

Project

Part Number

Ref.

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Overview

The Universal Retrofit Kit (RKU) replaces existing relay panel electronics with a BACnet native controller and universal relay driver module(s) to control multiple manufacturers' relays. RKU supports advanced applications such as dimming and Daylight Harvesting. RKU is designed to leverage the existing electrical infrastructure by retaining the existing relays, line voltage wire, conduit, and enclosure to reduce replacement costs.

Features

- Advanced Application Support
- Multi manufacturer compatibility
- Remote Relay Capability
- BACnet MS/TP communication to BAS network
- Expandable via CANbus (16 modules total per controller)
- Inputs
 - 24 Universal Inputs
 - 16 Load Status Inputs per module
- Outputs
 - Relay Drivers available in 16 per module

RP-CB Specifications

Construction: PCB mounted to 14ga aluminum plate
 Dimensions: 11.00" (279mm) H x 4.50" (113mm) W x 1.50" (38mm) D
 Weight: 2lbs (1kg)
 Mounting: Panel back plate with self-tapping screws (not included)
 Operating Environment: 32-125°F (0-50°C), 20-95%RH, non-condensing

MIO-RD16 Specifications

Class II Device
 Dimensions: 3.5" x 5.5"
 Weight: 8.9 oz (253g)
 Mounting: DIN Rail

MIO-TB Specifications

Class II Device
 Dimensions: 3.5" x 1.5"
 Weight: 2.7 oz (78g)
 Mounting: DIN Rail

Power:

- Input
- RP-CB: 24V AC/DC, 14.4VA/600mA Max
 - MIO-RD16: 24V AC/DC, 11.1VA/465mA Max each module
 - MIO-TB: 24VAC, 24.0VA
- Output
- RP-CB: 24VDC, 200mA Max
 - MIO-RD16: 24V AC/DC, 11.1VA/465mA Max each module
 - MIO-TB: 24VDC, 1000mA Max

Certifications

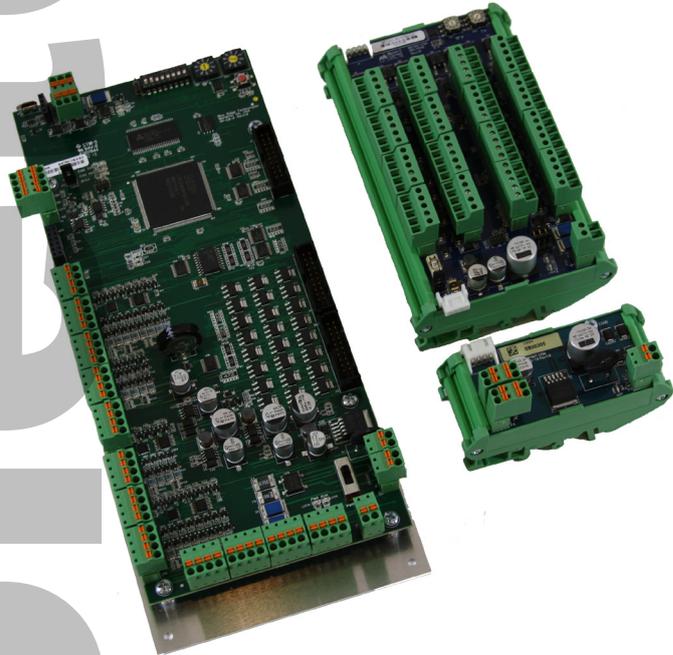
UL Recognized, UL916, US/Canada

Warranty

Two (2) year limited manufacturer warranty from date of shipment (extended warranty optional).

Firmware Specifications (Controller Board)

Platform: Aperio Open Control Platform
 Time Clock: Real-time clock with BACnet time sync
 Schedule: BACnet Schedule, Monday – Sunday, Holidays, and Exceptions
 Non-Volatile Memory: 16MB total, 2MB for trend data (15min trend requires 2K per day)
 RAM: 2MB total, data stored in non-volatile memory upon power loss
 Configuration: Tech Kit 2.0 (see data sheet for details)
 Configuration Connection: Micro-B USB or Bluetooth Wireless



BAS Network Specifications

Protocol: BACnet MS/TP
 Baud Rate: DIP switch selectable 9.6K, 19.2K, 38.4K, 76.8K, or 115.2K
 Device Profile: BACnet Advance Application Controller (AAC)
 Address Range: 1 – 99 selectable with rotary dials
 Unit Load: 1/8 unit load
 Topology: RS-485, half duplex, Daisy Chain Wiring
 Wire Requirement / Maximum Length: CL3P, 22AWG, Twisted Pair, shielded, low cap / 4000' (1216m)
 Points: See PIC Statement

CANbus Specifications

Network Slot / Address: Rotary dial selectable
 Topology: Daisy Chain Wiring only
 Wire Requirement: CL3P, 18AWG Two Twisted Pairs
 Max 1300' (396m), 120Ω characteristic impedance, capacitance conductor-to-conductor 15pF/ft
 Network Termination: Jumper

Compatibility

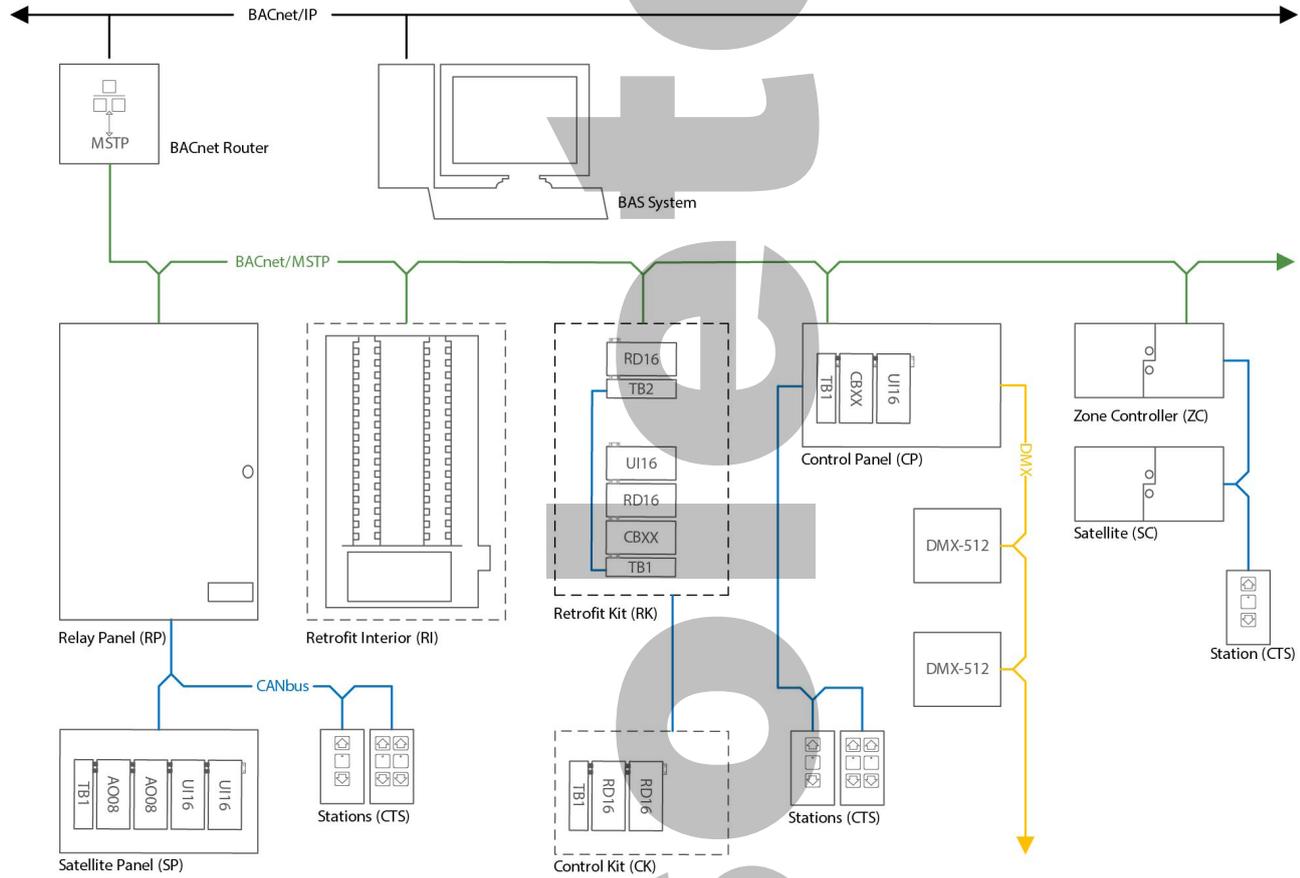
Douglas: WR-6221, 6161, 6162, 6172, 6321
 General Electric: RR7, RR8, RR9
 Horton Controls Panels: RR7, RR9
 ILC: 2R7, 2R9, 2PC
 Lithonia: RR7, RR9
 Triatek: L2600, L3500, RR9
 Watt Stopper: RR7, RR9, HDR5P
 Other: Call for Details

Universal Retrofit Kit

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System Architecture



Ordering Information

RKUX-XXXX

