

BCEP-RF868

Street Lighting Control Box

Main Features

- The street lighting control box BCEP-RF868 is designed to replace the Ripple Control Receivers (PULSADIS) for street control lighting.
- The BCEP product enables remote monitoring and management of public lighting lines through a Central Management System .
- Unlike the monodirectionnal PULSADIS system, the BCEP-RF868 enables bidirectionnal communication, allowing the reading of operationnal parameters from the whole controlled lighting line.
- Each BCEP becomes an element of a RF mesh network (868Mhz) on the whole controlled area

Functionality

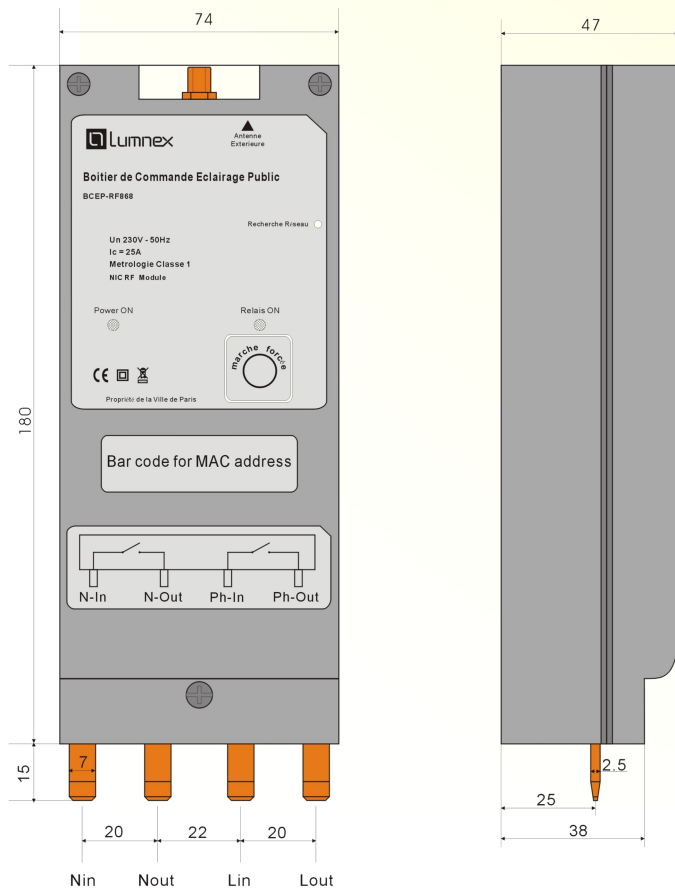
- Interchangeable module « 1 for 1 » with existing PULSADIS module
 - Switch on and switch off commands provided using RF by central management system
 - Switch On / Switch off hours modulated following solar calendar
 - Bidirectionnal radio communication for diagnostics / command acknowledgment
 - Real-time control and management
 - Remote monitoring using StreetLight Vision central management system.
 - 25A Bipolar command relays
 - Real-Time embedded clock in order to ensure time management during 24 hours in case of power supply failure
 - Detection and alerts of power supply failures
 - Override push button in the front and light to acknowledge the status of relay
 - SMA connector for external antenna

- Communicating RF mesh network with the following protocol and characteristics :
 - Frequency 868 MHz : Emission power : 27 dBm, sensitivity : -102 dBm, baud rate : 100 kb/s
 - Frequency 2,4 GHz : Emission power : 24 dBm, sensitivity : -98 dBm, baud rate : 500 kb/s
 - Frequency 870-876 MHz : Emission power : 27 dBm, sensitivity : -102 dBm, baud rate : 100 kb/s
 - Network protocol : IPv4, IPv6, DTLS, UDP, TCP, SNMPv3, IPSEC, PKI norme X.509, pare-feu L3/L4
- Timing synchronization within 1s
- Protected SOC and Bootloader
- Commands, informations and programmations :
 - Real-Time command using SLV
 - 365 days calendar (366 leap year), 2 events per day
 - 150 command events (Sunset/Sunrise + offset; « every Mondays, Tuesdays, ... at h:m »; dd/mm/yy at h:m; ...)
 - Feedback informations on the commands and orders
 - BCEP status
 - Network status



Revision date : 09/05/2018

Technical Characteristics



Mechanical design

Supply Voltage	180 - 275 Vac
Frequency	47 - 53 Hz
Average/Maximal power	2W / 8W
Relays	2 relays (Line and Neutral) 25A max
Relays cut-off ability	25A for $\cos \varphi = 1$ 15 A for $\cos \varphi = 0.4$
Protection against overvoltages	8 kV
Operating temperature	-25°C to +65°C
Operating limits	-40°C to +85°C
Humidity	0 to 95 %
Weight	380 g
Enclosure protection	IP 52 with vertical assembly IP 50 with horizontal assembly
Life Span	> 15 years

Standards and European directives

- **Radio :**
 - Directive RED (2014/53/UE)
 - EN 300-328
 - EN 302-208
 - EN 303-204
- **Health :**
 - EN 62479 : 2010
- **EMC :**
 - EN 301489-1 et -3
 - EN 61547
 - EN55022
 - EN 55015
 - EN 61000-3-2
 - EN 61000-3-3
- **Electrical Safety :**
 - Directive 2014/35/UE
 - EN 60950-1
 - EN 61347-2-11
- **Environment :**
 - RoHS
 - WEEE

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