



ELECTRON Bluetooth 4 Channel PWM Dimmer Dem.214 User Manual

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General notes and precautions

- Please make sure that during the installation, DEM.214 should not be supplied with 12-48VDC.
- Designed only for indoor use.
- Intended to use with LED modules only.
- Do not try to fix any damage or malfunction, by opening the DEM.214. The materials and parts used in the DEM.214 cannot be replaced. This must be done by an experienced and specialized technician of your supplier.
- When DEM.214 is installed inside metallic cases/boards, its range might be reduced.
- The operating voltage of the LED modules connected to DEM.214 should be the same with the Power Supply voltage of DEM.214.
- Connect only common anode (CA) LED modules.
- Disconnect the power supply for any service.

Caution: Make sure that the total current of the loads that are going to be connected to the dimmer is not higher than the maximum (total) current capacity of the dimmer.

The current of the load can be higher if their power factor is smaller than one. Please refer to the technical specifications of the loads to learn more about the current they consume.

Compatible loads

Connect only PWM dimmable LED modules with operating voltage between 12-48VDC and common anode configuration.

Connecting power supply and load

DEM.214 must be switched off before connecting / replacing any type of led strip or load in general.

It is important that the total amount of the loads does not exceed the dimmer's rated output power.

Only 12-48VDC dimmable LED modules should be connected to the dimmer's output.

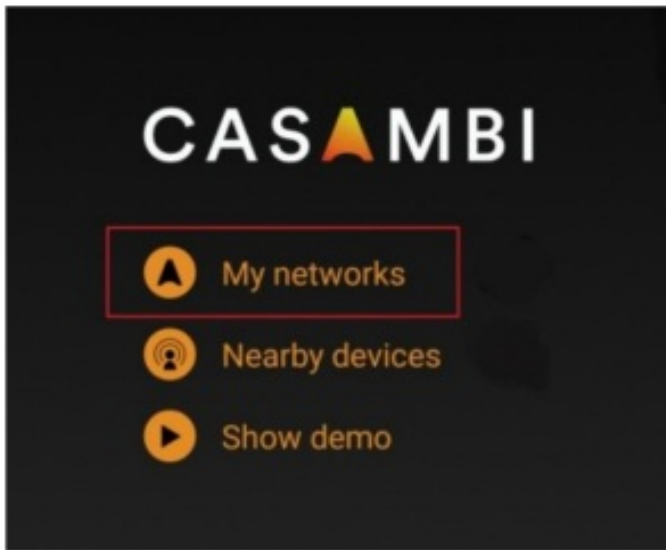
DEM.214 it is a 4 channel Bluetooth dimmer. It has 4 independent PWM outputs at 1.95kHz, making ideal for TV studios. The dimmer's total output is capable of supplying up to 480W @ 48VDC, 240W @ 24VDC and 120W @ 12VDC of load max. DEM.214 can be used for LED loads, such as LED strips. The dimmer offers high flexibility in terms of communication. It is driven by CASAMBI's Bluetooth module. Thus, it can be easily integrated into existing networks. DEM.214 has been designed for interior use only. Finally, DEM.214 can be power supplied with 12-48VDC and with its polymer case it can be easily fastened almost on any surface.

Power supply connection diagram



Bluetooth pairing

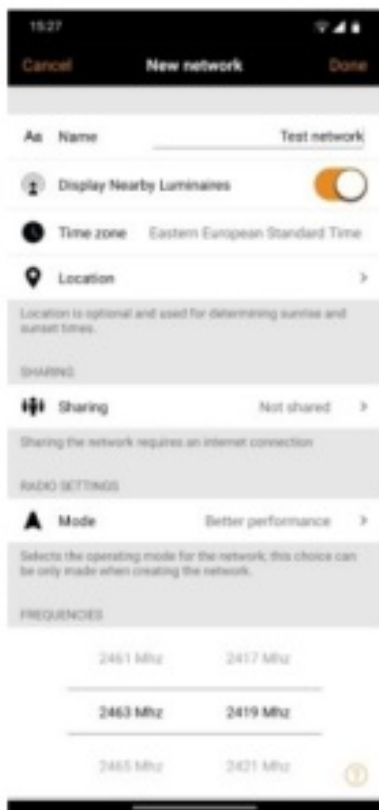
DEM.214 can be paired and controlled from your Bluetooth device through Casambi app, which is available in “Play Store” and “Apple Store” for free. Once you have downloaded the Casambi app, you need to enable the Bluetooth connections at your device. Then open the application and go to My networks as it is indicated in the next figure.



Then select the option “Create a new network”.



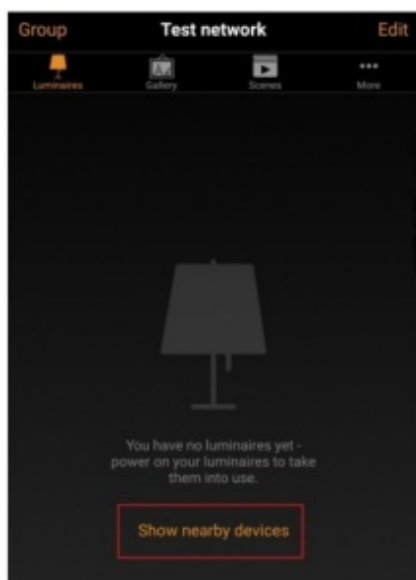
Select a name for your network and any other preference that is required and press “Save”.



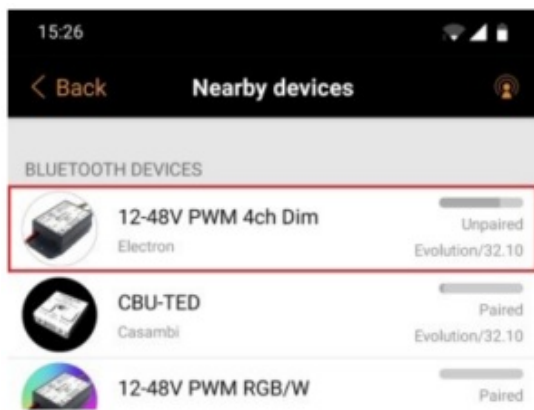
Now you have successfully created your own network! Select “Show nearby devices” to add DEM.214 to your network. DEM.214 should be power supplied, in order for it to be visible at your Bluetooth device.

Note that you can add up to 250 DEM.214 devices into a single evolution network (127 with Classic networks) or less if you are already using some other Casambi devices in the same network.

For more information about the network settings and the Casambi app in general contact with ELECTRON S.A. or visit Casambi’s web site.



Select “DEM.214” from the available devices for completing the Bluetooth pairing between your device and DEM.214.

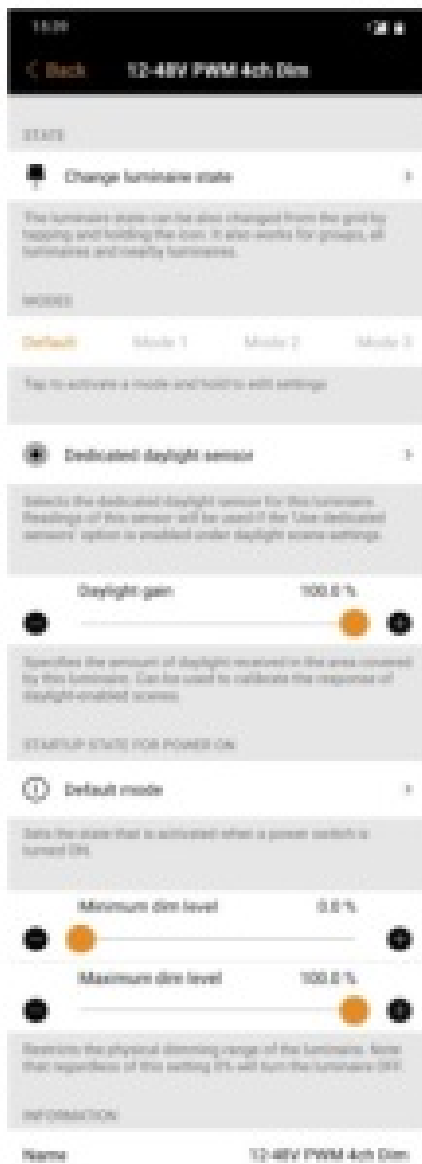


The device is finally ready for use. You can now control DEM.214 from your Bluetooth device!



With a single “tap” on the device you can switch it “on” or “off”. You can also “tap & hold” the device and then by sliding your finger to left and to the right you can adjust the output of DEM.214 from 0% to 100% accordingly.

Casambi app offers a lot of options such as creating Scenes, Selecting new name for the device, Dimming range etc. The Scene editing can be adjusted from this page under the section “Scenes”, while the other settings can be accessed by double “tapping” on the device. These custom setting can be seen in the following picture.



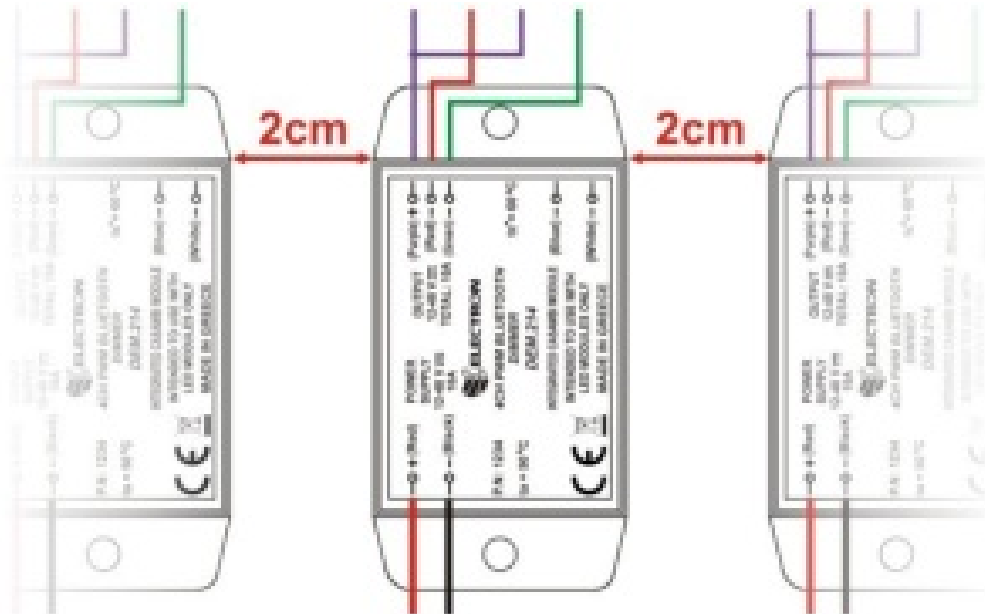
Technical specifications

Output channel.	4.
Power supply.	12-48VDC.
Total Output current (Ch1 + Ch2 + Ch3 + Ch4).	10A.
Maximum current per channel.	10A.

Output voltage	12-48VDC.
Maximum output power 12VDC / 24VDC / 48VDC.	120W / 240W / 480W.
Dimmable.	Yes, PWM (1953Hz).
Type of loads.	12VDC – 48VDC Constant voltage dimmable LED modules.
Wireless input.	Bluetooth.
Wireless range.	Up to 30m. ¹
Dimming range.	0%-100%.
Dimming curve correction.	Yes. Adjusting min / max dimming values from software.
Dimming resolution.	2048 steps.
Power supply connection.	2x 1.5mm ² cables.
Load connection.	5x 1.0mm ² cables.
Power consumption. (Max. load @ 100%).	480.5W.
Class.	Class III.

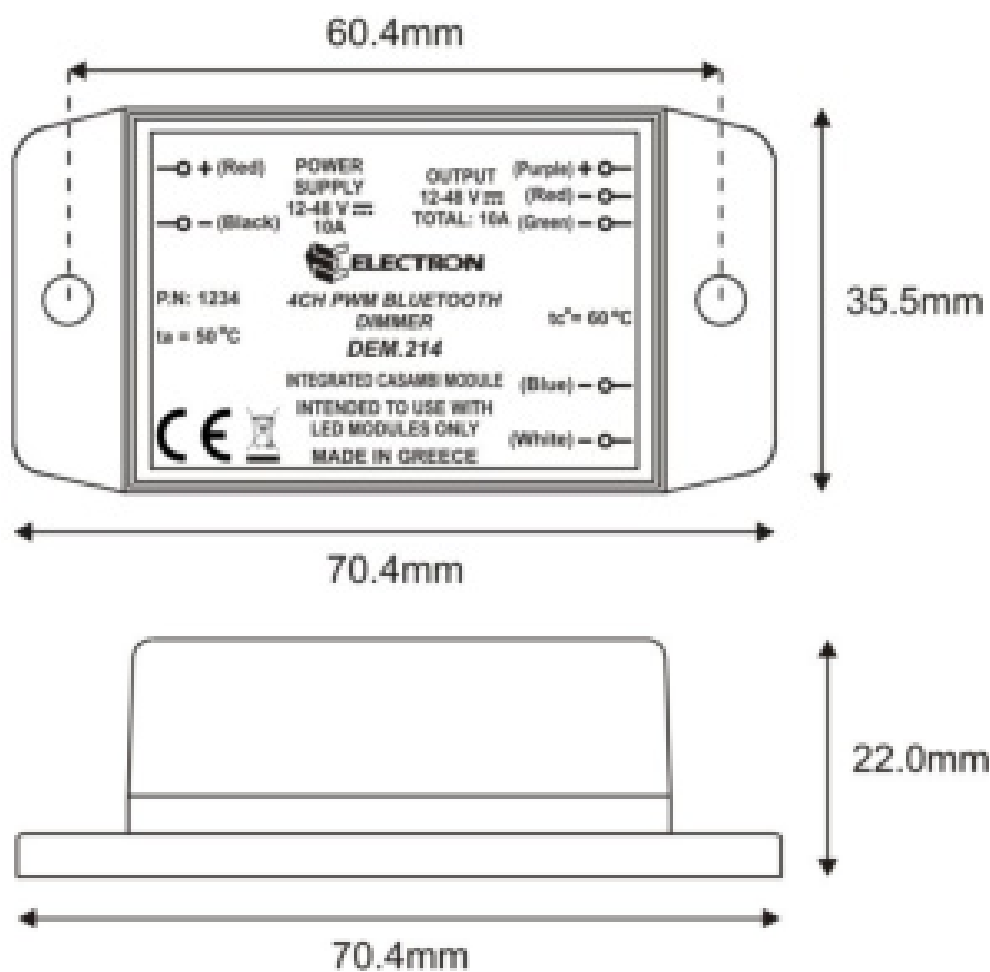
Minimum space between multiple DEM.214

1. When DEM.214 are loaded more or equal than 50% (current output $\geq 5A$).



2. When DEM.214 are loaded less than 50% (current output $< 5A$). Then there is no need for minimum space but the dimmers must not make contact with each other.

Dimensions

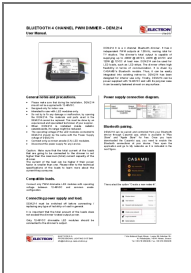




At the end of its lifetime DEM.214 must be delivered in a special waste collection center. The improper disposal can cause damages for the environment and poses dangers for the human health.



Documents / Resources



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ELECTRON, Bluetooth, 4 Channel, PWM, Dimmer, Dem.214