

Overview

Relay Panel (RP) is a UL Listed lighting control panel. RP may be scheduled from any BACnet BAS and is compatible with all low voltage switches, occupancy sensors, and light level sensors. RP mounts near the circuit breaker panel to provide centralized control of branch lighting circuits. Relay Panel 16 (RP16) features up to 16 Lighting Tough Relays (LTR) in a black powder coated steel enclosure with a hinged reversible door.

Features

UL Listed

Switching and Dimming (DLH / Presets) models available
BACnet MS/TP communication to BAS network
Sub network for Satellite and Capacitive Touch Stations (CTS)
Line and low voltage compartment separation
Upgradable Controller Board firmware

Available options:

- Low/Line Voltage Bays
- Multi-pole Lighting Contactors
- 24VAC Auxiliary Transformer
- 24VDC Power Supply
- BACnet IP Router
- UL924 Emergency Bypass
- 347VAC Transformer

General Specifications

Construction: 16ga steel with black powder coat finish

Dimensions:

Enclosure: 16.20"(411mm)H x 18.00"(457mm)W x 5.75"(146mm)D

Door Surface Mount: 16.45"(418mm)H x 18.08"(459mm)W

Door Recessed (Flush): 17.70"(450mm)H x 19.58"(497mm)W

Weight: 32lbs(14.5kg)

Mounting: Surface or recess mounted

Operating Environment: 32-125°F (0-50°C), 20-95%RH, non-condensing, Type 1 (dry / indoor environment)

Certifications

UL Listed, UL916 Standard for Energy Management Equipment, US/Canada
FCC Part 15
CEC Title 24
Electronics meet or exceed IEC Level 3

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

Low Voltage Specifications (Controller Board)

Power In: 24VAC +/-10%, 30VA, 50-60 Hz

Auxiliary Out: 24VAC, 800mA (devices with full wave rectified power supply only)
Universal Input (UI) and Satellite / Station Network Power Out: 24VDC, 200mA total

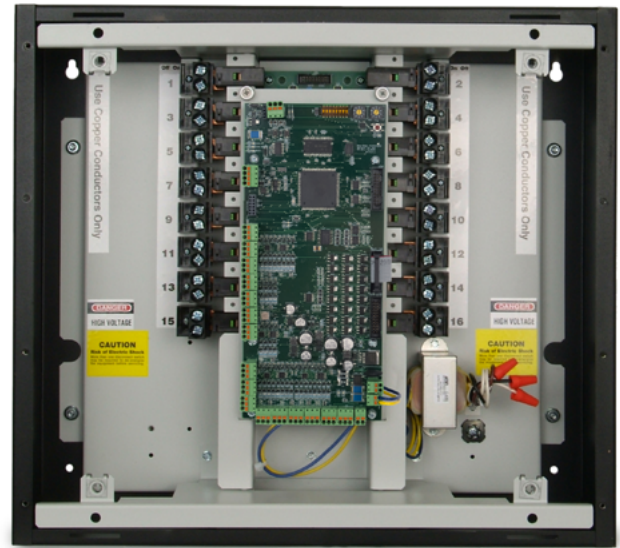
Universal Input: 24 two-wire inputs

Universal Input Software Configuration:

Digital Input (DI)

Analog Input (AI): 0-5VDC, 0-10VDC, or 4-20mA

Universal Input Wire Requirement / Maximum Length: 18AWG (Solid or Stranded) / 500'(152m)



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, 2 conductor, shielded, low cap / 4000'(1216m)

Points: See *PIC Statement*

Satellite / Station Network Specifications

Compatible with CTS and Satellite devices. See data sheet for details.

Transformer Specifications

Type: 30VA Inherently Limited

Primary: Dual Tap 120 or 277VAC +/-10%, 30VA, 50-60 Hz

Secondary: 24VAC +/-10% Inherently Limited

Wire Requirement: 18AWG Minimum (Solid or Stranded)

LTR Specifications

Type:

UL Listed

SPST latching with manual override lever

Electrically operated mechanically held, pulse driven

Short Circuit Current Rating (SCCR) 30,000A @ 277 VAC

Maximum Ratings: Tungsten 20A @ 347VAC / Ballast 30A @ 347VAC /

Resistive 20A @ 347VAC / 1.5HP @ 120VAC

Load Terminal: Universal screw terminal, box type clamp

Terminal Capacity (per side): (2) 14-10AWG or (1) 8AWG (Solid or Stranded copper wire)

Optional Equipment Specifications

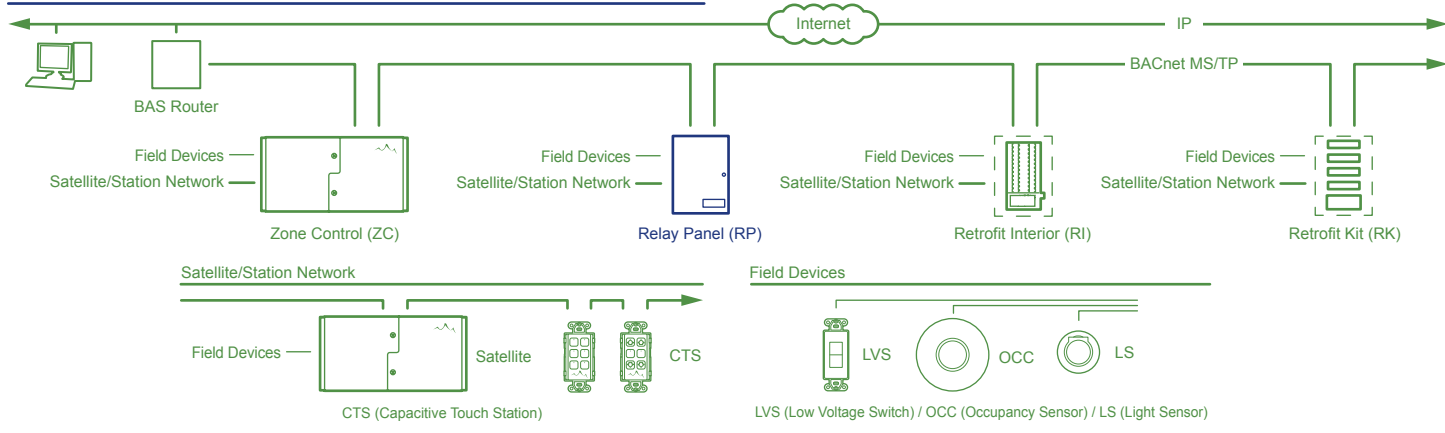
See Relay Panel Optional Equipment Data Sheet

Relay Panel 16

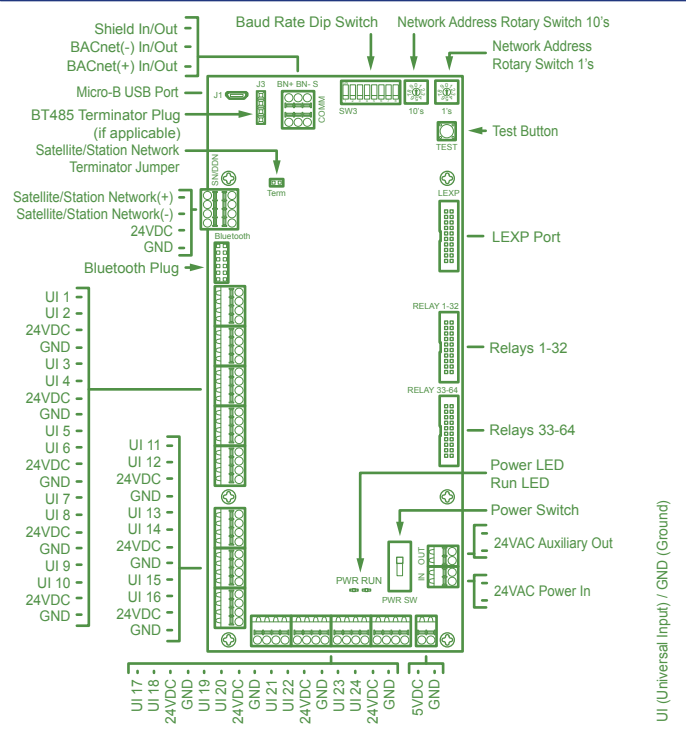
www.BRTint.com : 800-241-9173 Blue Ridge Technologies® © 2014 Blue Ridge Technologies International, LLC All Rights Reserved. RP16-DS-V14.05

Data Sheet : Catalog Page 9

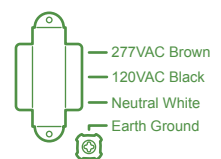
General Architecture



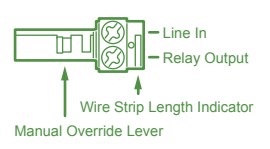
Controller Board Terminations



Transformer Terminations



LTR Terminations



Ordering Information*

RP XX 16 - XX - X - XX - XX - XX

Controller Board Options
XX = SS Switching Standard: Supports Satellite / CTS for Switching Applications
DS Dimming Standard: Supports Satellite / CTS for Dimming (DLH) Applications
Quantity of Relays Installed
XX = 01 thru 16 Up to 16 Relays Installed
Power Options
X = 0 120 / 277VAC Transformer
1 347VAC Transformer
2 120 / 277VAC Transformer + 120 / 277VAC Auxiliary Transformer
3 347VAC Transformer + 347VAC Auxiliary Transformer
Special Options
XX = 00 None
X1 UL924 Emergency Bypass (Relays 1-16 only)
Low Voltage Bay Options (Bottom of Panel)
XX = Blank None
L1 9" Bay
LA 9" Bay + (1) 2.5A 24VDC Power Supply
LB 9" Bay + (2) 2.5A 24VDC Power Supply
LC 9" Bay + (1) BACnet IP Router
LD 9" Bay + (1) BACnet IP Router + (1) 2.5A 24VDC Power Supply
LE 9" Bay + (1) BACnet IP Router + (2) 2.5A 24VDC Power Supply
Line Voltage Bay Options with Dead Front Cover (Top of Panel)
XX = Blank None
H1 9" Bay
HA 9" Bay + (1) 4 Pole 30A Electrically Held Lighting Contactor, 120V Coil
HB 9" Bay + (2) 4 Pole 30A Electrically Held Lighting Contactor, 120V Coil
HC 9" Bay + (4) 4 Pole 30A Electrically Held Lighting Contactor, 120V Coil
HD 9" Bay + (1) 4 Pole 30A Electrically Held Lighting Contactor, 277V Coil
HE 9" Bay + (2) 4 Pole 30A Electrically Held Lighting Contactor, 277V Coil
HF 9" Bay + (4) 4 Pole 30A Electrically Held Lighting Contactor, 277V Coil

* See Price List for Recessed (Flush) door panels.