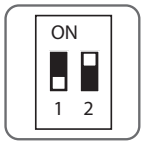
www.sg-as.com

Installation and maintenance manual SG luminaires

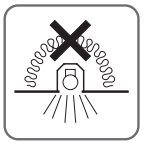
Symbols

The CE mark signifies product conformity with the requirements of relevant EEC directives.



The luminaire has DipSwitch to change lumen

The UKCA mark signifies product conformity with the requirements of relevant UK directives.


Luminaire can not be covered by insulation, without the use of Downlight box, Multibox and SealBox

Tunable White luminaire with DALI Control 2700-6500K / 2000-4000K

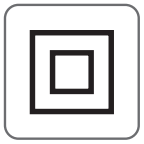

Class 1 Luminaire need to be earthed

IP Ratings – IP=Ingress Projection

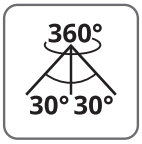
Audjustable Angle up to 45°

Can be mounted directly in insulation

Tunable White luminaire with LEDDim Control 2700-6500K / 2000-4000K


Class 2/double insulated, does not need to be earthed

Classification for the degrees of impact protection



Audjustable Angle up to +-30° in all directions


Emergency

Colour temperature changes from 2000K to 2800K when dimming

Class 3/Safety extra low voltage (SELV) luminaire that require no additional protection

Sensor

Audjustable Angle up to +-30°


Bluetooth

DALI / DALI II


Indoor

Wireless


Medico

SG Smart

Safety extra low voltage (SELV), luminaire has voltage below 60V and pose no risk to humans

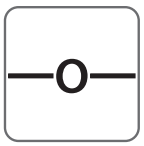

Outdoor

Twilight

Furniture spot

Dimmable luminaire

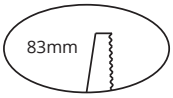
All SG luminaires respect the EU limits for flicker, PstLM ≤ 1,0 and SVM ≤ 0,4. But FlickerFree standard is a much stricter requirement)


Luminaire has double terminals for looping.

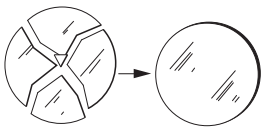

Only to be installed and maintained by an authorized electrician.

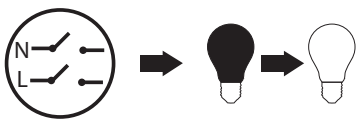
The luminaire is D-approved


No tools needed for installation

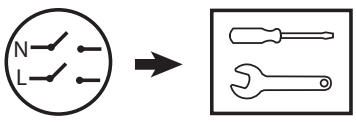


Recommended cut out size for recessed luminaires.


Damaged glass must be replaced.



Turn off power before relamping



Turn off power before installing.

Symbols

Ingress protection

The IP symbol indicates protection against solid objects/dust (first numeral) and water (second numeral). The IP degree does not indicate whether or not the luminaire has materials that are suitable for outdoor use.

The most common symbols used on SG luminaires are shown below:

Does not have any protection against water.

Protected against splashing water. In most markets/ cases, this is sufficient IP degree for outdoor use

Protected against high pressure water.

Protected against water at submersion at 1m depth.

For recessed luminaires, this indicates the luminaire is IP20 above the ceiling and IP65 below the ceiling.

Dimming symbols

General symbol for a dimmable luminaire / driver

Phasecut dimmable luminaire for use with dimmer suitable for Capacitive loads.

Dimmer for Resistive & Capacitive loads.

Dimming with impulse switch / push dim possible. Operated by a long press for dimming and a short press for switching on/off. Due to potential issues with synchronization, push dim is not recommended for many luminaires on the same push switch.

Installation

The building phase

- Installation and commissioning may only be carried out by authorized specialists.
- The luminaires should not be connected to a temporary electricity supply.
  An unstable supply can damage the electronics in the luminaire.
- Connecting a DALI luminaire to power without having the DALI bus connected may also create problems.
- Always turn off the incoming voltage before connecting the luminaires.
  For luminaires with a connector between driver and LED, this should always be connected before power is turned on. Else the driver can generate peaks that may harm the LED and/or driver, and the warranty is void.
- Any plastic film covering the optic must be removed before the luminaires are put into long-term use.

Fuses

- Information on the number of luminaires/ballasts/drivers that can be connected to one circuit breaker can be found on our WEB-product pages.
- On a lighting circuit you must not combine inductive loads (magnetic ballast) and electronic devices.

Megger Test

- During measurement, connect Live and Neutral together and measure between Live/Neutral and Earth.
- Measure with max 500 V DC.
- See also EN-61557 - ´Electrical safety standard`
- **Warning**: Isolation test between Live/Earth, Neutral/Earth or Live/Neutral may damage the control gear.

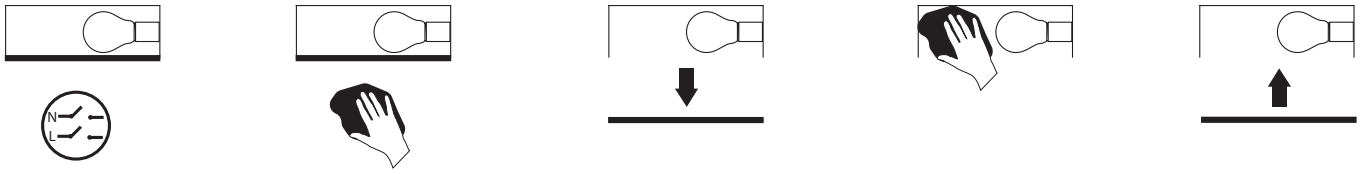
Temperatures

- Unless otherwise indicated, luminaires are tested an approved at 25 C. The lifetime is also based on this temperature.
  - If the ambient temperature is higher, the lifetime will be shorter.
  - If the ambient temperature is lower, the lifetime will be longer, until the minimum temperature limit of the product, which normally is -20 or -25 C.
- Most SG shop luminaires are tested and approved at 35 C.
- Luminaires with integrated battery for emergency lighting are not suitable for temperatures below 0^{O} C, as the batteries may freeze.

Maintenance – cleaning

Cleaning

Most of the items can be cleaned with a soft liquid soap and water with a maximum temperature of 60°C. The use of washing liquids containing abrasive or solvents is not advised as it causes damage to the surface.



Switch off | Wipe outside optic | Remove optic | Clean inside luminaire | Refit optic

Guideline for Cleaning of Material

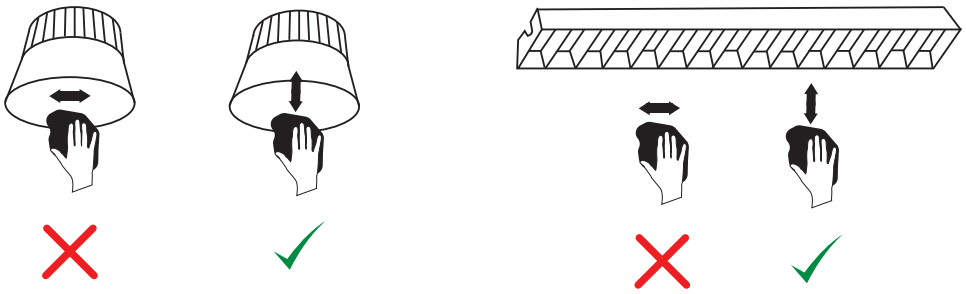
It is important to clean the luminaire in the right way to avoid damage.

Material	Method
Powder coated parts (sheet steel, aluminium)	Damp, lint-free cloth, soft liquid soap
Reflector/louvre in aluminium	Dry, lint-free cloth
Plastics (Polycarbonate, Acrylic, ASA, ABS)	Clear water of maximum 60°C
Glass	Clear water of maximum 60°C

Cleaning Aluminium Reflectors and Double Parabolic Louvres

Before cleaning, gently dust to remove scratch-inducing particulate matter.

Clean in the direction indicated on the illustration



To clean, choose one of the following methods

- Rub gently with a clean, dry lint-free cloth (cheesecloth is excellent). This often works on ”normal” stains, such as spots or greasy fingerprints. Avoid hard brushing.
- Dampen a clean, dry, lint-free cloth with Isopropyl (rubbing) alcohol. Rub gently on louvre. Louvre or reflector will streak as alcohol is applied, but streaks disappear as alcohol evaporates.
- Use an aluminium reflector cleaner.
- Use of gloves is recommended when handling to prevent fingerprint marks. Some people have a high acidity in their perspiration, causing fingerprints to etch into anodised aluminium material. There is no method to remove fingerprints of this type.

Note: Do not use these methods on polystyrene or acrylic louvres.

Maintenance – cleaning

Cleaning Sense LED panels (PMMA)

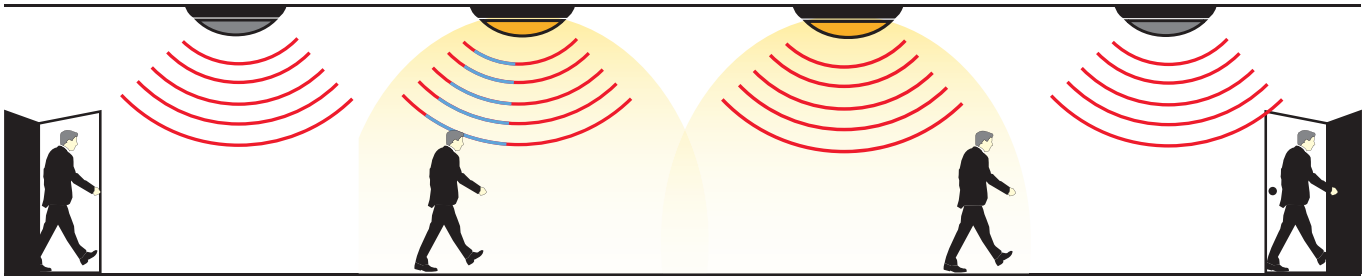
In the case normal cleaning does not work, for instance on fingerprint marks, heptane can be used carefully. Apply a small amount to a cloth and rub gently on the mark.

Note: do not use heptane on other plastic surfaces as they may be damaged.

Cleaning Interval

Lighting fixtures should be cleaned periodically, depending on the environment, but minimum once per year.

Sensor Luminaires



0 %

Without any movement detected, the luminaire will stay switched off.

100 %

When movement is detected the luminaire will switch on at maximum capacity.

100 %

The luminaire will stay at maximum capacity, at the desired pre configured time interval.

0 %

When the luminaire no longer detects movement the luminaire will switch off.

The built-in sensor will automatically detect and activate the light by means of movements in the surrounding area. It will automatically shut off the light after a pre-set time Whenever the movements in the area ceases.

Settings

SG sensor luminaires can have the following functions:

Sensitivity range setting

Adjust the sensitivity to optimizes the range of the sensor and to avoid unintended detection. Regular sensors (HF/radar) can detect through doors and walls, while PIR sensors don't. The ranges in the table below is an indication only, and is depending on the direction of movement, the installation height of the luminaire and other factors.

Hold time setting

The time the luminaire is switched on after the last registered movement.

Daylight setting

Adjust how little daylight it should be before the luminaire is switch on when there is movement. SensorDim luminaires can also be used as pure twilight sensors.

	Sensitivity range setting	Hold time setting	Daylight setting
Sensor (HF/radar)	2-6 m	5 sec – 30 min	2-50 lux or off
SensorDim (HF/radar)	Low, medium, high	5 sec – 10 min	Low, medium, high, or off
PIR sensor outdoor (e.g. Flom)	2-6 m	5 sec – 5 min	No, fixed 3 lux
PIR sensor indoor (e.g. Etne)	No, fixed 6 m	5 sec – 30 min	Low, medium, high, or off

SensorDim

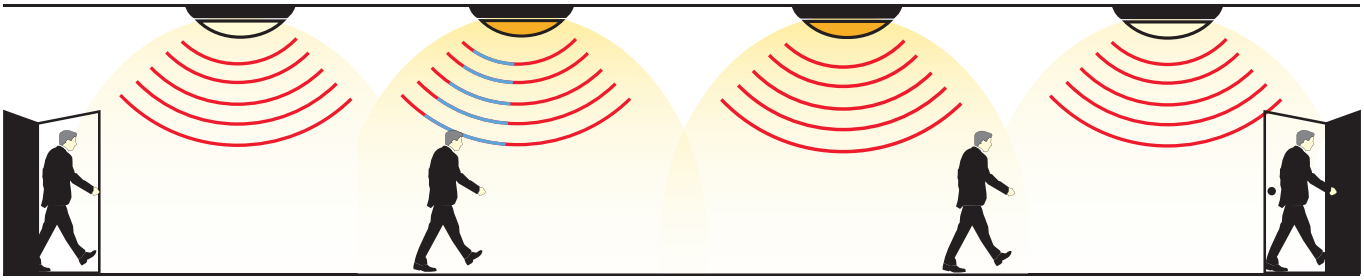
SensorDim

SensorDim luminaires have some extra functions compared to a regular Sensor. It has a basic light function, which means it can be on at a low light level when there is no movement. For instance, it can be nice in corridors and similar that it is not pitch black, but always a bit of light on, so that it feels safe to enter. As soon as movement is detected the full light is activated. The basic light can be set to the required level.

On SensorDim luminaires even the max light level can be adjusted, if a lower light level is desired or to save energy.

It is even possible to have separate levels for the basic light and the max light at night.

For the SensorDim luminaires, the sensor has no limit on how many luminaires can be connected as master-master. For each master, the maximum slave load is 200VA



3 %	100 %	100 %	3 %
Without any movement detected, the luminaire will stay at 3% of maximum capacity.	When movement is detected the luminaire will switch to maximum capacity.	The luminaire will stay at maximum capacity, at the desired pre configured time interval.	When the luminaire no longer detects movement the luminaire will switch back to 3% of maximum capacity.

Sensor/SensorDim without daylight

In some luminaires the sensor is encapsuled without access to daylight. It will then work as a pure movement sensor, independent of the lux-level. (Disc, Circulus).

Twillight sensor

Twilight sensor without movement detection. Is used in outdoor luminaires to automatically turn on the light at sunset and turn it off at sunrise.

Luminaires with integrated twilight sensor:

Frame, Fevik, Bassi, Largo, Trio, Uno, Tanto, Solo, Primo, Spike + more.

These luminaires turn the light on and off automatically at the set Lux level.

Wireless sensor

Luminaires with wireless sensor works like this:

A master can communicate with all slaves within reach.

There is no limit to the number of slaves in the zone.

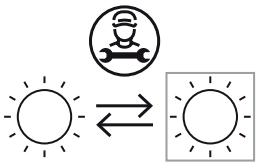
A sensor wireless luminaire has a maximum radio reach of 100 m with clear view, or 30 m indoors.

There can be up to 48 active masters in one radio group.

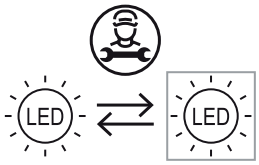
There can be up to 32 different groups, with up to 2 repeaters in each group.

Maintenance / End of life

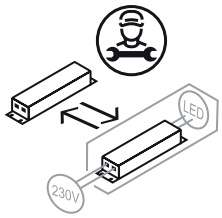
Maintenance – replacing light sources and drivers – symbols



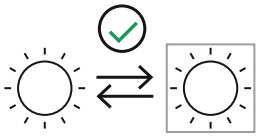
Replaceable light source by a professional



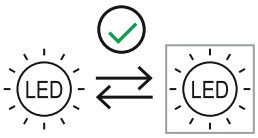
Replaceable (LED only) light source by a professional



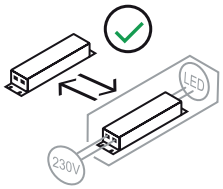
Replaceable control gear by a professional



Replaceable light source by an end user

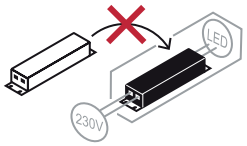


Replaceable (LED only) light source by an end user



Replaceable control gear by an end user

Non-replaceable light source



Non-replaceable control gear

End of life

When the product reaches the end of its service life; it should NOT be discarded as unsorted waste.

It must be delivered to collection facilities for recovery and recycling

For products that contain batteries the batteries should be removed and delivered separately for recovery/recycling.