

Reliable Controls MACH-System

# Reliable controls

...people and technology you can rely on™

BACNET® LISTED DEVICE

MOUNTS DIRECTLY TO EQUIPMENT OR IN ENCLOSURE

FULLY PROGRAMMABLE, AND NETWORKABLE DEVICE WITH 2 DIGITAL INPUTS

IDEAL FOR ROUTING LAN/WAN COMMUNICATIONS TO TWISTED PAIR MS/TP NETWORKS

EASY TO WIRE 45 DEGREE REMOVABLE CONNECTORS

DATA ACQUISITION AND DATA STORAGE ONBOARD

ROBUST POWDER-COATED STEEL PACKAGE

5 YEAR WARRANTY

## ETHER-Link™ PORTAL



The Reliable Controls® ETHER-Link™ portal provides 10baseT Ethernet communication within the Reliable Controls® MACH-System™, and ships with the Reliable Controls® *industry best* 5 year warranty.



The Reliable Controls® ETHER-Link™ portal is a powerful and economical BACnet® listed device that delivers highspeed 10 Mbps Ethernet connectivity to any Reliable Controls® MACH-System. The ETHER-Link™ portal provides a 10BaseT connection to an Ethernet backbone, a 2 wire EIA-485 connection to other controllers in the Reliable Controls® MACH-System, and an EIA-232 connection to service PC or Modem communications. The ETHER-Link™ portal ships standard with robust powder-coated steel packaging and removable connectors.

### TECHNICAL SPECIFICATION

#### Processor

- 40 MHz, high-performance
- 16-bit embedded microcontroller

#### Memory

- 512k NV RAM
- 512k Flash EEPROM operating system firmware and controller configurations

#### Supply Voltages

- 24 VAC/VDC, 5 VA

#### Communications

- IEEE 802.3 Ethernet 10BaseT
- EIA-485 @ 76.8 kbps max.
- EIA-232 @ 57.6 kbps max. PC or Modem

#### Inputs

- 2 digital 40 Hz pulse counting (supports flow meters)
- 24 VAC over voltage protection

#### Real-Time Clock

- ±1 second per day

#### Memory/RTC Backup

- 1 year by lithium battery (offline)

#### Dimensions

- 15.7 cm L x 10.8 cm W x 2.5 cm H
- (6.2" L x 4.3" W x 1.0" H)

#### Mounting

- #8 clearance holes on 14.6 cm L x 9.4 cm W (9.7" L x 3.2" W)

#### Weight

- 0.25 kg (0.6 lb.)

#### Ambient Limits

- Operating: 0 °C to 40 °C (32 °F to 104 °F)
- Shipping: -40 °C to 60 °C (-40 °F to 140 °F)
- Humidity: 10% to 90% RH non-condensing

### FEATURES

#### Protocol

- BACnet®
  - B/IP (Ethernet)
  - ISO 8802-3
  - MS/TP (EIA-485)
  - PTP (EIA-232)
- Reliable Controls®
  - Ethernet (IP)
  - Network (EIA-485/Token Bus)
  - PC & Modem (EIA-232)
- SNMP

#### 128 Control-BASIC™ Programs

- User programmable control strategy in a readable, BASIC-like language
- 2500 bytes per program

#### 2 Inputs

- Digital or pulse

#### 256 Variables

- Selectable standard and custom ranges, as well as fixed program-driven values

#### 64 PID Loops

- Standard P, PI, or PID controllers for closed loop control

#### 96 Trend Logs

- Each trend log stores 255 samples of 6 points at programmable time intervals

#### 128 Runtime Logs

- Totals the on time and records the on/off times of a digital point
- Holds 200 samples

#### 64 System Groups

- Allows related points to be grouped on to one display
- 160 points/group

#### 32 Weekly Schedules

- 4 on/off times for each weekday and 2 override days

#### 8 Annual Schedules

- Days of the year designated as holidays

#### 48 Variable Arrays

- Up to 128 elements in a one-dimensional array

#### 128 User Passwords

- Protects access to system
- Each user is assigned a user name and an access level

#### 5 Custom Tables

- For creating custom scaling functions

#### 16 Custom Units

- 8 analog engineering units
- 8 digital engineering units

#### 127 Network In Points

#### 127 Network Out Points

#### Real Time Clock

#### Warranty

- 5 years

#### Certification

- BTL Listed (B-BC)
- ISO 16484-5

### ORDERING

#### EL

- ETHER-Link™ portal

### APPLICATION DIAGRAM

