

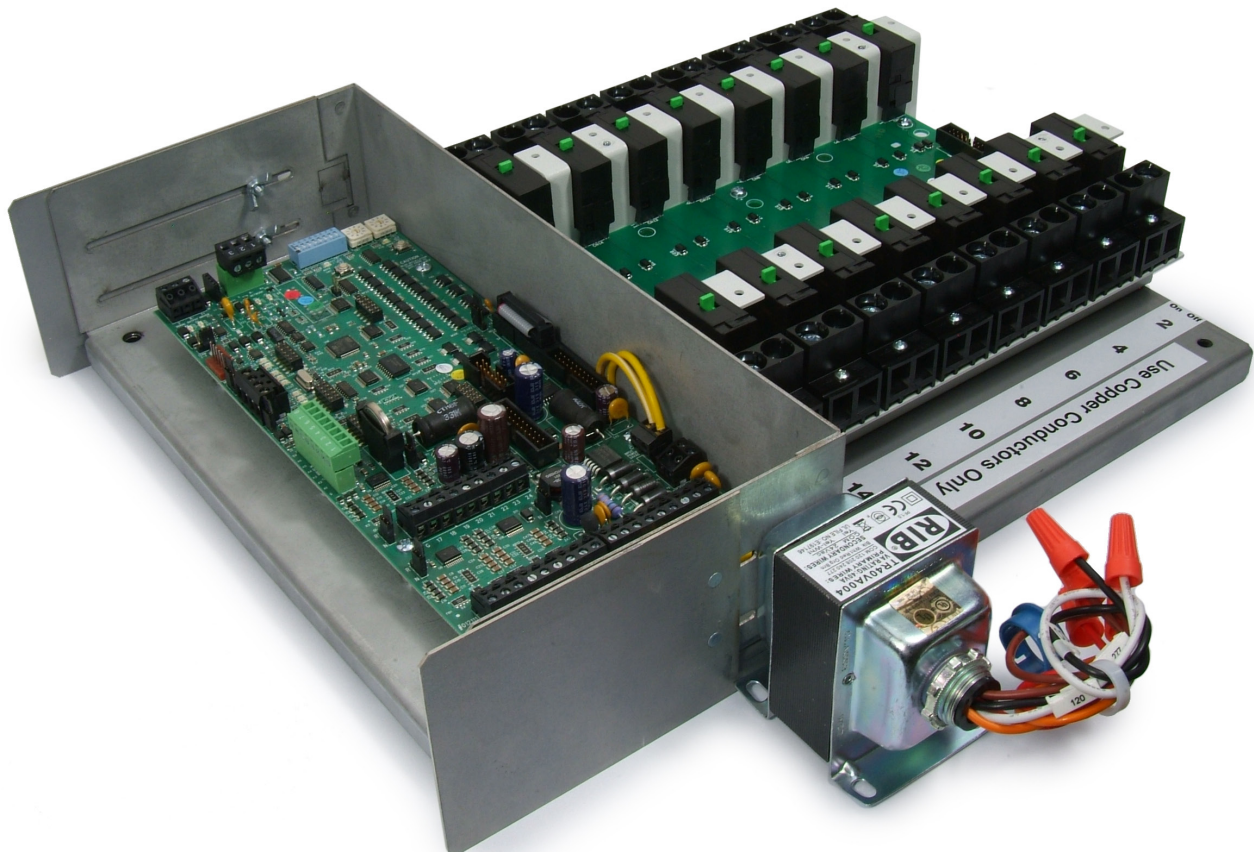
Overview

Many stand-alone and proprietary lighting control panels become inoperable with age, and the promised energy savings are no longer reality. When cost and downtime involved with the looming replacement of the stand-alone system is not an option, Blue Ridge offers two economical alternatives to replacing the entire relay panel; Retrofit Kits (RK) and Retrofit Interiors (RI). RK is a brain transplant to control existing relays. RI is a complete platform including brain transplant and relays.

RI Benefits

- Reduce labor up to 60%, install in less than 4 hours
- Keep line voltage wire, conduit, and enclosures
- Schedule, monitor, alarm, and trend from your Building Automation System (BAS)
- Reduces annual operation by 2,000 hours on average

The UL Listed RI incorporates all the features available on BR Series Relay Panels (RP) including an Lx5 Controller and Lighting Tough Relays (LTR) on a single monolithic Back Plate. RI low voltage compartment may be factory installed at the interior's top or bottom while options including LEXP Input Expansion Cards further increase versatility. RI's are available in 16, 32, and 48 platform sizes to suit a variety of applications.



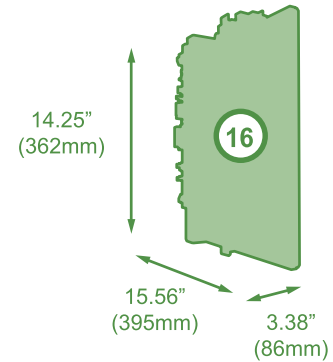
RI Platform Specifications

16 Relay Platforms

Relay Capacity : Control up to 16 relays, available with 8 or 16 factory installed relays

Input Capacity : 24 two wire or 12 three wire switch inputs (expandable up to 56 two wire and 28 three wire inputs)

Dimensions with Factory Mounted Transformer :
14.25"(362mm)H x 15.56"(395mm)W X 3.38"(86mm)D

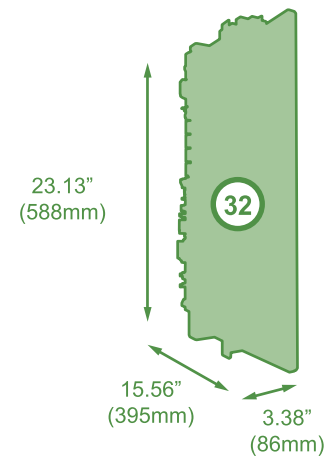


32 Relay Platforms

Relay Capacity : Control up to 32 relays, available with 16, 24, or 32 factory installed relays

Input Capacity : 24 two wire or 12 three wire switch inputs (expandable up to 56 two wire and 28 three wire inputs)

Dimensions with Factory Mounted Transformer :
23.13"(588mm)H x 15.56"(395mm)W X 3.38"(86mm)D

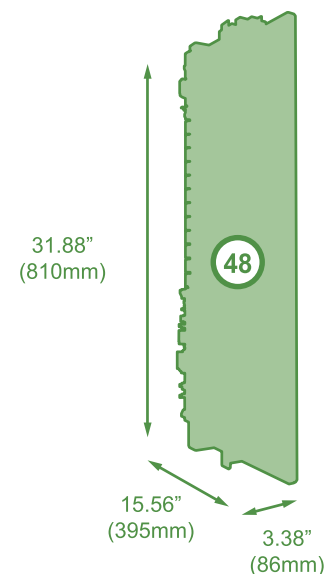


48 Relay Platforms

Relay Capacity : Control up to 48 relays, available with 24, 32, 40, or 48 factory installed relays

Input Capacity : 24 two wire or 12 three wire switch inputs (expandable up to 56 two wire and 28 three wire inputs)

Dimensions with Factory Mounted Transformer :
31.88"(810mm)H x 15.56"(395mm)W X 3.38"(86mm)D



All Platforms

Remote Mounted Transformer (User Installed):
Remove approximately 3.50"(89mm) from overall RI width

LEXP Input Expansion Card (Optional) :
Add approximately 0.50"(13mm) to overall RI depth

General Specifications

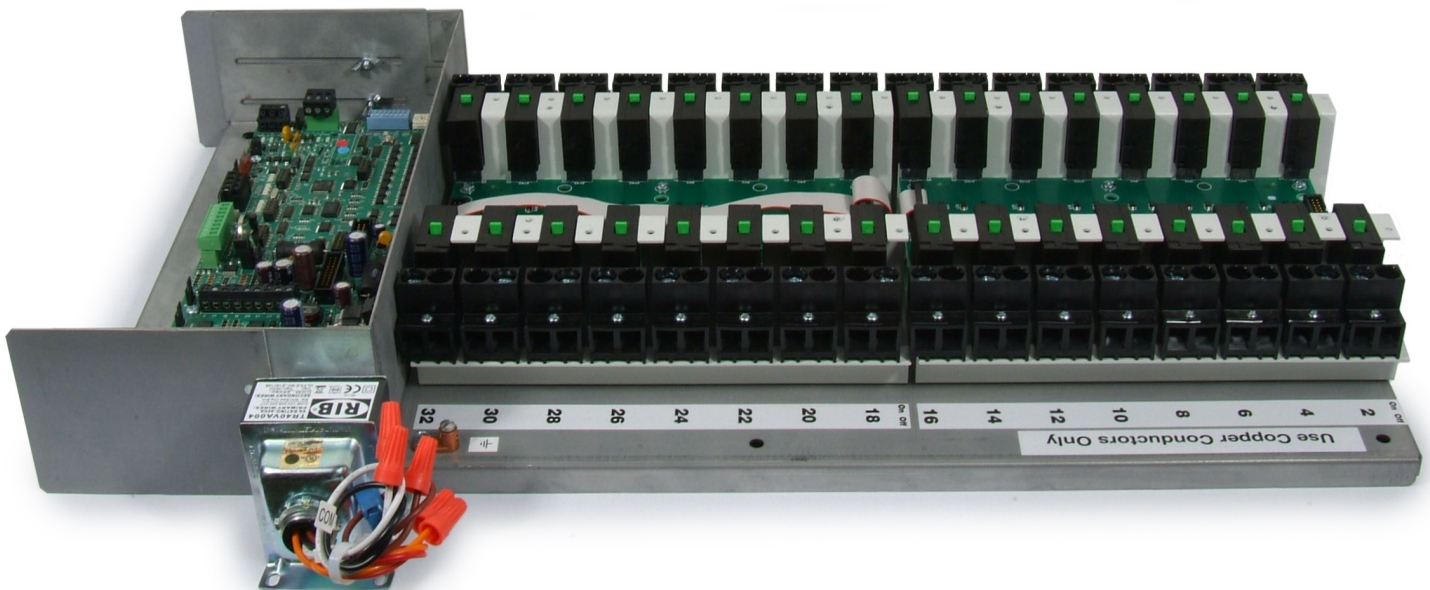
Environmental

Operating Temperature 32° to 125° F (0° to 50° C)
Operating Humidity 20% - 95%RH, non-condensing

System Certification

Electronics meet or exceed IEC Level 3 standards:
Radiated Emissions, IEC 55022, Class A
Conducted Emissions, IEC 55022, Class A
Quasi-Stationary Current Harmonics, IEC 6100-3-2
Voltage Fluctuation and Flicker, IEC 6100-3-2
Electrostatic Discharge, IEC 61000-4-2
Electrical Fast Transient/Burst, IEC 6100-4-4
Surge Immunity, IEC 6100-4-5
Immunity to Conducted Disturbance, IEC 6100-4-6
Immunity to Voltage Dips, Short Interruptions, Voltage Variations, IEC 6100-4-11
Electromagnetic Compatibility Generic Immunity Standard. Part 1, IEC 6100-6-1

Assembly meets or exceeds the following standards:
Underwriters Laboratories, UL508A Open, Standard for Energy Management Equipment





Line Voltage Specifications

Control Power

UL Listed Multi Tap Transformer

Transformer Primary : 120, 208, 240, or 277 VAC +/- 10%, 40 VA, 50 / 60 Hz

Transformer Secondary : 24 VAC +/- 10%

Wire : 18 AWG Minimum (Solid or Stranded)

RI's are factory assembled with the Transformer installed in the Exclusion Frame. However, the Transformer may be mounted remotely to suit the application. A Knockout Bushing is included for remote Transformer mounting.

Lighting Tough Relays (LTR)

Relay Ratings

Tungsten 20 amp @ 120 VAC

Ballast 20 amp @ 277 VAC

Ballast 20 amp @ 347 VAC

Resistive 20 amp @ 277 VAC

Resistive 20 amp @ 347 VAC

Relay Details

UL Listed

SPST latching with manual override

Pulse Driven

Short Circuit Current Rating (SCCR) 20,000 Amps @ 277 VAC

Relay Load Wire Terminations

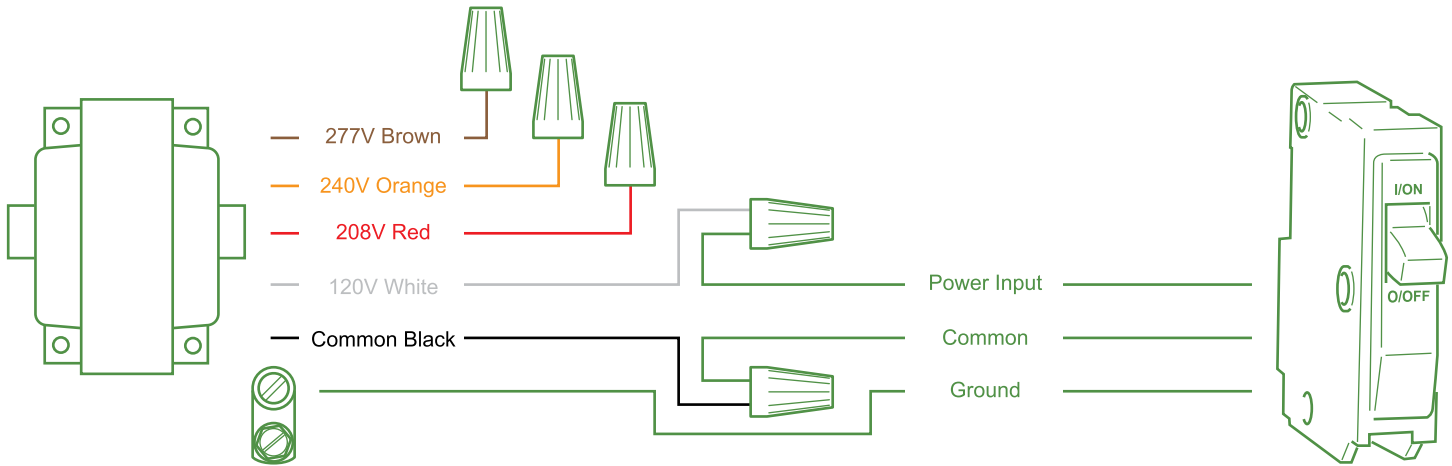
Screw terminal with box clamp

Accepts double 14-10 AWG or single 8 AWG

Solid or stranded copper wire

Line Voltage Connections

Control Power (Transformer Primary)



Lighting Tough Relay Power (Input and Output)





Low Voltage Specifications

BAS Network Connections

Protocols : BACnet MSTP (9600, 19200, 38400, or 76800), N2 (9600)

Wire : Belden 8760 or equal

Maximum Network Length : 4000 ft

Switch Inputs : Dry Contact

Wire : 18 AWG (Solid or Stranded, non twisted, un-shielded wire only)

Maximum Wire Length : 500 ft

(Inputs are configured in 8 Input segments, entire segment must be Dry Contact)

Switch Inputs : Externally Powered

Wire : 18 AWG (Solid or Stranded, non twisted, un-shielded wire only)

Maximum Wire Length : 1000 ft

(Inputs are configured in 8 Input segments, entire segment must be Powered)

Analog Input : 0-5V Light Level Sensor

Wire : 18 AWG (Solid or Stranded, non twisted, un-shielded wire only)

Maximum Wire Length : 250 ft

Maximum Devices : 6 Light Level Sensors

Digital Network Input : Digi-Touch (DDN) Switches

Wire : Belden 1502P or equivalent

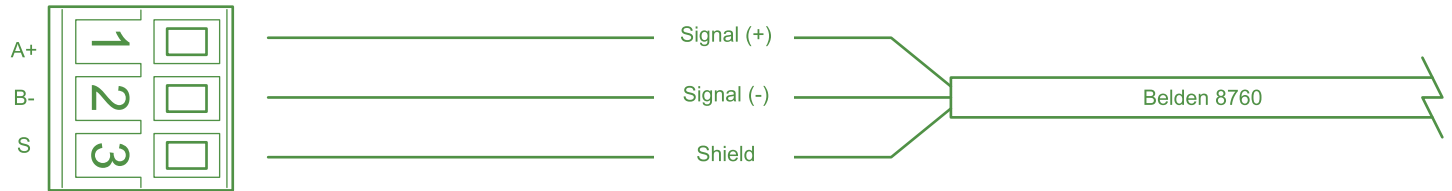
Maximum Wire Length : 500 ft to farthest DDN Switch

Maximum Devices : 10 Digi-Touch Switches

(Additional length and devices optional see Digi-Touch Data Sheet for details)

Low Voltage Connections

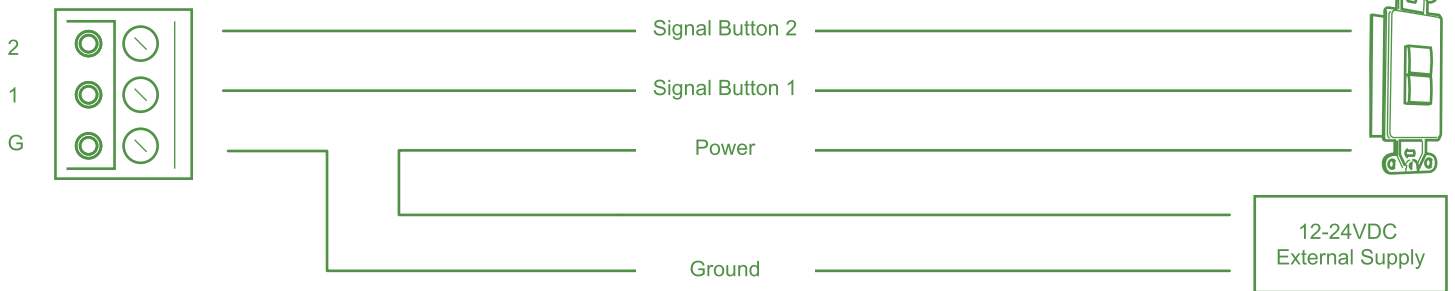
BACnet MSTP Network (Input)



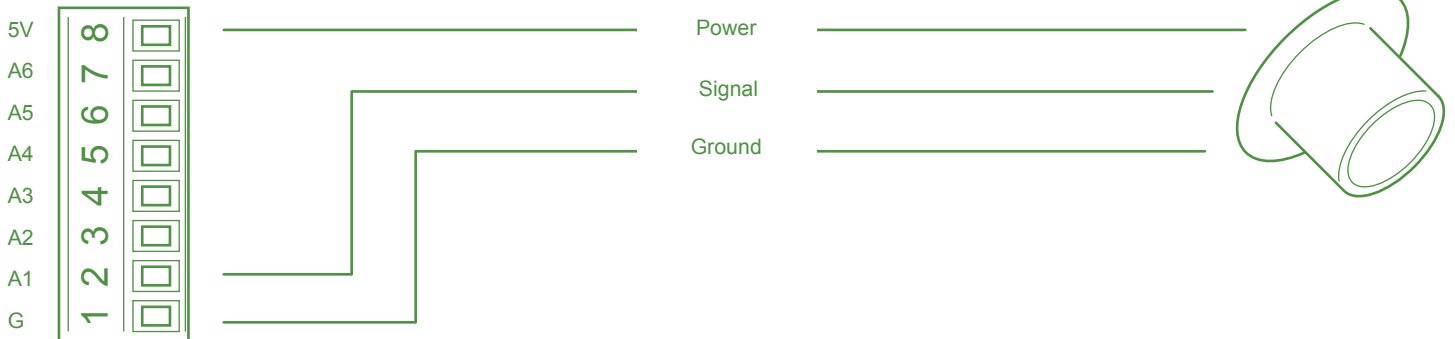
Switch Input (Dry Contact : Low Voltage Switch)



Switch Input (Externally Powered : Low Voltage Switch)



Analog Input (5V Light Level Sensor)



Digital Network (DDN Switches)



Part Number Guide

BRRRI **XX** - **XX** - **XX** - **X**

Low Voltage Compartment (Controller) Position

X = T Top of Interior
B Bottom of Interior

Special Options

XX = 00 No Options
LE LEXP Input Expansion Card (32 Additional Inputs)

Installed Relays

XX = 08 8 Relays Installed (16 Relay Platform Only)
16 16 Relays Installed (16 and 32 Relay Platforms Only)
24 24 Relays Installed (32 and 48 Relay Platforms Only)
32 32 Relays Installed (32 and 48 Relay Platforms Only)
40 40 Relays Installed (48 Relay Platform Only)
48 48 Relays Installed (48 Relay Platform Only)

Platform Capacity

XX = 16 16 Relay Capacity
32 32 Relay Capacity
48 48 Relay Capacity

