

**CASAMBI
INSIDE**

■ Features

- Casambi to DMX control device for street and architectural lighting
- Tool-less twist and lock mounting into NEMA 7 pin socket (ANSI 136.41)
- BLE5 Compatible with Casambi Long range networks.
- Starting DMX channel/address can be selected
- Copy slot function allows to control up to 512 channels (1 universe)
- Several Casambi fixture profiles available

■ Description

CAS-UNI-NEMA-7P-81-DMX control unit enables easy autonomous control and dimming of DMX devices (drivers, light fixtures, etc.) There is no need to use hubs, master devices or complex computer software programs.

Setup and communication with other control devices is done using Bluetooth low Energy (BLE).

Configuration and control can be done from a mobile phone or tablet using the free CASAMBI APP.

Main use is control of outdoor DMX luminaries in lighting applications. It is provided with an IP66 UV resistant enclosure. Hydrophobic vent is incorporated to prevent condensation.

Range between controllers in outdoors with direct line of sight and without obstacles is up to 60m in Balanced BLE4 type nets, and can be over 100m in BLE5 Long range type nets.


Up to 250 controllers (or other Casambi devices) can be supported per network. Depending on the network type (communication speed) and the required data traffic this number may have to be reduced to ensure a fluent behaviour. One installation can have unlimited number of networks which can be grouped together in one Site. Through the site we can control different networks simultaneously (for this each network must have access to Internet through a gateway and have gateway function enabled).

Diverse operating modes are possible (on/off, dimming 0-100%, RGBW, TW Colour control, Dim to warm, circadian control, etc.).

Minimum Casambi transition time between scenes or animations is 1 second.

CAS-UNI-NEMA-7P-81-DMX is compatible with any other devices from other manufacturers which also incorporate CASAMBI inside, and CASAMBI Ready products such as luminaries, presence sensors, relays, actuators, push buttons, etc.

■ Technical data

CAS-UNI-NEMA-7P-81-DMX	
Nominal line voltage	110-277Vac
Input voltage range	85-305Vac
Frequency	47-60Hz
Power consumption standby	<0,8W@230Vac (DMX bus disconnected)
Power consumption communicating	<1W @230Vac (DMX bus connected)
Output control interface	3 wire isolated DMX-512
L' output current	15A max. Input bridged, no relay.
Dimming range	0-100%
RF communication interface	Bluetooth 4.0 or 5.0 Low energy (BLE)
RF communication protocol	Casambi
RF spectrum	2402–2483 MHz
RF network	Self-healing, frequency-hopping, spread spectrum mesh technology
Maximum transmission power	+8 dBm
Wireless class	Class 2
Data security	AES128 bit encryption + elliptical cryptography
Firmware update	OTA (Over the air)
Time/date update	Internal counter. Updatable from APP or by use of external timer after power disconnection or through Casambi gateway
Protections	Line surge overvoltage.
Operating temperature range	-25° to +45°C
Dimensions	Diameter 88mm. Height 81mm
Weight	150gr.
Enclosure material	PC with anti-UV treatment
Enclosure isolation type	Reinforced isolation 
IP	66
IK	09
Connector	NEMA 7P (ANSI C136.41)
Standards	EN 61347-1:2016, EN 61347-2-11:2003, EN 55015:2013, EN 61547:2011, EN 61000-3-2, EN 61000-3-3, EN 301489-1, EN 301489-17.
Directives	(LVD) 2014/35/UE, (EMC) 2014/30/UE, (RED) 2014/53/UE, (RoHS) 2011/65/UE, (REACH) 1907/2006.

■ Profiles

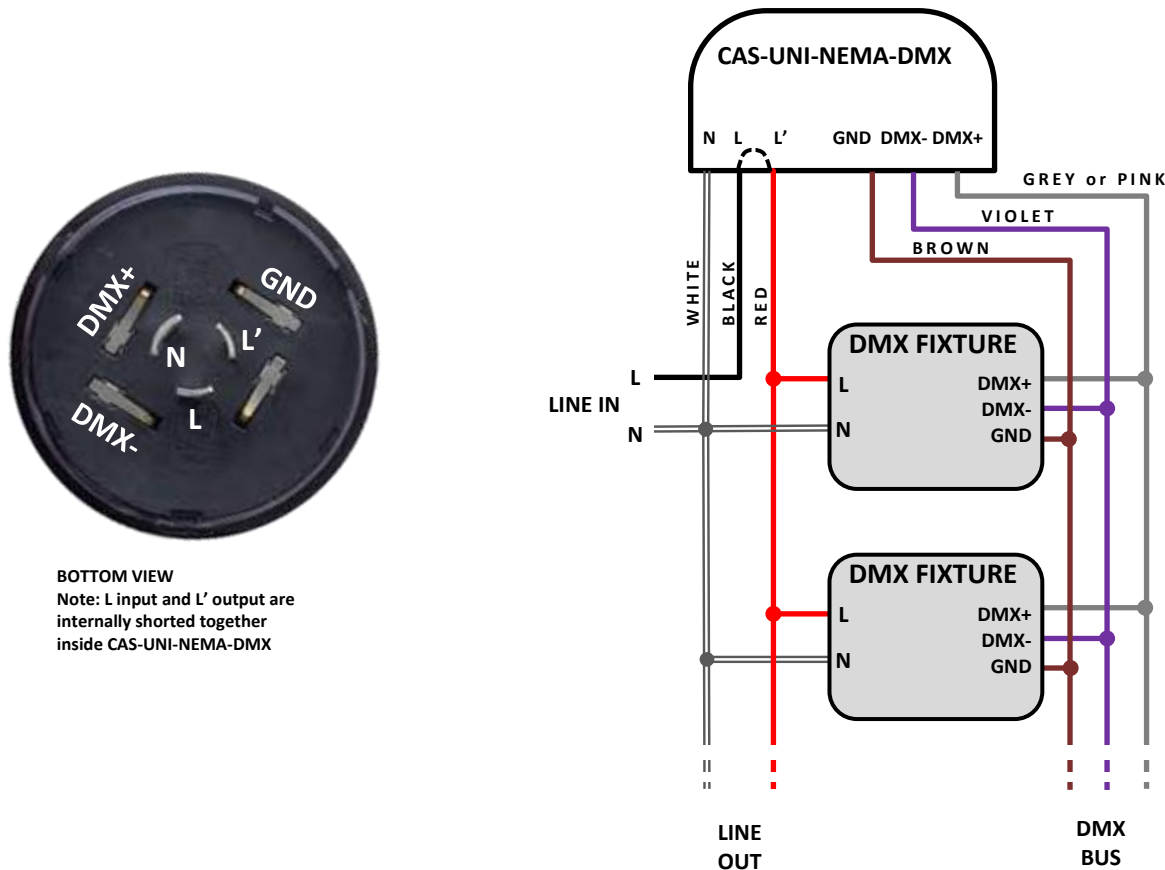
PROFILE	DESCRIPTION
casDMX – RGB/White	RGBW with colour palette. Slider for White. 4 Channels. (Default fixture)
casDMX - RGBW	RGBW with colour palette. White/Colour balance slider. 4 Channels.
casDMX - RGB	RGB with colour palette. 3 Channels.
casDMX – 4 Dim	4 sliders for control of Individual Channels. 4 Channels.
casDMX – 8 Dim	8 sliders for control of Individual Channels. Icon dimming only controls first four channels. 8 Channels. Timing of the channels 5 to 8 might experience some delay.
casDMX - 2 CCT	Tunable white. Dimmer slider for brightness. Up/Down slider for CCT control. 2 Channels.
casDMX - DTW	Tunable white dim to warm. 2 Channels.
casDMX – 12 Dim EVO	12 sliders for control of Individual Channels. (Under development. Reserved for future use)

■ DMX Parameters (can be selected in Casambi App):

PARAMETERS	
DMX Start Address ≥ 1	Starting DMX Channel/address. It must match that of the device to be controlled.
DMX Frame length ≤ 512	Sets the consecutive DMX Channels range which will be used.
DMX Copy slot count > 0	Allows copying the information contained in a block of X Channels, starting with the "DMX start address", into consecutive channels. The value of "copy slot count" defines the number of X channels to be copied. The information in the block will be copied and transmitted by other consecutive channels within the range defined by the "DMX frame length". In this way it is possible to replicate the information of the first channels into other channels. Some DMX controlled LED strips use many DMX channels and require this function to be used in order to control the complete LED strip.

Example: if we have 5 RGBW DMX devices and we want to control them with the same colour through Casambi we could set as follows: Address the devices as 1, 5, 9, 13, 17 (each device uses 4 consecutive channels to control individually the RGBW outputs). Then we can set DMX Start Address to 1, DMX Frame length to 20, and DMX Copy slot count to 4. The DMX messages sent to the first 4 channels will be replicated into the consecutive blocks of 4 channels. The last channel that will be used for transmission is number 20.

■ Wiring diagram



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