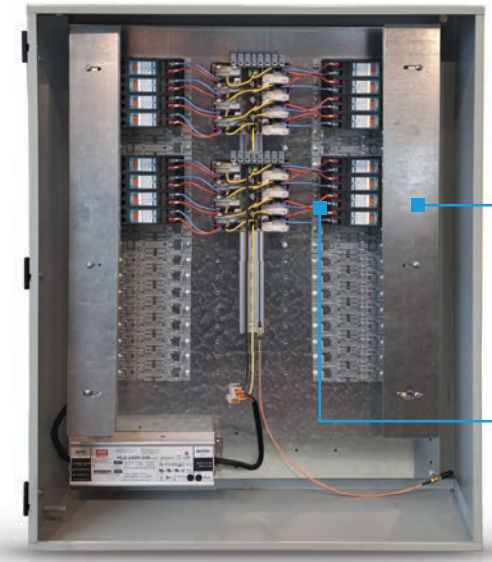
Product Specifications

Relay Control Panel Assembly

32 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 8, 16, 24 or 32 relays, in UL-508 listed configurations.

PRODUCT OVERVIEW

Description
Each unit comes pre-wired with 8, 16, 24, or 32 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**	

ORDERING INFORMATION

Part Number	Description	Application	Input Voltage	Weight
AVI-PNL-300-8-277	Relay Panel Interface Assembly - 8 Circuit block 110-277 VAC	Indoor	110-277 VAC	82 lbs
AVI-PNL-300-16-277	Relay Panel Interface Assembly - 16 Circuit block 110-277 VAC	Indoor	110-277 VAC	87 lbs
AVI-PNL-300-24-277	Relay Panel Interface Assembly - 24 Circuit block 110-277 VAC	Indoor	110-277 VAC	92 lbs
AVI-PNL-300-32-277	Relay Panel Interface Assembly - 32 Circuit block 110-277 VAC	Indoor	110-277 VAC	97 lbs

**shipping weight*

To order please contact Avi-on sales at **(877) AVION-US,** (877) 284-6687 or **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
Warranty: 5 years; 10 years optional
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*

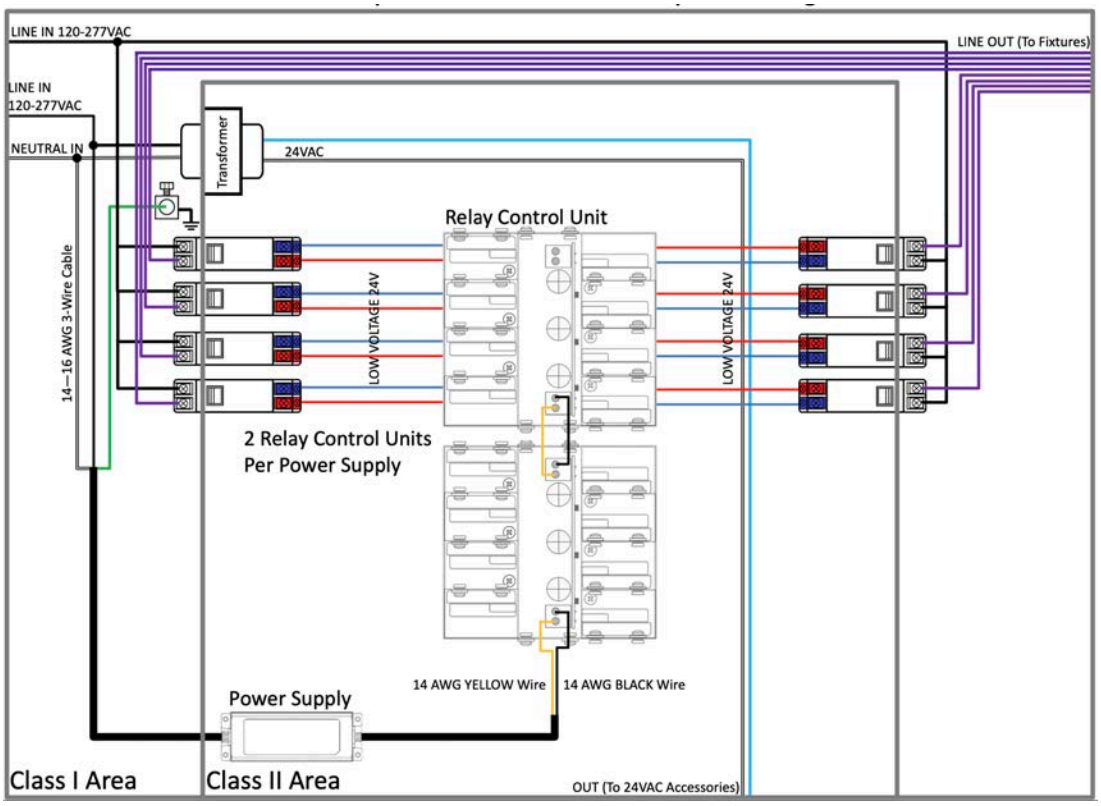
PANEL SPECIFICATIONS

NEMA/Type: 1
Mounting: Surface Mount
Weight: 71 lbs. 10 oz
Dimensions: 30.00" H x 24.00" W x 6.00" D
Capacity: 40 Relays
Subplate: Laser Cut
Cover Type: Hinged Locking Cover

INCLUDED SUBCOMPONENTS
ENC-301 NEMA/Type 1 Enclosure
SP-301 Subplate (28"H x 22"W x .5"D)
FB-30 Finger Barriers
BR-SO Stand-off Brackets
HW-KDL Key Locking Door Latch
CRC9000 Mounting Straps

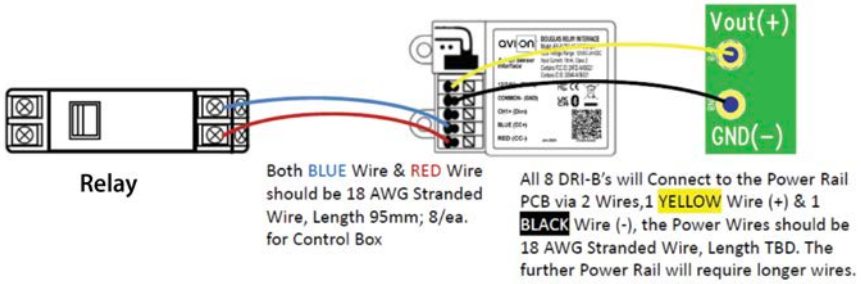
Accessories
VB-1 Voltage Barrier (optional)
TB-2-6-8 Terminal Block Assembly (8 Line Voltage, 6 Low Voltage)

WIRING DIAGRAMS



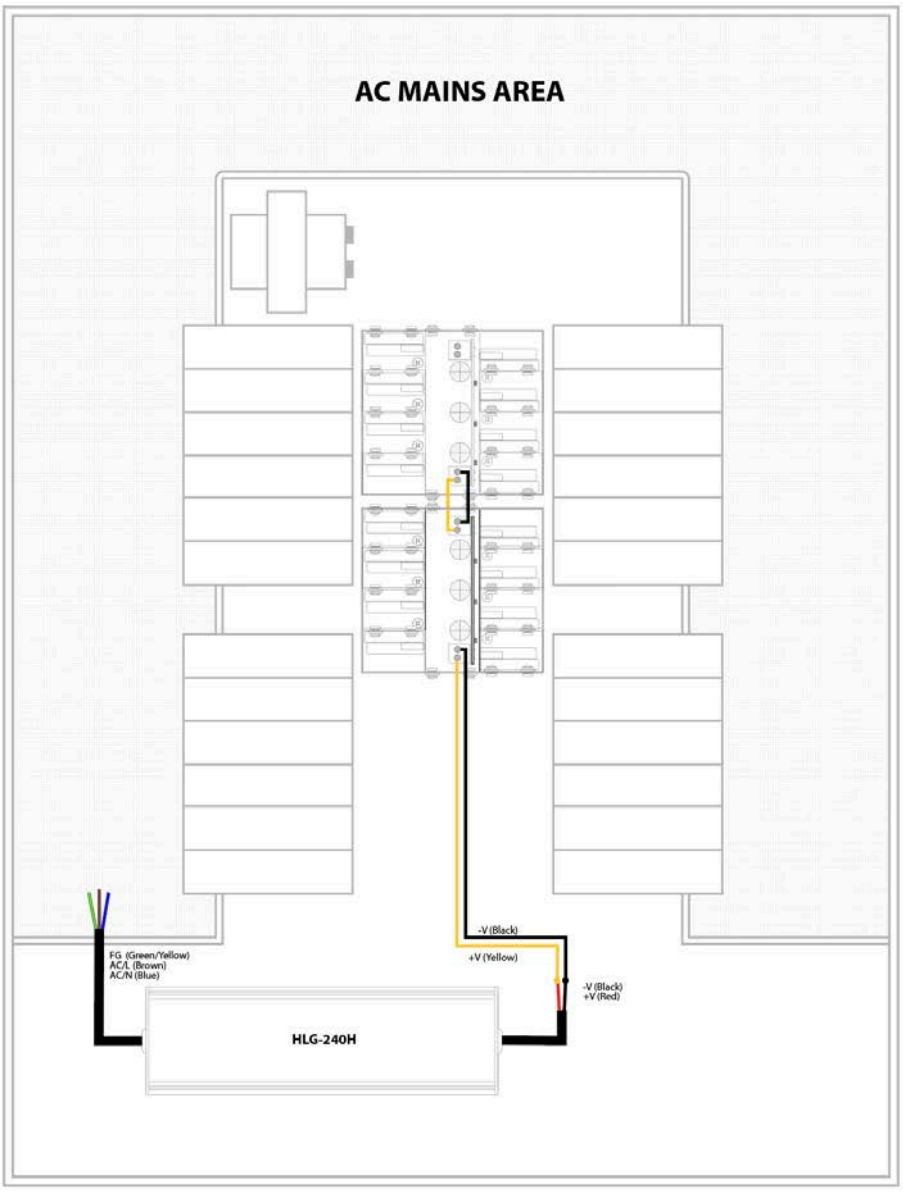
Avi-on Relay Control Panel Assembly Riser Diagram
(2 Relay Control Units Per Power Supply)

RCI-B & RELAY WIRING



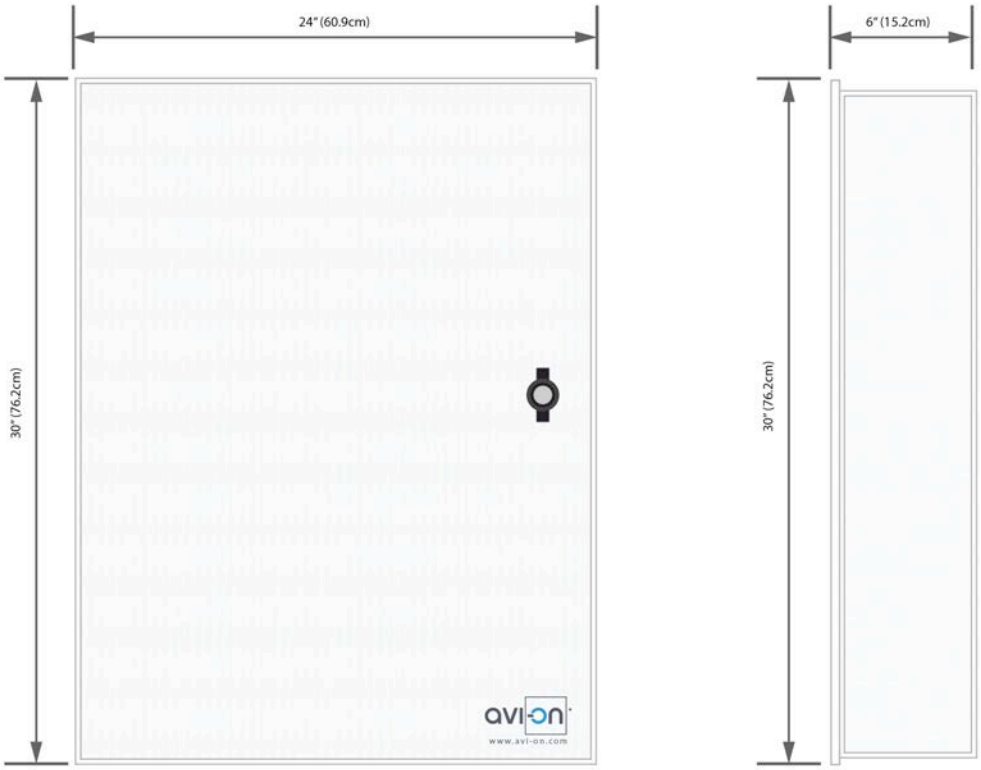
Internal Assembly Wiring Diagram

WIRING DIAGRAMS



Assembly Wiring Diagram

DIMENSIONS



Assembly Dimensions