



Project: _____
 Reference Type: _____
 Item Code: _____
 Date: _____
 Notes: _____

CBU-ARP-LR

Bluetooth-controlled 0-10V controller with relay



PRODUCT DESCRIPTION

The CBU-ARP-LR is a Bluetooth-controlled, Casambi-enabled, long-range, one-channel 0-10V controller with built-in 2.0 A relay and a motion sensor input. It can be installed outside of a metal switch box, inside a luminaire, or into a ceiling outlet box. Simply remove a standard 1/2" knockout to install the compact module.

The CBU-ARP-LR is designed to control a single 0-10V LED driver. If the LED driver cannot be completely turned off from the 0-10V control interface, the CBU-ARP-LR has a built-in 2.0 A relay for cutting the power from the driver. It also has a 12-24 VDC input for a motion sensor. The sensor must be powered by an external power supply, such as mains voltage or auxiliary voltage from an LED driver.

The 0-10V output can also be configured as a DALI interface which allows for a much richer feature set, such as controlling a multi-channel LED driver (up to five channels) and reading diagnostic information from the driver. The CBU-ARP-LR can be controlled using the Casambi App, which can be downloaded free of charge from the Apple App Store and Google Play Store. Different Casambi-enabled products can be used from a simple one-luminaire direct control setup to a complete and full-featured lighting control system, in which up to 250 units automatically form an intelligent mesh network.

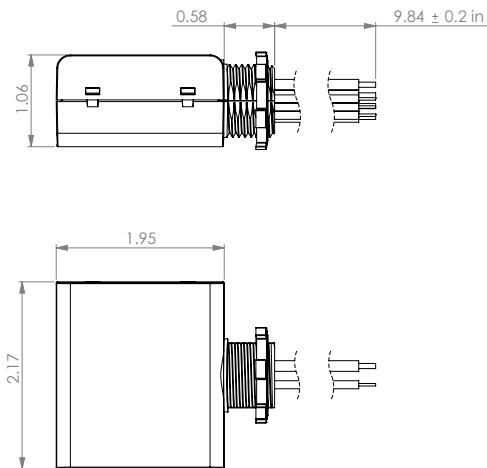


WARNING
 Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Warning!

Hazardous voltages. Risk of electric shock or fire. Only qualified professionals should make the connections. Disconnect the mains power supply and verify its absence prior to installation.

DIMENSIONS (INCH)



TYPE OF LOAD

Mains: rated 120-277 Vac, Max. 2.0 A, Electronic Ballast
0-10V output: 0-10 VDC, 7 mA
DALI output: 12 VDC, Max. 20 mA (sourcing)

CERTIFICATIONS

Contains FCC ID: T7V1780
 Contains IC: 216Q-1780
 UL: 5LE6 / E494741



Project: _____

Reference Type: _____

Item Code: _____

Date: _____

Notes: _____

TECHNICAL DATA

Input

- Voltage range: 120-277 VAC
- Frequency: 50-60 Hz
- Max. mains current: 40 mA
- No-load standby power: < 0,5 W

Relay Contact Rating

- Voltage range: 120-277 VAC, 50-60 Hz
- Maximum current: 2,0 A

Control Output, Class 2

- Output voltage, 0-10V: 0-10 VDC, max. 7 mA
- Output voltage, DALI: 12 VDC, max. 20 mA (sourcing)
- Max. number of connected devices: 1 driver + 1 sensor

Sensor Input, Class 2

- Sensor type: Motion (ON/OFF)
- Input voltage: 12-24 VDC
- Input current: 2-5 mA

Operating conditions

- Ambient temperature, ta: -4...+113°F (-20...+45°C)
- Max. case temperature, tc: +158°F (+70 °C)
- Storage temperature: -13...+158°F (-25...+70 °C)
- Max. relative humidity: 0...80%, non-cond.

Radio Transceiver

- Operating frequencies: 2.402...2.480 Ghz
- Maximum output power: +8 dBm

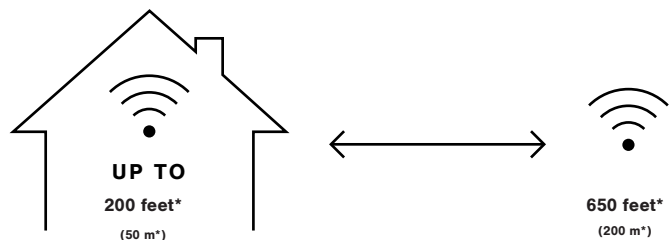
Mechanical data

- Dimensions: 55.0 x 49.4 mm (64.2 with threaded nipple) x 27.0 mm
2.2" x 1.9"x (2.5" with threaded nipple) x 1.1"
- Weight: 4 oz (110 g)
- Degree of protection: IP20 (indoor use only)
- Protection class: Class 2

RANGE

The range between two CBU-ARP-LR units or between a CBU-ARP-LR and a smartphone can vary a lot depending on the design of a product in which the antennas are housed and on the environment in which they operate. Long-range capabilities can reach approximately 650 feet (200 meters) with a good line of sight connection between nodes. However, if the unit is encapsulated in a metal structure, the range can be only a few feet. Therefore, thorough testing is highly recommended.

Casambi uses mesh network technology, which means that each CBU-ARP-LR also acts as a repeater. When testing the network, it is important to test that each unit can be controlled from any point in the network-covered area.



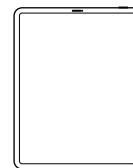
*The wireless range of a Casambi unit is dependent on several factors; how it has been integrated into a luminaire, where it has been installed; taking into consideration surrounding obstacles such as walls and other building materials that may block signals.

COMPATIBLE DEVICES



Compatible devices: Android and iOS Operating Systems.

We support the latest OS versions for Android and iOS, and their last two major versions respectively.



Tablets



Smartphones





Project: _____
 Reference Type: _____
 Item Code: _____
 Date: _____
 Notes: _____

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna,
- Increase the separation between the equipment and the receiver,
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected,
- Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

INSTALLATION

Make sure that the mains voltage is switched off when making any connections.

Use supplied locknut with 1/2" NPT-thread for mechanical fixation of the CBU-ARP-LR during installation.

Choose the wiring diagram according to your application and valid fixture profile.

The mains input is marked with Black (Line) and White (Neutral) wires. The galvanically isolated Relay output (NO) is marked with two Red wires.

The low voltage sensor input is marked with Blue (12/24V) and Pink (Common) colors.

The low voltage output (0-10V) is marked with Violet (Positive) and Pink (Common) colors.

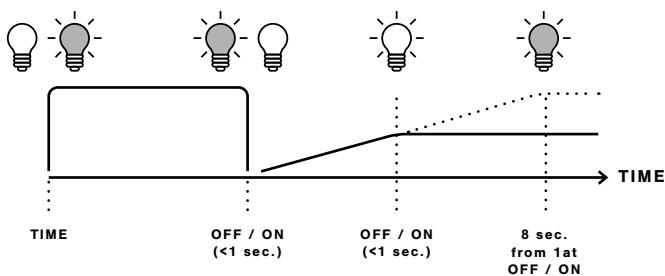
Use special terminal connection blocks for AWG16 (mains). Use AWG20 (0-10V, sensor input) for stranded conductor electrical wires. Remove pre-stripped insulation from the individual wires that are used for connection. Insert the wires into the corresponding holes and close the connector lock or tighten the connector screw.

Make sure that the ends of any unused wires are individually insulated and not in connection with other wires or metal structures.

If you install the CBU-ARP-LR into a heat-sensitive environment (i.e. inside a luminaire or in a ceiling outlet box above a luminaire), make sure that the ambient temperature does not exceed the specified maximum value.

The unit has a radio transceiver and an embedded antenna. To guarantee optimal unit performance and operational range, avoid enclosed installation into metal boxes.

DIMMING WITHOUT APP



1. Turn lights on from a wall switch.
2. Quickly flick the wall switch off (max. 1sec.) and back on. The light level starts to increase gradually.
3. Flick the switch again at the desired dim level. The selected level is saved automatically.
4. If the second flick is not done within 8 seconds, the light intensity reaches its maximum level.
5. Flicking the switch can also be used to switch between predefined scenes.



Project: _____
 Reference Type: _____
 Item Code: _____
 Date: _____
 Notes: _____

FIXTURE PROFILES

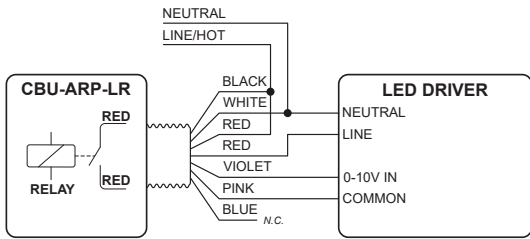
Profile#	Profile name / in app description	Description	Wiring	Physical Use / Type of device connected
8810	CBU-ARP 0-10V	A 0-10 V dimmer with one slider in application to control light level. Relay is OFF at 0% and ON at levels above 0%.	1	1 x 0-10V Driver
8811	CBU-ARP Presence Sensor	The CBU-ARP acts as a presence sensor for the Casambi network together with an external PIR sensor.	3	Presence Sensor
8812	CBU-ARP 0-10V (On/Off)	A 0-10 V dimmer with one slider in application to control light level. An On/Off toggle switches the relay output on or off in app.	1	1 x 0-10V Driver
8813	CBU-ARP 0-10V (PB)	A 0-10 V dimmer with one slider. A push button controls the relay output, when an element in app is pressed, the relay is on. Relay reacts also to dimming levels being off at dimming level 0%, on at levels above 0%	1	1 x 0-10V Driver
8814	CBU-ARP 0-10V + Presence sensor	A 0-10 V dimmer with one slider to control the connected driver. Sensor input acts as a sensor trigger, the CBU-ARP appears in app under sensors and operation can be adjusted. Relay is OFF at 0% and ON at levels above 0%	2	1 x 0-10V Driver
8819	CBU-ARP Push button + Presence sensor	The CBU-ARP can act as a push button and/or sensor for the network.	4	Switch or Presence Sensor
8820	CBU-ARP DALI	A broadcasting DALI dimmer with a slider in the application to control light level. DALI driver does not need to be addressed. DALI dimming curve is logarithmic and relay is always on.	5	1 x DALI DT6 Driver
8821	CBU-ARP DALI/BC/Sensors	A broadcasting DALI dimmer with a slider in the application to control light level. DALI driver does not need to be addressed. DALI dimming curve is logarithmic and relay is always on. One DALI sensor providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus can be connected together with the driver. Sensor is using DALI levels to control the dimming output.	6	1 x DALI DT6 Driver and 1 x DALI Sensor
8822	CBU-ARP DALI DT8/Dim,TW	A tunable white control for light intensity and color with separate sliders. Light color adjustable between 2500 and 6500 K. Connected driver is broadcast controlled with a logarithmic dimming curve. Relay is OFF at 0% and ON at levels above 0%.	5	1 x DALI DT8 Driver
8823	CBU-ARP DALI/DT8/Dim,RGB	A RGB control with light intensity, color and color saturation sliders. Connected driver is broadcast controlled with a logarithmic dimming curve. Relay is OFF at 0% and ON at levels above 0%	5	1 x DALI DT8 RGB Driver
8824	CBU-ARP DALI/DT8/Dim,RGBW	4-channel compatible RGBW DALI DT8 profile supporting "RGBWAF" -color type. Dimming, white, color and color saturation sliders to control light color / white. White color slider in percentage levels. Driver is broadcast controlled with a logarithmic dimming curve. Relay is OFF at 0% and ON at levels above 0%.	5	1 x DALI DT8 RGBW Driver
8825	CBU-ARP DALI/DT8/Dim,XY	An X-Y color co-ordinates supporting profile with a dimmer slider for intensity control and X and Y sliders for color control. DALI driver is controlled with broadcast control, dimming curve is logarithmic. Relay is OFF at 0% and ON at levels above 0%.	5	1 x DALI DT8 Driver



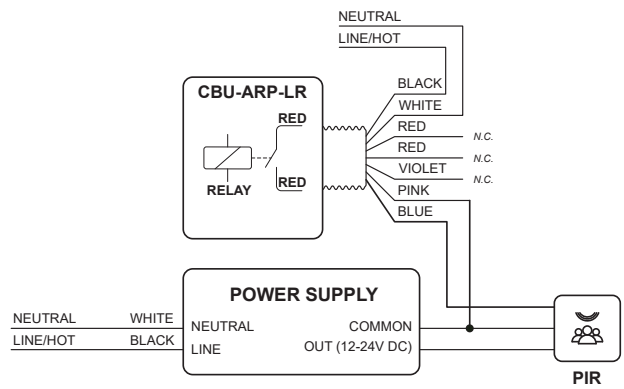
Project: _____
 Reference Type: _____
 Item Code: _____
 Date: _____
 Notes: _____

WIRING DIAGRAMS

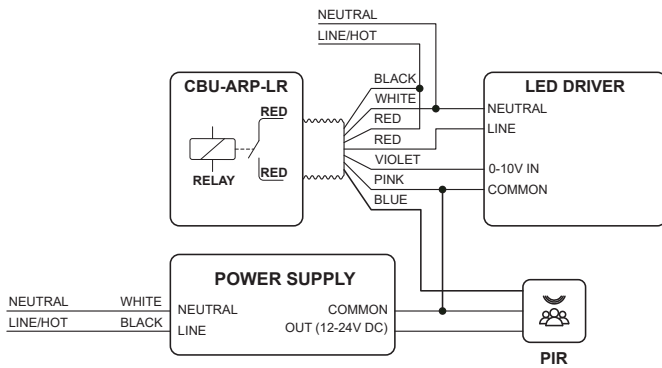
1.



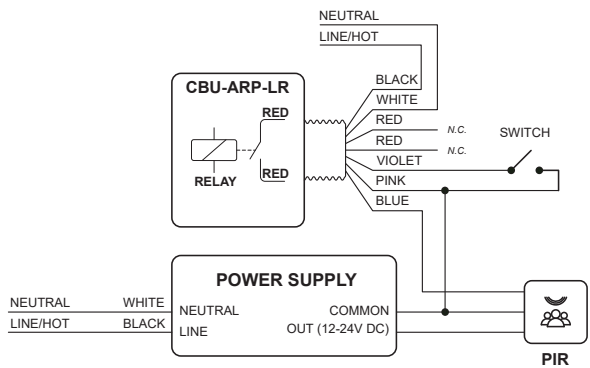
3.



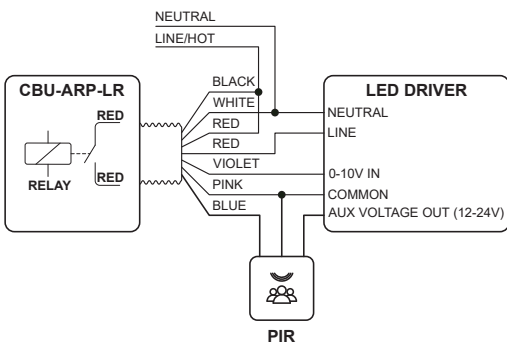
2A.



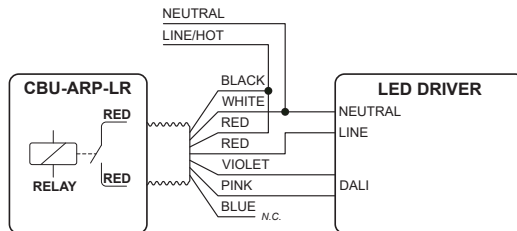
4.



2B.



5.





Project: _____

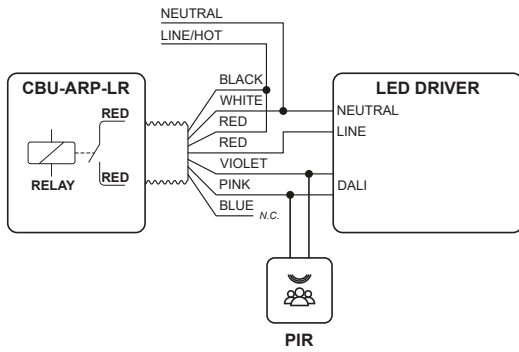
Reference Type: _____

Item Code: _____

Date: _____

Notes: _____

6.



DISPOSAL INSTRUCTIONS

This electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product correctly: Regulations governing hazardous waste identification, classification, generation, management and disposal, found in title 40 CFR parts 260 through 273, should be observed.