RPM

Relay Panel Enclosure, Relay Panel Module, and Relay

Date: _____

Quantity: _____

Company: _____

Project: _____

Works with

- Encelium X
  - ▸ GreenBus Wired

c(UL)us LISTED

Key Features & Benefits

- Maximum of 24 Relays per Relay Panel Enclosure. Multiple Relay Panel Enclosures can be connected together to accommodate requirements above 24 relays

- Easy wiring and connection with GreenBus

- Meets UL916 (Energy Management Equipment) and Emergency rated Relay Panel Enclosure meets UL924 (Emergency Lighting Equipment)

- Each Relay Panel Enclosure is individually addressable, controlled as a zone, or as part of a larger zone, and is managed by Polaris™ software

Relay Panel Enclosure is an addressable lighting control panel that allows each relay to be individually controlled and configured to best meet the needs of the facility. Lighting Control strategies such as time scheduling, occupancy control, and daylight harvesting can be deployed through the use of the Relay Panel Enclosure. Each Relay in the Relay Panel Enclosure is addressed individually. Multiple Relay Panel Enclosures can be daisy-chained as part of the overall system architecture through the GreenBus™ communication network.

Relay Panel Module is an electronic retrofit module that enables existing relay panels/boxes to be integrated with Encelium X. The Relay Panel Module can be installed in most standard relay panels utilizing existing electrical wiring and relays. It is mounted in the center of the existing panel (replaces old circuiting) and is wired to the existing relays in the panel. This allows each Relay to be addressed individually.

Each **Relay** connected to a relay panel module is individually addressable and provides all of the benefits and control strategies in the Lighting Control System.

ENCELIUM

Specifications

SENSING AND CONTROL
Control
- GreenBus Communication

Control Option
- 2-wire relays (NAED 45349: RLY-700)[1] — Relay Panel Module

Maximum Number of Relays
- Up to 24 Relays per Relay Panel Enclosure. Multiple Relay Panel Enclosures can be connected together to accommodate requirements above 24 relays Install in accordance with all applicable national and local electrical and building codes

ELECTRICAL
Relay Panel Module Power Supply
- 24 VAC, 50/60 Hz, 1.6A (40 VAC)

Input Voltage
- 120—347V

Maximum Load
- 20A per Relay

ENVIRONMENTAL
Ambient Temperature
- 60°C (140°F) maximum

PHYSICAL
Dimensions (H x W x D)
- Relay
  60 x 96 x 25.4 mm (2.4 x 3.8 x 1 inches)
- Relay Panel Module
  45.7 x 368.3 x 58.4 mm (1.8 x 14.5 x 2.3 inches)
- Relay Panel Enclosure
  489 x 463.5 x 102 mm (19.25 x 18.25 x 4 inches)

Weight
- 0.18 kg (6.3 oz) — Relay
- 0.39 kg (13.7 oz) — Relay Panel Module
- 23.6 kg (832.5 oz) — Relay Panel Enclosure

Housing Color
- White — Relay
- Gray — Relay Panel Module
- Black — Relay Panel Enclosure

Housing Material
- Plastic — Relay
- Plastic — Relay Panel Module
- Metal — Relay Panel Enclosure

Mounting Options
- Wall Mount (Relay Panel Enclosure)
- DIN Rail Mount, 35 mm (1.38 inches) size (Relay Panel Module)

WARRANTY
- For warranty details, refer to full warranty documentation at encelium.com

CERTIFICATIONS & SAFETY
Approbations
- UL 916 (Energy Management Equipment)
- UL 924 (Emergency Lighting Equipment)
- FCC Part 15, Class A/ICES-003, Class A

Environmental Suitability
- Rated for Indoor Use

Complies with Electromagnetic Compatibility (EMC) Standards:
- EN 61000-4-2
- EN 61000-4-4
- EN 61000-4-5

Footnotes:[1]   Other relays also available/controllable.

Dimensions

Relay

25.4 mm
(1 inch)

60 mm
(2.4 inches)

INPUT
BLUE   RED
ON
OUTPUT

96 mm
(3.8 inches)

Front **Back** **Side**

Relay Panel Module

58.4 mm
(2.3 inches)

45.7 mm
(1.8 inches)

40.6 mm
(1.6 inches)

368.3 mm
(14.5 inches)

Front **Back** **Side**

Relay Panel Enclosure

Hinge

102 mm (4 inches)

51 mm
(2 inches)

Knockout (2X)
ø 35 mm (1.375 inches)

Knockout (2X)
ø 28 mm (1.1 inches)

Knockout (2X)
ø 22 mm (0.87 inches)

489 mm
(19.25 inches)

44.4 mm
(1.75 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

57.1 mm
(2.25 inches)

44.4 mm
(1.75 inches)

463.5 mm (18.25 inches)

61 mm
(2.4 inches)

171 mm
(6.72 inches)

171 mm
(6.72 inches)

61 mm
(2.4 inches)

101.6 mm
(4 inches)

51 mm
(2 inches)

Knockout
ø 22 mm (0.87 inches)

Knockout (2X)
ø 35 mm (1.375 inches)

Ordering Information

Relay

Catalog Number	Description	Approbations	Communication Network	Modifiers
RLY-700	Relay	UL	GreenBus	—

Relay Panel Module

Catalog Number	Description	Approbations	Communication Network	Modifiers
EN-RPM-24C-GB2	Relay Panel Module	UL	GreenBus	UL924 Emergency Rated

Relay Panel Enclosures[2]

Catalog Number	Description	Number or Relays	Ratings
EN-RPA0R120-347V	Relay Panel Enclosure	0	UL924 Emergency Equipment
EN-RPA8R120-347V	Relay Panel Enclosure	8	UL924 Emergency Equipment
EN-RPA12R120-347V	Relay Panel Enclosure	12	UL924 Emergency Equipment
EN-RPA18R120-347V	Relay Panel Enclosure	18	UL924 Emergency Equipment
EN-RPA24R120-347V	Relay Panel Enclosure	24	UL924 Emergency Equipment

[2] All relay panel assemblies come assembled with a relay panel enclosure, relay panel module, a transformer, and relays (except for the EN-RPA0R120-347V which does not include relays).
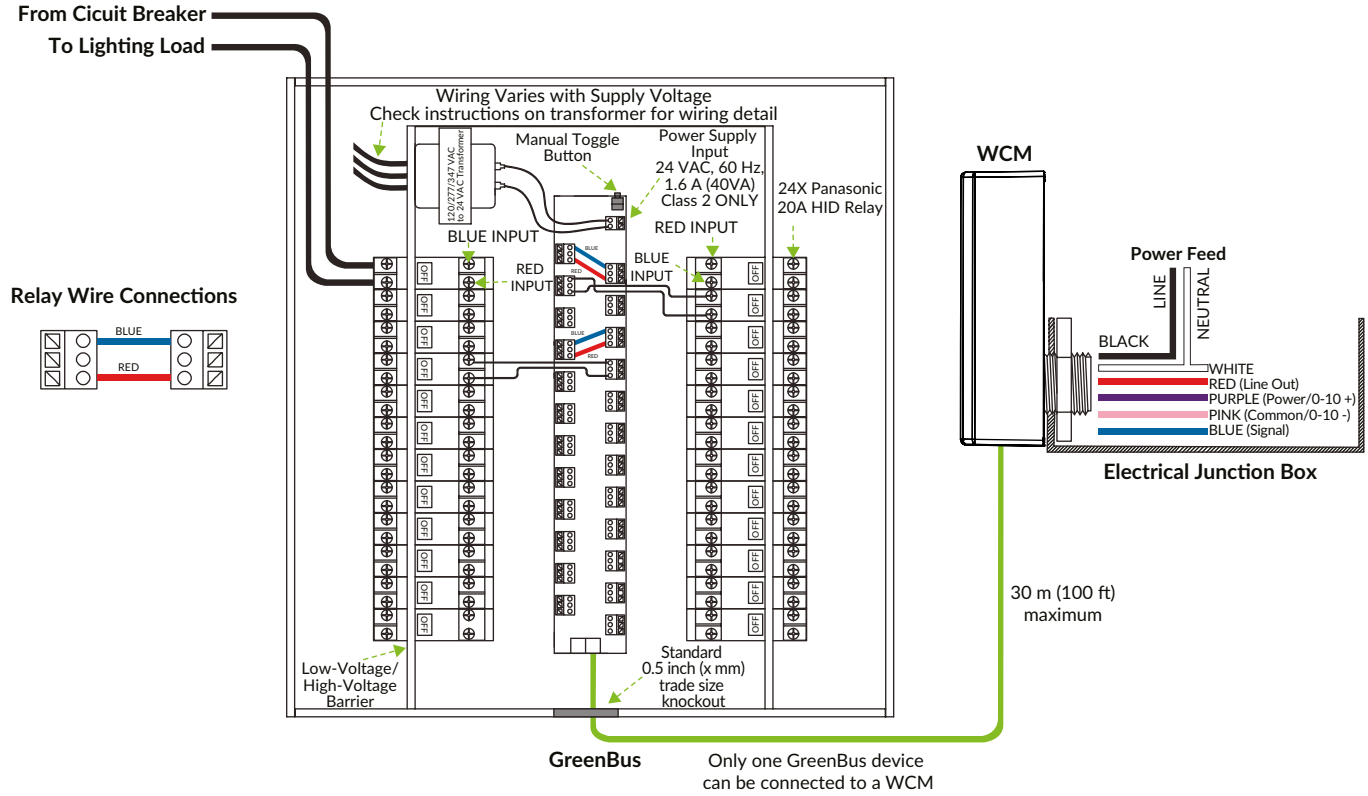
Wiring Diagrams

## RPM to Wired Manager — GreenBus Wiring Diagram
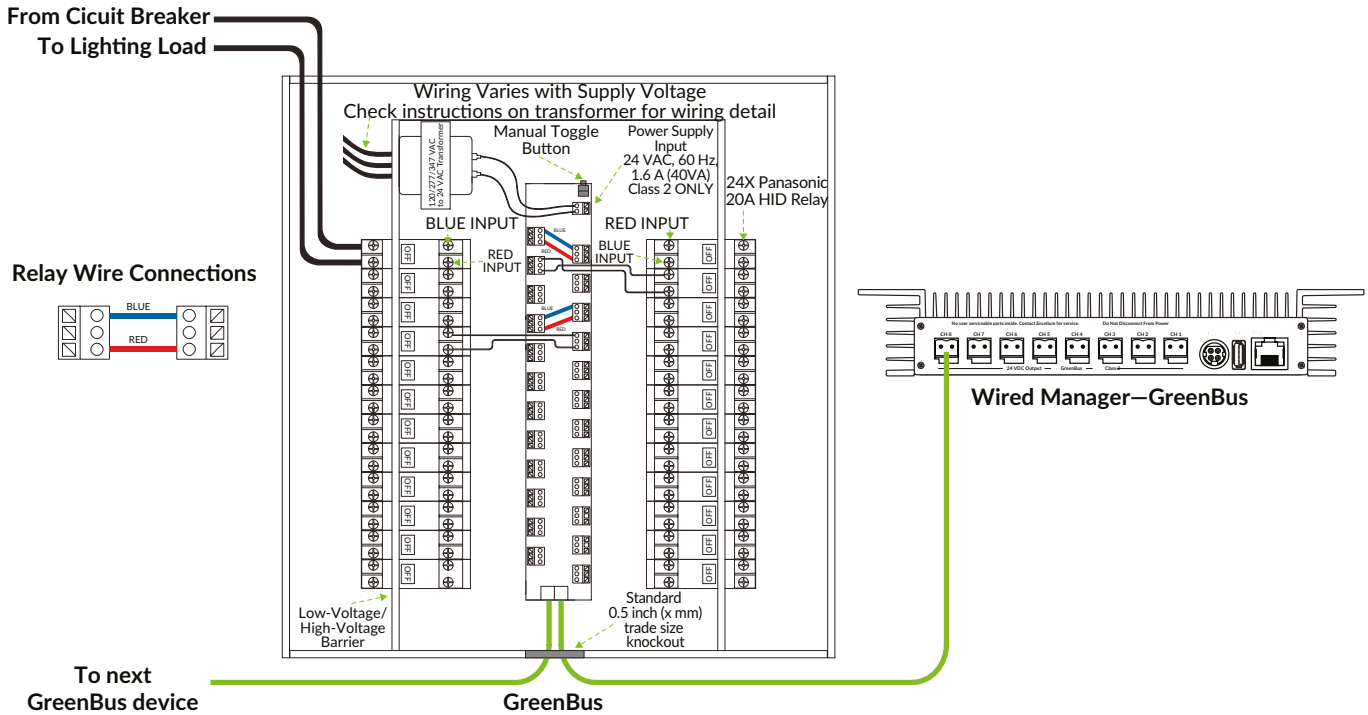
Wiring Diagrams (cont.)

RPM Wireless System Integration Wiring Diagram

From Cicuit Breaker

To Lighting Load

Relay Wire Connections

Wiring Varies with Supply Voltage
Check instructions on transformer for wiring detail

120/277/347 VAC to 24 VAC Transformer

Manual Toggle Button

Power Supply Input
24 VAC, 60 Hz, 1.6 A (40VA) Class 2 ONLY

24X Panasonic 20A HID Relay

BLUE INPUT

RED INPUT

BLUE INPUT

RED INPUT

BLUE

RED

Low-Voltage/ High-Voltage Barrier

Standard 0.5 inch (x mm) trade size knockout

GreenBus   Only one GreenBus device can be connected to a WCM

BLUE

RED

WCM

Power Feed

LINE

NEUTRAL

BLACK

WHITE

RED (Line Out)

PURPLE (Power/0-10 +)

PINK (Common/0-10 -)

BLUE (Signal)

Electrical Junction Box

30 m (100 ft) maximum

Mounting Options

Wall Mount

The Relay Panel Enclosure mounts directly to the wall using screws to secure it into place. Once the enclosure is securely in place, put the cover on the enclosure box and tighten all the screws.
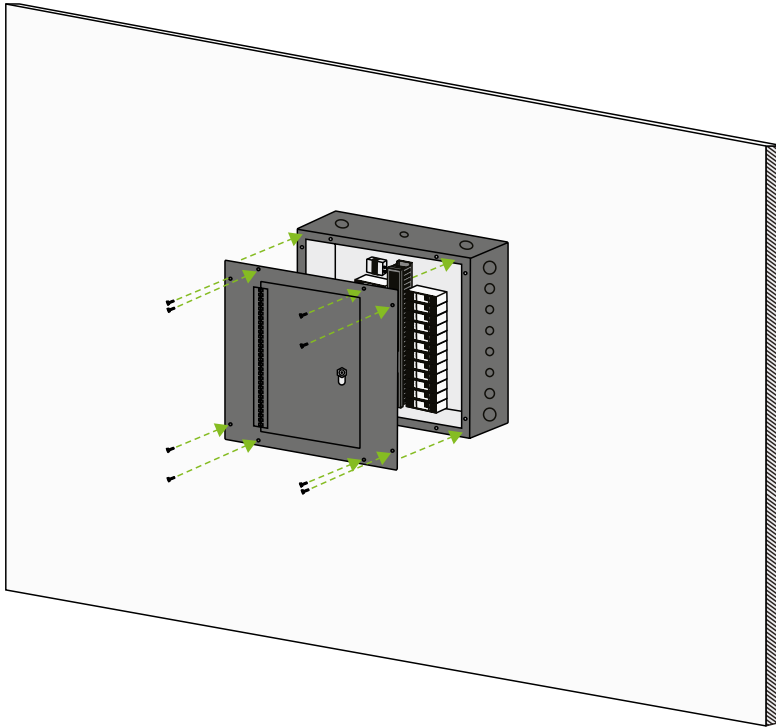
DIN Rail Mount

The Relay Panel Module mounts directly into the Relay Panel Enclosure using a DIN Rail.