# Controller V4



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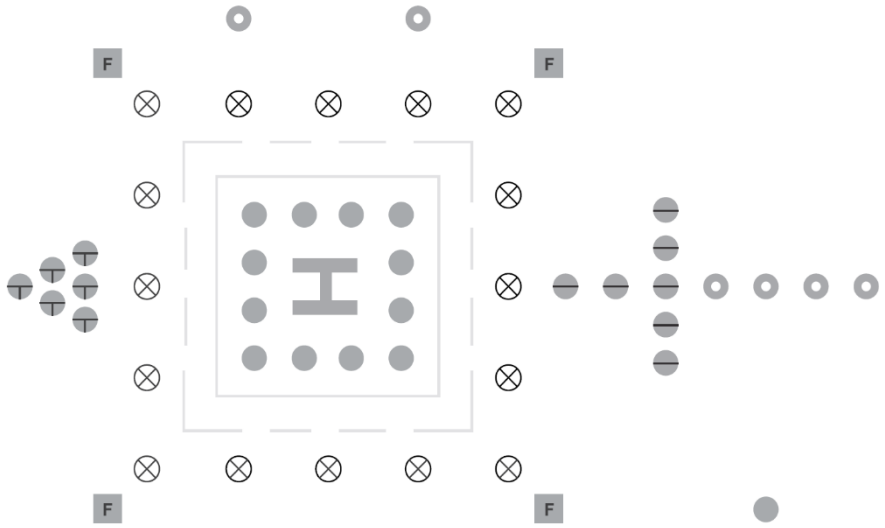
| | |
|---|---|
| **Compliance to standards** | **ICAO:**<br>Annex 14, Volume I - Airports<br>Annex 14, Volume II - Heliports |
| **Description** | **Housing:** powder-coated metal cabinet (gray color)<br>**Cable gland:** nickel plated brass |
| **Application** | The V4 controller is an electrical cabined including all equipment needed to power, protect, control and monitor the lighting systems of a heliport or airport. It is a customized controller, adapted for each project. |




Aiming Point Lights
FATO Lights
Floodlights
Approach Lights
Taxiway Lights
TLOF Lights
Approach
Beacon Light

## Features

**Each controller is fully customizable, allowing users to select:**

Type of circuits
Number of circuits (theoretical no limits)
Control options

**The controller can have different circuits factory configurable:**

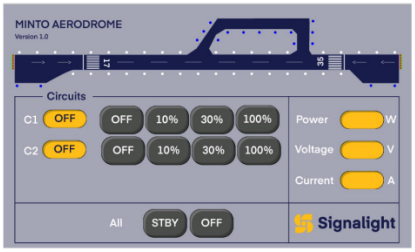
48 V DC - dimmable (used usually for heliports)
1,4 A constant current - dimmable (used for serial loop for airports)
230 V AC - max 2000 W - not dimmable (used for flashing lights)

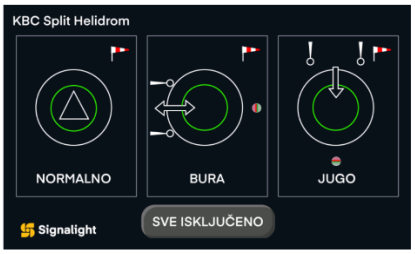
**The system can be controlled as follow:**

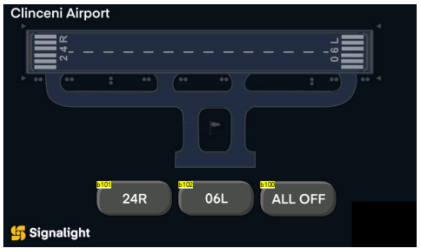
Front-panel touchscreen (standard)
Remote console through RS485 protocol communication (optional)
Over the INTERNET (optional)
ARCAL - Aircraft Radio Control of Aerodrome Lighting (optional)
ALCMS - Airport Lighting Control and Monitoring System (optional)

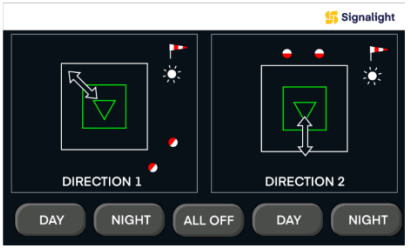
**Display showing:**

Name and layout of the system
Scenarios or directions of landing/take off (optional)
Brightness level
Circuit Status
Individual circuits ON or OFF
Errors occurred
Power, voltage, current (optional)




## Control

**Local Control:**

From the local LCD the user can choose to start the system on different scenarios, to turn ON/OFF Individual Circuits, to individually control the brightness level for each circuit:
- 10%, 30%, 100% for heliport
- 1%, 3%, 10%, 30%, 100% for airports

## Control

**Remote Control:**

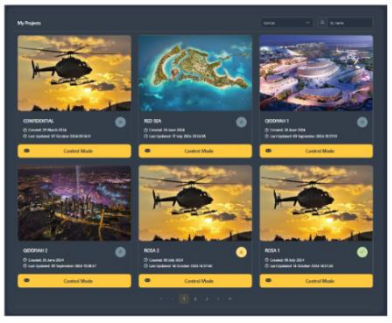
In addition to local control via the LCD touch screen, several other options are available:
The system can be controlled remotely from a V4 console connected to the V4 controller using a cable and the RS485 protocol.
Over the INTERNET (optional)
ARCAL - Aircraft Radio Control of Aerodrome Lighting (optional)
ALCMS - Airport Lighting Control and Monitoring System (optional)

- **V4 console**

  The V4 console is an optional device powered from 230 V AC, connected to the V4 controller through a cable, communicating with the controller using RS485 protocol. The V4 console has a LCD touch screen with the same appearance and capabilities as the one on the V4 controller. It is intended to be used in the tower or on the control room. Can be installed at a distance of maximum 500 m from the V4 controller.

- **Control over the Internet**

  The V4 controller can be optionally connected and controlled over the Internet using any device, such as a smartphone, laptop, tablet, or computer. The control is made accessing the address https://alcms.signalight.com/



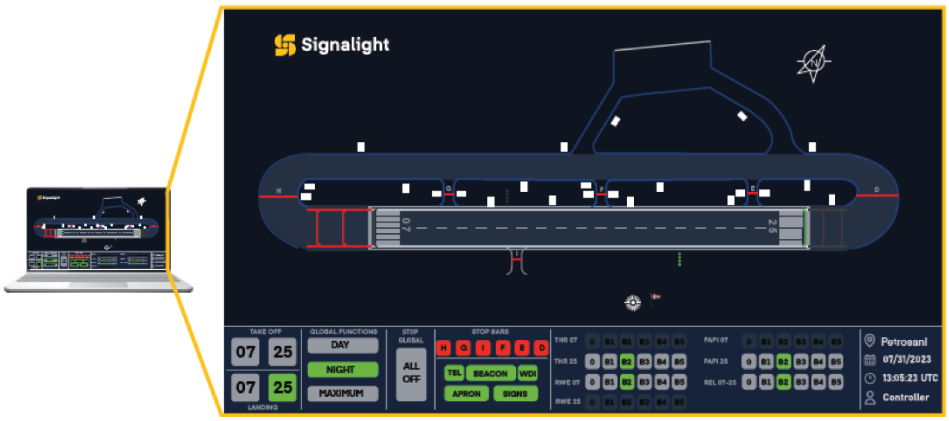

  The user can see all his projects with the status of the system and control the scenarios.

- **ARCAL (aircraft radio control of aerodrome lighting)**

  The V4 controller can be controlled by the pilots with clicks on microphone in sequence of 3 for 10% brightness, 5 for 30% brightness or 7 for 100% brightness.

## Control

- **ALCMS - Airport Lighting Control and Monitoring System (optional)**
  ALCMS is a complex control system that uses a separate computer with a 27" touch screen display.




The software replicates the runway or heliport lighting and guidance system layout and configuration. The user is in complete control over circuits, brightness levels, failure reporting etc.

## Monitoring

**Power monitoring:**

Optionally, the power can be measured for total consumption or for each circuit. With the power measurements, we can trigger alarms if the power drops. A message is displayed, and a sound alarm is also triggered to signal possible lamp failures.

**Failure monitoring:**

Circuit error, can be display in case of open circuit alarms. Separate errors can be monitored from devices like PAPI, SAGA, HAPI, etc.

## Product Code

**AL - 080 - AX**

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|---|---|
| Series Indicator (Airfield Lighting) | **AL** |
| Product Indicator | **080** |
| Description of product type (accessory) | **AX** |

## Environment

**Temperature range:** -20° to +55°

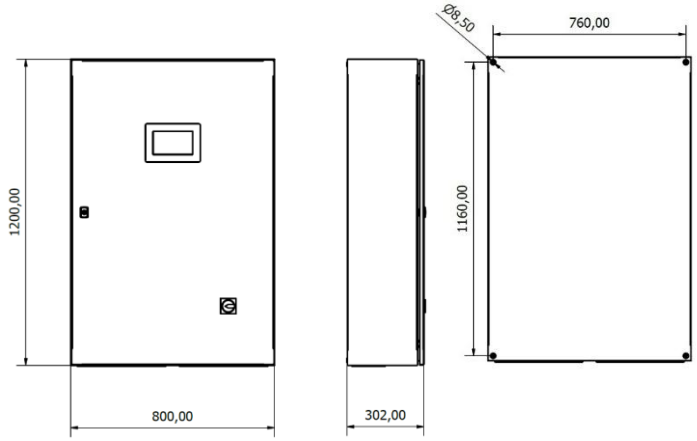
**Degree of protection:** IP20

It is recommended to be supplementary protected from environment

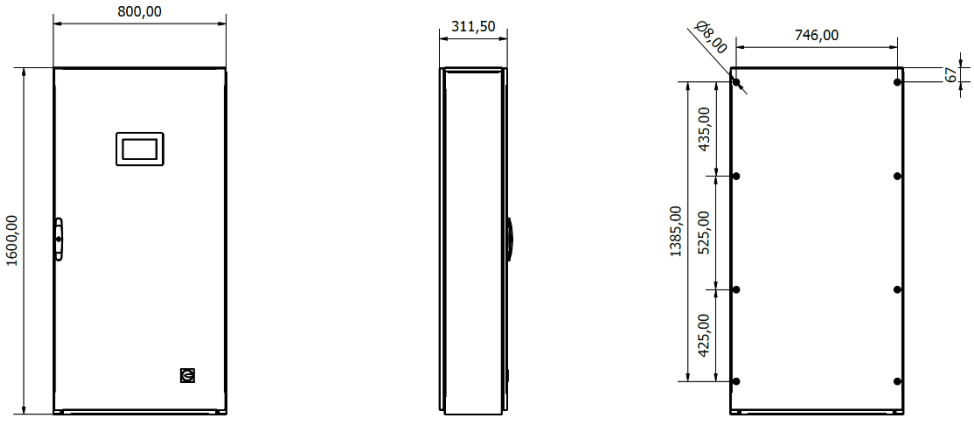
The controller must be installed in vertical position.

## Mechanical Characteristics

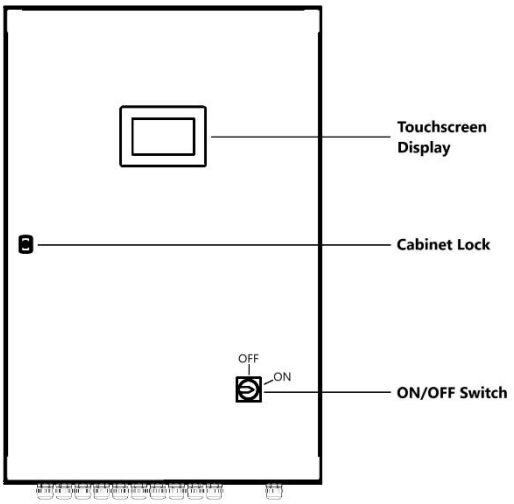
**Dimensions:** 1200 x 800 x 302 mm



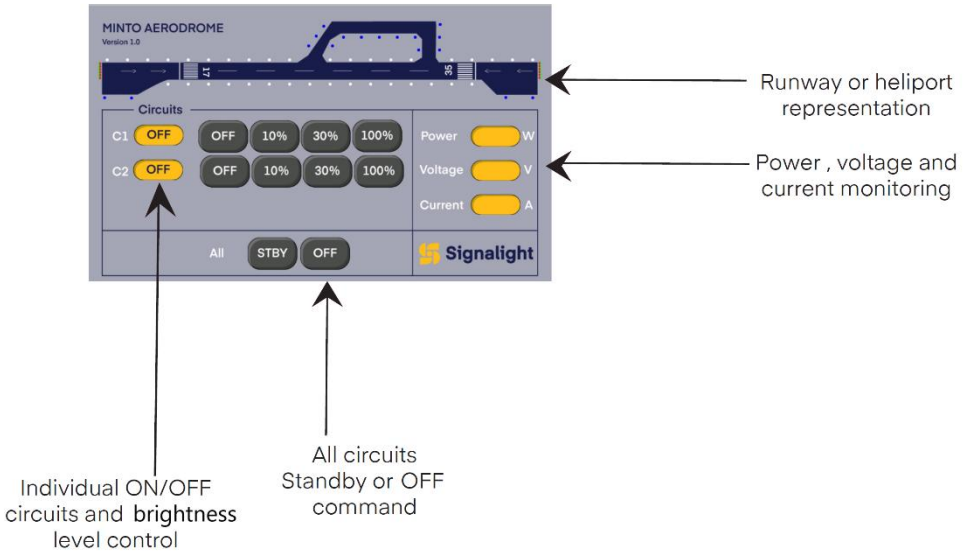

When the V4 controller is powered with a constant current of 1.4A, the dimensions of the controller are: 1600 x 800 x 302 mm

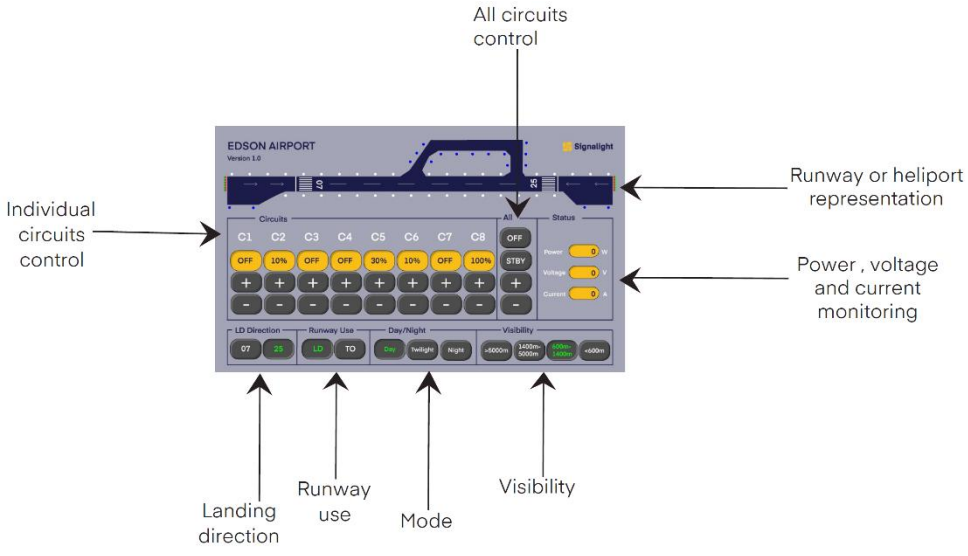


## Front Panel Descriptions




## Display example



## Electrical Characteristics

| | |
|---|---|
| **Power supply:** | 110-240 V, 50/60 Hz |
| **Output voltage/current:** | 230 V AC<br>48 V DC<br>1.4 A DC constant current |
| **Max output power per channel:** | 230 V AC output voltage - 2000 W<br>48 V DC output voltage - 500 W<br>1,4 A output current - 800 W |
| **Electrical protection:** | Class I |
| **Protections:** | Short circuit<br>Over load<br>Over voltage<br>SPD<br>EMI |

**CAUTION:** Ground must be connected to avoid electrical injury and to ensure a proper functionality for surge and EMI protection!

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|---|---|
| **Accessory** | To order accessories please call our customer support. For contact details please refer to our website - www.signalight.com |

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