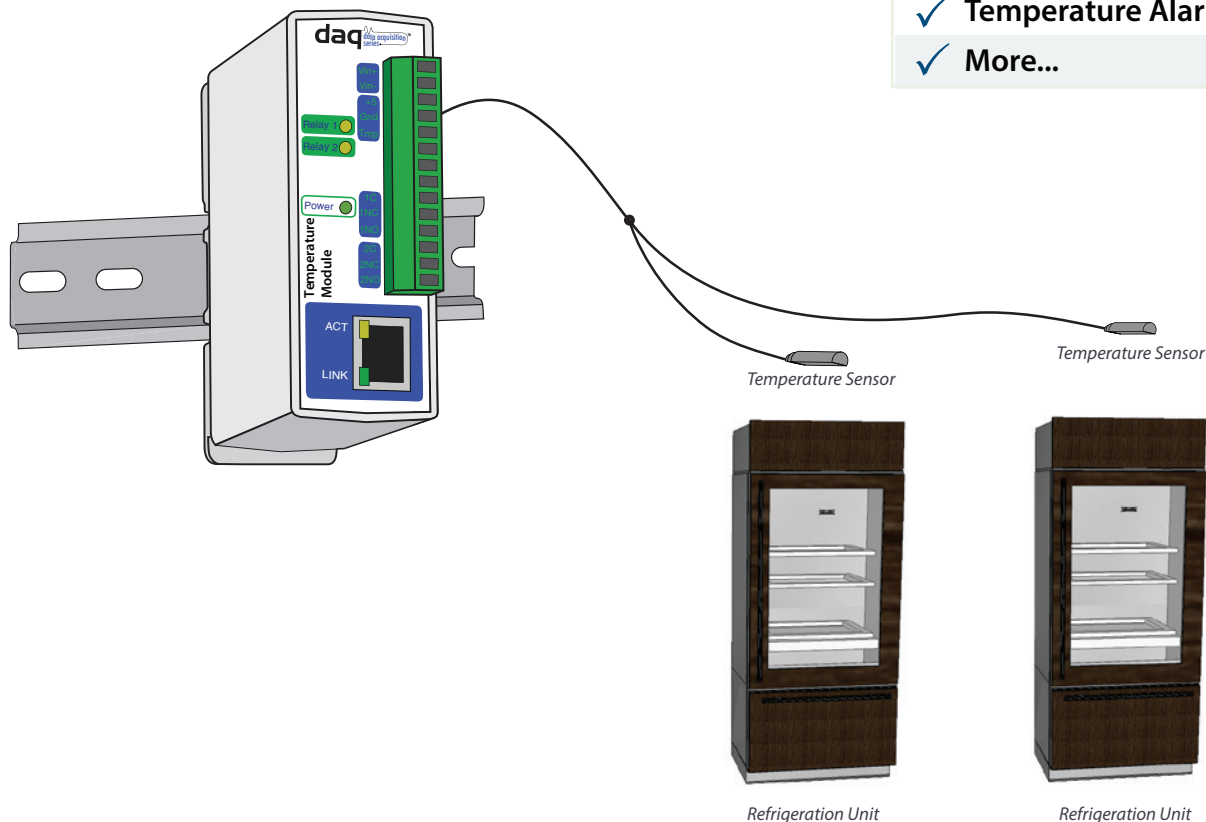 - Power-Over-Ethernet (802.3af) or 5VDC
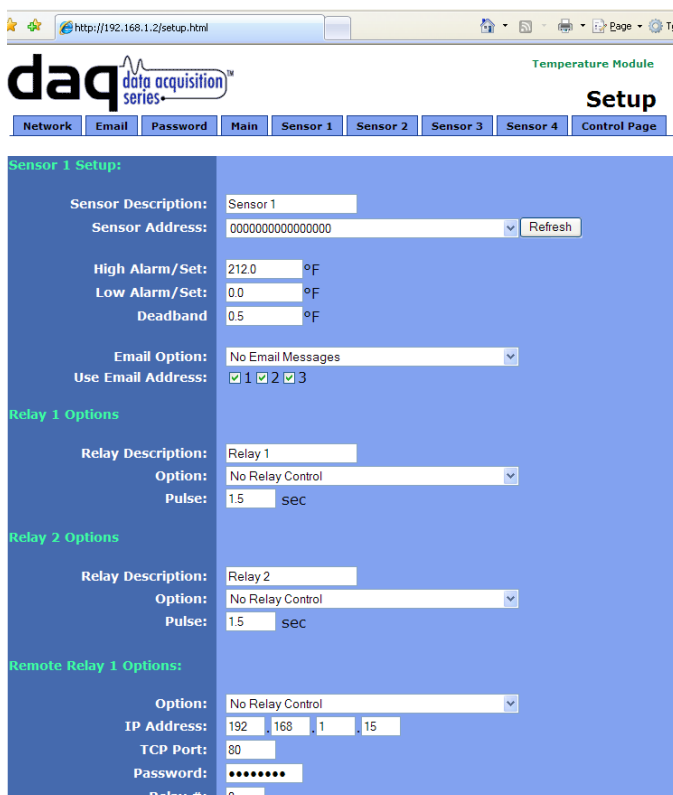
Sensor Options
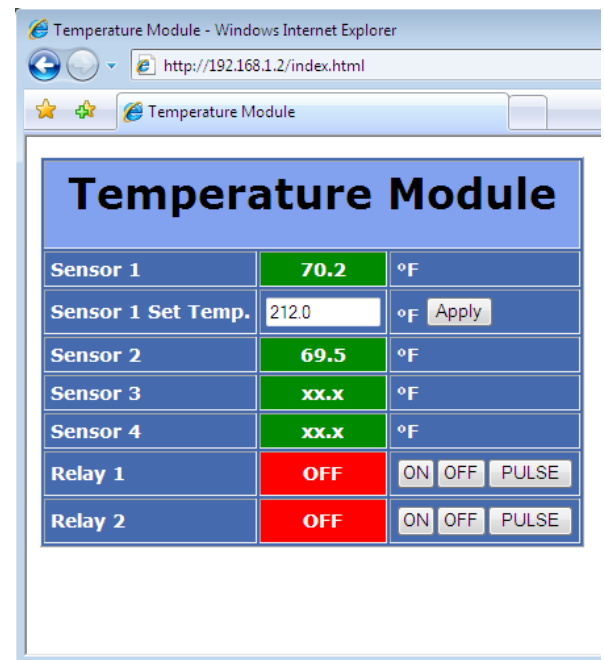
Control Page

APPLICATIONS & SPECS

Refrigeration System Monitoring

Temperature Sensor

Temperature Sensor

Refrigeration Unit

Refrigeration Unit

Models:

- X-DAQ-2R1-4T-I, X-DAQ-2R1-4T-E

Power Requirements

- Voltage:
  - X-DAQ-2R1-4T-I: 9-28VDC
  - X-DAQ-2R1-4T-E: POE Class 1 (0.44 to 3.84 Watt) or 5V±5%
- Max Current: 425mA Max

Relay Contacts

- Number of Relays: 2
- Max Voltage: 28VAC, 24VDC
- Max Current: 3A
- Contact Type: SPDT (Form 1C)
- Load Type: General Purpose
- Contact Resistance: < 50 milliohms initial
- Contact Material: AgSnO2
- Electrical Life: 100K cycles (Typical)
- Mechanical Life: 10M cycles (Typical)
- Environmental Rating: Over voltage Category II, Pollution Degree 2
- Relay Modes: ON/OFF or Pulse
- Pulse Timer Duration: 0.1 to 86,400 Seconds (1-day)

Temperature Sensors

- Maximum Number of Sensors: 4
- Type: Dallas Semiconductor DS18B20
- Temperature Range: -67°F to 257°F (-55°C to +125°C)
- Accuracy: ±0.5°C (from -10°C to +85°C)
- Sensor Functions: Monitor Temperature, Control Relays, Control Remote Relays

Network

- Type: 10/100 Base-T Ethernet Port
- Setup: Static IP address assignment. TCP port selectable

Connectors

- Power & Inputs: 14-Position 3.81mm Removable
- Network: 8-pin RJ-45

LED Indicators

- Number of LEDs: 5
  - Power on
  - Relay coil energized 1-2
  - Network linked
  - Network activity

Physical

- Operating Temperature: -40°F to 150°F (-40°C to 65.5°C)
- Size:
  - 1.41in (35.7mm) wide
  - 3.88in (98.5mm) tall
  - 3.1in (78mm) deep (not including connector)
- Weight: 5 oz (142 grams)
- Enclosure Material: Lexan 940 Polycarbonate Plastic
- Enclosure Flame Rating: UL94 V0

Protocols

- HTTP, XML, Modbus TCP/IP, SMTP

Password Settings

- Password protection on setup page: Yes
- Password protection on control page: Optional
- Password Encoding: Base 64
- Max Password Length: 10 Characters