

Project

Part Number

Ref.

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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 48 (RP48) features up to 48 Lighting Tough Relays (LTR) in a black powder coated steel enclosure with a hinged reversible door.

Features

BTL Listed, UL Listed
Dimming (DLH / Presets)
BACnet MS/TP communication to BAS network
CANbus 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: 33.80"(859mm)H x 18.00"(457mm)W x 6.25"(159mm)D

Door Surface Mount: 34.05"(865mm)H x 18.08"(459mm)W

Door Recessed (Flush): 35.30"(897mm)H x 19.58"(497mm)W

Weight: 63.5lbs(28.8kg)

Mounting: Surface or recess mounted

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

Certifications

BTL Listed, UL Listed, UL916/UL924, US/Canada

Seismic Rating 2012 ICC-ES AC156, Importance Factor 1.5

Warranty

Five (5) 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 Application Specific Controller (B-ASC)

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*

CANbus Specifications

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

Transformer Specifications

Type: 40VA Inherently Limited UL Listed

Primary: Multi Tap 120, 208, 240, or 277VAC +/-10%, 40VA, 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) 40,000A @ 277 VAC

Maximum Ratings: Tungsten 20A @ 347VAC / Magnetic Ballast 30A @
347VAC / Electronic Ballast 16A @ 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

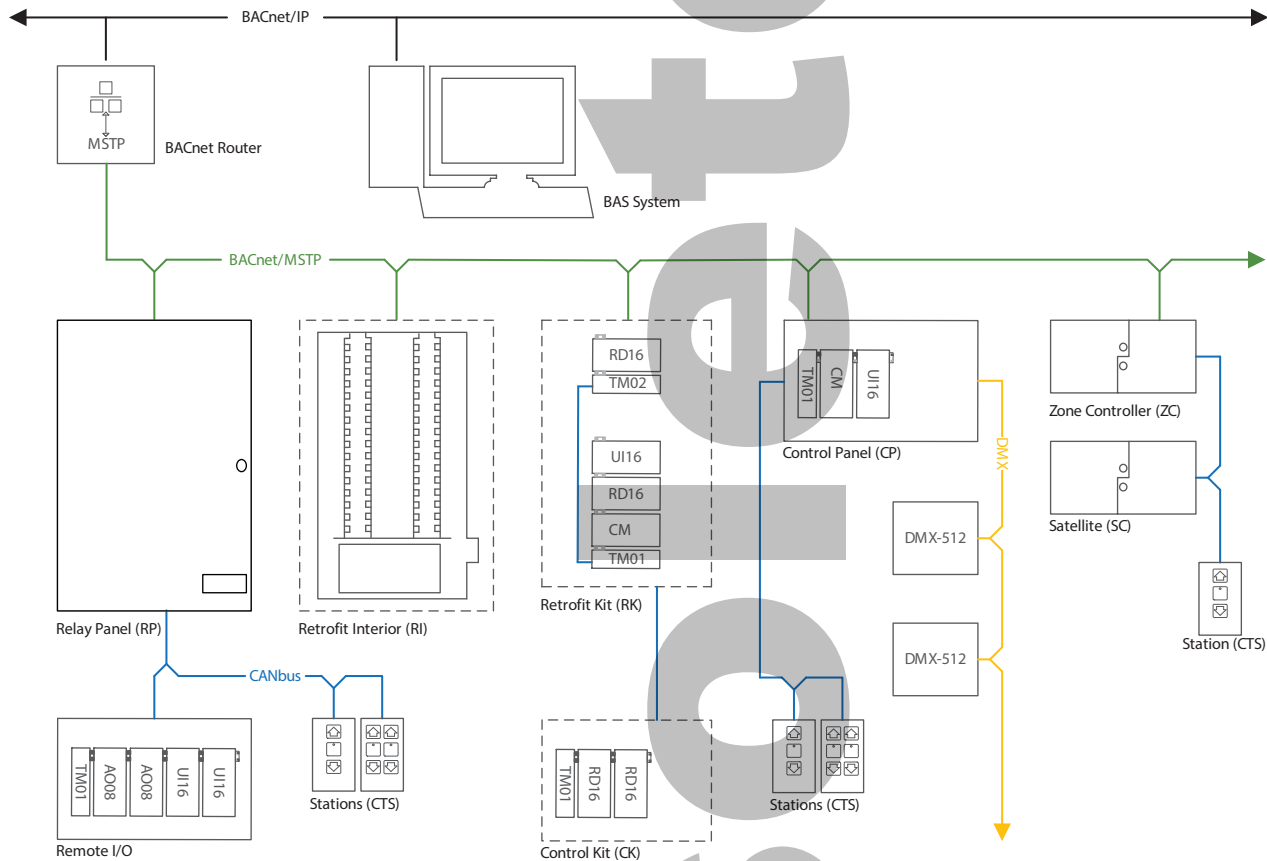
See Relay Panel Optional Equipment Data Sheet

Relay Panel 48

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System Architecture



Ordering Information

RPDY48 - XX - X - XX - XX - XX

Controller Options

- Y = S Dimming Standard
- Y = L Dimming Standard with Load Status
- Y = X Dimming Standard with Load Status and UL924 on all relays

Quantity of Relays Installed

- XX = 24 24 Relays Installed
- XX = 32 32 Relays Installed
- XX = 40 40 Relays Installed
- XX = 48 48 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
- 4 120 / 277VAC Transformer + 24VDC 2.5A Power Supply in Low Bay
- 5 120 / 277VAC Transformer + 120 / 277VAC Auxiliary Transformer + 2.5A Power Supply in Low Bay
- 6 Control Power Transformer 30VA + (2) 2.5A Power Supplies in Low Bay
- 7 Control Power Transformer 30VA + Auxiliary Transformer 30VA + (2) 2.5A Power Supplies in Low Bay

Special Options

- XX = 00 None
- X1 UL924 Emergency Bypass (Last 16 Relays)
- X2 UL924 Emergency Bypass (Last 32 Relays)

Low Voltage Bay Options (Bottom of Panel)

- XX = 00 No Bay
- L1 9" Bay
- L2 (2) 9" Bay
- LC 9" Bay + (1) BACnet IP Router
- LP (2) 9" Bays + (1) BACnet IP Router
- 01 9" Bay + (1) MIO-TB1 + (1) MIO-UI16
- 10 9" Bay + (1) MIO-TB1 + (1) MIO-AO08
- 11 9" Bay + (1) MIO-TB1 + (1) MIO-AO08 + (1) MIO-UI16

Line Voltage Bay Options with Dead Front Cover (Top of Panel)

- XX = 00 No Bay
- H1 9" Bay
- H2 (2) 9" Bays
- IP Add BACnet IP Router to Low Bay
- 11 (1) 4-Pole 120V Coil Contactor
- 12 (2) 4-Pole 120V Coil Contactors