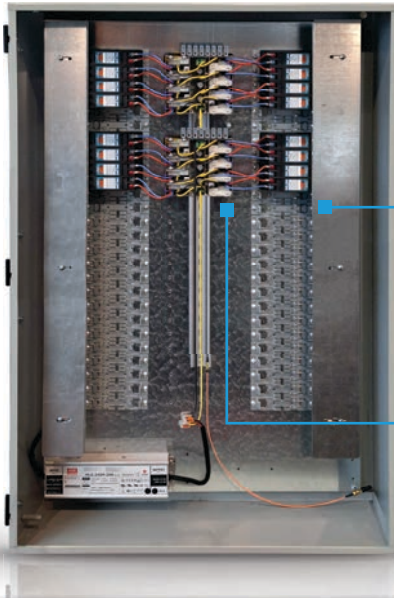


# Relay Control Panel Assembly

48 Relay Capacity

## Easily and Quickly Replace Lighting Control Panels



### Full Range of Control Features

Time clock, motion sensing, wall stations, daylight harvesting, BACnet interfaces, remote commissioning and operation, floorplan view control, and more

### Fully Assembled Panels

Assemblies come pre-wired with 24, 32, 40 or 48 relays, in UL-508 listed configurations.

## PRODUCT OVERVIEW

### Description

Each unit comes pre-wired with 24, 32, 40 or 48 relays, fully assembled in UL-listed configurations. The panels are delivered fully assembled, including all control components, making installation easy.

Control functions include relay control, 0–10V dimming, time clocks, scenes, daylight harvesting, motion sensing, and a wide array of AC, low-voltage, and battery-powered wall stations—**everything needed to comply with the latest energy codes.**

Motion sensing, wall stations, and other distributed components communicate over Avi-on's wireless mesh, **eliminating the need to run any control system wiring outside the panel** (other than wired 0–10V dimming).

Avi-on's controls meet the highest standards of security and performance—both wired and wireless—with UL's highest security rating (UL 1376 Diamond).

Programming and support can be handled either locally or remotely using a mobile device or laptop, just like any other Avi-on system.

### Features

Emergency and non-emergency circuits can be placed in the same panel (with an optional divider) using Avi-on's unique UL 924 beacon solution. Every individual relay controller is UL 924 rated and can be designated in software as an emergency circuit.

You can also mix voltages in the panel as needed (with an optional divider).

Easily expand by purchasing individual relays and control units (control units are packaged in blocks of 8).

Use Avi-on's Ethernet-to-Mesh Link to bridge panel rooms over existing (or new) Ethernet wiring, or bridge them using Avi-on's wireless mesh—your choice.

### Benefits

With fast, straightforward installation and no control system wiring (other than 0–10V dimming), Avi-on offers the perfect balance of familiar relay panel-based lighting controls while still providing the benefits of a fully distributed wireless control system. It is upgradable and expandable to full enterprise-level capabilities—**all without the need for new wiring or gateways, ever.**

## COMPATIBILITY

**Should replace any system with equal or fewer relays.** Contact Avi-on if you are replacing a panel from another manufacturer.

Project		Location/Type	
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## ORDERING INFORMATION

Part Number	Description	Application	Input Voltage	Weight*
AVI-PNL-360-24-277	Relay Panel Interface Assembly - 8 Circuit block 110-277 VAC	Indoor	110-277 VAC	95 lbs
AVI-PNL-360-32-277	Relay Panel Interface Assembly - 16 Circuit block 110-277 VAC	Indoor	110-277 VAC	100 lbs
AVI-PNL-360-40-277	Relay Panel Interface Assembly - 8 Circuit block 110-277 VAC	Indoor	110-277 VAC	105 lbs
AVI-PNL-360-48-277	Relay Panel Interface Assembly - 16 Circuit block 110-277 VAC	Indoor	110-277 VAC	110 lbs

\*shipping weight

To order please contact Avi-on sales at **(877) AVION-US**, (877) 284-6687 or [prosales@avi-on.com](mailto:prosales@avi-on.com) for information on becoming an Avi-on partner and order details.

## CONTROL SPECIFICATIONS

### RELAY CONTROL ASSEMBLY

#### Input Voltage

**(Power supplies):** 90-305VAC (277 VAC version)

*1 Power supply per two 8 relay assemblies (included)*

#### Physical Parameters:

##### Mounting:

DIN Rail Clip (included)

##### Antenna:

Single Remote Antenna  
Frame Mount RPSMA cable  
with included Magnetic  
Antenna (coming soon)

##### 0-10V Dimming:

100mA per Channel

##### Operating Temperature:

14F to 122F (-10C to +50C)

##### Storage Temperature:

-40F to +185F (-40C to +85C)

#### Humidity Rating:

95% non-condensing

#### Radio Frequency:

2.4GHz

#### Wireless Standard:

BLE 5.0 with Mesh

#### Point to Point Range\*:

25m (80ft) with obstructions and  
107m (350ft) unobstructed

#### Security:

AES 128-bit encryption for device to device  
communication

AES 256-bit encryption for device to cloud  
communication

5 years; 10 years optional

#### Warranty:

#### Regulatory:

**UL:** UL924-2022 (ED10)

UL 60730-1 (ED5)

**FCC:** FCC: 2AFZI-AVIBG21

FCC Part 15, Subpart B (Class B)

FCC Part 15.247

**IC:** IC: 20544-AVIBG21

ICES-003, Issue 7, Oct. 2020

RSS-GEN Issue 5, Feb. 2021 Amendment 2

RSS-247 Issue 2, Feb. 2017

**BQB:** DID: D063032

Qualified Design ID (QDID):

205509

178212

175341

*\*When communicating through the mesh, range is essentially unlimited (5000ft+)  
Repeaters may be necessary if the nearest switches or sensors are located more than  
25m (80 feet) from the panel*

## PANEL SPECIFICATIONS

#### NEMA/Type:

1

#### Mounting:

Surface Mount

#### Weight:

84 lbs. 4 oz

#### Dimensions:

36.00" H x 24.00" W x 6.00" D

#### Capacity:

52 Relays

#### Subplate:

Laser Cut

#### Cover Type:

Hinged Locking Cover

### INCLUDED SUBCOMPONENTS

#### ENC-361

NEMA/Type 1 Enclosure

#### SP-361

Subplate (34"H x 22"W x .5"D)

#### FB-36

Finger Barriers

#### BR-SO

Stand-off Brackets

#### HW-KDL

Key Locking Door Latch

#### CRC9000

Mounting Straps

### Accessories

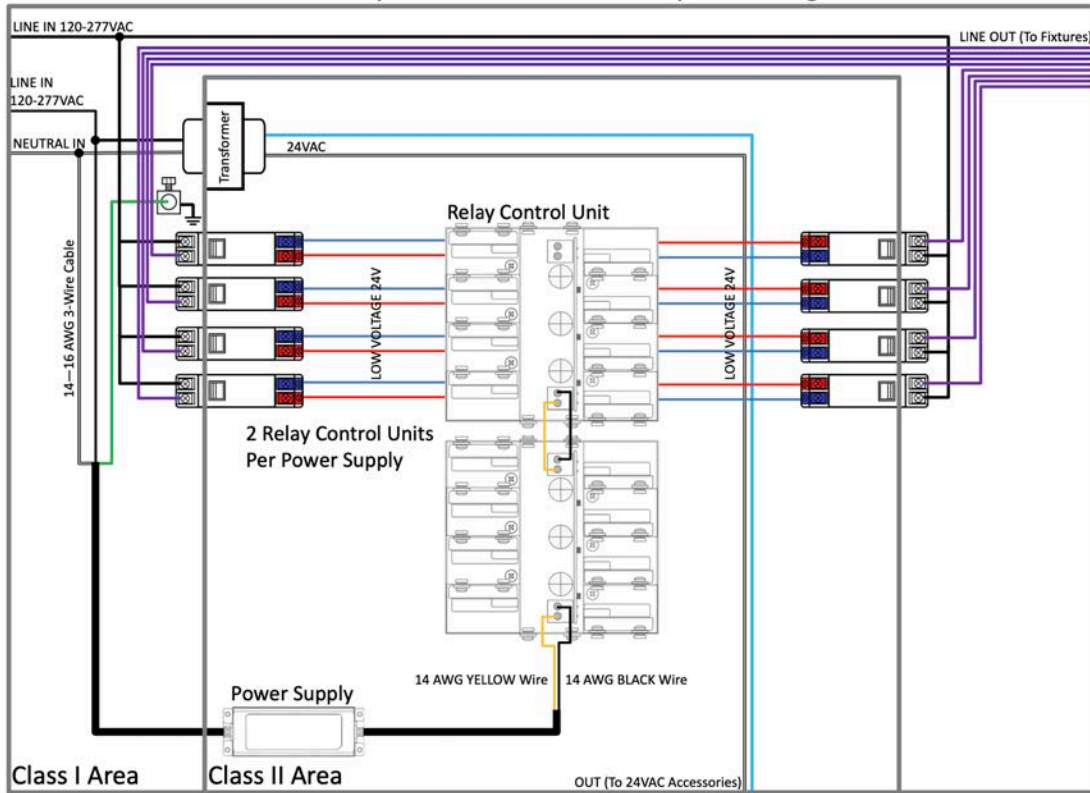
#### VB-1

Voltage Barrier (optional)

#### TB-2-6-8

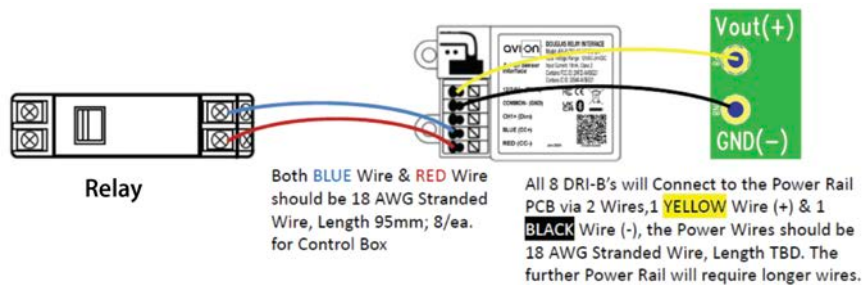
Terminal Block Assembly  
(8 Line Voltage, 6 Low Voltage)

## WIRING DIAGRAMS



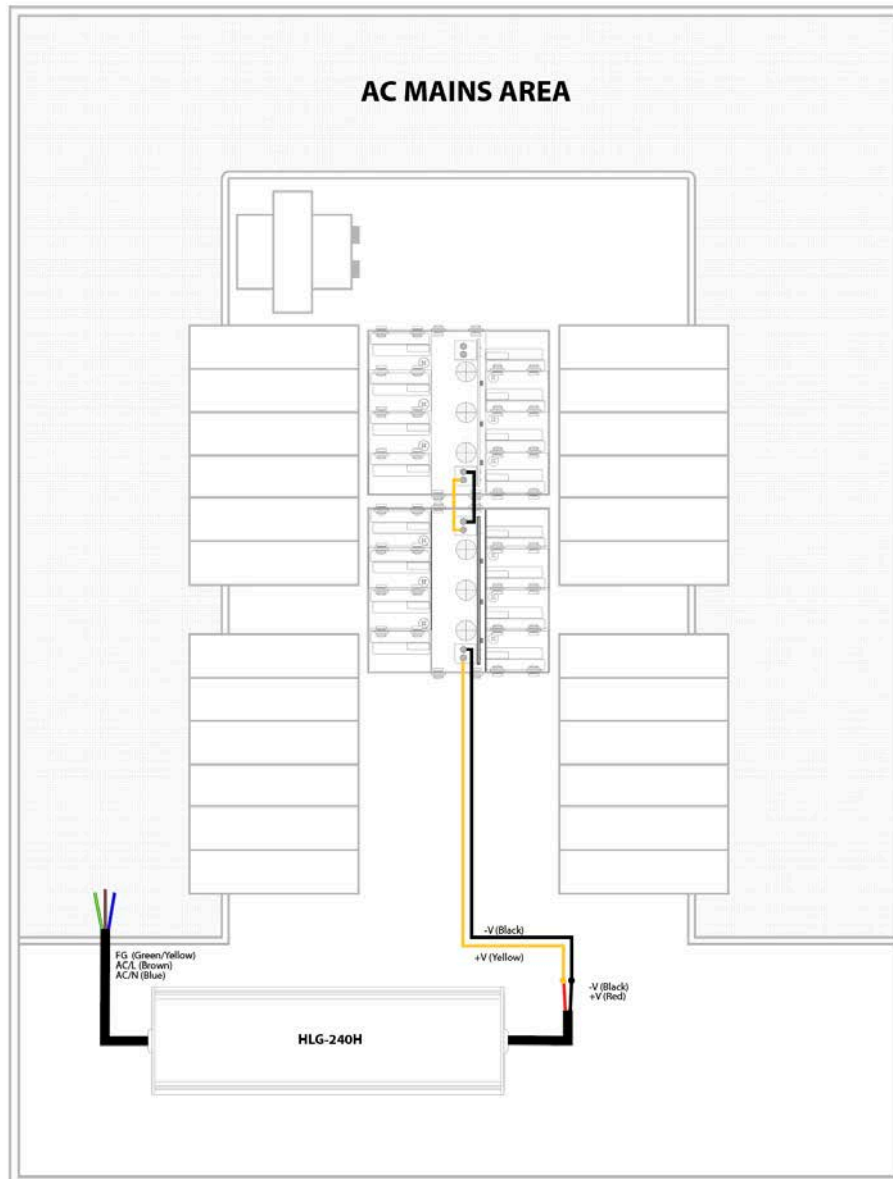
**Avi-on Relay Control Panel Assembly Riser Diagram**  
(2 Relay Control Units Per Power Supply)

## RCI-B & RELAY WIRING



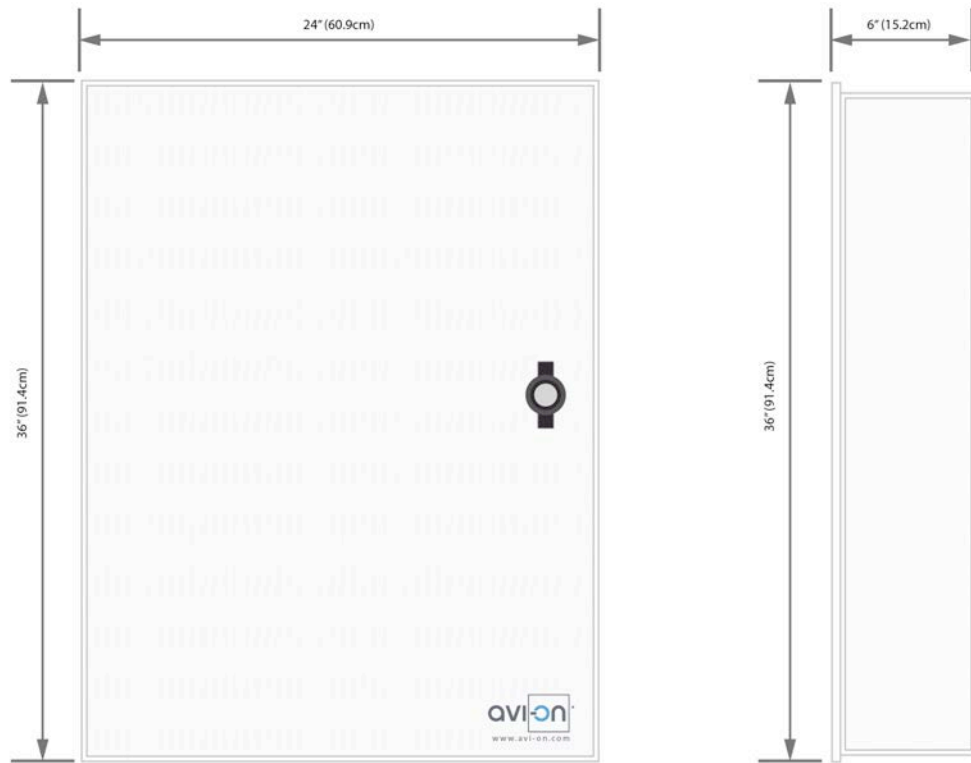
**Internal Assembly Wiring Diagram**

## WIRING DIAGRAMS



**Assembly Wiring Diagram**

## DIMENSIONS



**Assembly Dimensions**

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