

SLOS



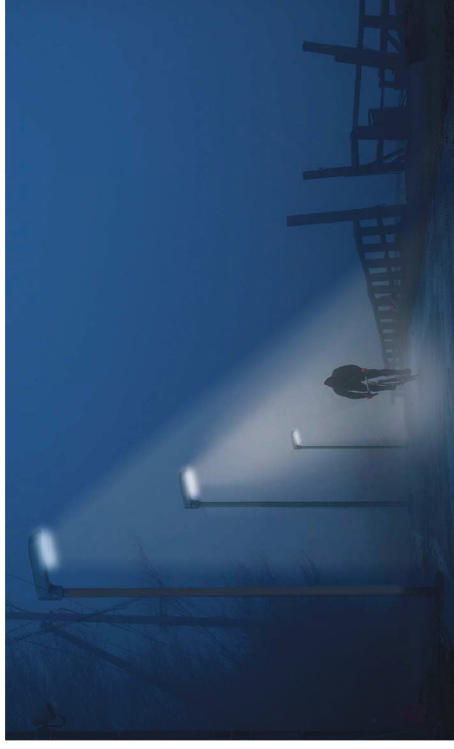
Your partner for intelligent
street light systems

THE NEXT
GENERATION
OF LIGHT



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esave ag

Intelligent
street lighting -
of the next
generation

**The lights have turned „green“
for a new generation of street
lighting, which is energy-
efficient and can be used with
pioneering and innovating
intelligence.**

Energy consumption and therefore ongoing operating costs can be significantly reduced, without compromising comfort and security, by the targeted dimming of LED lights. In addition to reduced energy consumption, dimming also extends the service life of your lights and makes a valuable contribution to reducing light pollution.

esave ag, with its head office in Switzerland, is bringing this intelligence to your street lights with its esave slControl product family, offering your customers additional value of intelligent street lighting.

The esave slControl module is compact and can be integrated with ease into virtually all LED street lights. The esave slControl comes as standard with wireless communication, eliminating the time-consuming routing of data cables and thereby saving installation costs.

Configure, control and monitor your lights wirelessly via the wireless

network, conveniently using the easy-to-use software on-site or a Web-application from your workplace or from home.

Optional sensors further extend the functionality of the esave control-system, providing lighting coordinated to the specific situation. Motion sensors in each light permit the targeted use of light, where and when it is needed. For instance, the lights on a cycle route and footpath can shed light on cyclists and pedestrians throughout the night, without wasting energy the rest of the time. An environment brightness (twilight) sensor can replace or enhance a ring control. The optional integrated GPS receiver provides the entire system with time and date information, so that the lights can be controlled to-the-minute.

For individual adjustment or additions we would be happy to offer you a customised adaptation

esave slControl

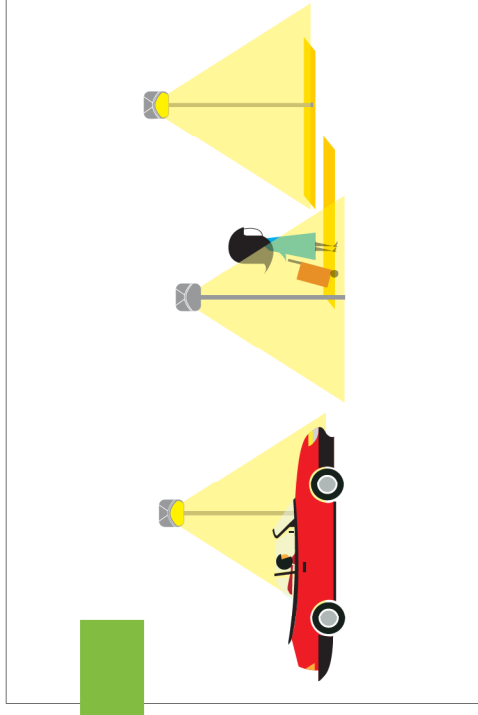
How does
it work?

The controller
provides safety and
saves more than
90% energy in
comparison to
conventional LED
street lights.

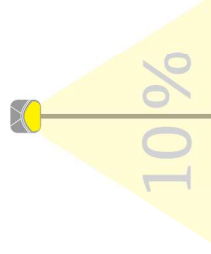
1

esave slControl stands for street safety

On perfectly controlled
illuminated roads, road users
have everything in view,
which reduces the risk of
accidents and increases safety.

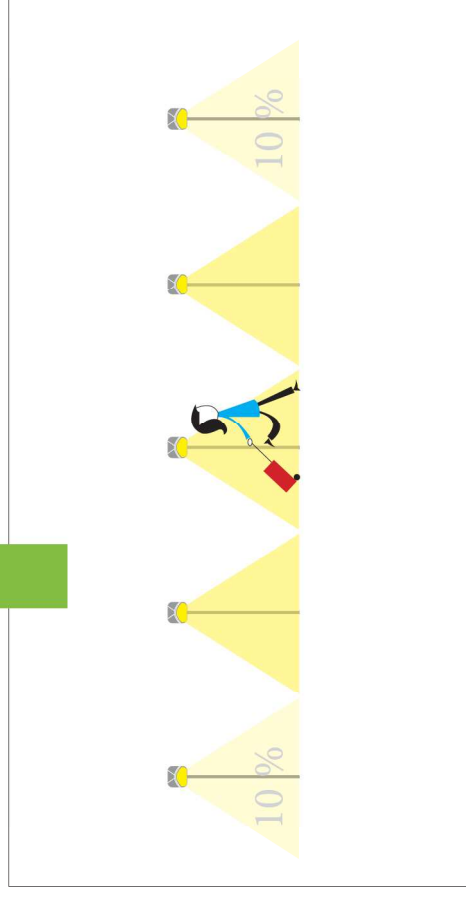


2



Energy efficiency with intelligence

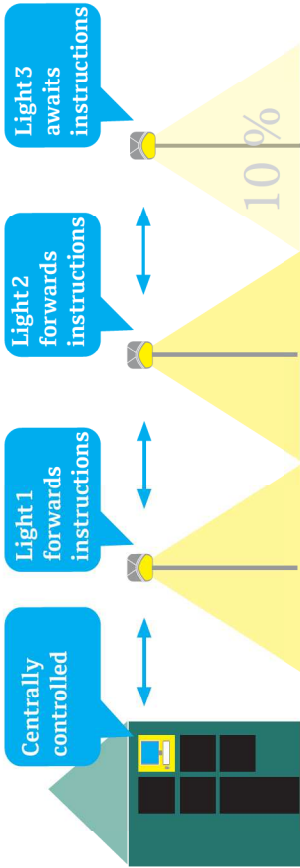
The illumination level decreases
automatically when traffic and
pedestrians have passed. This
occurs through a motion sensor.



3

Communication
between esave
slControl-lights

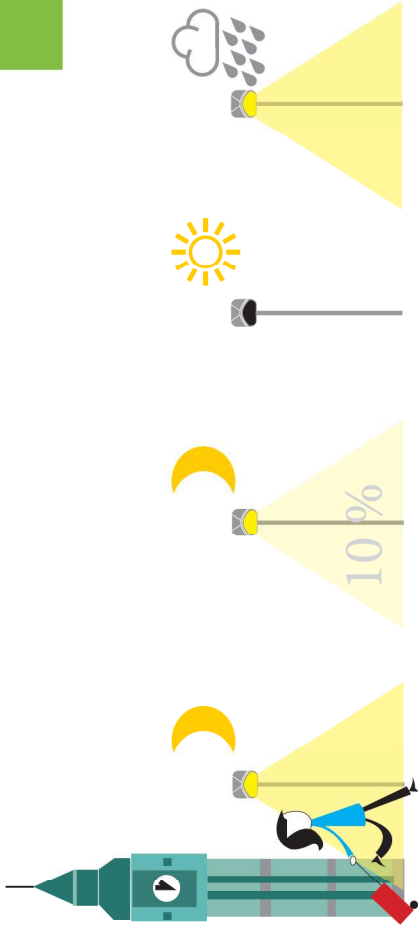
The esave slControl-lights automatically
passes route commands and information
through the network to the desired destination.



4

esave slControl
set to motion,
time and light mode

esave slControl
is able to adapt to different
illumination situations
and requirements

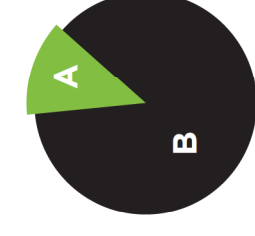


esave slController

Intelligent
control integrated
in the
luminaire body

Average energy consumption

The illumination is light-reducing through movement sensors as soon as the passenger frequency is declining.



A
Average energy consumption
of a street light
with esave slControl

B
Average energy consumption
of a conventional LED street light

Through esave
slControl street lamps
can be dimmed auto-
matically, when little
or no light is needed.
As soon as the sensors
detect pedestrians,
bikes or cars, the
intensity of the illu-
mination will be
adjusted for that
particular stretch
of road.

Besides the standard
built-in wireless
communication, the
functionality can
be extended by several
sensors.

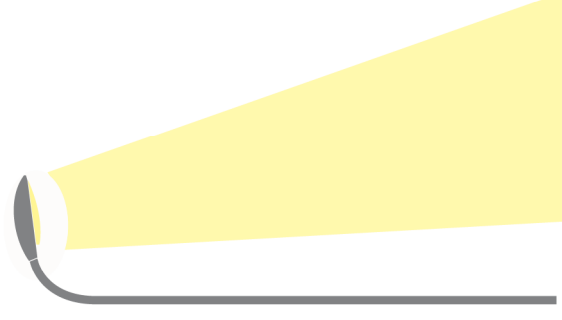
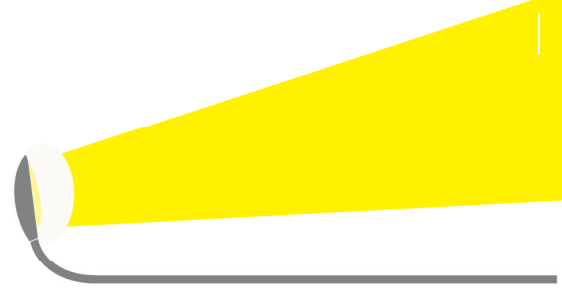
2

esave slControl features

- Dim by timer, light levels, site-mode or automatic-mode
- Power save mode with night dimming functionality
- Automatic regulation of daylight and standard saving time
- Ability to ascertain energy consumption and energy costs
- Optional extensions such as motion sensors, radar, brightness sensors, LED temperature sensors and other options are available
- **Benefit:** This product can be integrated into all major LED street lights.

Full light

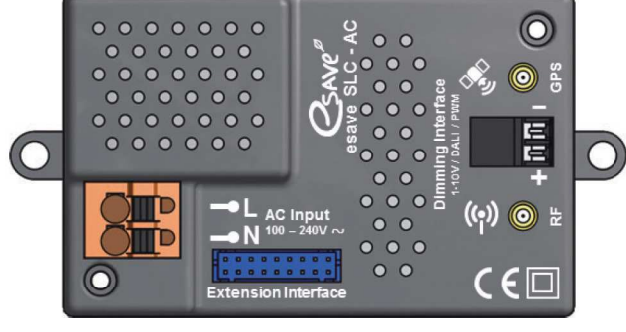
Dimmed light



esave slController

The solution for
all lights and
electronic control
equipment

The esave slController can be used with all major electronic control equipment and reduces energy consumption and maintenance costs to the absolute minimum. With the motion sensor certain stretches of road used by people or vehicles can be illuminated.



1

Overview of the control system

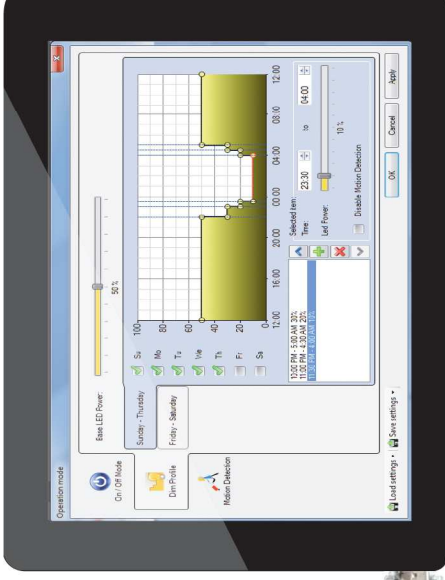
- Individual adjustment of the illumination through continuous dimming
- Real-time profiles with time and weekday dependent dim levels
- Ring control is no longer required, due to the optional twilight sensor
- Combines the benefits of both the central and independent controlled lights
- 2.4GHz radio network with self organised meshing
- 0-10V, PWM- and DALI-output interface combined in one controller
- Can be operated by either 100 - 240V AC or 12 - 60V DC
- Low power consumption in operation (0.2 - 0.6W)
- Information about the luminaire status for proactive maintenance and early failure detection
- Active monitoring of the light source (LED) temperature
- The optional luminous flux compensation (LFC) ensures a constant light output over the whole lifetime of the LED light source
- The global light switch functionality enables a manual, quick and profile independent illumination for special events or emergency situations

Software and control

Location independent operation

The easy to use software is intuitive and functional

The software is optimised for Mouse and Touch control



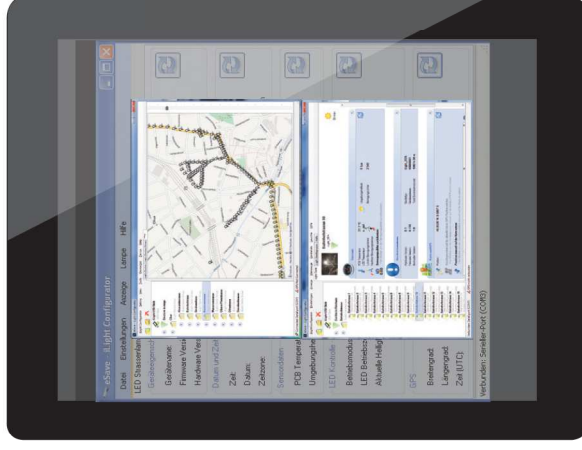
The street lights equipped with esave sControl connect automatically through a wireless network. With a laptop or tablet and the esave sControl USB-dongle this network can be accessed to configure and control the lights. The user-friendly Windows software supports the user in keeping an overview over complicated configurations can be implemented easily and intuitively.

To protect the system against unauthorized

1

Software functionalities

- Reading current street light operation condition
- Reading and setting operation modes including graphic dim levels
- Free grouping of lights
- Indicating and positioning of the street lights on the map
- Reading, setting and saving configuration of single street lights or whole groups
- Reading the energy consumption of single street lights or whole groups
- And much more ...



access, all transferred information is encrypted. Furthermore, the network can be protected with an additional PIN-code.

esave slControl- Server with Gateways

Control
system

Lighting installations can be monitored, configured and controlled centrally from the office or en route without the need to be in wireless range of the installations.

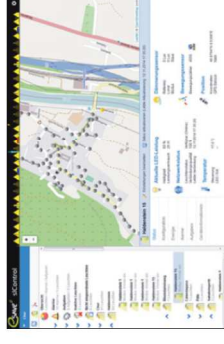
The esave slControl-Server expands the existing esave slControl product family and brings your lights into the Cloud.

New and existing esave slControl-installations can be extended with gateway modules.

The gateway module is a small device placed close to a slControl-installation where it connects to the esave slControl wireless network. It further establishes a connection to the esave slControl-Server through a mobile GPRS connection or an Ethernet cable. To protect the data against

unauthorized access, all the transfer pathways are encrypted.

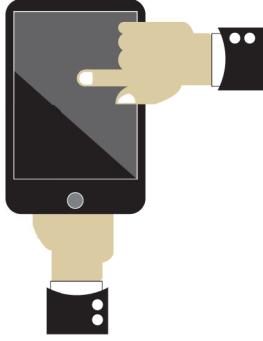
The esave slControl-Server collects the data from all connected Gateway modules and presents them in a user-friendly web application. The connected installations can easily be monitored, configured and controlled from any computer with internet connectivity.



The Gateway is easy to operate due to a 4.3" TFT-display with integrated touch-panel.

esave slControl- Server and Gateways

Options with
Gateways



1

slControl web-platform

You can access and control your lamps via esave slControl web platform all over the world at any time. Custom settings can be done during the day and will be transferred through the Gateway to the lamps as soon as they are online.

Additionally, energy data can be evaluated and compared to the previous year. These data can be exported into simple excel-sheets.

3

GIS

Existing lamp sites can be integrated in the system through GIS database.

5

Lamp-data base

Producers integrate intelligent lamps into the slControl-database. In this way the lamps are equipped with the most recent data sheets and records each time.

2

slAlarm

slAlarm informs about failures and system problems. You will receive any reports on your mobile device or computer through text message or email, respectively. If desired, the system can inform you and furthermore directly mobilises a technician via text message or email. However, you can define this individually.

4

Installation of offline-lamps

It never has been easier to install new lamps! Through scanning of the serial number the lamp will be automatically connected to the lamp site from the GIS data base. Troublesome configurations are out-dated.

6

Ring control

The esave slGateway takes over the functions of the ageing ring control. Through the detection of the brightness the slGateway switches on conventional and intelligent lamps if required, or just adjusts conventional lamps to a stage of half-night starting at a specific point in time.

1

Control, configuration and monitoring from the office or en route.

