



SMART CITY

Lighting Systems





SMART CITY

LIGHTING CONTROL UNITS



Smart city lighting control units are designed in accordance with international standards to optimize energy efficiency and maintenance processes. Developed for luminaires with ZHAGA and NEMA socket structures, these units can be easily mounted on poles or luminaires to provide automatic control of lighting systems. Automation units that can be integrated into conventional products without socket structures offer a compatible and efficient solution for existing infrastructures. This enables cities to have more sustainable and smart lighting systems.

The application areas of smart lighting systems are very broad in terms of ease of applicability and long-distance data exchange capability. They can be easily applied in parks, roads, ports, facilities, universities and organized industrial zones, among other similar areas.



SMART AND EFFICIENT LIGHTING

Remote controllability saves labor and time.



COMPATIBILITY AND FLEXIBILITY

Options are available that work with NEMA, ZHAGA, DALI, DALI2, D4i standards, and conventional lighting luminaires.



SCENARIO-BASED AND AUTONOMOUS OPERATION

Allows users to create customizable scenarios according to their needs and operates fully autonomously, adjusting to conditions without user intervention.



UNIQUE ADDRESSING WITH SINGLE ID

Each unit has a unique identity with Unique ID technology, making it very easy to control each unit individually or in groups.

UPGRADE YOUR LUMINARIES TO NEMA STANDARDS



N7NODE NEMA

Energy efficiency and smart city lighting solutions are becoming increasingly important in the modern world. N7Node-Nema is an advanced smart city lighting control device developed to meet these needs. It offers high efficiency in the areas where it is used, thanks to its energy-saving features, compatibility with different power sources, scenario system, LoRaWAN communication module, GPS for location determination, power consumption and fault detection tracking, easy use and user-friendly design.



Smart Efficient Reliable

Smart and Efficient Lighting Method

N7Node adjusts the light intensity of the LED luminaires it controls, detects faults, tracks and reports energy consumption and operates the LED luminaires at appropriate power levels by detecting ambient light intensity with its internal light sensor.

User Scenario and Autonomous Operation

N7Node-NEMA allows users to create customizable scenarios according to their needs and operates fully autonomously, adjusting to conditions without user intervention.

Easy Installation and Maintenance

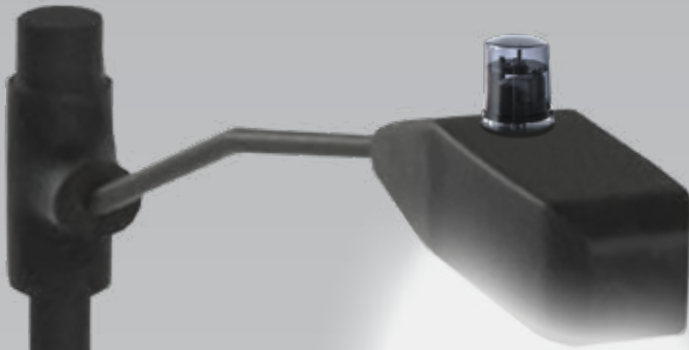
Designed in accordance with NEMA (ANSI C136.41) standards, N7Node offers quick and easy installation with its plug&play feature. With the LoRaWAN communication module, data transmission is possible over wider areas and longer distances.

Comprehensive Compatibility

The N7Node-NEMA is compatible with various power sources such as ON/OFF, 0-10 V, 1-10 V, PWM, DALI, DALI2, and D4i. This wide range of compatibility facilitates the integration of the N7Node into different lighting systems.

Unique Addressing and Reliability

Each N7Node device is addressed with a unique and singular UNIQUE ID, preventing device conflicts in the field and simplifying installation.



SOLUTION THAT ILLUMINATES THE FUTURE



POINODE EXTERNAL

Developed as an energy efficiency system solution, our PoiNode-External sheds light on the future of energy management in smart city lighting systems. Capable of communicating over long distances, with motion and light sensors, an option to add GPS, power consumption and fault detection tracking and user-friendly design, it provides a solution to one of the modern era's problems.





Easy Energy Savings

LoRaWAN Wireless Communication

PoiNode-External is equipped with a wireless communication module that operates with LoRaWAN (Long Range Wide Area Network). This technology eliminates the need for cables during installation, offering flexible and quick setup.

External PIR Motion Sensor

The device can be integrated with external passive infrared (PIR) motion detection sensors. These sensors detect human movements and automatically turn on, off, or adjust the light intensity of the connected lighting fixture.

LED Luminaire Fault Detection

PoiNode continuously monitors the operational status of the connected LED luminaires and sends immediate notifications to the user in case of any faults.

Real-Time Power Consumption

Tracking PoiNode features real-time power consumption monitoring. This enables users to track energy usage instantly and optimize their energy management strategies.

Built-in Light Sensor

PoiNode-External continuously measures the ambient light level with its built-in light sensor and automatically adjusts the lighting level.


ZHAGA TECHNOLOGY IN AFFORDABLE LIGHTING



ZNODE ZHAGA

ZNode-Zhaga is an advanced lighting control device. It provides high efficiency in its application area with energy savings, compatibility with different power sources, scenario system, power consumption and fault detection tracking, easy installation and user-friendly structure.





Reduce Energy Costs

Energy Savings and Smart Control

ZNode-Zhaga continuously monitors and optimizes the energy consumed by LED luminaires and reports it. The built-in light sensor detects the ambient natural light level and adjusts the power of the LED luminaires accordingly.

Autonomous and Scenario-Based Operation

One of the most important features offered by ZNode is the customizable scenarios according to users' needs. Scenarios easily defined through the software interface allow ZNode to operate fully autonomously.

Wide Compatibility and Flexibility

ZNode works fully compatible with various power sources such as ON/OFF, 0-10 V, 1-10 V, PWM, DALI, DALI2, and D4i.

This wide range of compatibility ensures seamless integration with different lighting systems.

Easy Installation and Reliability

Designed in accordance with ZHAGA standards, ZNode offers quick and easy installation thanks to its plug&play feature. The device operating on the LoRaWAN protocol, provides reliable data communication over very long distances. Additionally, each device is addressed with a unique "UNIQUE ID," preventing conflicts in the field and simplifying installation processes.

MASTER OF THE CONTROLLER



STARGATE GW-300A

It is designed for remote management of smart city nodes and industrial automation nodes . It allows you to manage nodes automatically or manually and can also monitor whether they are working properly. It has an interface that is easy to use from smartphones, computers and tablets. It communicates with third-party servers and cloud structures with protocols such as MQTT, TCP/IP MODBUS with its embedded management interface customized according to the area of use and both transmits the commands sent to the nodes and provides status and fault information. It can present product histories via the WEB interface, as well as share them as reports via e-mail.



Remote & Easy Control

Unique Features

It has features such as mass control, individual control, brightness and relay control with scenario (according to normal-astronomical time), sending scheduled consumption report by e-mail, instant power consumption, monitoring historical data of nodes, defining alarms for nodes.

Server Comfort

Thanks to its innovative interface, it enables monitoring and management of the nodes connected to it and allows easy installation.

Web-based Interface

Easily manage the entire field by connecting remotely with any device that has a web browser, without the need for additional software.

Easy Integration

It easily integrates with 3rd party systems over TCP/IP with its ModBus, MQTT and RestApi integration protocols.





BE SMART
BE WIRELESS
SAVE ENERGY!





25
YEARS

↑

الفعالية
EVENT

LoRaWAN

CITY LIGHTING GETS SMARTER!

The ideal wireless communication solution of smart cities and industrial IOT applications. With strong encryption, low bandwidth and the ability to circumvent physical barriers, LoRaWAN enables data to be transmitted securely, economically and efficiently.

Superior Range

with LoRa Modulation

LoRaWAN provides long-range wireless network technology, providing stronger communication in the most challenging application areas.

International Standard

for Wider Application

Thanks to its standard recognized internationally, LoRaWAN is considered an ideal communication technology for many different applications such as smart city lighting control systems.

High Security

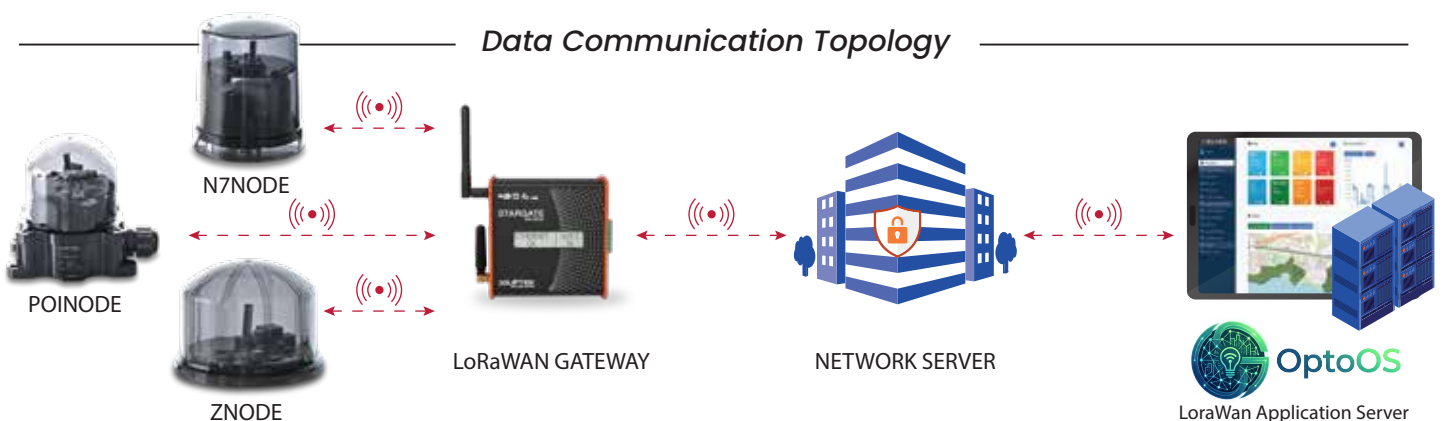
with AES 128 bit

LoRaWAN, which ensures the secure transmission of data and uses a strong encryption method, protects the confidentiality of data. It also using low bandwidth, so it provides a more economical option.

Low Interference

with Chirp Spread Spectrum

Thanks to the algorithm used in LoRaWAN networks, the signal interference problem is minimized. Specifically, LoRaWAN devices automatically adjust to send and receive signals in appropriate frequency ranges by measuring the signal intensity.







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