▪ Descripción

CAS-UNI-NEMA-5P-81-010 control unit enables easy autonomous control and dimming of 0-10V and 1-10V devices (drivers, electronic ballasts, etc.). There is no need to use hubs, master devices or complex computer programs.

Communication is achieved by a meshed Bluetooth 4.0 network.

Each control unit stores information about its own configuration and also the configuration of the rest of controls installed in the same network. This provides the system with a high robustness level and also simplifies replacement of control units as programming them is not required.

Configuration and control can be done from a mobile phone or tablet using the free CASAMBI APP (available for iOS and Android). The networks work autonomously once configured. Remote control of the installation is also possible through the cloud by use of an internet connected device with Casambi App set up as gateway.

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

Electrical connection and mechanical fixing are done through a standard NEMA socket (ANSI 136.41) by twist and lock, without tools.
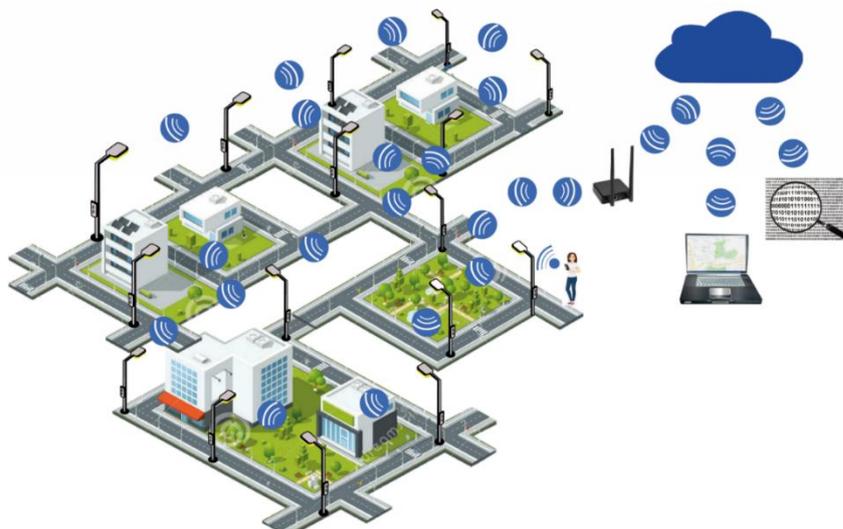
▪ Operation

By use of CASAMBI APP it is possible to group the luminaries by streets, set dimming levels based on the time, schedule special events for specific dates, etc.

Communication range between controllers is up to 70m outdoors. Adding the controllers to a net must be done individually with a mobile phone or tablet within range of each unit. For further installation setup and programming it is only necessary to be within the range of one of the controllers. Because it is a mesh type network, controllers communicate with each other until the information reaches the controller for which it is intended, even if it is located far away.

Communication security is provided by encrypted messages. It is possible to set different levels of access and configuration permissions. Network configuration information can optionally be stored in CASAMBI cloud and recovered if necessary. Several restoration points can be created. When a controller receives a firmware update, it will automatically be retransmitted to the other controllers.

Each network supports up to 250 controllers. One installation can have unlimited number of networks which can be grouped together in one Site. Through the sites we can control different networks simultaneously, each network must have access to Internet through a Casambi router.

Control units can be controlled individually or in groups. With 0-10V control gear It is possible to switch on/off, dim 0-100%, dim to warm tunable white (1-10V control gear cannot be completely switched off).

Different communication profiles can be configured to match the luminaire requirements (see profile list).

CAS-UNI-NEMA-5P-81-010 features smart switching capability. It is possible to change between different preset light levels or scenes by flicking the power supply off and on.

Monitoring of internal temperature is possible by use of Casambi App.

It is compatible with any other devices from other manufacturers which also incorporate CASAMBI inside and CASAMBI Ready products like luminaries, presence sensors, relays, actuators, push buttons, etc.

CAS-UNI-NEMA-5P-81-010 is IoT ready. It can send information to Casambi cloud by use of a device with internet connection and Casambi App set up as gateway. Access to this big data is possible through API and JSON protocol to exploit this information.

▪ Technical data

CAS-UNI-NEMA-5P-81-010	
Nominal line voltage	110-240Vac
Input voltage range	85-305Vac
Frequency	47-60Hz
Power consumption standby	<0,8W@230Vac
Power consumption communicating	<1W @230Vac
Output control interface	5A
Integrated 0-10V voltage source	0-10V
0-10V output current	10VDC
LOAD output current	10mA max.
Dimming range	0-100%
RF communication interface	Bluetooth 4.0 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	+4 dBm
Wireless class	Class 2
Data security	AES128 bit encryption + elliptical cryptography
Firmware update	(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 permanent overvoltage, line surge overvoltage, temperature
Temperature monitoring	Internal temperature is displayed in Casambi App
Operating temperature range	-40° to +80°C
Dimensions	Diameter 88mm. Height 63mm
Weight	150gr.
Enclosure material	PC with anti-UV treatment
Enclosure isolation type	Reinforced isolation
IP	66
IK	09
Connector	NEMA 5P (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

CAS-NODE (0-10V Lin)	Linear dimming curve.
CAS-NODE (0-10V Log)	Logarithmic dimming curve.

▪ Wiring diagrams