

STREETLIGHT CONTROLLERS OF LED LUMINAIRES FOR POINT-TO-POINT CONTROL

M²-PLN-NBN is a **streetlight controller** that allows you to **dim luminaires in both stand-alone and interactive modes**, to **monitor their operation and performance** and to provide useful data for organising preventive maintenance activities.

The M³-PLN-NBN is the latest addition to the Luminibus family of controllers, equipped with up-to-date and innovative technologies such as the ability to make a streetlight, located anywhere in the area, communicate with the management and control centre through the **narrow band network of the Internet of Things (NB-IoT)**.

With NB-IoT, the data communication network stops being a source of investment absorption for facilities, resources and maintenance; in addition, its ubiquity and accessibility makes it possible to communicate even in hostile environmental conditions and, operating on standard protocols and licensed frequencies, guarantees bandwidth availability at all times.

In addition to the considerable advantage of leveraging the NB-IoT, the M³-PLN-NBN is the **'plug&play'** controller that relieves field personnel from spending excessive time and expertise on its installation: a simple twisting motion is all that is needed to plug in the controller from the outside thanks to the built-in **ZHAGA connector** and a smartphone to configure it via the Luminibus APP, which is also simple and intuitive.

M³-PLN-NBN is **also available in a version for indoor lamp installation**, where ZHAGA connection is not possible. Combined with Luminibus IoT sensors for sampling hourly traffic flow (TAI) and road surface luminance and weather conditions (FAI), it enables **adaptive lighting solutions**.



available in **NB-IoT™** plug&play version



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INSTALLATION

M³-PLN-NBN INSTALLATION is available with a **Zhaga socket** for external installation **or with connectors and lengths for positioning inside the luminaire**; in all cases it is connected directly to the lamp driver via a **DALI 2.0 interface** and communicates instantly after the lamp is switched on.

DIMMING

The luminaire equipped with the Luminibus controller operates according to the light profile, based on absolute time or local ephemerides, assigned to it at the factory (**stand-alone** mode) or in **interactive** form. In the latter condition, the controller can also execute instantaneous commands received from the Luminibus software platform.

SUITABLE FOR HYBRID SYSTEMS

The **Luminibus family of controllers** (point-to-point NB-IoT or PLC or panel remote control modules) **allows luminaires of different technologies to be 'smartenized' in the same installation**, enabling the operator to control hybrid technology systems.

COMMUNICATION PROTOCOLS

Data communication is carried out using **standard, open protocols**; this guarantees a high level of security and protection in communication with controllers, as well as reducing the risk of vendor lock-in.

MAIN TECHNICAL FEATURES

Microprocessor

ARM9 with RAM & FLASH memory and Real Time Clock.

Modem

NB IoT pfor data communication with management software.

Antenna

external multiband omnidirectional.

Performance

Measurement of electrical parameters (input voltage, active and reactive absorbed energy, cos φ, etc.);
On/Off control of the streetlight.

Voltage

12 ÷ 24Vcc.

Streetlight control

via DALI 2.0 interface.

Temperature

-40 ÷ + 85 °C operating temperature.

Dimensions (antenna excluded)

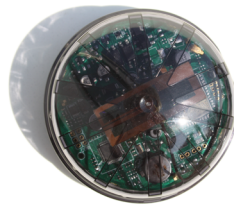
diameter 80 mm, height 35 mm.

Protection Class

IP67

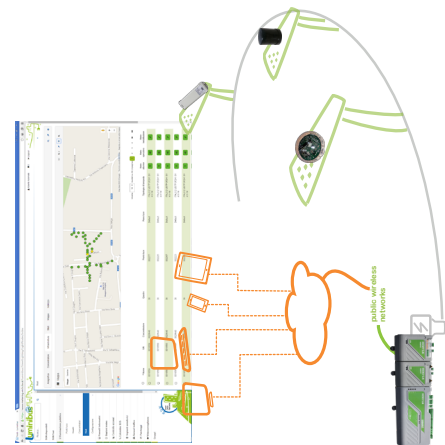
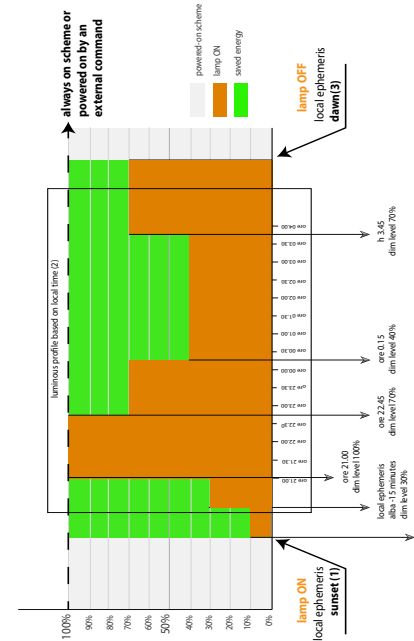
Case

plastic material UL94 V-0 classified.



main features

- static dimming: on/off and luminous flux management according to the assigned light profile
- dynamic dimming according to FAI and TAI criteria (optional)
- information about the operating status of the lamp (operating status, temperature, electrical measurements, diagnostic values, consumption)
- lamp service history
- remote software upgrade
- electrical consumption control (KWh)



Luminibus is the complete smart lighting system

Combined with CB200, the remote management system for switchboards and streetlights, Luminibus controllers provide full control and diagnostics of the entire public lighting plant: luminaires, switchboards and everything in between.