

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

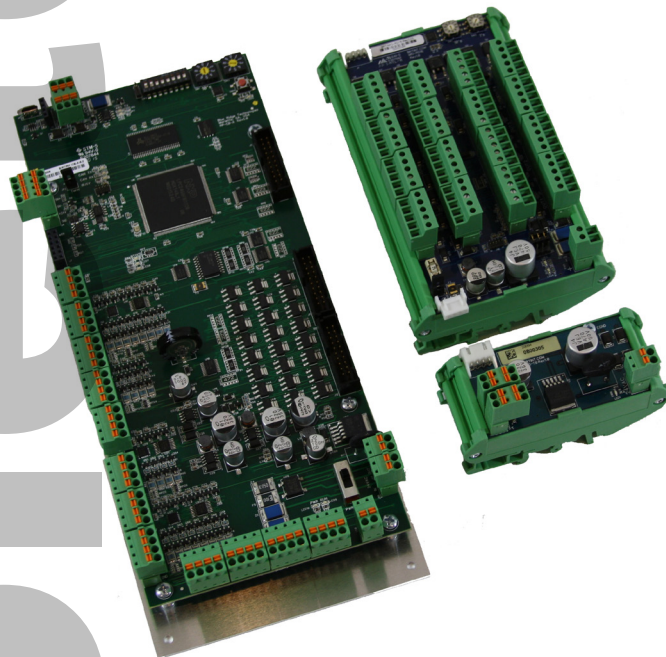
UL Recognized, UL916, US/Canada

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

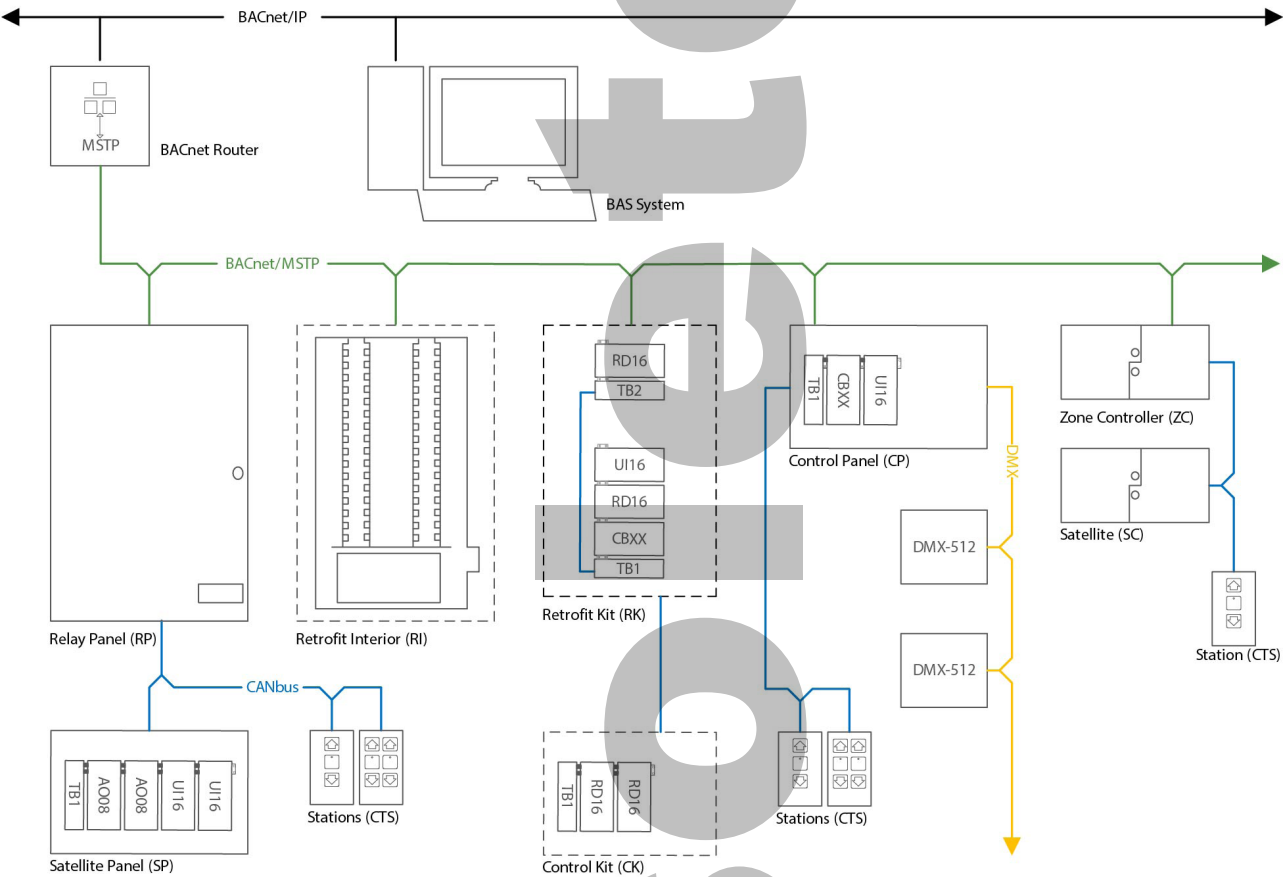
Douglas: WR-6221, 6161, 6162, 6172, 6321
General Electric: RR7, RR8, RR9
Horton Controls Panels: RR7, RR9
ILC: 2R7, 2R9, 2PC
Lithonia: RR7, RR9
Triatek: L2600, L3500, RR9
Watt Stopper: RR7, RR9, HDR5P
Other: Call for Details

Universal Retrofit Kit

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Data Sheet : Catalog Page 37

System Architecture



Ordering Information

RKUX-XXXX

