signalight.com

OBSTRUCTION LIGHTING SYSTEMS

Low and Medium Intensity Lighting, Power Supplies or Solar Obstruction Systems for vertical obstacle marking.

GO BEYOND

About us

Signalight is an international designer and manufacturer of lighting solutions such as heliport, airport, obstruction, and portable lighting systems.
Signalight is part of **Electro Max**, an important manufacturer of LED-based lighting, offering high-quality products. The company's headquarters are located in Petrosani, a picturesque town in Romania, in a modern facility with more than 50 employees.

Why us?

Our customizable systems come with exceptional value through a carefully thought set of services, aimed to assist you at every step: design, manufacturing, system setup, testing, validation, operation, and maintenance.

We ensure flexibility and full technical support for integrating our solutions or even manufacturing lighting products according to customer requirements. Electro Max manufactures complete Low and Medium Intensity LED Obstruction Lighting Systems, powered from the mains or in low voltage, from solar power systems. We fabricate and supply obstacle lighting systems for towers, obstacle lights, aviation warning lights, wind turbines obstacle marking.

Quality

Our products have unique features and have proven their worth in some of the world's toughest conditions. Electro Max is an authorized OSRAM manufacturer which has integrated successfully several management systems like ISO 9001, ISO 14001, OHSAS 18001. Our products comply with all ICAO, FAA standards, and European directives, are manufactured in the EU, and come with an CE Declaration of Conformity.

Mission & Vision

Our mission is to make every product better than any other in its class. Our policies on innovation and development guide us to smarter, safer, and more sustainable choices for you.

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PULSAR - Low Intensity

Available in 4 configurations:
- Low Intensity **Type A Single**: 1 LED; >10cd luminous intensity
- Low Intensity **Type A Double**: 2 LEDs; LED 1 active and LED 2 for back-up
- Low Intensity **Type B Single**: 3 LEDs; >32cd luminous intensity
- Low Intensity **Type B Double**: 2 LEDs; LED 1 active and LED 2 for back-up

- 100-260 V AC 50/60 Hz
- 48 V DC; 24 V DC; 12 V DC
- 700 mA - constant current from Fault Management System

QUASAR - Medium Intensity

Available in 4 configurations:
- Medium Intensity **Type A**: flashing white light, used for signalling aerial obstacles by day >20.000cd luminous intensity and >2000cd by night
- Medium Intensity **Type B**: flashing red light, used for signalling aerial obstacles by night >2.000cd luminous intensity
- Medium Intensity **Type C**: steady red light, used for signalling aerial obstacles by night >2.000cd luminous intensity
- Medium Intensity **Type A/C**: integrates the lighting characteristics of Type A and Type C

The obstruction light fixture can be powered from completely different sources, as follows:
- mains (110- 260VAC, 50- 60Hz)
- 12VDC, 24VDC (solar panel systems)
- 48VDC

Our obstruction lighting systems can come together with different mounting devices, solar-powered modules and control systems.

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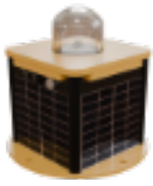
Solar Powered Systems



Solar-powered systems are designed for installations in locations where it is difficult or impractical to connect to the mains power supply. The lights are compact units, equipped with integrated solar panels and photocells for autonomous operation. Can be low or medium intensity according to ICAO and FAA standards.

Smart Solar Lights — Operating Modes & Connectivity

Flexible operation: lights can run independently (with local lighting profiles), or GPS-synchronized for simultaneous on/off and coordinated scenarios across entire system.

Radio controller management: a radio controller enables real-time monitoring and control (on/off, dimming, time profiles).

NB-IoT portal monitoring: each light can report telemetry (battery health, PV generation, consumption, temperature, faults) to a dedicated web portal with dashboards, configurable alerts, and performance/maintenance reports. Includes role-based access, event logging, and data export.

Controllers

Electrical cabinets intended for powering, protecting and controlling the obstruction lights, low and medium intensity.

Options:
-redundancy
-synchronizied
-alarming
-integrated twilight sensor
-GPS synchronized
-incorporated UPS
-dual power source: solar/230VAC

Settings:
-adjustable twilight sensor
-adjustable flashing frequency

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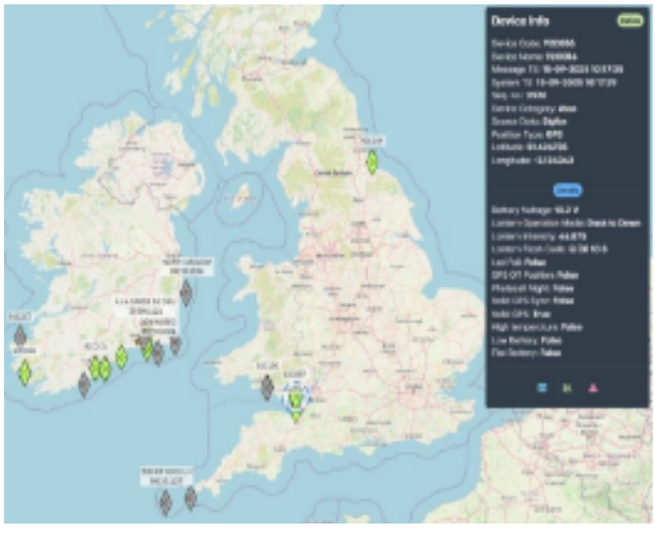
Obstruction Monitoring Portal

Seamless Communication

The Obstruction Monitoring Portal uses the latest mobile telecommunication standards – LTE-M (Cat-M) and NB-IoT, operating on 4G and 5G networks with each obstruction light connecting directly to the cellular infrastructure

Extended Coverage

Unlike radio-based systems limited to a short radius, this solution delivers **nationwide coverage**, enabling centralized monitoring and control of lights across multiple sites or even an entire country.



Centralized Web Portal

The secure, intuitive web platform offers:

- Real-time dashboards for live monitoring
- Automatic alerts for any faults or failures
- Maintenance history and alarm logs
- Remote configuration of parameters and modes

Key Benefits

- Scalability from local to nationwide systems
- Instant notifications for critical failures
- Reduced costs by leveraging existing telecom networks
- Remote access & diagnostics from any device

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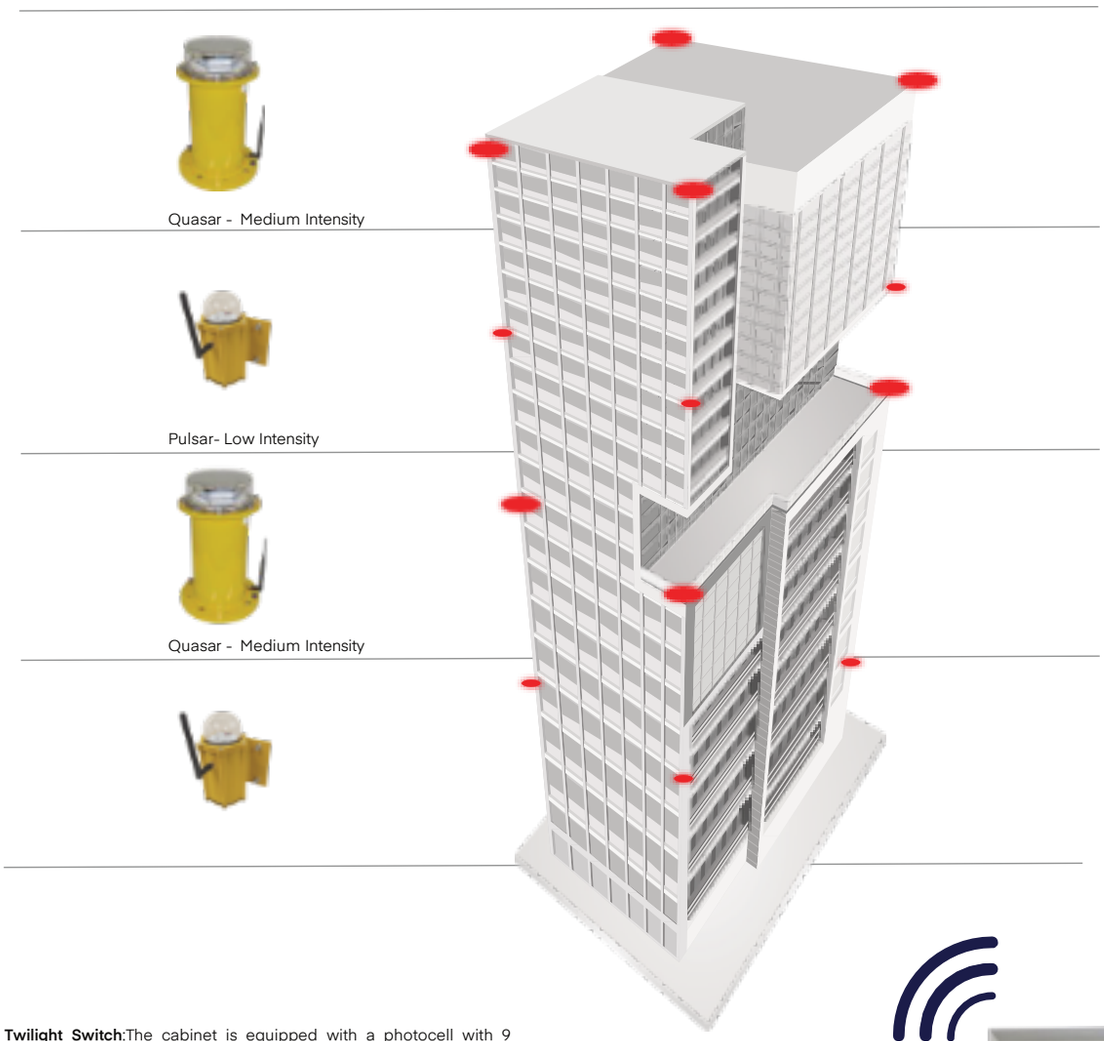
Radio Obstruction System

-monitor & control the lights within a **1000m radius**.
-no need to run individual cables from every obstruction light in the system to the controller.
-a data request is sent to every lamp in the system every 10 seconds. The interrogated lamps communicate the status back to the controller (i.e. if there are LED failures or not).
-a synchronization signal is sent to all the lamps in the system in order to keep the flashes synchronized every 10 minutes
-the controller communicates the running Day or Night Mode every 10 minutes
-the operating radio frequency is 868Mhz



Twilight Switch:The cabinet is equipped with a photocell with 9 sensitivity levels (100lx - 900lx). The Sensitivity is set from a button on the front panel.
Based on the photocell, the change is made from day mode to night mode and vice versa.

The **Flashing** function ensures intermittent lighting with a certain frequency and a certain duration of the light beam. The controller sends a radio synchronization signal to the beacons every 10 minutes or when switching from day mode to night mode (and vice-versa).

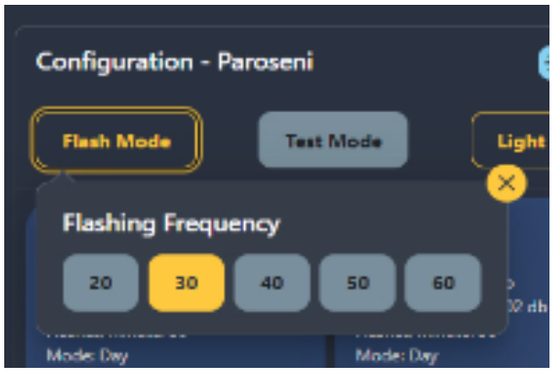
Redundancy is a second obstruction light system which comes into operation when the principal has a fault.

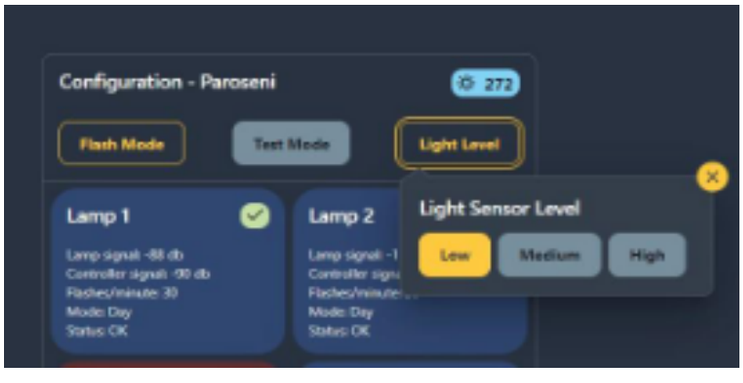
Failure alarm is a warning system that activates when there is a fault in a light obstruction system.
Every 10 seconds, each beacon is interrogated; the beacon responds and sends back any operating errors (if present).

Radio Obstruction Light Controller

Remote control

Through INTERNET - the user must log on OLCMS - Signalight -
Obstruction Lights Control and Monitoring System, to select the project
from the project list and to go in control mode. The application can run on
any computer or on smartphones or tablets.
Control mode - In control mode the user can see the status of all the lamps with details regarding the radio signal received and emitted by each lamp, with the day or night mode of each lamp and with the status of failures.
The light level is also available.
The Test Mode can be started.
Each lamp is displayed in to a box with dark color for night mode, blue color for day mode and red color in case of failures.
Possible failures can be:
- No response - if no feedback is received from the lamp
- Circuit 1 - if the main LED circuit is failed
- Circuit 2 - if in one lamp with redundancy the main LED circuit failed and the second circuit is powered.
The flashing frequency and the Light Level can be set.





Signalight

Safely guiding your way

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WE ARE JUST MAKING LIGHTING RIGHT