Retrofit Kit 4

Project | Part Number | Ref.

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Overview

Retrofit Kit (RK) replaces existing relay panel electronics. RK installation retains the original relays, line voltage wire, conduit, and enclosure reducing labor as well as material cost. Retrofit Kit 4 (RK4) is designed to convert existing relay panels which utilize 4-Wire relays. The kit includes a Controller, two 30-Relay Interface Boards (RIB), as well as two ribbon and two power cables. Each board is mounted on a single aluminum plate for installation.

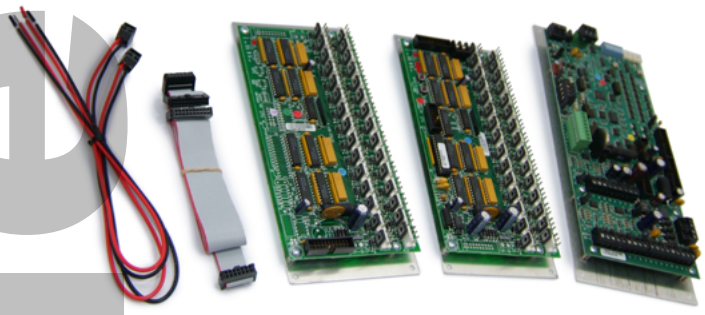
Features

Compatible with :

- MicroLite Panels (MLR-020)
- Johnson Controls ILC Panels (JCI-ILC)
- Touch-Plate Panels (3000-PL and 4000-PL)

Retains relays, line voltage wire, conduit, and enclosure
Control up to 60 relays
BACnet MS/TP and N2 communication to BAS network
Sub network for Capacitive Touch Stations (CTS-DDN)
Install in less than 4 hours
Available options:

- LEXP Digital Input Expansion Card
- PT4 4-Wire Relay Interface Pigtail



General Specifications

Construction: PCB's mounted to 14ga aluminum plates
Dimensions:
Controller: 11.00"(279mm)H x 4.50"(113mm)W x1.56"(40mm)D
RIB: 9.00"(229mm)H x 3.75"(94mm)W x 1.25"(32mm)D
14pin Ribbon Cable: 18"(457mm)L
20pin Ribbon Cable: 32"(812mm)L
Power Cable: 18"(457mm)L
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

Certifications

Electronics meet or exceed IEC Level 3
CEC Title 24

Warranty

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

Controller Specifications

Power In: 24VAC +/-10%, 30VA, 50-60 Hz
Auxiliary Out: 24VAC Full Wave Rectified
Digital Input: 24 two-wire inputs
Software Configuration: Maintained, state change, momentary on/off, momentary on, or momentary off
Jumper Configuration: 8 input segments, dry contact (N) or 24VDC externally powered (R)
Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / Dry Contact 500'(152m) or externally powered 1,000'(304m)
Analog Input: 6 three-wire 0-5VDC inputs
Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 250'(76m)

BAS Network Specifications

BACnet MS/TP
Baud Rate: DIP switch selectable 9.6K, 19.2K, 38.4K, or 76.8K
Device Profile: BACnet Advance Application Controller (AAC)
Address Range: 1 – 99 selectable with rotary dials
Unit Load: Full unit load, 32 devices per MS/TP segment
N2
Baud Rate: DIP switch selectable 9.6K
Address Range: 1 – 255 selectable with rotary dials and DIP switch
BACnet MS/TP and N2
Topology: RS-485, 3 conductor (+, -, and shield), daisy chain wiring (no stars or t-taps)
Wire Requirement / Maximum Length: Belden 8760 / 4000'(1216m)
Points: See Application Guide and PIC Statement

DDN Network Specifications

Compatible with CTS-DDN and DDN devices. See data sheet for details.

RIB Specifications

RIB-A: 30 relay outputs, drives relays 1-30
RIB-B: 30 relay outputs, drives relays 31-60
Relay Output Rating: 24VDC
Relay Output Compatibility: 1 3000-PL or equal per, no external power / switches
Relay Output Connection: 3 pin header, keyed for PT4 4-Wire Relay Interface Pigtail connection
Wire Requirement / Maximum Length: 18AWG / 50'(15m)

Optional Equipment Specifications

LEXP Specifications
Description: Digital Input Expansion Card
Digital Input: 32 two-wire inputs
Software Configuration: Maintained, state change, momentary on/off, momentary on, or momentary off
Jumper Configuration: 8 input segments, dry contact (N) or 24VDC externally powered (R)
Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / Dry Contact 500'(152m) or externally powered 1,000'(304m)
Dimensions: 6.00"(152mm)H x 4.50"(113mm)W x1.13"(29mm)D
PT4 4-Wire Relay Interface Pigtail:
Description:18"(457mm)L,18AWG, 3-wire
Pin/Color Code: 1/Yellow, 2/Red, 3/Brown
RIB Connection: Keyed 3pin plug-on connector
Relay Connection: 4 Insulation Displacement Connectors (IDC), 22-16AWG, UL Listed

Discontinued

Retrofit Kit 4

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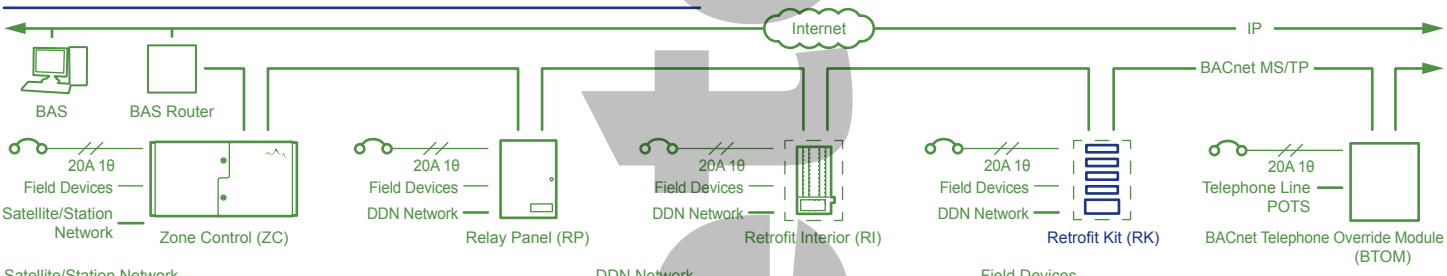
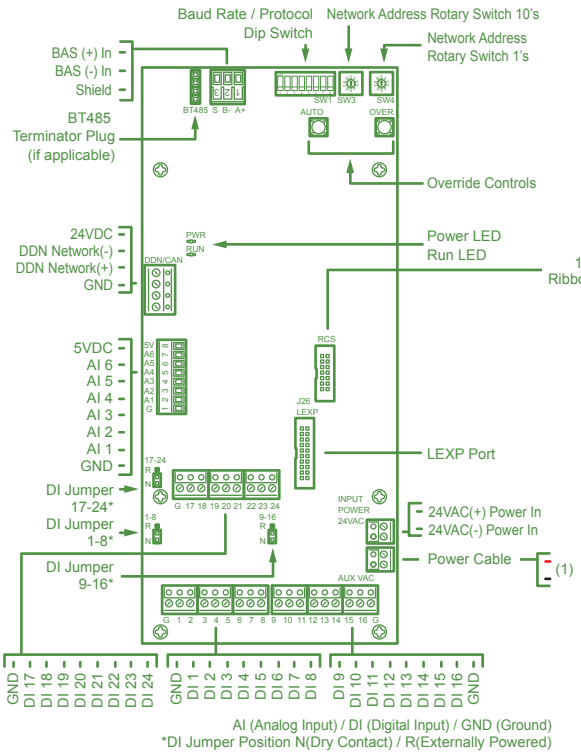
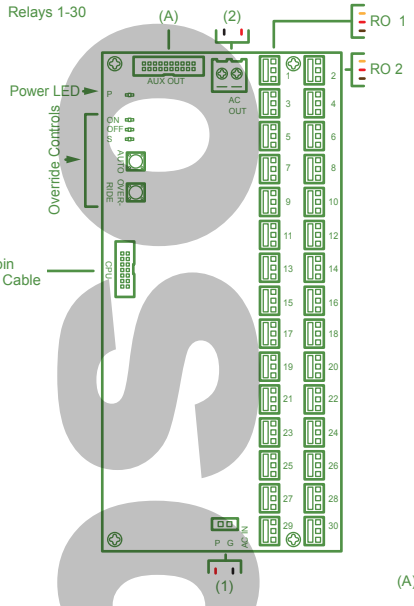
General Architecture



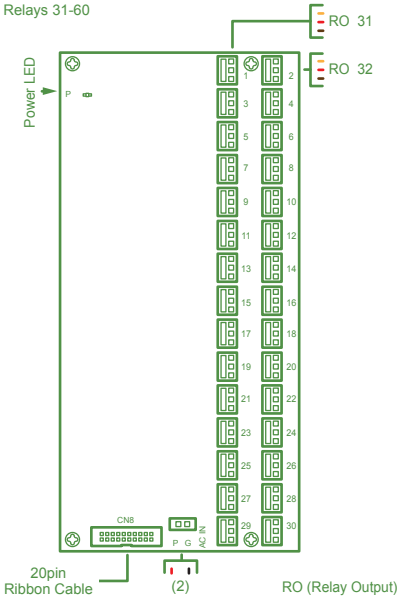
Controller Terminations



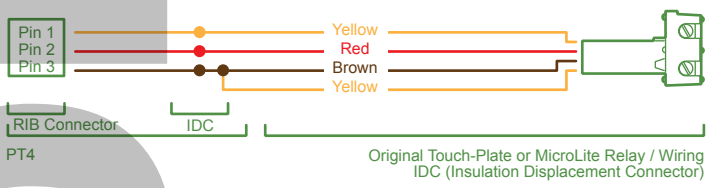
RIB-A Terminations



RIB-B Terminations



PT4 Terminations



Ordering Information

Part Number	Description
BRRK4	Kit for 4-wire relays, 3000-PL or equal, 60 RO, 24 DI, 6 AI
BRRK4-L	Kit for 4-wire relays, 3000-PL or equal, 60 RO, 56 DI, 6 AI, LEXP (Card, Mounting Plate, and Ribbon Cable)
BRPT4	4-Wire Relays, 18 Inches, Includes Insulation Displacement Connectors

RO (Relay Output) / DI (Digital Input) / AI (Analog Input)