

GRYDLIGHT WIRELESS ALS SENSOR

TECHNICAL SPECIFICATION

Revision History

SI #	Change Description	Version	Date
1	Initial Draft	1.0	11-07-2020
2	Updated Time out for ALS	1.1	13-07-2023

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Overview

GrydLight Wireless ALS Sensor is an Ambient Light detection sensor device. The sensors detect and transmit the Ambient light data to the controller for action on the lights. The data is then transmitted to the cloud-based application for analytics. Ambient Light Sensor on board measures the current light intensity and provides a closed control loop to the system for efficient dimming/control of the light(s). The control system is dynamic, configurable during installation and commissioning process.

Features

Individual loads could be switched on/off and dimmed or brightened based on the sensor input to GrydLight DALI controller

- Based on latest secure Bluetooth Mesh wireless Technology
- Auto Low-Light feature turns on the light when Ambient light falls below configured level.

Power

- Battery – CR123A
- 9 years battery life

Environment

- Ambient temperature operating range: 0°C - 50°C
- Relative humidity: less than 90% non-condensing

Compliance

- CE Certified
- RoHS Compliant
- IP rating - IP22

Ambient Light Sensor

- Lux detection range – 0 to 60,000 Lux
- Accuracy - ± 0.1%



Humidity

- Range: 0 to 95 %RH
- Precision: 0.01 %RH
- Accuracy: ±2 %RH

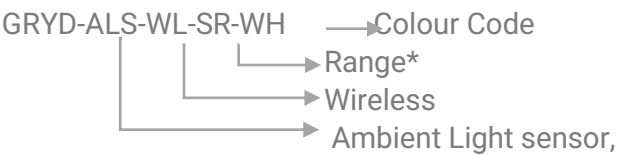
Sensor transmits the temperature within 30 seconds interval if it exceeds the configured threshold of 50 lux

- Field programmable using secure BLE Mesh protocol from 30 seconds to 1 Hours.
- For Indoor use only

ALS Integration and Timeout Options

- Field programmable using secure BLE Mesh protocol.
- Mapping of Light Drivers to ALS sensor
- Threshold range :- 25 to 600 lux
- Measuring time range :- 5 sec to 30 min

Models Available



Material and Colour

Material: ABS

Colour: Roma white

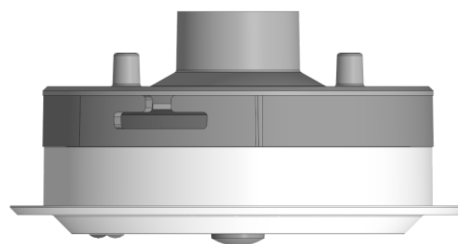
Technical Specification

Radio

BLE Mesh:

- Supported Standards and Modulation Techniques.
 - 802.15.5 - GFSK/ 1Mbps
- Antenna - Whip Antenna
- Antenna Gain - 0 dBi
- Expected Indoor Range - 30 meters.

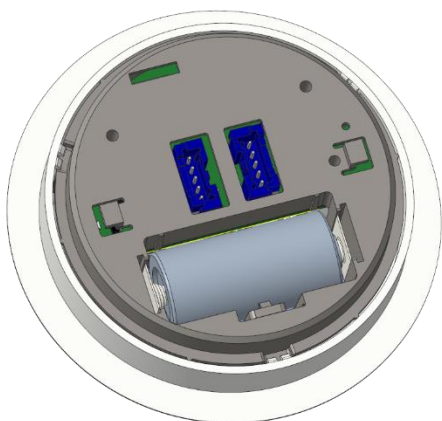
Mounting Option 1 - Ceiling drop with Conduit



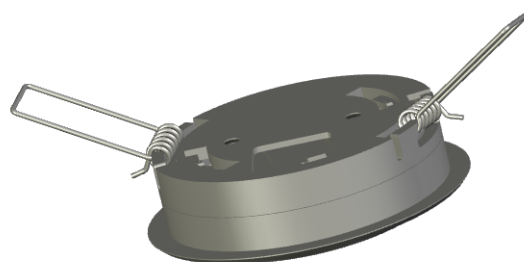
Installation Overview

Battery Installation

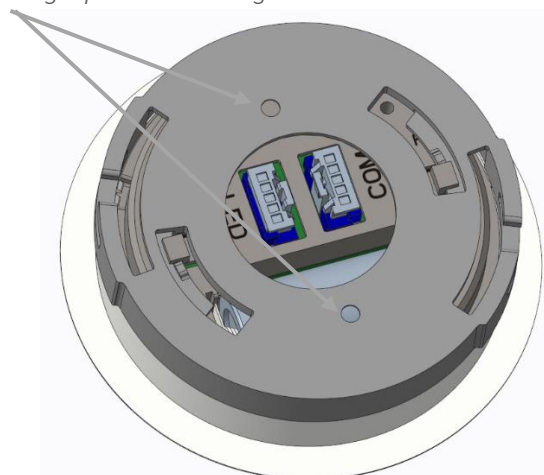
To install battery, remove the back-mounting cover and insert the battery in the Battery holder.



Mounting Option 2 - with Ceiling mount Springs



Mounting Option 2 - Ceiling mount with screws

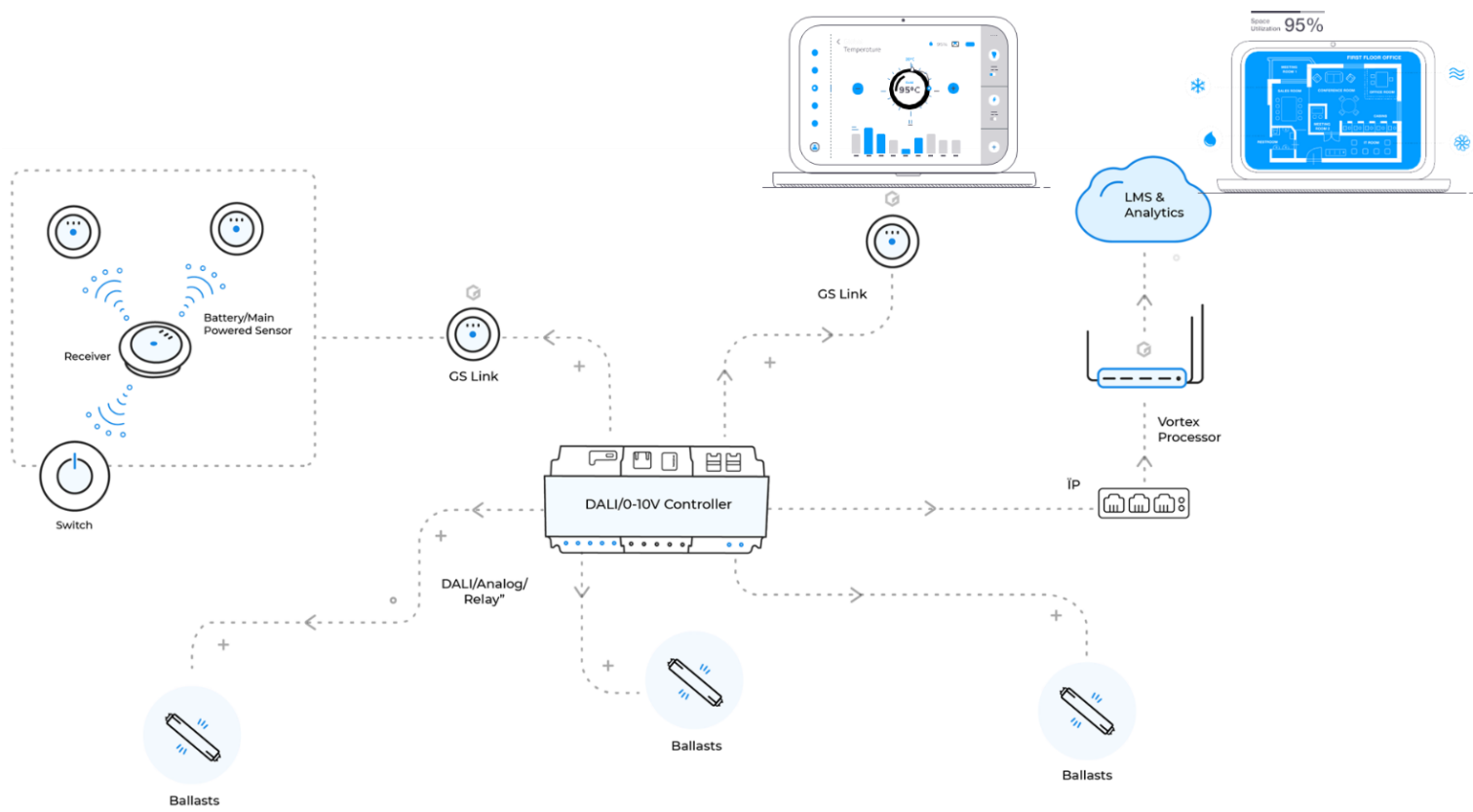


Sensor Placement

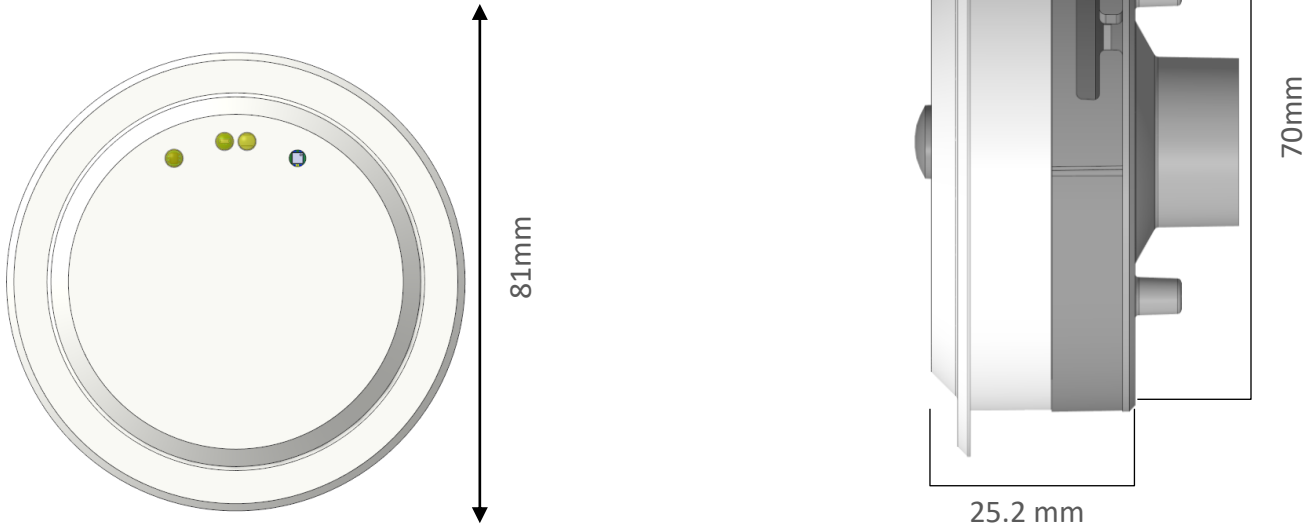
To detect motion, the sensor requires line of sight of room occupants. The sensor must have an unobstructed view of the room.

Hot objects and moving air currents can affect the sensor performance. It is recommended to install the sensor away from HVAC vents.

System Diagram



Dimensions



LED Indications

The product has two LED (Red and Greed) indicating various Lighting states of the product and the functions the sensors is performing. The following table summarises the system and LED state,

LED	Description
Red and green blink alternatively	Device entered pairing mode

Caution Statements

Any changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate this equipment.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.