



Grenton

STREET LIGHTING CONTROLLER **HEZE-1**

ZHAGA + LTE

The HEZE-1 controller is an innovative solution from Grenton, designed specifically for intelligent street lighting. Equipped with a Zhaga socket and communicating via LTE technology, the HEZE-1 provides reliable and efficient street lighting management.

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HEZE-1 | Features

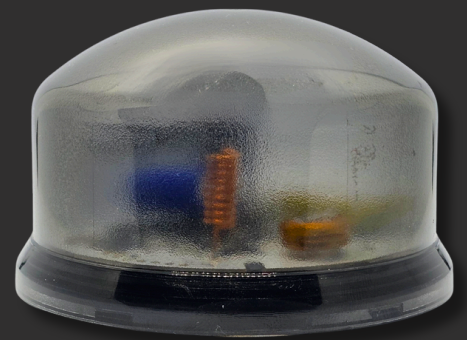
HEZE is a luminaire control system connected via a Zhaga (ZD4i) socket, which communicates wirelessly using GSM (LTE) modules. The data collected by the devices and the ability to configure them (luminaire control) are accessible through the LUMISYS web application.

- **Zhaga Socket:** The standard Zhaga socket ensures compatibility and ease of installation, allowing quick adaptation to a variety of luminaires and lighting modules. **The device is certified with ZD4i.**
- **GSM Communication:** Thanks to GSM technology, HEZE-1 ensures reliable communication and remote lighting management, enabling efficient control over the entire network.
- **Data Security:** The HEZE system offers advanced security mechanisms that protect data and ensure secure lighting management.
- **Alarms:** The HEZE system can detect changes in the tilt of the luminaire, allowing for the identification of events such as car accidents and luminaire displacement, power outages (with a last gasp function), power surges, and many other alarms. Additionally, the alarm threshold auto-configuration feature eliminates the need for manual configuration, ensuring automatic adjustment to changing conditions.
- **Plug&Play Installation:** The HEZE-1 controller is designed for easy installation and operation, minimizing the workload of installers.



HEZE-1 | Features

- **Dusk Sensor** (with dusk synchronization function relative to a group of luminaires)
- **Built-in Astronomical Clock**
- **Control via DALI2 interface** within the 1-100% range (depend on the power supply)
- **GPS Location**
- **Schedules** – weekday, weekend, special day curves
- **Plug&Play Installation** – the controller automatically adjusts alarms trigger conditions based on luminaire power and geolocation
- **Address Detection** – based on the geolocation of the HEZE-1 controller, the LUMISYS system automatically detects its location address
- **Over-the-Air firmware update**
- **Health check status on demand**



HEZE-1 | Measurements

- **Energy** – Active Energy, Active Energy T1, Active Energy T2, Reactive Energy, Reactive Energy T1, Reactive Energy T2
- **Power** – Active Power, Reactive Power, Apparent Power
- **Current**
- **Power Factor**
- **Total Operating Time**
- **LED Temp**
- **Power Supply Temperature**
- **Internal Temperature**
- **Power on Counter**
- **Light Source Start Counter**

HEZE-1 | Advantages

Easy to install and operate, the HEZE-1 street lighting controller enables management, monitoring, and control, facilitating the creation of a smart, connected, secure, and energy-efficient environment.

Why choose Us?



Quick installation

Your time is valuable, and we understand that perfectly. Our devices are designed with installation simplicity in mind, aiming to minimize the time and costs associated with implementing street lighting systems. With our controllers, installation is quick and above all, effective.



Easy configuration

Our controllers are known for their easy configuration. With an intuitive user interface, even individuals without specialized technical knowledge can quickly and efficiently adjust settings to meet their specific needs.



Alarms auto-configuration

We created a unique feature of alarm threshold auto-configuration, meaning our controllers automatically adjust to specific luminaires and changing environmental conditions. This minimizes the need for maintenance staff due to incorrectly set alarm thresholds.



Innovative solutions

At Grenton we continually invest in research and development to deliver the latest technologies to our customers. That's why our clients always have access to the newest and most advanced solutions available on the market.

HEZE-1 | Alarms



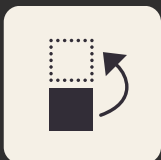
Power Outage

This occurs in the event of a power loss on the supply line. The controller logs these outages, enabling it to distinguish between emergency situations and standard power cycling. As a result, alarms are not triggered during normal system operations as scheduled by the astronomical clock.



Luminaire Tilt

After connecting to a new luminaire, the controller establishes its base coordinates. During operation, it regularly monitors the current coordinates. If the difference in tilt angle exceeds a threshold, it generates a "change in luminaire tilt" alarm. This allows for the detection of pole damage, such as from vehicle impacts or strong winds.



Luminaire Movement

The controller and a built-in GPS module establishes its base coordinates upon first connection to the luminaire. During normal operation, it regularly monitors the current coordinates and compares them to the base coordinates. If the difference exceeds a predefined distance, it generates an event and notifies the user. The user can adjust the event threshold by specifying the desired distance accuracy to within X meters.



New Luminaire

The controller automatically detects when it has been installed in a new luminaire. This event occurs only when the controller is moved to a luminaire different from the previous one. When this "new luminaire" event occurs, it triggers automatic configuration of thresholds for individual events.

HEZE-1 | Alarms



Maximum Power Exceeded

The "Maximum Power Exceeded" alarm is detected by the controller when the measured active power of the luminaire exceeds a predefined threshold. Upon installation, the controller automatically measures the maximum active power that the luminaire should draw. Based on this measurement, the controller calculates and sets the threshold automatically. When this threshold is exceeded, an alarm is generated.



Low Power Drop

The "Low Power Drop" alarm is detected by the controller when the power generated by the luminaire falls below a predefined threshold. This threshold is automatically calculated during the installation of the controller and adjusts to the set power level at which the luminaire should operate. Exceeding the minimum power is intended to detect situations where some or all of the LED strips in the luminaire have been damaged.



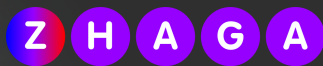
Maximum Temperature Exceeded

The controller is equipped with a built-in temperature sensor that checks whether the current temperature exceeds or does not exceed a threshold set by the user.

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