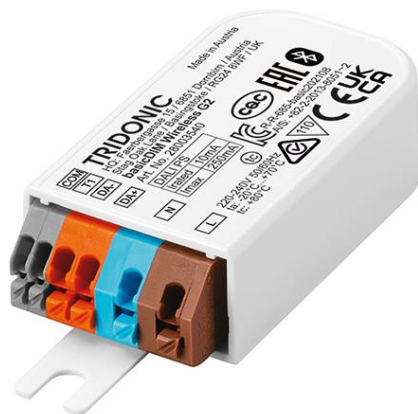


basicDIM Wireless module G2

Casambi Ready wireless modules



Product description

- _ Can be integrated in Casambi systems (Casambi Ready)
- _ Wireless controllable with an Android / iOS smart device
- _ No need for an external gateway device
- _ Forms automatically a wireless communication network with up to 250 nodes ^①
- _ Small form factor for luminaire installation
- _ Digital output: Standalone DALI (compatible)
- _ One independent push-button input
- _ Easily implemented RGB and colour temperature controls
- _ Device firmware can be updated over-the-air
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

^① Assignment of max. 4 single / group addresses, depending on the device profile.

Website

<http://www.tridonic.com/28003540>



Casambi Ready wireless modules



Type	Article number	Packaging, carton	Weight per pc.
basicDIM Wireless G2	28003540	60 pc(s).	0.02 kg

Approval marks



EN 55015, EN 55022, EN 55032, EN 61347-1, EN 61347-2-11, EN 61547, ETSI EN 300 328, ETSI EN 301 489-1, ETSI EN 301 489-17

④ Screw fixings can be removed.

basicDIM Wireless User Interface

Accessory



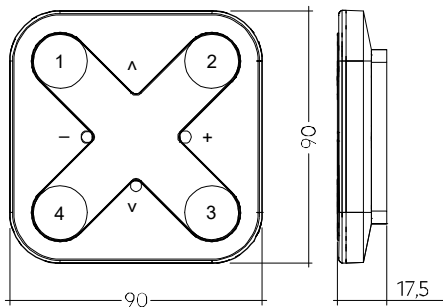
Product description

- _ Can be integrated in Casambi systems (Casambi Ready)
- _ Battery powered, wireless wall switch
- _ Forms automatically a wireless communication network with up to 250 nodes ^①
- _ Controls all types of basicDIM Wireless devices
- _ 4 scenes
- _ Dim up / down
- _ Colour temperature control
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

^① Depends on production number, see data sheet basicDIM Wireless User Interface.

Website

<http://www.tridonic.com/28002213>



Ordering data

Type	Article number	Colour	Packaging, carton	Weight per pc.
basicDIM Wireless User Interface	28002213	Black	50 pc(s).	0.078 kg
basicDIM Wireless User Interface white	28002420	White	50 pc(s).	0.078 kg

Approval marks



1. Standards

EN 55015
 EN 55022
 EN 55032
 EN 61347-1
 EN 61347-2-11
 EN 61547
 ETSI EN 300 328
 ETSI EN 301 489-1
 ETSI EN 301 489-17

1.1 Glow wire test

according to EN 61347-2-11 with increased temperature of 850 °C passed.

2. Common

2.1 Description

The basicDIM Wireless G2 is a bluetooth DALI controller with a freely configurable push-button input and has an integrated DALI power supply. Therefore no external DALI supply is needed.

The module can be connected to one or more DALI drivers or one DALI XC G3 / Tridonic DALI MSensor for easy integration of push-buttons / daylight control and motion detection.

All basicDIM Wireless devices can be controlled with the Tridonic app "4remote BT". The app can be downloaded free of charge from the Apple App Store and Google Play Store.

2.2 Operation

The basicDIM Wireless G2 is fully compatible with networks which support up to 250 nodes (Evolution networks). If the module is used with different types of basicDIM Wireless devices in an Evolution network, their compatibility has to be checked before.

Multiple devices automatically form a mesh network that can be controlled from any point. These networks communicate wirelessly directly with the smartphone or tablet. Therefore, an external gateway or wireless LAN network is not needed.

basicDIM Wireless devices have an integrated 2.4 GHz antenna. For optimum RF-performance, a special attention will have to be given when the device is integrated into a luminaire. See chapter 5.3 Placement for further instructions.

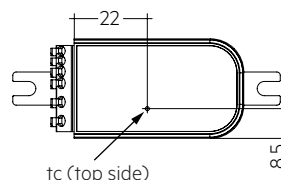
basicDIM Wireless devices can be used very flexible for different use cases. The operating modes (profiles) can be changed in the 4remote BT app.

3. Thermal details and lifetime

3.1 Expected lifetime

Expected lifetime				
Type	ta	75 °C	70 °C	60 °C
basicDIM Wireless	tc	80 °C	76 °C	66 °C
	Lifetime	40,000 h	50,000 h	100,000 h

The device is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.



4. Interfaces / communication

4.1 DALI output

The basicDIM Wireless G2 has an integrated DALI power supply. A maximum of 5 drivers can be connected to this interface.



Before connecting the basicDIM Wireless G2 to a DALI line, please make sure that no other DALI power supply (including drivers with integrated PS) is powering the bus.

If the bus is already being powered, it is possible to manually switch off the internal DALI power supply of the basicDIM Wireless G2, so that it can be used in the already existing DALI bus (dependent on the used profile).

4.2 Push-button input

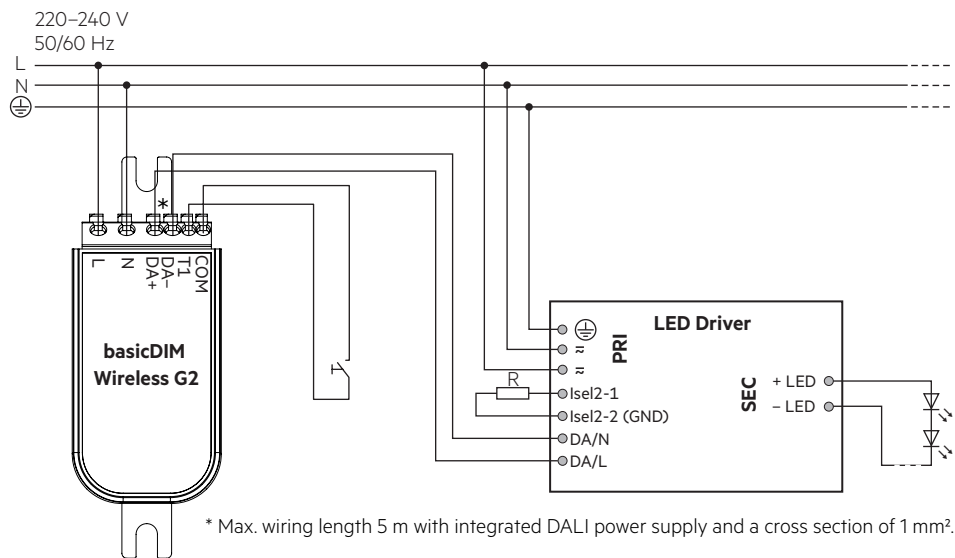
An independent push-button can be connected to the input terminals of the basicDIM Wireless G2. The max. cable length between push-button and terminal is 5 m.

With the push-button interface, it is possible to control e.g. individual luminaires of a basicDIM Wireless network or even the whole network.

Please make sure that the correct profile has been uploaded to the basicDIM Wireless device, otherwise push-button presses cannot be recognized and also configuration of the inputs in the 4remote BT app is not available.

5. Installation / wiring

5.1 Wiring diagram DALI



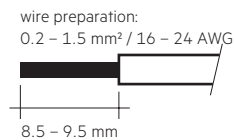
5.2 Wiring type and cross section

Mains supply / DALI wires:

For wiring use stranded wire with ferrules or solid wire from 0.2–1.5 mm² (16–24 AWG).

Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.

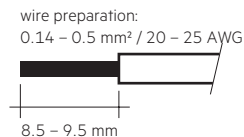


Push-button input wires:

For wiring use stranded wire with ferrules or solid wire from 0.14–0.5 mm² (20–25 AWG).

Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.



5.3 Placement

basicDIM Wireless has an integrated antenna for easy integration. In order to maximize the range in every direction some design guidelines should be taken into consideration when mounting the device.

The antenna is located at the end of the enclosure.

When the device is mounted on a metal plate (e.g. frame of a luminaire), it may efficiently block the radio frequency signal. In this case, a cut-out underneath the antenna may be needed for the RF signal to exit the structure. The cut-out area should be as large as possible. Also the device should be placed as far away from any vertical metal structures as possible.



■ Antenna location



The range of the communication signal is depending on the environment e.g. luminaire, construction of the building, furnitures or humans and needs to be tested and approved in the installation.



To ensure a good radio connection, do not cover the basicDIM Wireless completely with metal!

5.4 Installation note

Max. torque at screw fixing: 0.4 Nm / M3.

6. Miscellaneous

6.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

6.2 Conditions of use and storage

Environmental conditions: 5 % up to max. 85 %, not condensed

Storage temperature: -25 °C up to max. +75 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

6.3 Additional information

The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Zumtobel Group AG is under license.

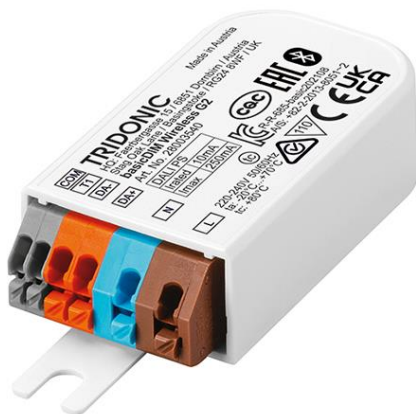
Tridonic GmbH & Co. KG is a subsidiary of Zumtobel Group AG.

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim. No warranty if device was opened.

basicDIM Wireless module G2

Casambi Ready wireless modules



Product description

- _ Can be integrated in Casambi systems (Casambi Ready)
- _ Wireless controllable with an Android / iOS smart device
- _ No need for an external gateway device
- _ Forms automatically a wireless communication network with up to 250 nodes ^①
- _ Small form factor for luminaire installation
- _ Digital output: Standalone DALI (compatible)
- _ One independent push-button input
- _ Easily implemented RGB and colour temperature controls
- _ Device firmware can be updated over-the-air
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

^① Assignment of max. 4 single / group addresses, depending on the device profile.

Website

<http://www.tridonic.com/28003540>



Casambi Ready wireless modules



Type	Article number	Packaging, carton	Weight per pc.
basicDIM Wireless G2	28003540	60 pc(s).	0.02 kg

Approval marks



EN 55015. EN 55022. EN 55032. EN 61347-1. EN 61347-2-11. EN 61547. ETSI EN 300 328. ETSI EN 301 489-1. ETSI EN 301 489-17

① Assignment of max. 4 single / group addresses, depending on the device profile.

② E.I.R.P.: Equivalent Isotropically Radiated Power.

③ Max. 5 loads.

④ Screw fixings can be removed.

basicDIM Wireless User Interface

Accessory



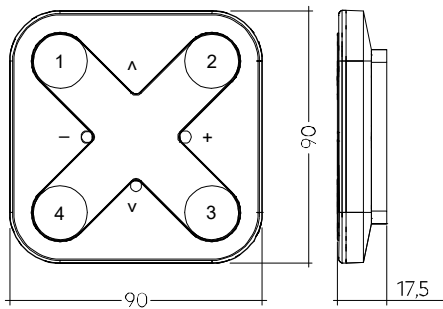
Product description

- _ Can be integrated in Casambi systems (Casambi Ready)
- _ Battery powered, wireless wall switch
- _ Forms automatically a wireless communication network with up to 250 nodes ^①
- _ Controls all types of basicDIM Wireless devices
- _ 4 scenes
- _ Dim up / down
- _ Colour temperature control
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

^① Depends on production number, see data sheet basicDIM Wireless User Interface.

Website

<http://www.tridonic.com/28002213>



Ordering data

Type	Article number	Colour	Packaging, carton	Weight per pc.
basicDIM Wireless User Interface	28002213	Black	50 pc(s).	0.078 kg
basicDIM Wireless User Interface white	28002420	White	50 pc(s).	0.078 kg

Approval marks



1. Standards

EN 55015
 EN 55022
 EN 55032
 EN 61347-1
 EN 61347-2-11
 EN 61547
 ETSI EN 300 328
 ETSI EN 301 489-1
 ETSI EN 301 489-17

1.1 Glow wire test

according to EN 61347-2-11 with increased temperature of 850 °C passed.

2. Common

2.1 Description

The basicDIM Wireless G2 is a bluetooth DALI controller with a freely configurable push-button input and has an integrated DALI power supply. Therefore no external DALI supply is needed.

The module can be connected to one or more DALI drivers or one DALI XC G3 / Tridonic DALI MSensor for easy integration of push-buttons / daylight control and motion detection.

All basicDIM Wireless devices can be controlled with the Tridonic app "4remote BT". The app can be downloaded free of charge from the Apple App Store and Google Play Store.

2.2 Operation

The basicDIM Wireless G2 is fully compatible with networks which support up to 250 nodes (Evolution networks). If the module is used with different types of basicDIM Wireless devices in an Evolution network, their compatibility has to be checked before.

Multiple devices automatically form a mesh network that can be controlled from any point. These networks communicate wirelessly directly with the smartphone or tablet. Therefore, an external gateway or wireless LAN network is not needed.

basicDIM Wireless devices have an integrated 2.4 GHz antenna. For optimum RF-performance, a special attention will have to be given when the device is integrated into a luminaire. See chapter 5.3 Placement for further instructions.

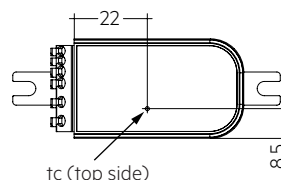
basicDIM Wireless devices can be used very flexible for different use cases. The operating modes (profiles) can be changed in the 4remote BT app.

3. Thermal details and lifetime

3.1 Expected lifetime

Expected lifetime				
Type	ta	75 °C	70 °C	60 °C
basicDIM Wireless	tc	80 °C	76 °C	66 °C
	Lifetime	40,000 h	50,000 h	100,000 h

The device is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.



4. Interfaces / communication

4.1 DALI output

The basicDIM Wireless G2 has an integrated DALI power supply. A maximum of 5 drivers can be connected to this interface.



Before connecting the basicDIM Wireless G2 to a DALI line, please make sure that no other DALI power supply (including drivers with integrated PS) is powering the bus.

If the bus is already being powered, it is possible to manually switch off the internal DALI power supply of the basicDIM Wireless G2, so that it can be used in the already existing DALI bus (dependent on the used profile).

4.2 Push-button input

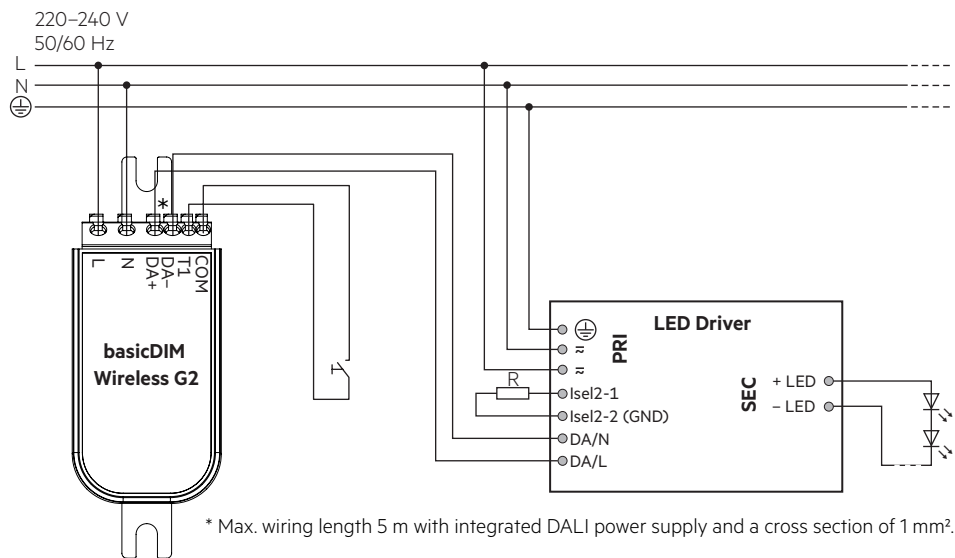
An independent push-button can be connected to the input terminals of the basicDIM Wireless G2. The max. cable length between push-button and terminal is 5 m.

With the push-button interface, it is possible to control e.g. individual luminaires of a basicDIM Wireless network or even the whole network.

Please make sure that the correct profile has been uploaded to the basicDIM Wireless device, otherwise push-button presses cannot be recognized and also configuration of the inputs in the 4remote BT app is not available.

5. Installation / wiring

5.1 Wiring diagram DALI



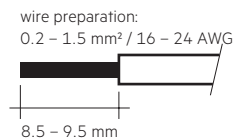
5.2 Wiring type and cross section

Mains supply / DALI wires:

For wiring use stranded wire with ferrules or solid wire from 0.2–1.5 mm² (16–24 AWG).

Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.

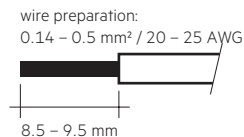


Push-button input wires:

For wiring use stranded wire with ferrules or solid wire from 0.14–0.5 mm² (20–25 AWG).

Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.



5.3 Placement

basicDIM Wireless has an integrated antenna for easy integration. In order to maximize the range in every direction some design guidelines should be taken into consideration when mounting the device.

The antenna is located at the end of the enclosure.

When the device is mounted on a metal plate (e.g. frame of a luminaire), it may efficiently block the radio frequency signal. In this case, a cut-out underneath the antenna may be needed for the RF signal to exit the structure. The cut-out area should be as large as possible. Also the device should be placed as far away from any vertical metal structures as possible.



■ Antenna location



The range of the communication signal is depending on the environment e.g. luminaire, construction of the building, furnitures or humans and needs to be tested and approved in the installation.



To ensure a good radio connection, do not cover the basicDIM Wireless completely with metal!

5.4 Installation note

Max. torque at screw fixing: 0.4 Nm / M3.

6. Miscellaneous

6.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

6.2 Conditions of use and storage

Environmental conditions: 5 % up to max. 85 %, not condensed

Storage temperature: -25 °C up to max. +75 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

6.3 Additional information

The Bluetooth® word mark and logos are registered trademarks owned by the Bluetooth SIG, Inc. and any use of such marks by Zumtobel Group AG is under license.

Tridonic GmbH & Co. KG is a subsidiary of Zumtobel Group AG.

Additional technical information at www.tridonic.com → Technical Data

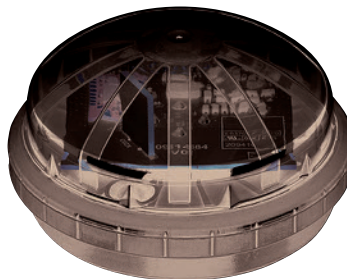
Lifetime declarations are informative and represent no warranty claim. No warranty if device was opened.

basicDIM Wireless Outdoor

Casambi Ready wireless module

Product description

- 2.4 GHz Bluetooth network
- Wireless controllable with an Android / iOS smart device
- No need for an external gateway device
- Forms automatically a wireless communication network with up to 250 nodes
- Digital output to control IEC 62386 compatible drivers
- Supplied via IEC 62386 compatible power supply
- Support for Tridonic PSensor and MSensor
- Ready for Zhaga Book 18 receptacle for easy and flexible installation to luminaire
- Device firmware can be updated over-the-air
- Lifetime up to 100,000 h at $t_c = 72^\circ\text{C}$
- 5 years guarantee (conditions at www.tridonic.com)



Housing properties

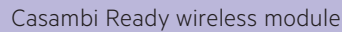
- Casing: Transparent smoke grey
- Type of protection IP66
- Impact protection $\leq \text{IK09}$

Typical applications

- Outdoor installations: parking lots, access roads, parks, etc.



Standards, page 4



2

ACU Z18 Set (Zhaga Book 18 Ed. 3 receptacle)

Product description

- Set consisting of receptacle, lock washer and mounting nut (ACU Z18 REP 4PIN)
- Designed for street lighting control
- Compliant with Zhaga Book 18 Ed. 3
- Optional IP66 with sealing cap (ACU Z18 CAP IP66)
- UL UV-f1 rated for outdoor use
- IK09 high impact resistant
- For more details see data sheet ACU Z18 Set



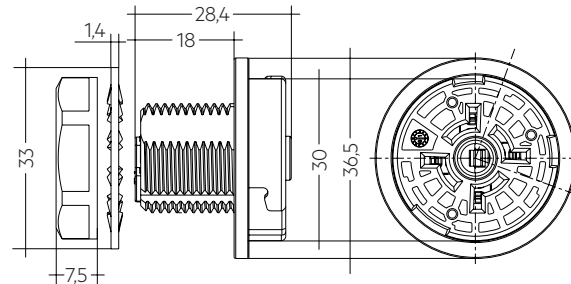
Housing properties

- Casing receptacle: PBT
- Type of protection IP20

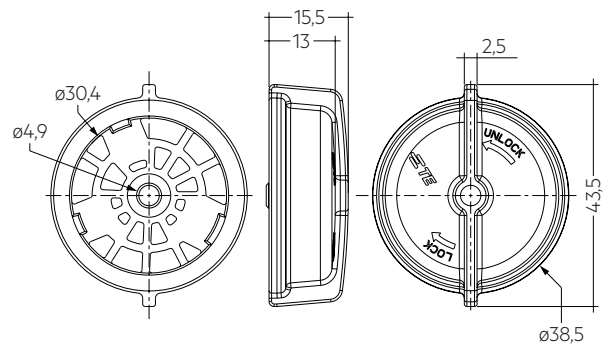
Interfaces

- Supplies Zhaga Book 18 Ed. 3 contact system

ACU Z18 REP 4PIN + ACU Z18 CAP IP66



ACU Z18 REP 4PIN



ACU Z18 CAP IP66

Ordering data

Type	Article number	Packaging bag	Weight per pc.
ACU Z18 REP 4PIN	28003209	100 pc(s).	0.008 kg
ACU Z18 CAP IP66	28003208	100 pc(s).	0.020 kg

1. Standards

EN 55015
EN 55022
EN 55032
EN 61347-1
EN 61347-2-11
EN 61547
EN 62479
EN 62493
ETSI EN 300 328
ETSI EN 301 489-1
ETSI EN 301 489-17

1.1 Glow wire test

according to EN 61347-2-11 with increased temperature of 850 °C passed.

2. Common

2.1 Description

The basicDIM Wireless OTD is a Bluetooth device that controls the Tridonic PSensors and MSensors.

The module is powered by a IEC 62386 compatible power supply.

The module is connected to one or more compatible drivers.

A combination with a Tridonic push-button interface (DALI XC G3) or the Tridonic PSensor for simple integration of daylight control and motion detection is possible.

Use of the module with a wired DALI line with wireless luminaires, sensors and push-buttons is feasible when using the basicDIM Wireless OTD as a Gateway.

The processing of the digital commands is done by a application controller (e.g. sceneCOM evo or sceneCOM s). The transfer of these commands takes place from the Bluetooth network through the Gateway to the wired bus line. In both cases, the controlling capabilities and restraints of the used device profiles has to be checked before.

All basicDIM Wireless devices can be controlled with the Tridonic app "4remote BT". The app can be downloaded free of charge from the Apple App Store and Google Play Store.

2.2 Operation

The basicDIM Wireless OTD module is fully compatible with networks which support up to 250 nodes (Evolution networks).

If the module is used with different types of basicDIM Wireless devices in an Evolution network, their compatibility has to be checked before.

Multiple devices automatically form a mesh network that can be controlled from any point. These networks communicate wirelessly directly with the smartphone or tablet. Therefore, an external gateway or wireless LAN network is not needed.

basicDIM Wireless devices have an integrated 2.4 GHz antenna.

For optimum RF-performance, a special attention will have to be given when the device is integrated into a luminaire.

See chapter 6.2 Placement for further instructions.

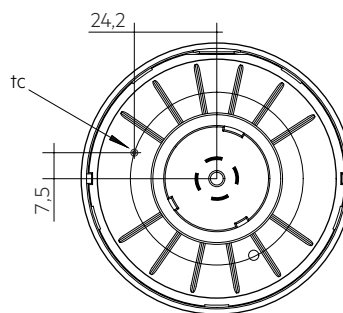
basicDIM Wireless devices can be used very flexible for different use cases. The operating modes (profiles) can be changed in the 4remote BT app.

3. Thermal details and lifetime

3.1 Expected lifetime

Expected lifetime		
Type	ta	70 °C
basicDIM Wireless OTD	tc	72 °C
	Lifetime	>100,000 h

The device is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.



4. Interfaces / communication

4.1 Digital output

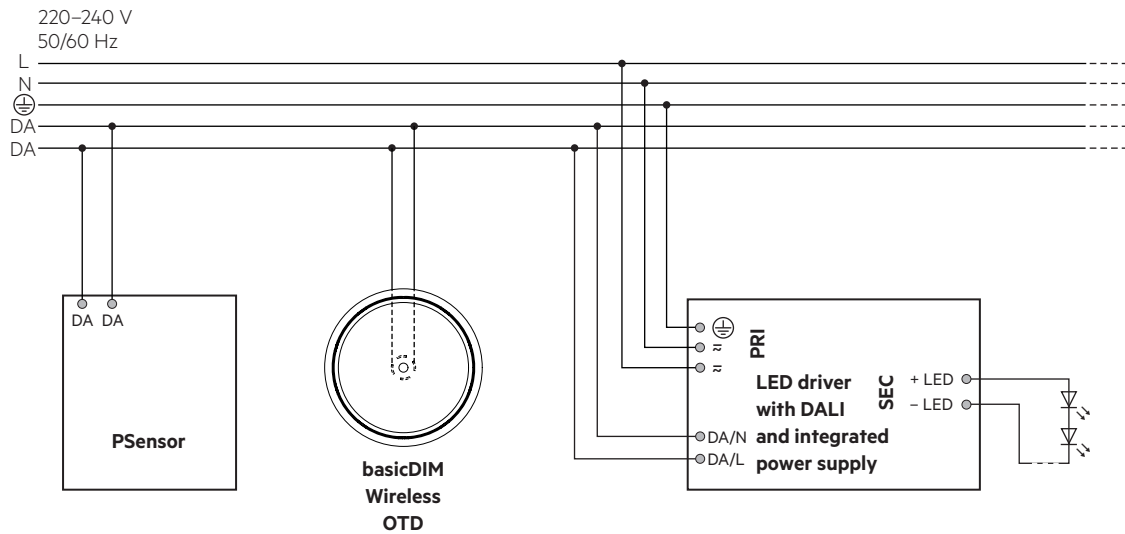
The basicDIM Wireless OTD module draws its operating power directly from the bus. Ensure the supply of the external bus with a IEC 62386 compatible power supply.

4.2 Status LED

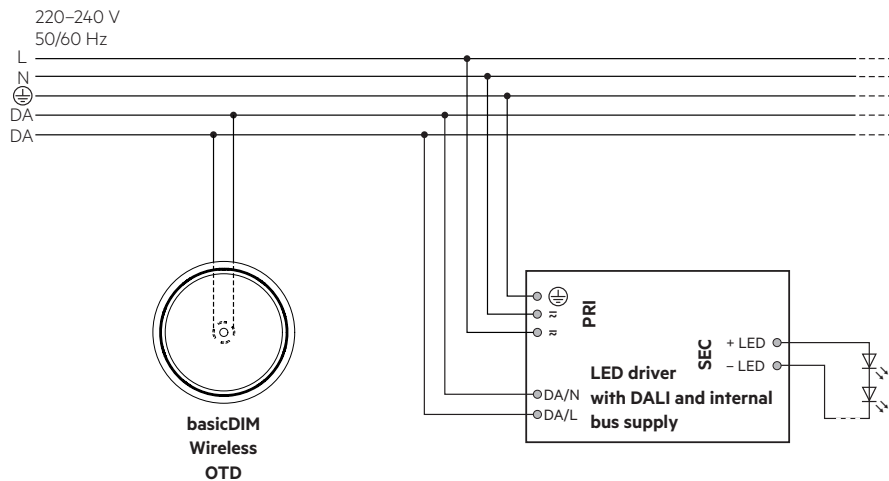
Orange LED lights permanently during operation.
Green LED flashes when „Identify“ is activated in the Tridonic app "4remote BT".

5. Installation / wiring

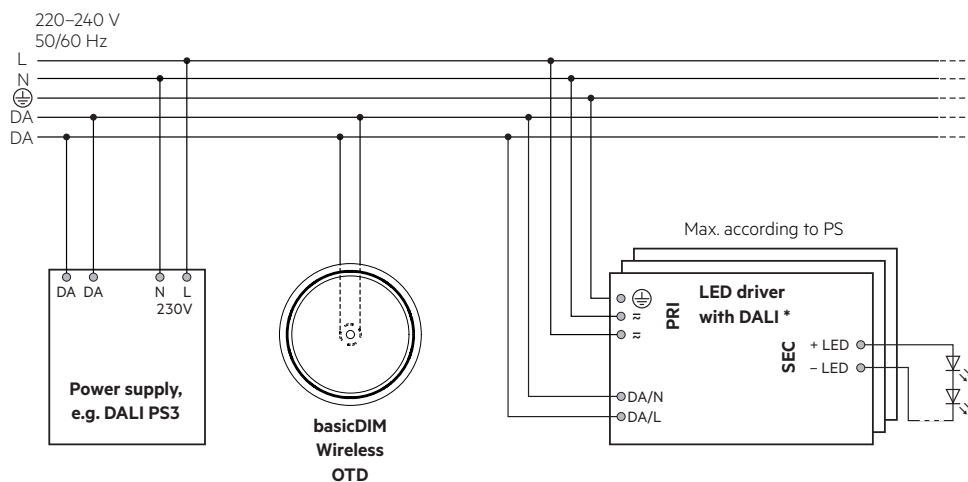
5.1 Wiring diagram with PSensor and internal bus supply



5.2 Wiring diagram with an internal bus supply



5.3 Wiring diagram with an external bus supply



* Max. 4 single / group addresses (A0 ... A3 / G0 ... G3) controllable, depending on the device profile of the basicDIM Wireless module. The rest of the connected drivers can be controlled via broadcast – depending on the device profile.

6. Installation basicDIM Wireless OTD



It is supplied directly via the bus.

- The digital interface is not SELV.
The installation instructions for mains voltage therefore apply.
- For a correct basicDIM Wireless OTD operation use the device only within the ta window.
- Ensure correct assembly and locking of the basicDIM Wireless OTD.
- Other RF signals may cause disturbances to the basicDIM Wireless OTD communication.

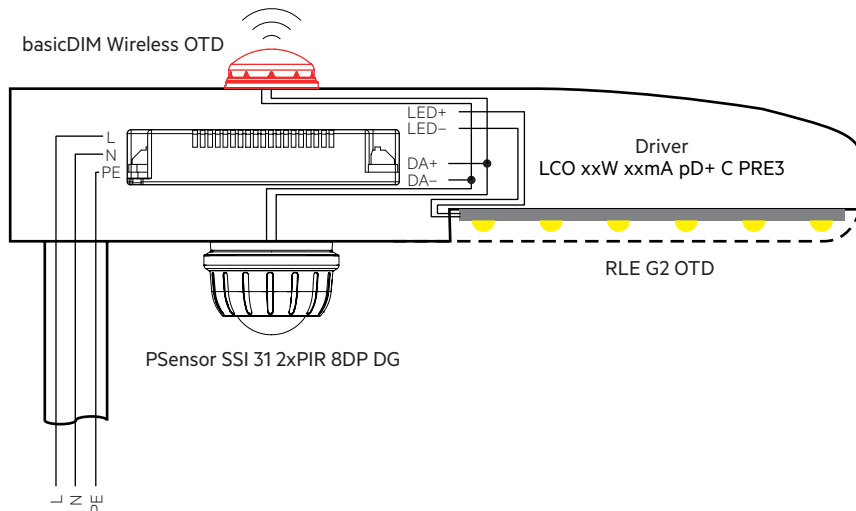
OTD system overview:

The basicDIM Wireless OTD is optimized to be used in combination with Tridonic PSensor and the Streetlight LED driver PRE3 with internal power supply.

Following illustration visualizes the wiring of the components inside the luminaire.



Maximum allowed wire-length for the bus is 3 m.



The basicDIM Wireless OTD supports the Zhaga connectivity standard for Plug&Play luminaire extensions. This allows a toolless and flexible integration in luminaires.

The connection interface is designed according to Zhaga Book 18 Ed. 3.

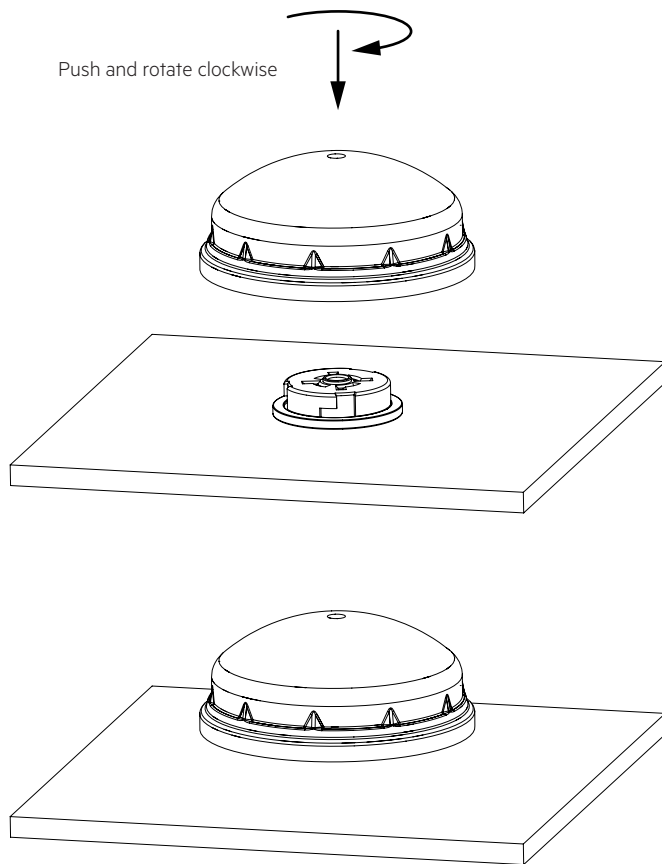
Pin assignment RFNode

Pins	Assignment
Pin 1	not connected
Pin 2*	DA-
Pin 3*	DA+
Pin 4	General I/O, not connected



Use the same pin assignment for the Zhaga connector pins mounted in the luminaire.

6.1 Mounting on luminaire:

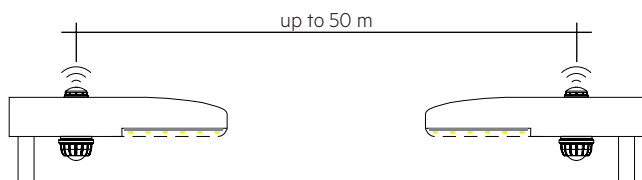


The basicDIM Wireless OTD must lock.
Make sure that the dust and dirt protection, is not bent, no foreign parts between the seal and the fixture housing are located and that the protection fits the fixture.

6.2 Placement

Maximum radio range may be reduced if objects are located between the RFNodes or the RFNode is covered with dirt, dust, foliage and other impurities.

Max. radio range:



The range of the radio signal depends on the environment, weather conditions and installation height.
The influence of e.g. buildings, trees or bridges between the individual RFNodes as well as specific weather conditions such as rain and snow must be checked and accepted on site.



To ensure a good radio connection, do not cover the basicDIM Wireless OTD with any materials!

7. Miscellaneous

7.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

7.2 Conditions of use and storage

Humidity: 0 % up to max. 90 %,
not condensed

Storage temperature: -40 °C up to max. +85 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

7.3 Additional information

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Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

DALI MSensor G3 PIR 16DPI WH

DALI-2 multi-sensor



Product description

- _ Sensor developed to work with the latest DALI specification
- _ Monitoring of ambient light and occupancy detection
- _ Remote control interface allowing infrared remote control interaction
- _ Individual adjustment of the parameters
- _ Power supply via DALI line
- _ Mounting ring and gasket included to reach IP65 protection
- _ Wide range of accessories allowing extended application range
- _ Double terminals for through wiring
- _ 5 years guarantee (Conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Housing properties

- _ Casing: polycarbonate, white
- _ Type of protection up to IP65

Note

- _ Tridonic DALI MSensor G3 family sensors are developed according to DALI Standard EN 62386-101 Ed.2, also known as DALI-2. To be able to use the sensor in such installation, an application controller is necessary.
- _ List of approved application controller can be found on our WEB page in "Downloads" in document "Application_controllers_MSensor_G3.pdf".

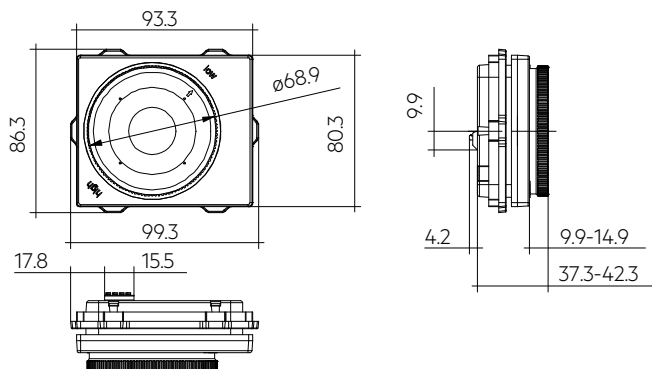
Website

<http://www.tridonic.com/28002234>



DALI MSensor G3 PIR 16DPI WH

DALI-2 multi-sensor

**Ordering data**

Type	Article number	Suitable for	Packaging, carton	Weight per pc.
MSensor G3 SFI 30 PIR 16DPI WH	28002234	Luminaire installation	10 pc(s).	0.105 kg

Technical data

Sensor type	PIR sensor
Supply via	DALI cable
Supply voltage ^①	9.5 – 22.5 V
Current consumption (no LED)	≤ 8 mA
Current consumption (with LED)	≤ 9 mA
Supported operating modes	0 or 128 (default)
Mounting height ^②	8 – 18 m
Adjustment range position "low"	8 – 12 m
Adjustment range position "high" ^②	12 – 18 m
Mounting opening	70 x 83 mm
Housing thickness of the luminaire	0.75 – 4 mm
Detection angle for PIR detection angle "low"	72°
Detection angle for PIR detection angle "high"	60°
Detection angle for light measurement	13°
Detection range for light measurement ^③	0.5 – 2,000 lx
Min. temperature difference between ambient temperature and detected object	± 4 °C
Ambient temperature t_a	-20 ... +50 °C
t_c point	60 °C
Storage temperature t_s	-25 ... +60 °C
Dimensions L x W x H	99.3 x 86.3 x 46.5 mm
Housing material body	PC polycarbonate
Housing material lens	PE polyethylene
Housing colour body	White (similar to RAL 9016)
Housing colour lens	White
Type of protection ^④	Up to IP65
Lifetime	up to 50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

Approval marks**Standards**

EN 61347-2-11, EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547, EN 62386-101, EN 62386-103, EN 62386-301, EN 62386-303, EN 62386-304

^① U_{in} acc. IEC 62386-101.

^② For mounting height higher than 16 m it is recommended to use several sensors grouped together in one occupancy group. As the sensitivity for the detection diameter can not be guaranteed for high over 16 m.

^③ The measured value at the sensor head corresponds to approx. 3 to 6,300 lux on the surface measured.

^④ Depending on the installation type up to IP 65 for more details see data sheet chapter 3.1.

REMOTECONTROL IR6

Accessory



- Product description**
- _ Optional infra-red remote control
 - _ Switching on and off (On/Off button)
 - _ Dimming (Up/Down button)
 - _ Activation of automatic lighting control (Automatic button)
 - _ Setting the threshold control point (Set button)
 - _ IR range up to 20 m

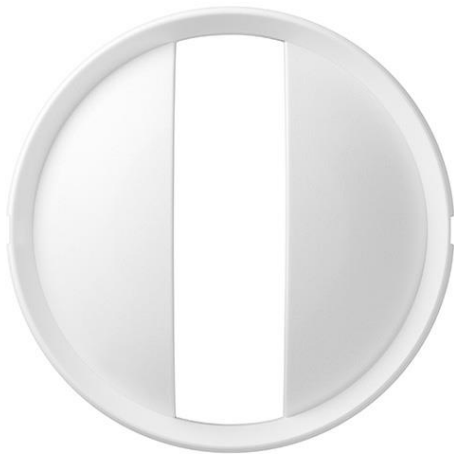
Website
<http://www.tridonic.com/28000647>



Ordering data				
Type	Article number	Dimensions L x W x H	Packaging, carton	Weight per pc.
REMOTECONTROL IR6	28000647	86.5 x 40.5 x 7.2 mm	500 pc(s).	0.019 kg

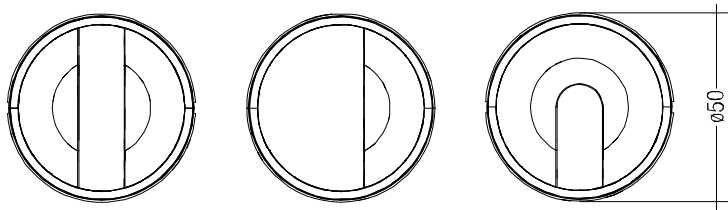
Shading Set

Accessory



- Product description**
- _ Shading set consisting of 3 different types of lenses
 - _ Three different covers for the DALI MSensor G3 SFI 30 PIR 16DPI WH, basicDIM ILD G2 and basicDIM ILD give the ability to reduce the detection area in aisle applications
 - _ These covers can be attached or removed from/to the front of the sensor at any time without the need of opening the luminaire
 - _ To have a maximum of flexibility these covers can be attached in every direction of 0°, 90°, 180° and 270°

Website
<http://www.tridonic.com/28001658>



Ordering data

Type	Article number	Packaging, carton	Weight per pc.
ACU SHADING AISLE 16DPI highbay	28001658	500 pc(s).	0.002 kg
ACU SHADING HALF 16DPI highbay	28001660	500 pc(s).	0.002 kg
ACU SHADING ENTRY 16DPI highbay	28001659	500 pc(s).	0.003 kg

Mounting box 16DPI

Accessory



ACU MOUNTING BOX 16DPI HIGHBAY



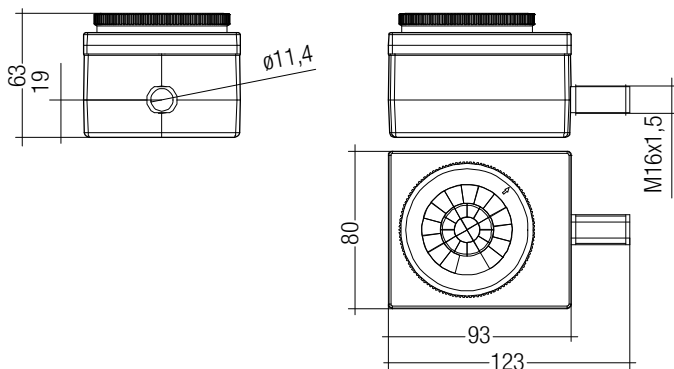
ACU MOUNTING BOX 16DPI HIGHBAY with sensor

Product description

- _ Easy adaptation of suspended lighting fixtures to a sensor solution, just by adding one additional hole
- _ Side entry screw connection in combination with rubber gasket gives a true IP65 protection for industrial applications
- _ Easy remote commissioning with IR interface while sensor is still protected
- _ Tightening torque = 0.6 Nm

Website

<http://www.tridonic.com/28001568>

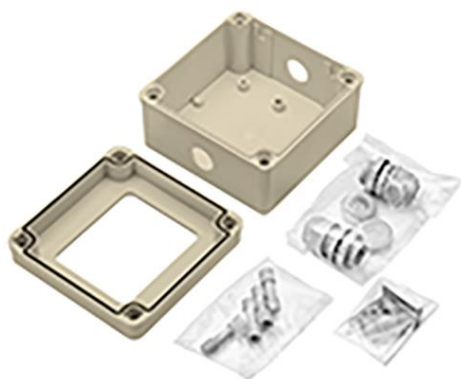


Ordering data

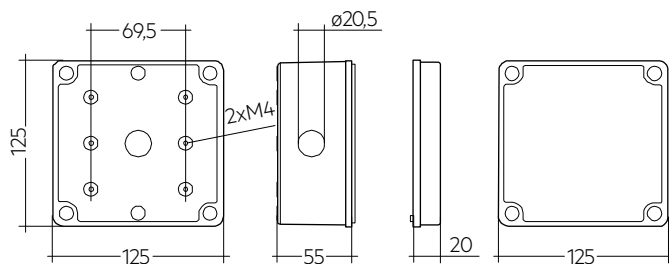
Type	Article number	Packaging, carton	Weight per pc.
ACU MOUNTING BOX 16DPI Highbay	28001568	64 pc(s).	0.105 kg

Sensor housing ACU 033 IP65 WH

Accessory

**Product description**

- _ IP65 protection box
- _ Mounting box for DALI MSensor G3 SFI 30 PIR 16DPI WH sensors allowing direct mounting to the ceiling
- _ Easy "Click In" installation of the sensor to the top part of the box
- _ Casing: ABS, white RAL 9010
- _ UV stabilized plastic
- _ Full mounting kit with screws and dowels, allowing hassle free mount of the box to the ceiling
- _ Including 2 cable glands and 2 grommets for ideal IP protection of inserted cables with a diameter of 6 – 12 mm
- _ Casing passed glow wire test with 850 °C according to EN 61347-1

Website
<http://www.tridonic.com/28003866>
**Ordering data**

Type	Article number	Packaging, bag	Packaging, carton	Weight per pc.
Sensor housing ACU 033 IP65 WH	28003866	1 pc(s).	48 pc(s).	0.298 kg

1. Standards

EN/IEC 61347-2-11:2001
 EN 55015:2013
 EN 61000-3-2:2014 Part 3-2
 EN 61000-3-3:2013 Part 3-3
 EN 61547:2009
 EN 62386-101 Ed.2
 EN 62386-103 Ed.1
 EN 62386-301
 EN 62386-303
 EN 62386-304

1.1 DALI note



Sensor is only applicable for DALI-2 installations according to EN 62386-101 Ed.2.
 List of approved application controller can be found on our WEB page „[Application_controllers_MSensor_G3.pdf](#)“

Following table shows the instances and which values they provide.

DALI instances	
Instance number	Explanation
0	Occupancy sensor DALI Part 303
1	Light sensor DALI Part 304
2 – 13	Push button DALI Part 301

1.2 Glow wire test

according to EN 61347-2-11 passed for temperatures up to 750 °C.

2. Common

DALI MSensor G3 SFI 30 PIR 16DPI WH is one of the new generation of Tridonic sensors.
 With this Sensor, the customer gets a sensor for height applications from 8 up to 18 m and a protection against environmental influence up to IP65.

This sensor provides measurement of ambient light, motion detection via PIR sensor and IR remote control input as well as a LED output for signalization.

DALI MSensor G3 SFI 30 PIR 16DPI WH is created for following main applications:

For buildings with mid to high ceiling heights such as:

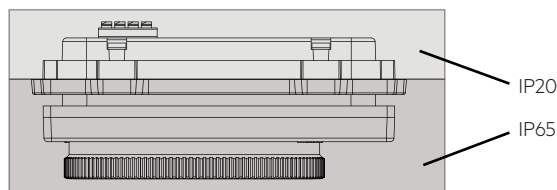
- Factory buildings
- Storage buildings and warehouses
- Corridors, passages und Garages

3. Installation

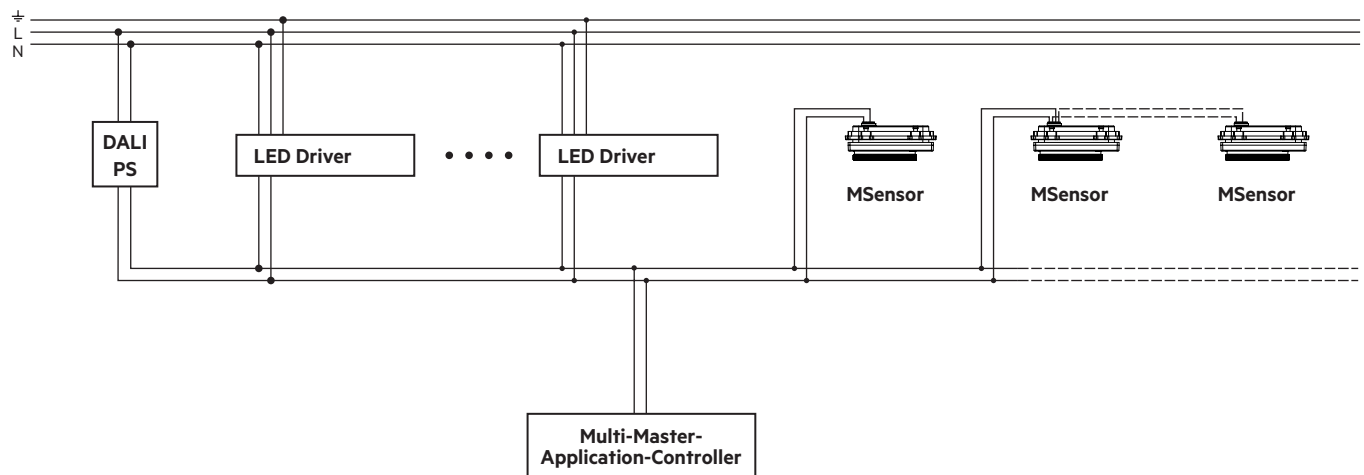
- DALI is not SELV.
 The installation instructions for mains voltage therefore apply.
- The maximum cable length of the DALI control signal must not be exceeded.
- Please ensure that the detection range of the sensor lies in the lighting area of the controlled luminaires.
- Please ensure that the detection ranges of the sensors do not unnecessarily overlap. This may have influence to the lighting control.
- Heaters, fans, printers and copiers located in the detection zone may cause incorrect presence detection.
- Surface temperature is detected by the sensor.
 Clothing or covers which reduce the surface temperature affect the detection.
- To avoid false readings, the sensor should be installed so there is no direct light from the lamp in the detection zone. Reflections can disturb the measurement results as well (e.g. high-bay warehouse of metal shelves).
- To avoid false measurements caused by the light from other luminaires we recommend that the sensor should be located centrally in the luminaire.
- By repeatedly adjusting the zoom (> 10), the IP protection may be impaired.
- Sensor must be installed according to the installation instructions to ensure the IP protection.
- Sensor head is not UV resistant.
- In case of pollution or mechanical damage of the lens, the functionality of the sensor may be limited.
- When installed at a height other than the recommended installation height, the presence sensor might show different characteristics.
 When mounted at a higher level, its sensitivity is reduced.
 If mounted at a lower level, its range is reduced.
- Avoid direct illumination of the light source on the sensor including housing.

3.1 Ingress protection

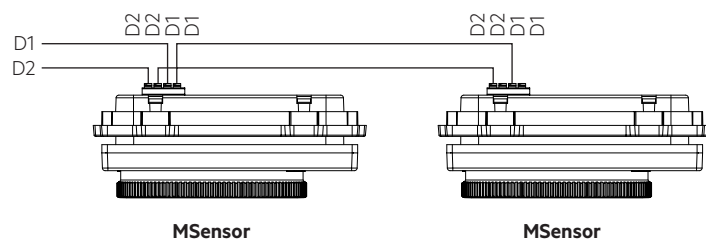
This device contains IP-protection to use it also in applications with the need of protection against dust and water ingress. IP65 protection applies to the front of the sensor whereas the back of the sensor is IP20 rated.



3.2 Wiring

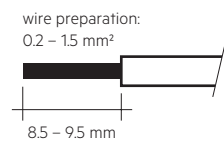


Through wiring:



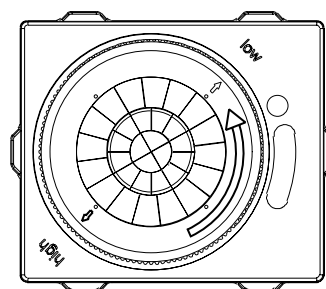
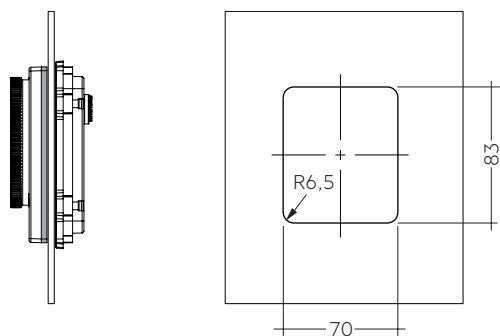
3.3 Cable types and cable cross-sections

For wiring use solid wire from 0.2 to 1.5 mm².



3.4 Mounting variant luminaire housing:

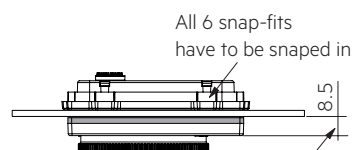
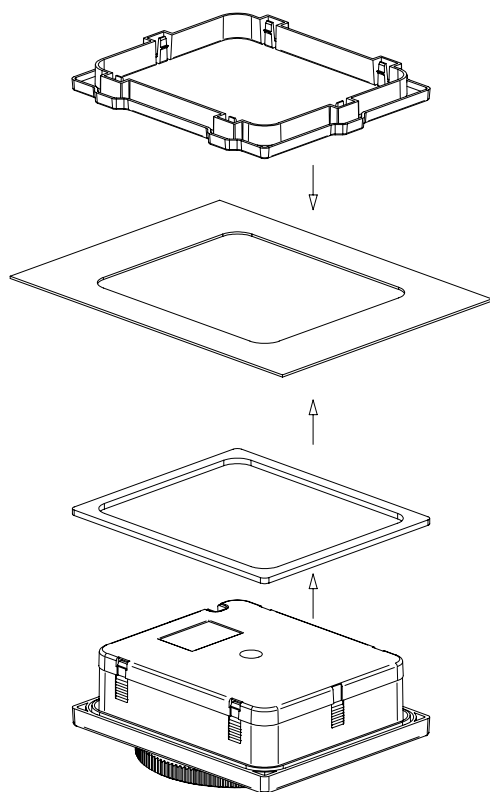
Sheet thickness: 1 – 4 mm



To change from position Low to High rotate lens in arrow direction until it stops at High!

- Arrow shows the zoom position.
- To change the zoom rotate the lens until it stops at High or Low position.
- Positions in between High and Low are not allowed.
- See installation notes!

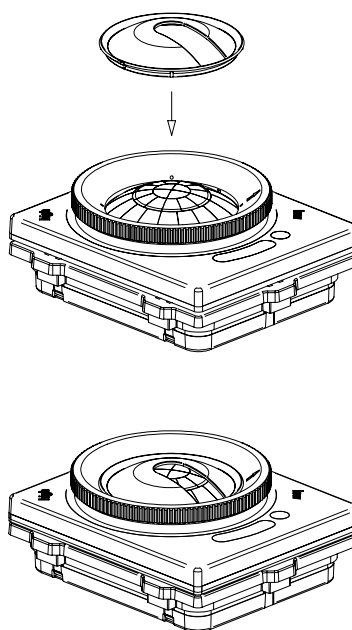
3.5 Sensor mounting



All 6 snap-fits
have to be snapped in

To guarantee IP65 the distance between
sensor surface and luminaire surface
must be less than 8.5 mm

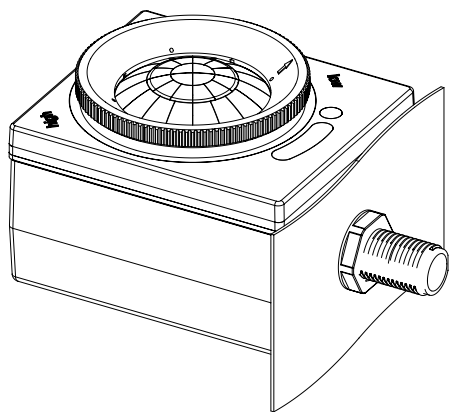
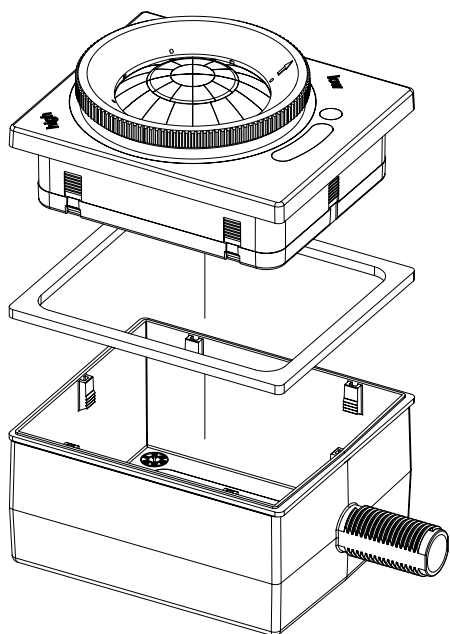
3.6 Shader mounting



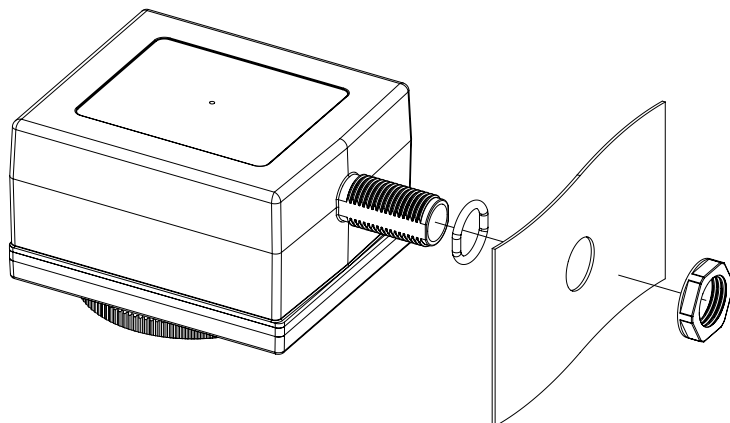
3.7 Mounting box mounting



- The sensor can be installed only once in the mounting box (Sensor snap in permanent)!
- Insert the cable of the sensor before installing.
- There are 2 installation variants possible for the sensor. The sensor can be turned through 180°.



3.8 Mounting box in luminaire housing:

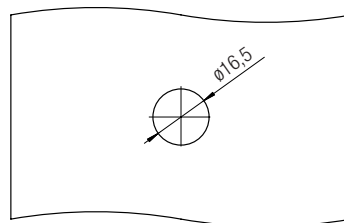
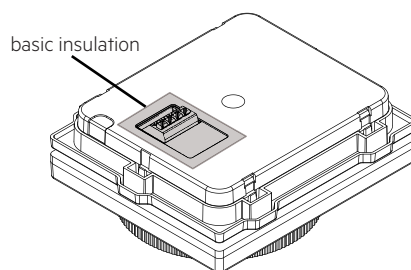


3.9 Mounting in class II luminaire

The Sensor provides basic insulation as required by IEC 62386-101 and defined in IEC 61347-1.

If the sensor is built in to a class II luminaire which has to provide double or reinforced insulation it has to be considered that the Sensor is not a class II device. Still the Sensor can be used for such projects as the most part of the sensor is tested to fulfil the class II requirements for double or reinforced insulation. Basic insulation is illustrated in the graphic below and covers an area 2,5 mm around the terminal.

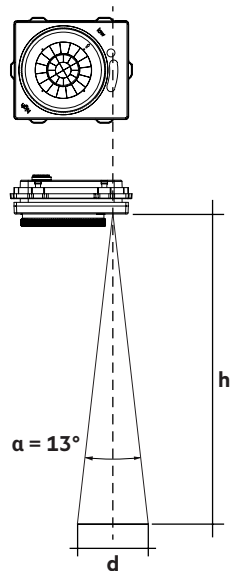
The rest of the sensor fulfils class II requirements.



4. Sensor functions

4.1 Light level recognition area

The light measurement has a cone-shaped detection area with a half angle of approximately 6.5°.



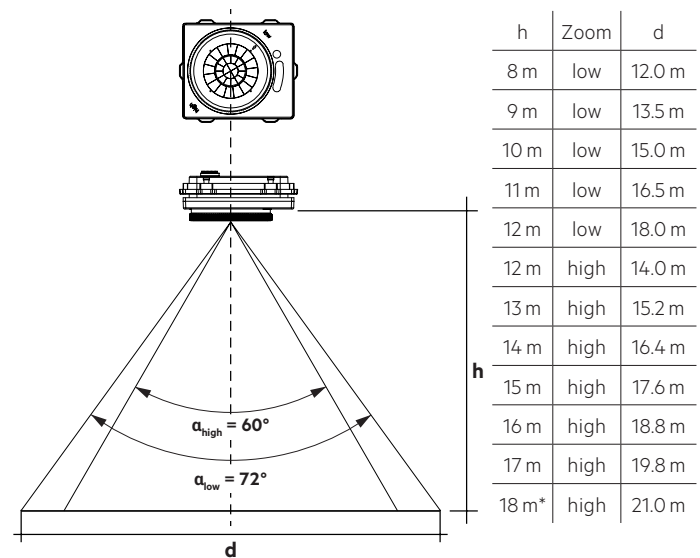
h	d
8 m	1.8 m
10 m	2.3 m
12 m	2.7 m
14 m	3.2 m
16 m	3.7 m
18 m*	4.2 m

The measurement range is between 1 and 2,000 lx.
Measured at the sensor head.



To be able to measure values < 5 lx in an accurate way it is needed to change integration time of light sensor to 800 ms. Integration time of light sensor is set to 100 ms by default. For values > 5 lx there is no difference in between these measurements.

4.2 Presence / motion detection



* For mounting heights over 16 m it is recommended to use several sensors grouped together in one presence group. As the sensitivity for the detection diameter can not be guaranteed for heights over 16 m.

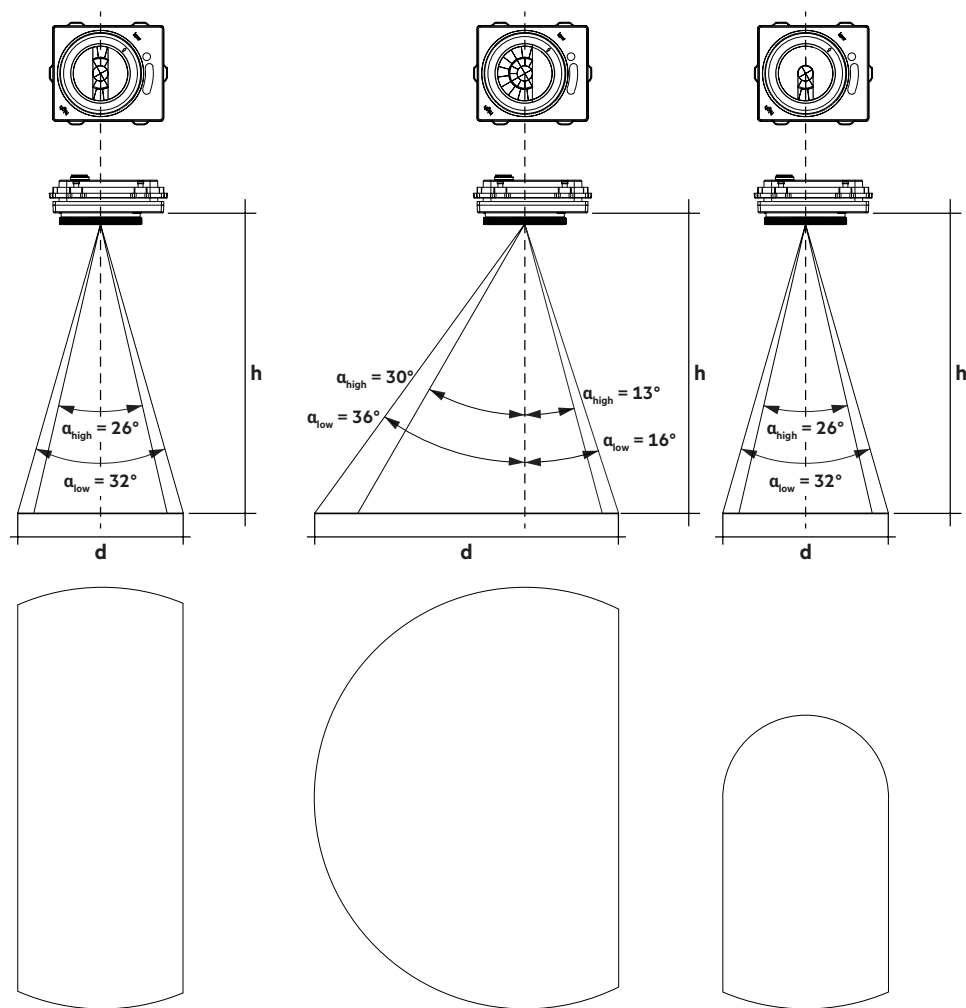
4.3 Status LED's

There is a LED built in to indicate different status information to the user. This LED is controlled from the sensor itself.

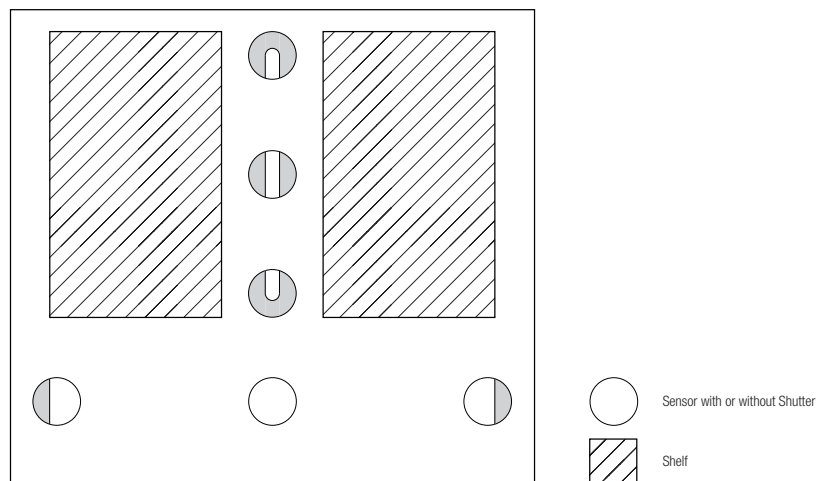


To not have any influence from LED to the light measurement, LED is disabled while light sensor is measuring by default.

4.4 Presence / motion detection with shader



4.5 Application



5. Configuration

Optimized for the operation in conjunction with the Tridonic application controller sceneCOM S.

For commissioning and configuration the App „sCS commissioning“ (sceneCOM S) is provided by Tridonic. App can be installed on iOS and Android devices. Compatible with Android 6.0 / iOS 10 or later, devices with a min. screen size of 20 cm diagonal and a min. resolution of 1024 x 768 pixels.

Android:



iOS:



6. Miscellaneous

6.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

6.2 Additional information

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

DALI PS3

DALI-2 power supply



Product description

- _ DALI-2 power supply providing 70 mA for a DALI-2 installation
- _ Excellent scalability allowing to connect up to 2 PS3 in a DALI-2 installation
- _ Compact form factor combined with detachable mounting flaps allowing high installation flexibility, e.g. in luminaire
- _ Up to 100,000 guaranteed operating hours enable outstanding lifetime of the entire lighting system
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

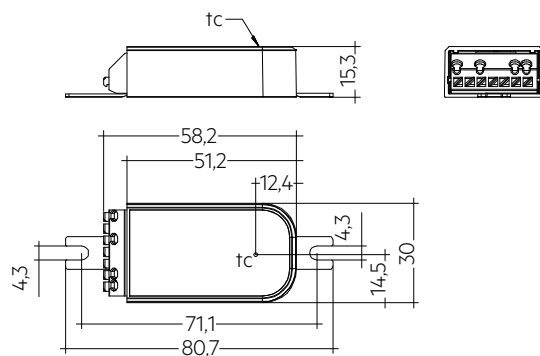
Website

<http://www.tridonic.com/87500873>



DALI PS3

DALI-2 power supply

**Ordering data**

Type	Article number	Packaging, carton	Weight per pc.
DALI PS3	87500873	60 pc(s).	0.02 kg

Technical data

Rated supply voltage	220 – 240 V
Mains frequency	50 / 60 Hz
Typ. current ^①	0.0172 A
Power consumption ^①	1.75 W
Typ. power consumption on stand-by ^②	0.31 W
Output power ^①	1.2 W
Output	DALI
Max. level voltage DC, DALI	18.4 V
Min. level voltage DC, DALI	13.6 V
Typ. level voltage DC, DALI	16 V
Guaranteed output current, DALI	0.07 A
Max. output current, DALI	105 mA
Ambient temperature t_a	-20 ... +65 °C
Type of protection	IP20
Dimensions L x W x H	80.7 x 30 x 15.3 mm
Lifetime	100,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

Approval marks**Standards**

EN 61347-2-11, EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61547, EN 62386-101

^① Test condition at 230 V, 50 Hz and full load.

^② No DALI traffic at the interface.

1. Standards

EN/IEC 61347-2-11: 2001
 EN 55015: 2013
 EN 61000-3-2: 2014 Part 3-2
 EN 61000-3-3: 2013 Part 3-3
 EN 61547: 2009
 EN 62386-101 Ed.2.1

1.1 Glow-wire test

according to EN 61347-2-11 passed for temperatures up to 850 °C.

2. Common

2.1 Functional description

DALI PS3 is developed according to EN 62386-101 Ed.2.1 also known as DALI-2. DALI PS3 is a power supply, rated at 16 V DC and providing 70 mA.

With the provided 70 mA current up to 35 DALI loads can be connected.



Standard DALI loads are specified to consume max. 2 mA. Some DALI control devices may consume more than 2 mA (e.g. MSensor G3). If such devices are connected to the PS3 the amount of possible connected devices will be reduced. This has to be considered during the application design.

Up to 2 PS3 can be connected in parallel to provide up to 140 mA.



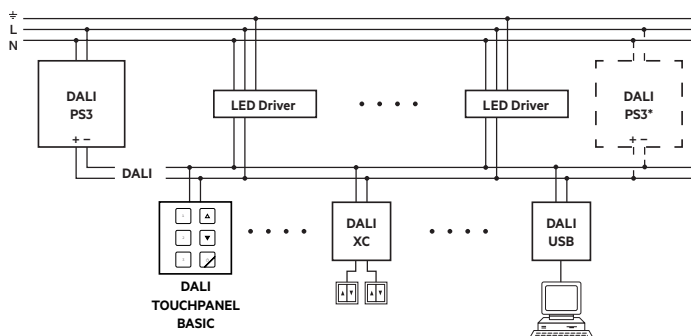
Additional PS3 must be connected in parallel and the polarity has to be considered. Do not connect more than 2 PS3 in one installation. This may cause damage to the device and all other devices connected to the control wires.

The housing provides mounting flaps (manually removable) which can be used for easy installation inside a luminaire.

3. Installation

- DALI signals are not SELV. Therefore the same procedures should be applied as working with mains voltage.
- The DALI signal wires must not drop more than 2 V.

3.1 Wiring

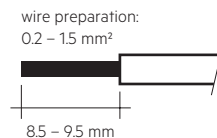


* Possible connection of additional DALI PS3

3.2 Cable types and cable cross-sections

For wiring use stranded wire with ferrules or solid wire from 0.2–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.



When loosening the wiring, always use the push-button handle and never pull on the wire until the latch is released.

3.3 Max. output cable length

Material	Cross-section	Max. cable length		
		25 °C	50 °C	75 °C
Copper	0.20 mm ²	45 m	41 m	37 m
	0.50 mm ²	112 m	102 m	93 m
	0.75 mm ²	168 m	153 m	140 m
	1.00 mm ²	224 m	204 m	187 m
	1.50 mm ²	300 m ^①	300 m ^①	281 m
Aluminium	0.20 mm ²	27 m	25 m	23 m
	0.50 mm ²	68 m	62 m	57 m
	0.75 mm ²	102 m	93 m	86 m
	1.00 mm ²	136 m	125 m	115 m
	1.50 mm ²	205 m	187 m	172 m

^① Cable lengths of more than 300 m are not recommended.

3.4 Output short circuit conditions

Output short circuit behavior has no delay, retry and restart period of shutdown mechanism, but short circuit proof. The PS3 keeps working even output is short with limited max. output current.

4. Thermal details and lifetime

4.1 Expected lifetime

Expected lifetime				
Type	t _a	40 °C	50 °C	65 °C
	t _c	55 °C	65 °C	75 °C
DALI PS3	Lifetime	>100,000 h	100,000 h	65,000 h

The device is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.

5. Miscellaneous

5.1 Disposal



According to the WEEE directive return old equipment at appropriate collection facilities.

5.2 Additional information

Additional technical information at www.tridonic.com → Technical Data
 Guarantee conditions at www.tridonic.com → Services

Lifetime declarations are informative and represent no warranty claim. No warranty if device was opened.

Driver LC 25W 200-600mA bDW NF SR PRE4
premium series

**Product description**

- _ lumDATA (DALI-2 part ext. 251, 252 and 253)
- _ Can be integrated in Casambi systems (Casambi Ready)
- _ Forms automatically a wireless communication network with up to 250 nodes
- _ Independent dimmable constant current LED driver with strain-relief
- _ Dimming range 1 to 100 %
- _ Max. output power 25 W
- _ Nominal lifetime up to 100,000 h
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

Housing properties

- _ Casing: makrolon, white
- _ Type of protection IP20
- _ Strain relief with loop through function

Interfaces

- _ Near field communication (NFC)
- _ basicDIM Wireless
- _ Terminal blocks: 0° / 45° push terminals (input / output)

Functions

- _ Adjustable output current in 1-mA-steps (NFC)
- _ Support NFC multiple programming (full carton box)
- _ Fulfills DALI-2 parts: 105 (DALI firmware update), 251 (Luminaire data), 252 (Energy reporting) and 253 (Diagnostics & Maintenance)
- _ Constant light output function (eCLO)
- _ Power-up fading at AC
- _ Switch off the driver with fade2zero
- _ Service monitor to log certain events
- _ LTI (Lifetime Indicator) – available in the first half of 2025
- _ Protective features (overtemperature, short-circuit, overload, no-load, input voltage range)
- _ Suitable for emergency escape lighting systems acc. to EN 50172
- _ For cable cross-sections up to 2.5 mm²

Benefits

- _ Application-oriented operating window for maximum compatibility
- _ Best energy savings due to low stand-by losses and high efficiency
- _ Flexible configuration via companionSUITE
- _ No tools required for installation

Typical applications

- _ For downlight, spotlight and decorative applications

Website

<http://www.tridonic.com/28005481>



Spotlights



Downlights



Linear



Area



Floor | Wall



Free-standing



Street

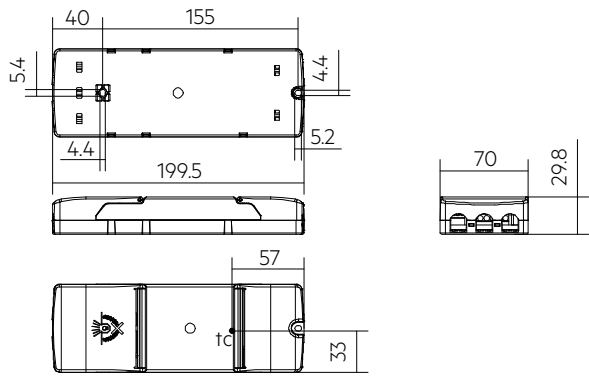


Decorative



High bay

Driver LC 25W 200-600mA bDW NF SR PRE4
premium series



Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
LC 25/200-600/54 bDW NF SR PRE4	28005481	10 pc(s).	600 pc(s).	0.197 kg

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
DC voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Overvoltage protection	320 V AC, 48 h
Typ. rated current (at 230 V, 50 Hz, full load) ^{①②}	129 mA
Typ. current (220 V, 0 Hz, full load, EOFx dimlevel) ^②	31 mA
Max. input power	29 W
Output power range (P _{rated})	2 – 25 W
Typ. efficiency (at 230 V, 50 Hz, full load) ^②	87 %
λ over full operating range (max.)	0.98
λ over full operating range (min.)	0.42C
Typ. power consumption on stand-by	< 0.26 W
Typ. input current in no-load operation	17 mA
Typ. input power in no-load operation	0.46 W
In-rush current (peak / duration)	36 A / 137 μ s
THD (at 230 V, 50 Hz, full load) ^①	< 7 %
Starting time (AC mode)	< 0.7 s
Starting time (DC mode)	< 0.35 s
Switchover time (AC/DC) ^③	< 0.1 s
Turn off time (at 230 V, 50 Hz, full load)	< 20 ms
Output current tolerance ^{①④}	$\pm$ 5 %
Max. output current peak (non-repetitive)	900 mA
Output LF current ripple (< 120 Hz)	$\pm$ 5 %
Output P _{ST_LM} (at full load)	$\leq$ 1
Output SVM (at full load)	$\leq$ 0.4
Max. output voltage (U-OUT)	60 V
Dimming range	1 – 100 %
Mains surge capability (between L - N)	1 kV
Mains surge capability (between L/N - PE)	2 kV
Type of protection	IP20
Radio transceiver operating frequencies ^⑤	2.4 – 2.483 GHz
Max. output power radio transceiver (E.I. R.P.)	< + 20 dBm
Radio protocol	Bluetooth 4.0 or 5.0 Low Energy (BLE)
Capable for mesh network	Up to 250 nodes / Standard networks and Long Range
Lifetime	up to 100,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)
Dimensions L x W x H	200 x 70 x 30 mm

Approval marks**Standards**

EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61000-4-4, EN 61000-4-5, EN 61347-1, EN 61347-2-13, EN 61547, EN 62384, ETSI EN 300 330, ETSI EN 301 489-1, ETSI EN 300 328, ETSI EN 301 489-17, according to EN 50172, according to EN 60598-2-22

Specific technical data

Type	Output current ^⑥	Min. output voltage	Max. output voltage	Max. output power	Typ. power consumption (at 230 V, 50 Hz, full load)	Typ. current consumption (at 230 V, 50 Hz, full load)	t _c point max.	Ambient temperature t _a
LC 25/200-600/54 bDW NF SR PRE4	200 mA	10 V	54.0 V	10.8 W	14.3 W	67 mA	77 °C	-20 ... +55 °C
LC 25/200-600/54 bDW NF SR PRE4	250 mA	10 V	54.0 V	13.5 W	17.0 W	78 mA	78 °C	-20 ... +55 °C
LC 25/200-600/54 bDW NF SR PRE4	300 mA	10 V	54.0 V	16.2 W	19.7 W	90 mA	75 °C	-20 ... +50 °C
LC 25/200-600/54 bDW NF SR PRE4	350 mA	10 V	54.0 V	18.9 W	22.5 W	101 mA	75 °C	-20 ... +50 °C
LC 25/200-600/54 bDW NF SR PRE4	400 mA	10 V	54.0 V	21.6 W	25.3 W	113 mA	76 °C	-20 ... +50 °C
LC 25/200-600/54 bDW NF SR PRE4	450 mA	10 V	54.0 V	24.3 W	28.1 W	125 mA	76 °C	-20 ... +50 °C
LC 25/200-600/54 bDW NF SR PRE4	463 mA	10 V	54.0 V	25.0 W	28.8 W	128 mA	76 °C	-20 ... +50 °C
LC 25/200-600/54 bDW NF SR PRE4	500 mA	10 V	50.0 V	25.0 W	29.0 W	129 mA	80 °C	-20 ... +55 °C
LC 25/200-600/54 bDW NF SR PRE4	550 mA	10 V	45.5 V	25.0 W	28.8 W	128 mA	81 °C	-20 ... +55 °C
LC 25/200-600/54 bDW NF SR PRE4	600 mA	10 V	41.7 V	25.0 W	28.7 W	128 mA	82 °C	-20 ... +55 °C

① Valid at 100 % dimming level.

② Depending on the selected output current.

③ Valid for immediate change of power supply type otherwise the starting time is valid.

④ Output current is mean value.

⑤ E.I.R.P.: Equivalent Isotropically Radiated Power.

⑥ The table only lists a number of possible operating points but does not cover each single point. The output current can be set within the total value range in 1-mA-steps.

1. Standards

EN 55015
 EN 61000-3-2
 EN 61000-3-3
 EN 61000-4-4
 EN 61000-4-5
 EN 61347-1
 EN 61347-2-13
 EN 62384
 EN 61547
 ETSI EN 300 330
 ETSI EN 301 489-1
 ETSI EN 300 328
 ETSI EN 301 489-17

According to EN 50172 for use in central battery systems

According to EN 60598-2-22 suitable for emergency lighting installations

1.1 Glow wire test

according to EN 61347-1 with increased temperature of 850 °C passed.

2. Thermal details and lifetime

2.1 Expected lifetime

Expected lifetime						
Type	Output current	ta	40 °C	45 °C	50 °C	55 °C
LC 25/200-600/54 bDW NF SR PRE4	200 mA	tc	65 °C	69 °C	73 °C	77 °C
		Lifetime	> 100,000 h	87,000 h	70,000 h	55,000 h
	> 200 – 290 mA	tc	66 °C	70 °C	74 °C	78 °C
		Lifetime	> 100,000 h	81,000 h	65,000 h	51,000 h
	> 290 – 380 mA	tc	67 °C	71 °C	75 °C	–
		Lifetime	94,000 h	74,000 h	60,000 h	–
	> 380 – 463 mA	tc	68 °C	72 °C	76 °C	–
		Lifetime	84,000 h	67,000 h	55,000 h	–
	> 463 – 600 mA	tc	68 °C	72 °C	75 °C	82 °C
		Lifetime	> 100,000 h	82,000 h	66,000 h	51,000 h

The LED driver is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.

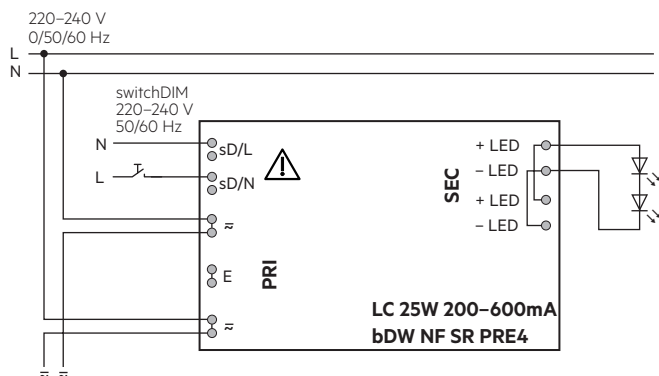
The relation of tc to ta temperature depends also on the luminaire design.

If the measured tc temperature is approx. 5 K below tc max., ta temperature should be checked and eventually critical components (e.g. ELCAP) measured.

Detailed information on request.

3. Installation / wiring

3.1 Circuit diagram



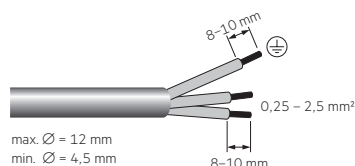
Device with loop through wiring function.
The earthing terminal of this device is not intended to protect against electric shock.

3.2 Wiring type and cross section

Mains supply wires

For wiring use stranded wire with ferrules or solid wire from 0.25–2.5 mm². Strip 8–10 mm of insulation from the cables to ensure perfect operation of the push terminals.

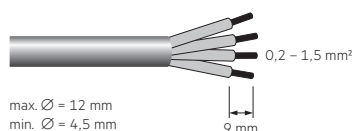
Use one wire for each terminal connector only.
Use each strain relief channel for one cable only.



Secondary wires (LED module)

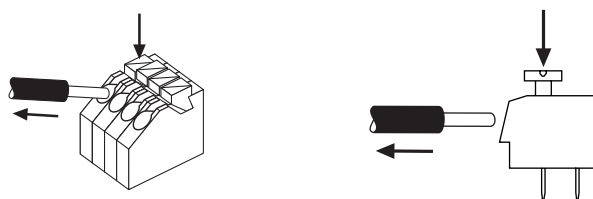
For wiring use stranded wire with ferrules or solid wire from 0.2–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

Use one wire for each terminal connector only.
Use each strain relief channel for one cable only.



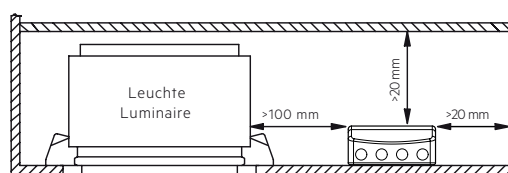
3.3 Loose wiring

Press down the “push button” and remove the cable from front.



3.4 Fixing conditions

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature (ta) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.



Device not suitable for covering with thermally insulating material

3.5 Wiring guidelines

- Run the secondary lines separately from the mains connections and lines to achieve good EMC performance.
- The max. secondary cable (LED module) length is 2 m (4 m circuit).
- For good EMC performance, keep the LED wiring as short as possible.
- To comply with the EMC regulations run the secondary wires (LED module) in parallel.
- Secondary switching is not permitted.
- The LED driver has no inverse-polarity protection on the secondary side. Wrong polarity can damage LED modules with no inverse-polarity protection.
- Wrong wiring of the LED driver can lead to malfunction or irreparable damage.
- Through wiring of mains is for connecting additional LED driver only. Max. permanent current of 16 A may not be exceeded.
- To avoid damage of the Driver, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).
- Recommendation to check glowing in stand-by in combination with class I luminaires.
- The terminal (E) is not connected to the driver. Only for loop-through wiring of protective earth.

3.6 Hot plug-in



Hot plug-in is not supported due to residual output voltage of > 0 V up to mains voltage. Danger to life.
When connecting an LED load, restart the device to activate the LED output. This can be done via mains reset or via interface (switchDIM).

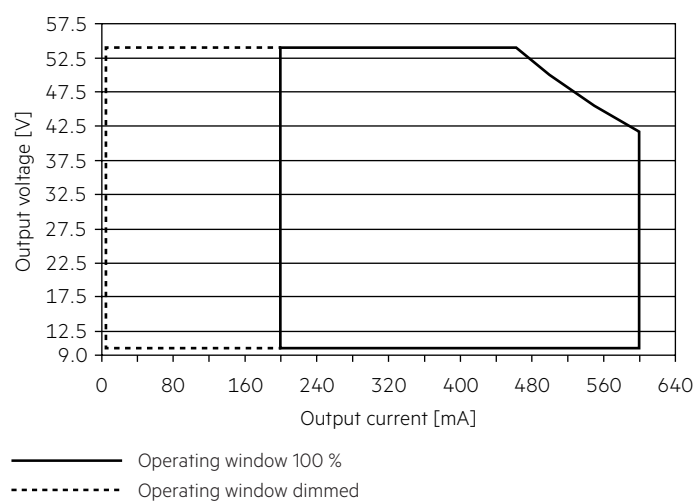
3.7 Independent control gear classification



"Do not cover", "non-IC" and "IC" classified control gear are recommended to be installed according to the Fixing conditions in 3.4.

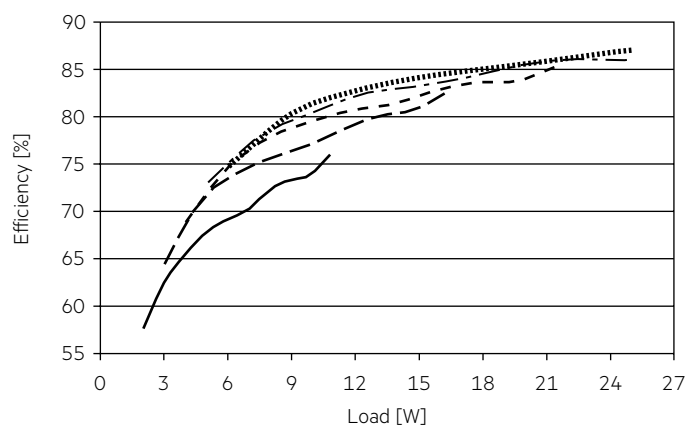
4. Electrical values

4.1 Operating window

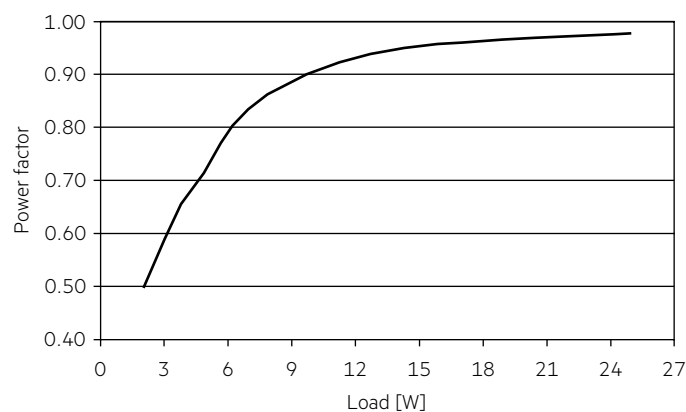


Make sure that the LED driver is operated within the given window under all operating conditions. Special attention needs to be paid at dimming and DC emergency operation as the forward voltage of the connected LED modules varies with the dimming level, due to the implemented amplitude dimming technology. Coming below the specified minimum output voltage of the LED driver may cause the device to shut-down. See chapter "6.9 DC operation" for more information.

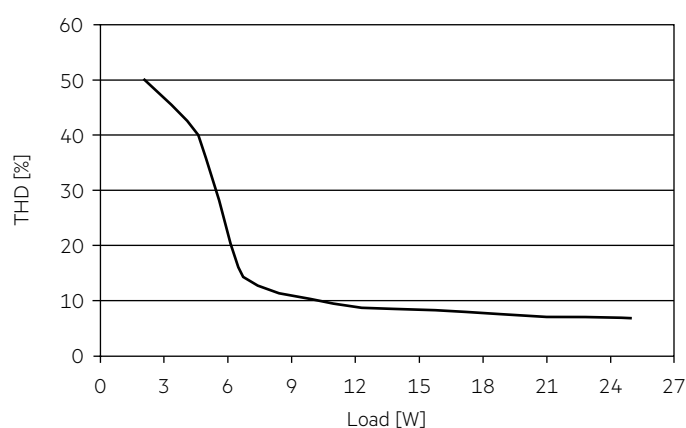
4.2 Efficiency vs load



4.3 Power factor vs load



4.4 THD vs load



100 % load corresponds to the max. output power (full load) according to the table on page 2.

4.5 Maximum loading of automatic circuit breakers in relation to inrush current

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm ²	1.5 mm ²	2.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	2.5 mm ²	I _{max}	time
LC 25/200-600/54 bDW NF SR PRE4	30	38	48	61	18	23	29	37	36 A	137 µs

These are max. values calculated out of inrush current! Please consider not to exceed the maximum rated continuous current of the circuit breaker.

Calculation uses typical values from ABB series S200 as a reference.

Actual values may differ due to used circuit breaker types and installation environment.

4.6 Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

	THD	3.	5.	7.	9.	11.
LC 25/200-600/54 bDW NF SR PRE4	< 7	< 4	< 4	< 3	< 3	< 1

4.7 Dimming

Dimming range 1% to 100 % (of max. current)

Dimming curve is adapted to the eye sensitiveness.

Dimming is realized by amplitude dimming.

Physical minimal current is 1 % of max. current of the driver.

5. Software / Programming / Interfaces

5.1 Software / programming

With appropriate software and interface different functions can be activated and various parameters can be configured in the LED driver. The Driver supports the following software and interfaces:

Software / hardware for configuration:

- companionSUITE (deviceGENERATOR, deviceCONFIGURATOR, deviceANALYSER)

Interfaces for data transfer:

- NFC

5.2 Nearfield communication (NFC)

The NFC Interface allows wireless communication with the LED driver. This interface offers the option to write configuration and to read configuration, errors and events with the companionSUITE. A correct communication between the LED driver and the NFC antenna can only be guaranteed if the antenna is placed directly on the Driver. Any material placed between the LED driver and the NFC antenna can cause a deterioration of the communication quality. After programming the device via NFC power up the device one time for one second till the deviceANALYSER can read out the parameters. With a strong NFC antenna, several products can be programmed simultaneously ("multi device programming"). We recommend the use of following NFC antenna:
www.tridonic.com/nfc-readers

NFC is complied with ISO/IEC 15963 standard.

Changing parameters via NFC shall be done by qualified engineers only.

5.3 Control input switchDIM

A standard push button can be connected on the input terminals. This function have to be activated before using.

The control signal uses the usual mains voltage. It is essential to observe the specifications of the terminals (sD/L or sD/N) for connecting the switched phase of the pushbutton and the neutral wire. Profile change see handbook https://www.tridonic.com/com/en/download/technical/Documentation_Tridonic_4remote_BT_EN.pdf

6. Functions

 companionSUITE:

NFC

The companionSUITE with deviceGENERATOR, deviceCONFIGURATOR and deviceANALYSER is available via our WEB page:
<https://www.tridonic.com/com/en/products/companionsuite.asp>

Icon	Function	NFC
	OEM Identification	
	OEM GTIN	
	Luminaire data	
	Label information	
	LED current	
	Factory reset	
	Constant light output (CLO)	
	DC level	
	Enhanced power on level (ePOL)	
	deviceKEY	
	Energy reports	
	Lifetime indicator	
	switchDIM	

6.1 OEM Identification



The OEM (Original Equipment Manufacturer) can set his own identification number.

DALI Part 251: Memory bank 1 extension.

Store via NFC, read via bDW.

6.2 OEM GTIN



The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).

DALI Part 251: Memory bank 1 extension.

Store via NFC, read via bDW.

6.3 Luminaire data



This function provides the asset management with accurate data about the luminaire.

DALI Part 251: Memory bank 1 extension.

Store via NFC, read via bDW.

6.4 Label information



In production, an individual label can be printed out for each device.

For this there are different default values (Batch No., Production Date, ...) available.

In addition, you can use these two text input fields to insert your own luminaire information and print it out.

6.5 LED current



The LED output current must be adapted to the connected LED module. The value is limited by the current range of the respective device.

6.6 Factory reset



This device supports the function to reset all parameters back to factory defaults.

6.7 Enhanced Constant Light Output (eCLO)



With this function the light output of the LED module can be kept equal over the lifetime.

The light output of an LED module reduces over the course of its lifetime.

The Constant Light Output (eCLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.

Enhanced eCLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user.

The user has to insert up to eight pairs of data (time, level).

The output curve is the result of connecting the user data points linear.

Detailed description for eCLO see product manual.

The minimal CLO starting point is limited by the smallest output current of the LED driver.

6.8 Light level in DC operation



In emergency light systems with a central battery supply the DC recognition function uses the input voltage to detect if emergency mode is present.

The LED driver then automatically switches to DC mode and dims the light to the defined DC level.

Without DC recognition different and more complex solutions would have to be applied in order to detect emergency mode.

DC recognition is integrated in the device as standard.

No additional commissioning is necessary for activation.



This is a safety-relevant parameter.

The setting is relevant for the dimensioning of the central battery system.

The LED driver is designed to operate on DC voltage and pulsed DC voltage. For a reliable operation, make sure that also in DC emergency operation the LED driver is run within the specified conditions as stated in chapter "4.1 operating window".

Light output level in DC operation: programmable 1 – 100 %
(factory default = 15 %, EOF_i = 0.13).

The voltage-dependent input current of Driver incl. LED module is depending on the used load.

The voltage-dependent no-load current of Driver (without or defect LED module) is for:

AC: < 18.9 mA

DC: < 2.16 mA

6.9 deviceKEY



With this function, individual device functions can be protected from unauthorized changes by a password.

6.10 Energy reporting



This function provides the information related to energy reporting accessible through memory banks in this driver. Several functions and values could be read out to gain access in Content management systems. Report and values for Active power, Active Energy and many more can be read out.

6.11 Diagnostics and maintenance



This function complies to DiiA specification DALI Part 253 - Diagnostics and maintenance. It provides the information related to diagnostics and maintenance information accessible through memory banks. Several functions and values could be read out to gain access in Content management systems. Report and values for failure behaviour, driver conditions and malfunctions trigger points can be read out.

6.12 Lifetime indicator

This function provides the information related to driver health and aging rates. Constant monitoring allows us to make an estimation of the health status of the device. This is an indication of the condition of the driver and a guide as to when a driver should be replaced.

LED driver health:



Indicates the remaining lifetime of the driver. 100 % is a new device, 0 % should be urgently replaced. Helps the advanced user to understand what is the health status of the driver.

Aging rate:



Indicates the degree of aging based on current conditions. 0 % no aging, > 20 % driver may not survive warranty. Please check the LED driver condition.



These parameters are only used to estimate the condition of the device. Warranty conditions are not affected by this.

7. Protective features

7.1 Intelligent temperature guard (ITG)



The Intelligent temperature guard (ITG) function provides effective protection against thermal overloads by slowly reducing the output if a defined internal temperature is exceeded.

The reduction of overtemperatures takes place in small steps every two minutes. As soon as the temperature drops again, the output power is gradually increased every 10 minutes.

On DC operation this function is deactivated to fulfill emergency requirements.

7.2 Intelligent Voltage Guard (IVG)



Intelligent Voltage Guard is the name of the electronic monitoring of the mains voltage. It immediately shows if the mains voltage rises above certain thresholds. Measures can then be taken quickly to prevent damage to the LED driver.

- If the mains voltage rises above approx. 280 Vrms (voltage depends on the LED driver type), the LED light starts flashing on and off.
- To avoid a damage of the LED driver the mains supply has to be switched off at this signal.

7.3 Short-circuit behaviour

In case of a short-circuit at the LED output the LED output is switched off. After restart of the LED driver the output will be activated again. The restart can either be done via mains reset or via interface.

7.4 No-load operation

The LED driver will not be damaged in no-load operation. The output will be deactivated and is therefore free of voltage. If a LED load is connected the device has to be restarted before the output will be activated again. The restart can either be done via mains reset or via interface.

7.5 Overload protection

If the maximum load is exceeded by a defined internal limit, the LED driver turns off the LED output. After restart of the LED driver the output will be activated again.

The restart can either be done via mains reset or via interface.

7.6 Insulation between terminals

Insulation	Mains	LED	sD	E
Mains	–	double	basic	basic
LED	double	–	double	double
sD	basic	double	–	basic
E	basic	double	basic	–

basic ... represents basic insulation.

double ... represents double or reinforced insulation.

8. Miscellaneous

8.1 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to EN 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 500 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal. The insulation resistance must be at least 2 MΩ.

As an alternative, EN 60598-1 Annex Q describes a test of the electrical strength with 1500 V_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

8.2 Conditions of use and storage

Humidity: 5% up to max. 85 %,
not condensed
(max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +85 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

The LED driver is declared as inbuilt LED controlgear, meaning it is intended to be used within a luminaire enclosure.

If the product is used outside a luminaire, the installation must provide suitable protection for people and environment (e.g. in illuminated ceilings).

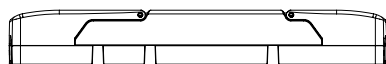
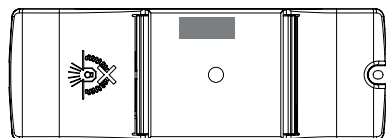
8.3 Placement

basicDIM Wireless has an integrated antenna for easy integration. In order to maximize the range in every direction some design guidelines should be taken into consideration when mounting the device.

The antenna is located on the corner of the enclosure. It is on the top side of the internal PCB (Printed Circuit Board).

When the device is mounted on a metal plate (e.g. frame of a luminaire), it may efficiently block the radio frequency signal. In this case, a cut-out underneath the antenna may be needed for the RF signal to exit the structure. The cut-out area should be as large as possible. Also the device should be placed as far away from any vertical metal structures as possible.

■ Antenna location



The range of the communication signal is depending on the environment e.g. luminaire, construction of the building, furnitures or humans and needs to be tested and approved in the installation.

8.4 Control terminals

In some countries, basic insulated control terminals are to be marked with this symbol.



Control terminals marked "Caution" can become live in the event of a fault and are therefore not safe to touch. Circuits connected to control terminals marked in this way must be insulated according to the supply voltage of the controlgear and all terminals connected to such circuits must be protected against accidental contact.

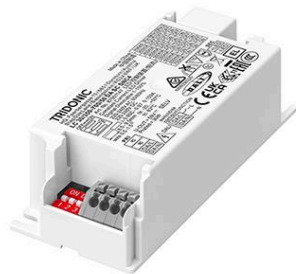
8.5 Disposal



According to the WEEE directive return old equipment at appropriate collection facilities.

Driver LC 30W 350-700mA DA SC SNC4

essence series

**Product description**

- _ Can be either used built-in or independent with clip-on strain-relief
- _ For luminaires of protection class I and protection class II
- _ For luminaires with M and MM as per EN 60598, VDE 0710 and VDE 0711
- _ Temperature protection as per EN 61347-2-13 C5e
- _ Adjustable output current via dip switch or DALI
- _ Selectable fixed output current 350, 400, 450, 500, 550, 600, 650 and 700 mA (pre-selected current 350 mA)
- _ Max. output power 30 W
- _ Up to 88 % efficiency
- _ Nominal lifetime up to 100,000 h
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacturer-guarantee-conditions>)

Housing properties

- _ Casing: polycarbonate, white
- _ Type of protection IP20

Interfaces

- _ one4all (DALI-2, switchDIM, corridorFUNCTION)
- _ Terminal blocks: 45° push terminals

Functions

- _ Adjustable output current in 1-mA-steps (DALI)
- _ Constant light output function (CLO)
- _ Protective features (overtemperature, short-circuit, overload, no-load)
- _ Suitable for emergency escape lighting systems acc. to EN 50172

Benefits

- _ Flexible configuration via companionSUITE (DALI)
- _ Application-oriented operating window for maximum compatibility
- _ Best energy savings due to low stand-by losses and high efficiency

Typical applications

- _ For downlight, spotlight and decorative applications

Website
<http://www.tridonic.com/87501147>


Spotlights



Downlights



Linear



Area



Floor | Wall



Free-standing



Street

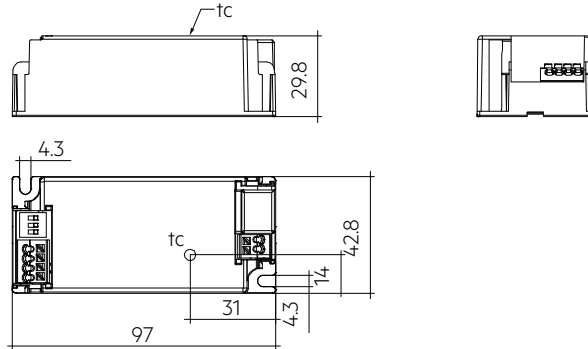


Decorative



High bay

essence series



Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
LC 30/350-700/50 DA SC SNC4	87501147	50 pc(s).	750 pc(s).	0.107 kg

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
DC voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Overvoltage protection	320 V AC, 48 h
Typ. rated current (at 230 V, 50 Hz, full load) ^{①②}	159 mA
Typ. current (220 V, 0 Hz, full load, EOFx dimlevel) ^②	28 mA
Max. input power	34.3 W
Output power range (P _{rated})	5.25 – 30 W
Typ. efficiency (at 230 V, 50 Hz, full load) ^②	88 %
λ over full operating range (max.) ^①	0.97
λ over full operating range (min.)	0.65C
Typ. power consumption on stand-by ^③	< 0.45 W
In-rush current (peak / duration)	24 A / 98 μ s
THD (at 230 V, 50 Hz, full load) ^①	< 15 %
Starting time (AC mode)	< 700 ms
Starting time (DC mode)	< 900 ms
Switchover time (AC/DC) ^④	< 300 ms
Turn off time (at 230 V, 50 Hz, full load)	< 50 ms
Output current tolerance ^{①⑤}	$\pm$ 5 %
Max. output current peak (non-repetitive)	$\leq$ output current + 20 %
Output LF current ripple (< 120 Hz)	$\leq$ 5 %
Output P_ST_LM (at full load)	$\leq$ 1
Output SVM (at full load)	$\leq$ 0.4
Max. output voltage (U-OUT)	59 V
Dimming range	1 – 100 % (min. 5 mA)
Mains surge capability (between L - N) ^⑥	1 kV
Mains surge capability (between L/N - PE)	2 kV
Burst / surge peaks output side against PE	< 3 kV
Type of protection	IP20
Lifetime	up to 100,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)
Dimensions L x W x H	97 x 43 x 30 mm

Approval marks



Standards

EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61000-4-4, EN 61000-4-5, EN 61347-1, EN 61347-2-13, EN 62384, EN 61547, EN 62386-101, EN 62386-102, EN 62386-207 (DALI-2), according to EN 50172, according to EN 60598-2-22

Specific technical data

Type	Output current ^①	Min. output voltage	Max. output voltage	Max. output power	Typ. power consumption (at 230 V, 50 Hz, full load)	Typ. current consumption (at 230 V, 50 Hz, full load)	t _c point max.	Ambient temperature T _a	I-out select
LC 30/350-700/50 DA SC SNC4	350 mA	15 V	50.0 V	17.5 W	20.5 W	106 mA	83 °C	-20 ... +65 °C	1=off / 2=off / 3=off
LC 30/350-700/50 DA SC SNC4	400 mA	15 V	50.0 V	20.0 W	23.0 W	116 mA	83 °C	-20 ... +65 °C	1=off / 2=off / 3=on
LC 30/350-700/50 DA SC SNC4	450 mA	15 V	50.0 V	22.5 W	25.7 W	127 mA	83 °C	-20 ... +60 °C	1=off / 2=on / 3=off
LC 30/350-700/50 DA SC SNC4	500 mA	15 V	50.0 V	25.0 W	28.4 W	138 mA	83 °C	-20 ... +60 °C	1=off / 2=on / 3=on
LC 30/350-700/50 DA SC SNC4	550 mA	15 V	50.0 V	27.5 W	31.2 W	149 mA	83 °C	-20 ... +55 °C	1=on / 2=off / 3=off
LC 30/350-700/50 DA SC SNC4	600 mA	15 V	50.0 V	30.0 W	34.2 W	158 mA	83 °C	-20 ... +55 °C	1=on / 2=off / 3=on
LC 30/350-700/50 DA SC SNC4	650 mA	15 V	46.2 V	30.0 W	34.3 W	159 mA	83 °C	-20 ... +50 °C	1=on / 2=on / 3=off
LC 30/350-700/50 DA SC SNC4	700 mA	15 V	42.9 V	30.0 W	34.3 W	159 mA	83 °C	-20 ... +50 °C	1=on / 2=on / 3=on

① Valid at 100 % dimming level.

② Depending on the selected output current.

③ Depending on the DALI traffic at the interface.

④ Valid for immediate change of power supply type otherwise the starting time is valid.

⑤ Output current is mean value.

⑥ L-N acc. to EN 61000-4-5. 2 Ohm, 12/50 µs, 8/20 µs.

Strain-relief set 43x30mm

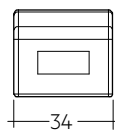
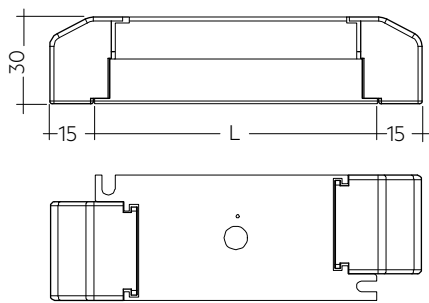
Accessory



Product description

- _ Optional strain-relief set for independent applications
- _ Transforms the LED driver into a fully class II compatible LED driver (e.g. ceiling installation)
- _ Easy and tool-free mounting to the LED driver, screwless cable-clamp channels for long strain-relief (30 x 43 x 30 mm)
- _ With screws for short strain-relief (15 x 34 x 30 mm)
- _ Overall length = length L (LED driver) + 2 x 30 mm (long strain-relief set), 2 x 15 mm (short strain-relief) or long and short strain-relief any combination
- _ Standard SC (L = 30 mm) available as non-pre-assembled and pre-assembled
- _ Short SC (L = 15 mm) only pre-assembled available

Website

<http://www.tridonic.com/28001168>


Permissible
cable jacket
diameter:
3 – 9 mm

Ordering data

Type	Article number	Packaging, carton ^①	Packaging, outer box	Weight per pc.
ACU SC 43x30mm CLIP-ON SR SET	28001168	10 pc(s).	500 pc(s).	0.038 kg
ACU SC 43x30mm CLIP-ON SR SET 300	28001351	300 pc(s).	300 pc(s).	0.038 kg
ACU SC 30x43x30mm CLIP-ON SR PA	28001699	10 pc(s).	500 pc(s).	0.021 kg
ACU SC 15x43x30mm CLIP-ON SR PA	28001574	10 pc(s).	1,200 pc(s).	0.010 kg

Approval marks



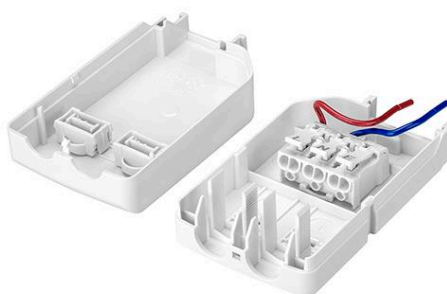
① 28001168: A carton of 10 pcs. is equal to 10 sets, each with 2 strain-reliefs parts. 28001351: A carton of 300 pcs. is equal to 300 sets, each with 2 strain-reliefs parts. 28001699 + 28001574: A carton contains exactly 10 pcs. strain-reliefs (no sets).

ACU SC 85x44x30mm CLIP-ON SRL

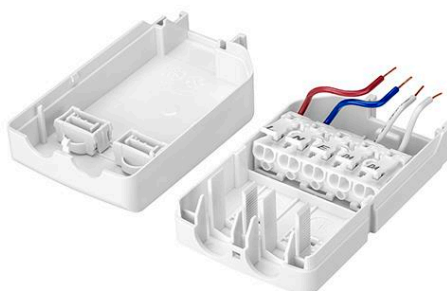
Accessory

**Product description**

- _ Optional strain-relief set for independent applications
- _ Transforms the LED driver into a fully class II compatible LED driver (e.g. ceiling installation)
- _ Easy and tool-free mounting to the LED driver, screwless cable-clamp channels with strain-relief
- _ Tool-free strain relief – supports mains loop through for cable wiring (up to 16 A)
- _ Tool-free cable assembling: for stranded and solid wires – cable cross-sections up to 2.5 mm²
- _ 3-POL version (L / N / E)
- _ 5-POL version (L / N / E / DA / DA)



ACU SC CLIP-ON SRL 3-POL



ACU SC CLIP-ON SRL 5-POL

**Website**<http://www.tridonic.com/28005596>**Ordering data**

Type	Article number	Packaging, outer box	Weight per pc.
ACU SC 85x44x30mm CLIP-ON SRL 3-POL	28005596	280 pc(s).	0.048 kg
ACU SC 85x44x30mm CLIP-ON SRL 5-POL	28005617	280 pc(s).	0.054 kg

1. Standards

EN 55015
 EN 61000-3-2
 EN 61000-3-3
 EN 61000-4-4
 EN 61000-4-5
 EN 61347-1
 EN 61347-2-13
 EN 62384
 EN 61547
 EN 62386-101 (DALI-2)
 EN 62386-102 (DALI-2)
 EN 62386-207 (DALI-2)

According to EN 50172 for use in central battery systems

According to EN 60598-2-22 suitable for emergency luminaire

1.1 Glow wire test

according to EN 61347-1 with increased temperature of 850 °C passed.

2. Thermal details and lifetime

2.1 Expected lifetime

Expected lifetime for build-in use

Type	Output current	ta	40 °C	45 °C	50 °C	55 °C	60 °C	65 °C
LC 30/350-700/50 DA SC SNC4	350 – 400 mA	tc	59 °C	63 °C	68 °C	73 °C	78 °C	83 °C
		Lifetime	> 100,000 h	> 100,000 h	95,000 h	65,000 h	60,000 h	40,000 h
	> 401 – 500 mA	tc	65 °C	70 °C	73 °C	78 °C	83 °C	–
		Lifetime	> 100,000 h	> 100,000 h	85,000 h	60,000 h	40,000 h	–
	> 501 – 600 mA	tc	68 °C	73 °C	76 °C	81 °C	–	–
		Lifetime	> 100,000 h	85,000 h	70,000 h	47,000 h	–	–
	> 601 – 700 mA	tc	70 °C	75 °C	78 °C	83 °C	–	–
		Lifetime	> 100,000 h	75,000 h	60,000 h	40,000 h	–	–

Expected lifetime for independent use

Type	Output current	ta	40 °C	45 °C	50 °C	55 °C	60 °C
LC 30/350-700/50 DA SC SNC4	350 – 400 mA	tc	63 °C	68 °C	73 °C	78 °C	83 °C
		Lifetime	> 100,000 h	100,000 h	85,000 h	60,000 h	40,000 h
	> 401 – 500 mA	tc	67 °C	72 °C	77 °C	83 °C	–
		Lifetime	> 100,000 h	85,000 h	65,000 h	40,000 h	–
	> 501 – 600 mA	tc	70 °C	76 °C	80 °C	–	–
		Lifetime	> 100,000 h	70,000 h	47,000 h	–	–
	> 601 – 700 mA	tc	73 °C	78 °C	83 °C	–	–
		Lifetime	85,000 h	60,000 h	40,000 h	–	–

The LED driver is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.

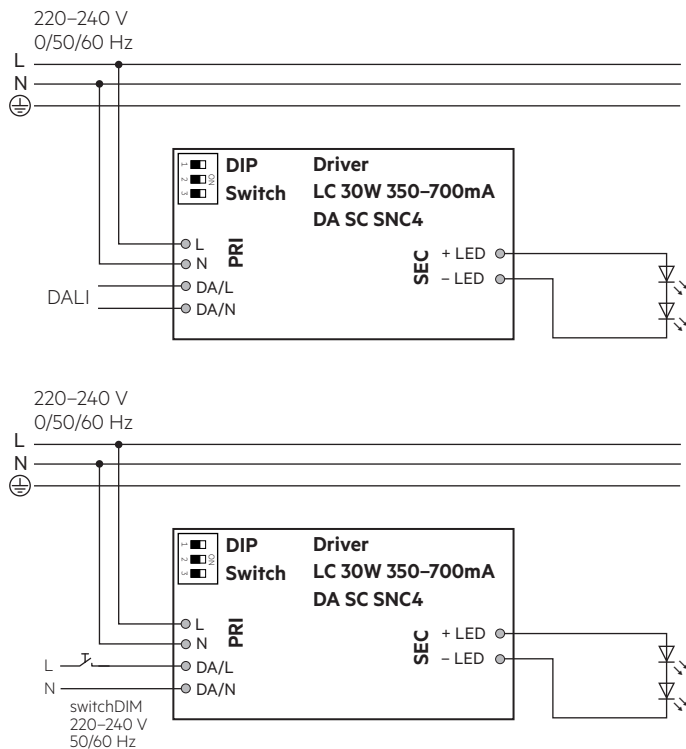
The relation of tc to ta temperature depends also on the luminaire design.

If the measured tc temperature is approx. 5 K below tc max., ta temperature should be checked and eventually critical components (e.g. ELCAP) measured. Detailed information on request.

According to IEC 60598 – 1 mounting surface temperature is limited to max. 90 °C.

3. Installation / wiring

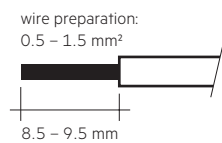
3.1 Circuit diagram



Recommendation to check glowing at standby in combination with class I luminaires.

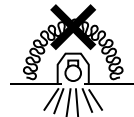
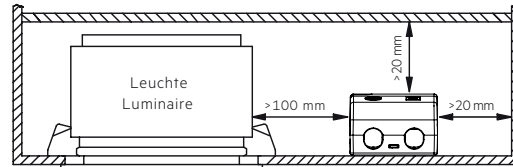
3.2 Wiring type and cross section for input

For wiring use stranded wire with ferrules or solid wire from 0.5–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals. Use one wire for each terminal connector only.

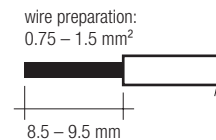


3.3 Fixing conditions when using as independent Driver with Clip-On

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature (ta) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.

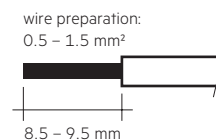


Device not suitable for covering with thermally insulating material according to IEC 60598-1 Ed.9

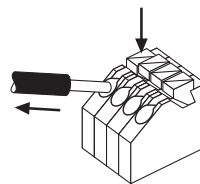


3.4 Wiring type and cross section for output

For wiring use stranded wire with ferrules or solid wire from 0.5–1.5 mm². Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals. Use one wire for each terminal connector only.



3.5 Loose wiring



Press down the "push button" and remove the cable from front.

3.6 Wiring guidelines

- The cables should be run separately from the mains connections and mains cables to ensure good EMC conditions.
- The LED wiring should be kept as short as possible to ensure good EMC. The max. secondary cable length is 2 m (4 m circuit), this applies for LED output.
- To comply with the EMC regulations run the secondary wires (LED module) in parallel.
- Secondary switching is not permitted.
- The LED driver has no inverse-polarity protection on the secondary side. Wrong polarity can damage LED modules with no inverse-polarity protection.
- Wrong wiring of the LED driver can lead to malfunction or irreparable damage.
- To avoid damage of the Driver, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

3.7 Replace LED module

1. Mains off
2. Remove LED module
3. Wait for 30 seconds
4. Connect LED module again

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

3.8 Installation note

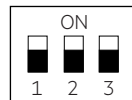
Max. torque at the clamping screw: 0.5 Nm / M4

3.9 Current setting

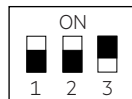


Set the current by DIP switch after mains off.
Use of DIP switch only after mains off.

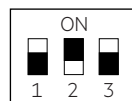
350 mA: Switch 1 = Off, Switch 2 = Off, Switch 3 = Off



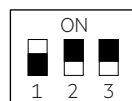
400 mA: Switch 1 = Off, Switch 2 = Off, Switch 3 = On



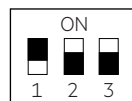
450 mA: Switch 1 = Off, Switch 2 = On, Switch 3 = Off



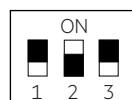
500 mA: Switch 1 = Off, Switch 2 = On, Switch 3 = On



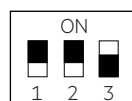
550 mA: Switch 1 = On, Switch 2 = Off, Switch 3 = Off



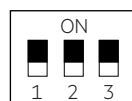
600 mA: Switch 1 = On, Switch 2 = Off, Switch 3 = On



650 mA: Switch 1 = On, Switch 2 = On, Switch 3 = Off

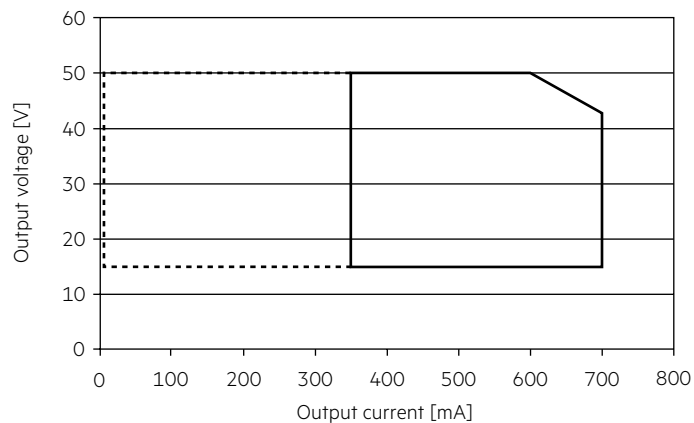


700 mA: Switch 1 = On, Switch 2 = On, Switch 3 = On



4. Electrical values

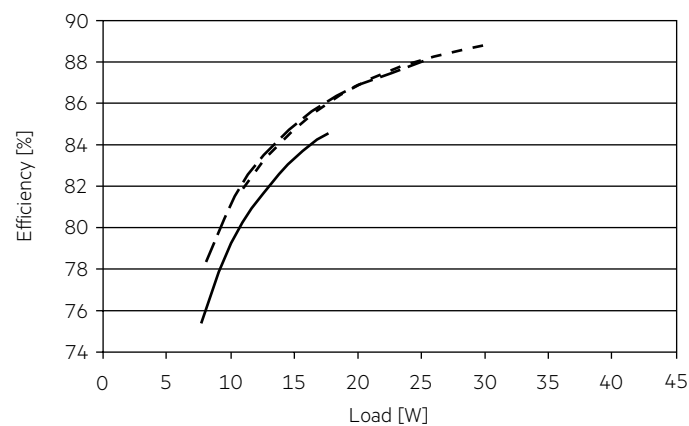
4.1 Operating window



- Operating window 100 %
- - - - - Operating window dimmed

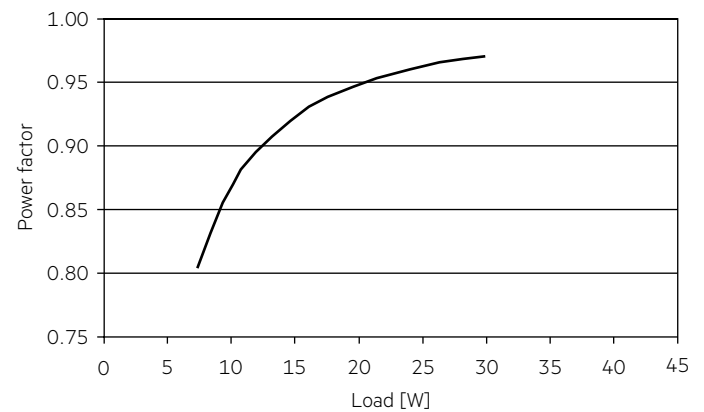
Make sure that the LED driver is operated within the given window under all operating conditions. Special attention needs to be paid at dimming and DC emergency operation as the forward voltage of the connected LED modules varies with the dimming level, due to the implemented amplitude dimming technology. Coming below the specified minimum output voltage of the LED driver may cause the device to shut-down. See chapter "6.11 Light level in DC operation" for more information.

4.2 Efficiency vs load

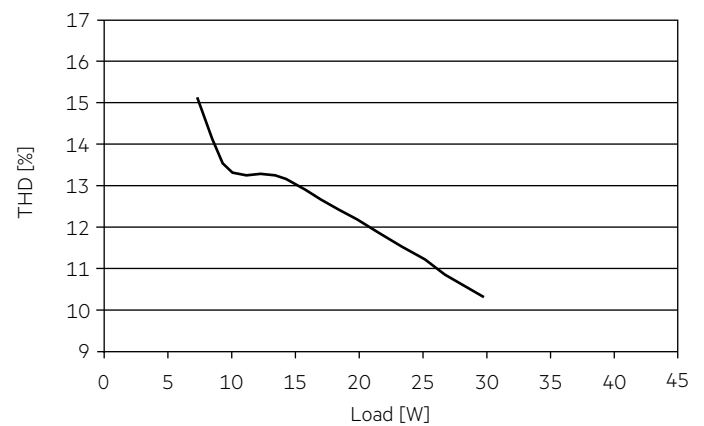


- 350 mA
- - - 500 mA
- . - . 700 mA

4.3 Power factor vs load



4.4 THD vs load



100 % load corresponds to the max. output power (full load) according to the table on page 3.

4.8 Maximum loading of automatic circuit breakers in relation to inrush current

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm ²	1.5 mm ²	2.5 mm ²	4 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	4 mm ²	I _{max}	time
LC 30/350-700/50 DA SC SNC4	37	48	62	78	22	29	37	47	24 A	98 µs

These are max. values calculated out of inrush current! Please consider not to exceed the maximum rated continuous current of the circuit breaker.

Calculation uses typical values from ABB series S200 as a reference.

Actual values may differ due to used circuit breaker types and installation environment.

4.9 Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

	THD	3.	5.	7.	9.	11.
LC 30/350-700/50 DA SC SNC4	< 15	< 13	< 5	< 5	< 3	< 3

Acc. to 61000-3-2. Harmonics < 5 mA or < 0.6 % (whatever is greater) of the input current are not considered for calculation of THD.

5. Software / Programming / Interfaces

5.1 Software / programming

With appropriate software and interface different functions can be activated and various parameters can be configured in the LED driver. The Driver supports the following software and interfaces:

Software / hardware for configuration:

- companionSUITE (deviceGENERATOR, deviceCONFIGURATOR, deviceANALYSER)
- masterCONFIGURATOR

Interfaces for data transfer:

- Control input DALI
- Control input switchDIM

5.3 Control input DALI

The control input is non-polar for digital control signals (DALI). The control signal is not SELV. The control cable has to be installed in accordance to the requirements of low voltage installations.

Digital control with:

- DALI signal: 16 bit

Dimming is realized by amplitude dimming.

5.4 Control Input switchDIM

A standard pushbutton (switchDIM) can be wired on the terminals (DA/N and DA/L).

Integrated switchDIM function allows a direct connection of a pushbutton for dimming and switching.

Brief push (< 0.6 s) switches LED driver ON and OFF. The dimm level is saved at power-down and restored at power-up.

When the pushbutton is held, LED modules are dimmed. After repush the LED modules are dimmed in the opposite direction.

In installations with LED drivers with different dimming levels or opposite dimming directions (e.g. after a system extension), all LED drivers can be synchronized to 50 % dimming level by a 10 s push.

Use of pushbutton with indicator lamp is not permitted.

6. Functions

◇ masterCONFIGURATOR:

DALI-USB

The masterCONFIGURATOR is available via our WEB page:

<https://www.tridonic.com/com/en/software-masterconfigurator.asp>

Icon	Function	DALI-2
	OEM Identification	◇
	OEM GTIN	◇
	Luminaire data	◇
	Label information	◇
	LED current	◇
	Device operating mode	◇
	Factory reset	◇
	switchDIM fading	◇
	corridorFUNCTION	◇
	Constant light output (CLO)	◇
	DC level	◇
	Enhanced power on level (ePOL)	◇
	DALI default parameters	◇
	Scenes and groups	◇
	Power-up fading	◇
	Dimming curve	◇

6.1 OEM Identification



The OEM (Original Equipment Manufacturer) can set his own identification number.

DALI Part 251: Memory bank 1 extension.

6.2 OEM GTIN



The Original Equipment Manufacturer (OEM) can set his own Global Trade Item Number (GTIN).

DALI Part 251: Memory bank 1 extension.

6.3 Luminaire data



This function provides the asset management with accurate data about the luminaire.

DALI Part 251: Memory bank 1 extension.

6.4 Label information



In production, an individual label can be printed out for each device.

For this there are different default values (Batch No., Production Date, ...) available.

In addition, you can use these two text input fields to insert your own luminaire information and print it out.

6.5 LED current



The LED output current must be adapted to the connected LED module. The value is limited by the current range of the respective device.

6.6 Device operating mode



A Tridonic driver supports several control signals.

These control signals are automatically detected and the mode is adapted.

If only one special device mode is required, this mode can be fixed here.

"Automatic detection" is the default setting.

6.7 Factory reset



This device supports the function to reset all parameters back to factory defaults.

6.8 switchDIM fading



Here you can set the fade time of the control gear when using switchDIM.

6.9 corridorFUNCTION



A motion detector (corridorFUNCTION) can be wired on the terminals (DA/N and DA/L).

With the corridorFUNCTION and a commercially available motion detector, it is easy to adapt the lighting in one area to its use.

That is, when the area is entered by a person, the lighting dims instantly to a certain brightness and is available in desired strength.

After the area is left by the person, the brightness dims slowly to a smaller value or switches off completely.

The individual parameters of the desired profile, such as brightness values or delay times, can be adjusted flexibly and individually.

To activate the corridorFUNCTION without using software a voltage of 230 V has to be applied at the DA/N and DA/L connection.

The unit will then switch automatically to the corridorFUNCTION.

corridorFUNCTION is a very simple tool for controlling gears with conventional pushbuttons or motion sensors.

To ensure correct operation a sinusoidal mains voltage with a frequency of 50 Hz or 60 Hz is required at the control input.

Special attention must be paid to achieving clear zero crossings.

Serious mains faults may impair the operation of corridorFUNCTION.

Note:

By using corridorFUNCTION programming and monitoring via DALI is always possible.

6.10 Constant Light Output (CLO)



With this function the light output of the LED module can be kept equal over the lifetime.

The light output of an LED module reduces over the course of its lifetime. The Constant Light Output (CLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.

CLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user.

6.11 Light level in DC operation



In emergency light systems with a central battery supply the DC recognition function uses the input voltage to detect if emergency mode is present.

The LED driver then automatically switches to DC mode and dims the light to the defined DC level.

Without DC recognition different and more complex solutions would have to be applied in order to detect emergency mode.

DC recognition is integrated in the device as standard.

No additional commissioning is necessary for activation.



This is a safety-relevant parameter.

The setting is relevant for the dimensioning of the central battery system.

The LED driver is designed to operate on DC voltage and pulsed DC voltage. For a reliable operation, make sure that also in DC emergency operation the LED driver is run within the specified conditions as stated in chapter "4.1 operating window".

Light output level in DC operation: programmable 1 – 50 %
(factory default = 15 %, EOF_i = 0.13).

The voltage-dependent input current of Driver incl. LED module is depending on the used load.

The voltage-dependent no-load current of Driver (without or defect LED module) is for:

AC: < 50 mA

DC: < 2 mA

6.12 Enhanced power on level (ePOL)



The Enhanced Power On Level parameter defines the power level that is set automatically when power is restored after a power failure.

The Enhanced Power On Level can be set to a fixed value (0 – 100 %) or can recall the memory value.

The memory value is the last value the LED driver was set to before the power failure.

This value applies not only in DALI device operating mode, but also in the device operating mode switchDIM.

6.13 DALI default parameters



In order for all luminaires to react the same for each operation (switching, dimming, scene recall ...), these values must be set the same.

These DALI standard parameters are supported by every DALI-2 device.

6.14 Scenes and groups



Each device can be a member of up to 16 groups.

Also, 16 different scene values can be stored in each device.

6.15 Power-up fading



The power-up function offers the opportunity to modify the on behavior.

The time for fading on can be adjusted in a range of 0.2 to 16 seconds.

According to this value, the device dims from 0 % up to the power-on level.

By factory default no fading time is set (= 0 seconds).

6.16 Dimming curve



DALI:

The desired dimming behaviour is selected via two different dimming curves (logarithmic or linear).

The default setting of the dimming behaviour is logarithmic.

6.17 DIP switch configuration

1. The default output current configuration is by DIPSwitch.
2. If output current configuration is realized by DALI interface, DIPSwitch configuration is not available.
3. Enabling DIPSwitch configuration can be done through companionSUITE or masterCONFIGURATOR.

7. Protective features

7.1 Overtemperature protection

The LED driver is protected against temporary thermal overheating. If the temperature limit is exceeded the output current of the LED module(s) is reduced. The temperature protection is activated above $t_{c\max}$. The activation temperature differs depending on the LED load. On DC operation this function is deactivated to fulfill emergency requirements.

7.2 Short-circuit behaviour

In case of a short-circuit at the LED output the LED output is switched off. After restart of the LED driver the output will be activated again. The restart can either be done via mains reset or via interface (DALI).

7.3 No-load operation

The LED driver will not be damaged in no-load operation. The output will be deactivated and is therefore free of voltage. When connecting an LED load, restart the device to activate the LED output.

7.4 Overload protection

If the maximum load is exceeded by a defined internal limit, the LED driver turns off the LED output. After restart of the LED driver the output will be activated again. The restart can either be done via mains reset or via interface (DALI).

7.6 Insulation between terminals

Insulation	Mains	NTC / LED	DALI
Mains	–	double	basic
NTC / LED	double	–	double
DALI	basic	double	–

basic ... represents basic insulation.

double ... represents double or reinforced insulation.

8. Miscellaneous

8.1 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 500 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal. The insulation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

The equipotential terminal is used to connect the heat sink and the LED driver to reduce transients.

8.2 Conditions of storage and use

Humidity: 5 % up to max. 85 %, not condensed (max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +80 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

The LED driver is declared as inbuilt LED controlgear, meaning it is intended to be used within a luminaire enclosure.

If the product is used outside a luminaire, the installation must provide suitable protection for people and environment (e.g. in illuminated ceilings).

8.3 Maximum number of switching cycles

All LED driver are tested with 50,000 switching cycles. The actually achieved number of switching cycles is significantly higher.

8.4 Additional information

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim. No warranty if device was opened.

Driver LCO 135W 200–1050mA 220V pD+ NF C PRE3
premium D4i NFC outdoor series

**Product description**

- _ Dimmable built-in constant current outdoor D4i LED driver
- _ Dimming range 1 to 100 % (min. 10 mA)
- _ For luminaires of protection class I and protection class II
- _ Temperature protection as per EN 61347-2-13 C5e
- _ Output current adjustable between 200 – 1,050 mA via NFC, DALI or ready2mains Programmer
- _ Max. output power 135 W
- _ Up to 93 % efficiency
- _ Lowest power input on stand-by < 0.3 W
- _ Nominal lifetime of 100,000 h and 8 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Interfaces

- _ Near field communication (NFC)
- _ Powered DALI-2
- _ ready2mains (configuration via mains)
- _ U6Me2 (configuration of chronoSTEP via mains and ready2mains Programmer)
- _ Terminal blocks: 45° push terminals

Functions

- _ Adjustable output current in 1-mA-steps (NFC, DALI, ready2mains)
- _ Programmable chronoSTEP: times and levels (NFC, DALI, U6Me2)
- _ Enhanced constant light output function (eCLO)
- _ Protective features (overtemperature, short-circuit, overload, no-load, input voltage range, reduced surge amplification)
- _ Intelligent Temperature Guard (ITG)
- _ Intelligent Voltage Guard Plus (IVG+)
- _ Configurable external temperature management (ETM)
- _ Auxiliary 24 V, 3 W power supply
- _ DiiA/Zhaga connectivity extensions DT49, DT50, DT51, DT52
- _ deviceKEY against unauthorized change of parameters

Benefits

- _ Flexible configuration via companionSUITE (NFC, DALI, ready2mains™) or U6Me2 programmer
- _ Best energy savings due to low stand-by losses and high efficiency
- _ In-field programming possible after installation with NFC interface and ready2mains
- _ High overvoltage protection: up to 10 kV asymmetric (protection class I and II)
- _ Integrated ESD protection

Typical applications

- _ Road, street and industry

Website

<http://www.tridonic.com/87500833>



Spotlights



Downlights



Linear



Area



Floor | Wall



Free-standing



Street

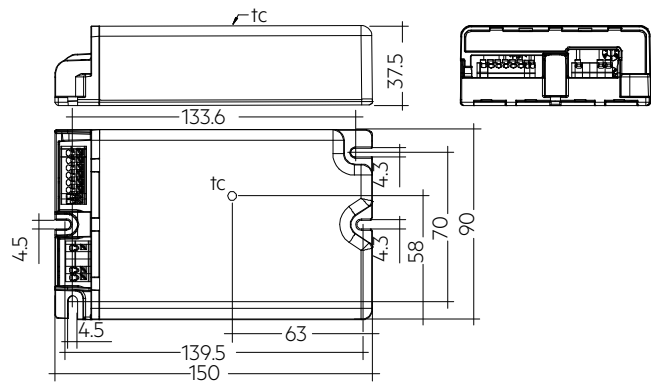


Decorative



High bay

Driver LCO 135W 200–1050mA 220V pD+ NF C PRE3
premium D4i NFC outdoor series



Ordering data

Type	Article number	Packaging, carton	Packaging, pallet	Weight per pc.
LCO 135/200-1050/220 pD+ NF C PRE3	87500833	10 pc(s).	150 pc(s).	0.762 kg
LCO 135/200-1050/220 pD+ NF C PRE3	28004665	10 pc(s).	600 pc(s).	0.734 kg

Technical data

Rated supply voltage	220 – 240 V
AC voltage range	198 – 264 V
DC voltage range	176 – 280 V
Mains frequency	0 / 50 / 60 Hz
Overvoltage protection	320 V AC, 48 h
Typ. rated current (at 230 V, 50 Hz, full load) ^{①②}	644 mA
Typ. current (220 V, 0 Hz, full load, 15 % dimming level) ^②	135 mA
Leakage current (at 230 V, 50 Hz, full load) ^{①②}	< 500 µA
Touch current (equipotential connected) ^③	340 µA
Max. input power	166 W
Typ. efficiency (at 230 V, 50 Hz, full load) ^{②④}	93 %
λ (at 230 V, 50 Hz, full load) ^①	0.98
Typ. power consumption on stand-by ^⑤	< 0.3 W
In-rush current (peak / duration)	56 A / 277 µs
THD (at 230 V, 50 Hz, full load) ^①	< 8 %
Starting time (AC mode)	< 750 ms
Starting time (DC mode)	< 800 ms
Switchover time (AC/DC)	< 300 ms
Turn off time (at 230 V, 50 Hz, full load)	< 500 ms
Output current tolerance ^{①⑥}	± 3 %
Max. output current peak (non-repetitive)	≤ output current + 15 %
Output LF current ripple (< 120 Hz)	± 4 %
Output P _{ST_LM} (at full load)	≤ 1
Output SVM (at full load)	≤ 0.4
Max. output voltage (U-OUT)	280 V
Max. output voltage (HV)	280 V
Max. output voltage (LV)	180 V
Dimming range	1 – 100 % (min. 10 mA)
Mains surge capability (between L - N) ^⑦	6 kV / 3 kA
Mains surge capability (between L/N - PE)	10 kV
Burst protection	6 kV
DALI burst capability	1 kV
Surge voltage at output side (against PE)	< 1 kV
Type of protection	IP20
Lifetime	up to 100,000 h
Guarantee (conditions at www.tridonic.com)	8 Year(s)
Dimensions L x W x H	150 x 90 x 37.5 mm

Approval marks**Standards**

EN 55015, EN 61000-3-2, EN 61000-3-3, EN 61000-4-4, EN 61000-4-5, EN 61347-1, EN 61347-2-13, EN 62384, EN 61547, EN 62386-101, EN 62386-102, EN 62386-207 (DALI-2), according to EN 50172, according to EN 60598-2-22

Specific technical data

Type	Output current	Min. output voltage	Max. output voltage	Max. output power	Typ. power consumption (at 230 V, 50 Hz, full load)	Typ. current consumption (at 230 V, 50 Hz, full load)	t _c point max.	Ambient temperature t _a
High voltage output (HV)								
LCO 135/200-1050/220 pD+ NF C PRE3	200 mA	135.0 V	220.0 V	44.0 W	52.5 W	246 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	250 mA	108.0 V	220.0 V	55.0 W	64.1 W	293 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	300 mA	104.0 V	220.0 V	66.0 W	75.6 W	342 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	350 mA	104.0 V	220.0 V	77.0 W	87.2 W	392 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	400 mA	104.0 V	220.0 V	88.0 W	98.5 W	440 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	450 mA	104.0 V	220.0 V	99.0 W	109.9 W	490 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	500 mA	104.0 V	220.0 V	110.0 W	121.7 W	541 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	550 mA	104.0 V	220.0 V	121.0 W	133.4 W	592 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	600 mA	104.0 V	220.0 V	132.0 W	145.0 W	642 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	650 mA	104.0 V	207.7 V	135.0 W	147.7 W	654 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	700 mA	104.0 V	192.9 V	135.0 W	147.2 W	652 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	750 mA	104.0 V	180.0 V	135.0 W	146.9 W	650 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	800 mA	104.0 V	168.8 V	135.0 W	146.5 W	648 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	850 mA	104.0 V	158.8 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	900 mA	104.0 V	150.0 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	950 mA	104.0 V	142.1 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,000 mA	104.0 V	135.0 V	135.0 W	145.9 W	646 mA	85 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,050 mA	104.0 V	128.6 V	135.0 W	145.6 W	645 mA	85 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	200 mA	135.0 V	220.0 V	44.0 W	52.5 W	246 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	250 mA	108.0 V	220.0 V	55.0 W	64.1 W	293 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	300 mA	104.0 V	220.0 V	66.0 W	75.6 W	342 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	350 mA	104.0 V	220.0 V	77.0 W	87.2 W	392 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	400 mA	104.0 V	220.0 V	88.0 W	98.5 W	440 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	450 mA	104.0 V	220.0 V	99.0 W	109.9 W	490 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	500 mA	104.0 V	220.0 V	110.0 W	121.7 W	541 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	550 mA	104.0 V	220.0 V	121.0 W	133.4 W	592 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	600 mA	104.0 V	220.0 V	132.0 W	145.0 W	642 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	650 mA	104.0 V	207.7 V	135.0 W	147.7 W	654 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	700 mA	104.0 V	192.9 V	135.0 W	147.2 W	652 mA	85 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	750 mA	104.0 V	180.0 V	135.0 W	146.9 W	650 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	800 mA	104.0 V	168.8 V	135.0 W	146.5 W	648 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	850 mA	104.0 V	158.8 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	900 mA	104.0 V	150.0 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	950 mA	104.0 V	142.1 V	135.0 W	146.1 W	647 mA	85 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,000 mA	104.0 V	135.0 V	135.0 W	145.9 W	646 mA	85 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,050 mA	104.0 V	128.6 V	135.0 W	145.6 W	645 mA	85 °C	-40 ... +65 °C
Low voltage output (LV)								
LCO 135/200-1050/220 pD+ NF C PRE3	200 mA	131.0 V	131.0 V	26.2 W	33.9 W	167 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	250 mA	108.0 V	131.0 V	32.8 W	40.7 W	195 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	300 mA	90.0 V	131.0 V	39.3 W	47.4 W	225 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	350 mA	77.1 V	131.0 V	45.9 W	54.2 W	252 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	400 mA	67.5 V	131.0 V	52.4 W	61.0 W	280 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	450 mA	62.0 V	131.0 V	59.0 W	67.9 W	309 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	500 mA	62.0 V	131.0 V	65.5 W	74.7 W	338 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	550 mA	62.0 V	131.0 V	72.1 W	81.6 W	368 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	600 mA	62.0 V	131.0 V	78.6 W	88.3 W	397 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	650 mA	62.0 V	131.0 V	85.2 W	95.1 W	426 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	700 mA	62.0 V	131.0 V	91.7 W	101.8 W	455 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	750 mA	62.0 V	131.0 V	98.3 W	108.6 W	484 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	800 mA	62.0 V	131.0 V	104.8 W	115.4 W	513 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	850 mA	62.0 V	131.0 V	111.4 W	122.3 W	544 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	900 mA	62.0 V	131.0 V	117.9 W	129.4 W	574 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	950 mA	62.0 V	131.0 V	124.5 W	136.6 W	606 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,000 mA	62.0 V	131.0 V	131.0 W	143.7 W	636 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,050 mA	62.0 V	128.7 V	135.0 W	148.0 W	655 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	200 mA	131.0 V	131.0 V	26.2 W	33.9 W	167 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	250 mA	108.0 V	131.0 V	32.8 W	40.7 W	195 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	300 mA	90.0 V	131.0 V	39.3 W	47.4 W	225 mA	95 °C	-40 ... +70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	350 mA	77.1 V	131.0 V	45.9 W	54.2 W	252 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	400 mA	67.5 V	131.0 V	52.4 W	61.0 W	280 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	450 mA	62.0 V	131.0 V	59.0 W	67.9 W	309 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	500 mA	62.0 V	131.0 V	65.5 W	74.7 W	338 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	550 mA	62.0 V	131.0 V	72.1 W	81.6 W	368 mA	90 °C	-40 ... +65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	600 mA	62.0 V	131.0 V	78.6 W	88.3 W	397 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	650 mA	62.0 V	131.0 V	85.2 W	95.1 W	426 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	700 mA	62.0 V	131.0 V	91.7 W	101.8 W	455 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	750 mA	62.0 V	131.0 V	98.3 W	108.6 W	484 mA	90 °C	-40 ... +60 °C

Type	Output current ^①	Min. output voltage	Max. output voltage	Max. output power	Typ. power consumption (at 230 V, 50 Hz, full load)	Typ. current consumption (at 230 V, 50 Hz, full load)	tc point max.	Ambient temperature ta
LCO 135/200-1050/220 pD+ NF C PRE3	800 mA	62.0 V	131.0 V	104.8 W	115.4 W	513 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	850 mA	62.0 V	131.0 V	111.4 W	122.3 W	544 mA	90 °C	-40 ... +60 °C
LCO 135/200-1050/220 pD+ NF C PRE3	900 mA	62.0 V	131.0 V	117.9 W	129.4 W	574 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	950 mA	62.0 V	131.0 V	124.5 W	136.6 W	606 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,000 mA	62.0 V	131.0 V	131.0 W	143.7 W	636 mA	90 °C	-40 ... +55 °C
LCO 135/200-1050/220 pD+ NF C PRE3	1,050 mA	62.0 V	128.7 V	135.0 W	148.0 W	655 mA	90 °C	-40 ... +55 °C

① Valid at 100 % dimming level.

② Depending on the selected output current.

③ Maximum of "perception and reaction" and "let go" values according to EN 60598-1.

④ Tolerance range ± 5 %.

⑤ Depending on the DALI traffic at the interface. DALI bus power supply deactivated. No-load on AUX power supply.

⑥ Output current is mean value.

⑦ L-N acc. to EN 61000-4-5. 2 Ohm, 1.2/50 µs, 8/20 µs.

1. Standards

EN 55015
 EN 61000-3-2
 EN 61000-3-3
 EN 61000-4-4
 EN 61000-4-5
 EN 61347-1
 EN 61347-2-13
 EN 62384
 EN 61547
 EN 62386-101 (DALI-2)
 EN 62386-102 (DALI-2)
 EN 62386-207 (DALI-2, including part 250, 251, 252, 253)
 According to EN 50172 for use in central battery systems
 According to EN 60598-2-22 suitable for emergency luminaire

1.1 Glow wire test

according to EN 61347-1 with increased temperature of 850 °C passed.

1.2 Light modulation

according to IEEE 1789 device fulfils "no observable effect level".

2. Thermal details and lifetime

2.1 Expected lifetime

Expected lifetime HV

Type	Output current	ta	40 °C	45 °C	50 °C	55 °C	60 °C	65 °C
LCO 135/200-1050/220 pD+ NF C PRE3	200 – 350 mA	tc	65 °C	70 °C	75 °C	80 °C	85 °C	90 °C
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	90,000 h	60,000 h
	>350 – 500 mA	tc	70 °C	75 °C	80 °C	85 °C	90 °C	–
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	55,000 h	–
	>500 – 700 mA	tc	70 °C	75 °C	80 °C	85 °C	–	–
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	70,000 h	–	–
LCO 135/200-1050/220 pD+ NF C PRE3	>700 – 950 mA	tc	65 °C	70 °C	75 °C	80 °C	85 °C	–
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	70,000 h	–
	>950 – 1,050 mA	tc	60 °C	65 °C	70 °C	75 °C	80 °C	85 °C
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	70,000 h

Expected lifetime LV

Type	Output current	ta	40 °C	45 °C	50 °C	55 °C	60 °C	65 °C	70 °C
LCO 135/200-1050/220 pD+ NF C PRE3	200 – 300 mA	tc	60 °C	65 °C	70 °C	75 °C	80 °C	85 °C	95 °C
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	95,000 h	65,000 h	45,000 h
	>300 – 550 mA	tc	65 °C	70 °C	75 °C	80 °C	85 °C	90 °C	–
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	90,000 h	60,000 h	–
	>550 – 850 mA	tc	70 °C	75 °C	80 °C	85 °C	90 °C	–	–
		Lifetime	> 100,000 h	> 100,000 h	> 100,000 h	80,000 h	55,000 h	–	–
LCO 135/200-1050/220 pD+ NF C PRE3	>850 – 1,050 mA	tc	70 °C	75 °C	80 °C	90 °C	–	–	–
		Lifetime	> 100,000 h	> 100,000 h	80,000 h	55,000 h	–	–	–

The LED driver is designed for a lifetime stated above under reference conditions and with a failure probability of less than 10 %.

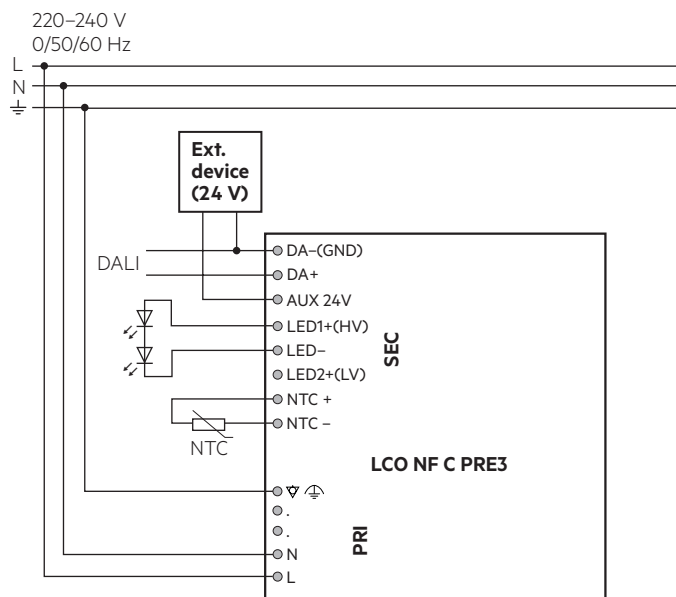
The relation of tc to ta temperature depends also on the luminaire design.

If the measured tc temperature is approx. 5 K below tc max., ta temperature should be checked and eventually critical components (e.g. ELCAP) measured. Detailed information on request.

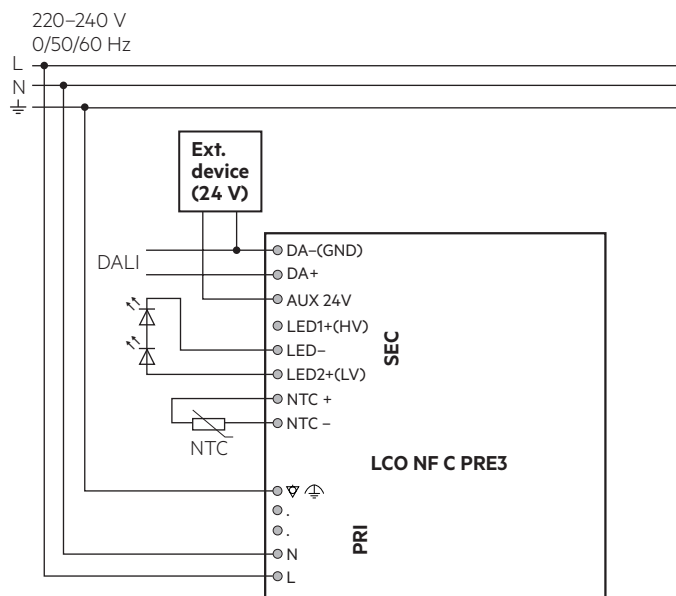
3. Installation / wiring

3.1 Circuit diagram

DALI with high voltage output (HV)



DALI with low voltage output (LV)

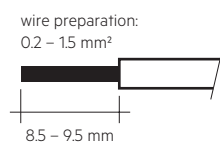


For wiring in dimming operation with ready2mains refer to the ready2mains Gateway data sheet.

3.2 Wiring type and cross section

For wiring use solid wire from 0.2 – 1.5 mm².

Strip 8.5 – 9.5 mm of insulation from the cables to ensure perfect operation of terminals.



3.3 Wiring guidelines

- Run the secondary lines separately from the mains connections and lines to achieve good EMC performance.
- The max. secondary cable length (AUX, NTC, LED) is 2 m (4 m circuit).
- For good EMC performance, keep the LED wiring as short as possible.
- Secondary switching is not permitted.
- The LED driver has no inverse-polarity protection on the secondary side. Wrong polarity can damage LED modules with no inverse-polarity protection.
- Wrong wiring of the LED driver can lead to malfunction or irreparable damage.
- To enhance the capability against mechanical stress (vibration), it is recommended to apply washers for the screws in installation.
- To avoid damage of the Driver, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.).

3.4 Hot plug-in

Hot plug-in is not supported due to residual output voltage of > 0 V. When connecting an LED load, restart the device to activate the LED output. This can be done via mains reset or via interface (DALI, DSI, ready2mains).

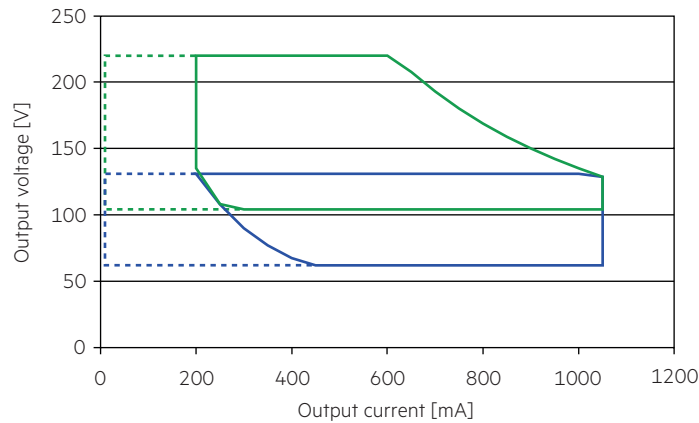
3.5 Earth connection

The earth connection is conducted as function earth (FE). There is no earth connection required for the functionality of the LED driver. Earth connection is recommended to improve following behaviour:

- Electromagnetic interferences (EMI)
- LED glowing at standby
- Transmission of mains transients to the LED output

4. Electrical values

4.1 Operating window

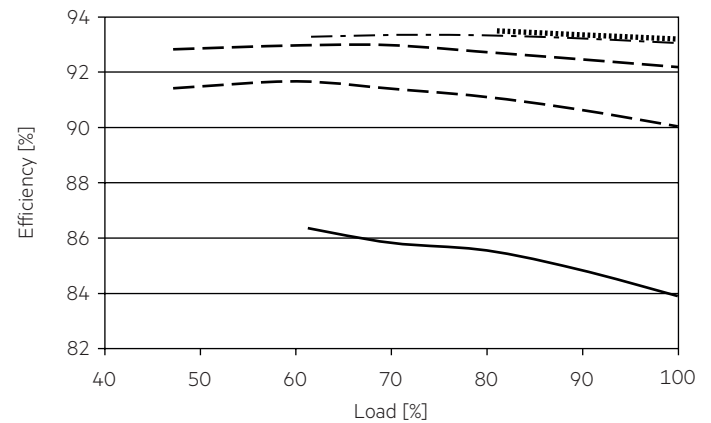


- Operating window 100 % (high output voltage)
- - - Operating window dimmed (high output voltage)
- Operating window 100 % (low output voltage)
- - - Operating window dimmed (low output voltage)

Make sure that the LED driver is operated within the given window under all operating conditions. Special attention needs to be paid at dimming and DC emergency operation as the forward voltage of the connected LED modules varies with the dimming level, due to the implemented amplitude dimming technology. Coming below the specified minimum output voltage of the LED driver may cause the device to shut-down.

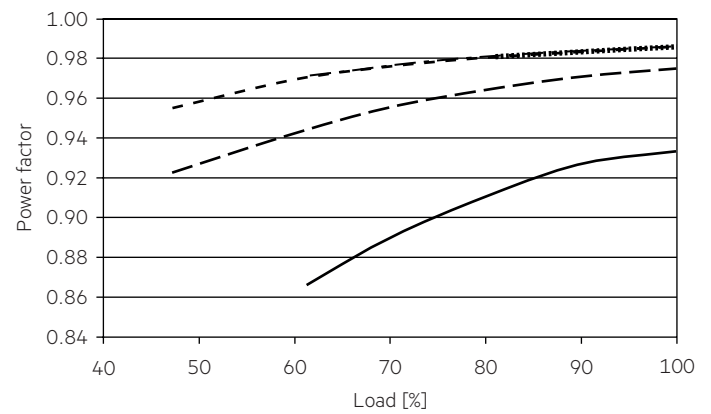
See chapter "6.5 Light level in DC operation" for more information.

4.2 Efficiency vs load (HV)

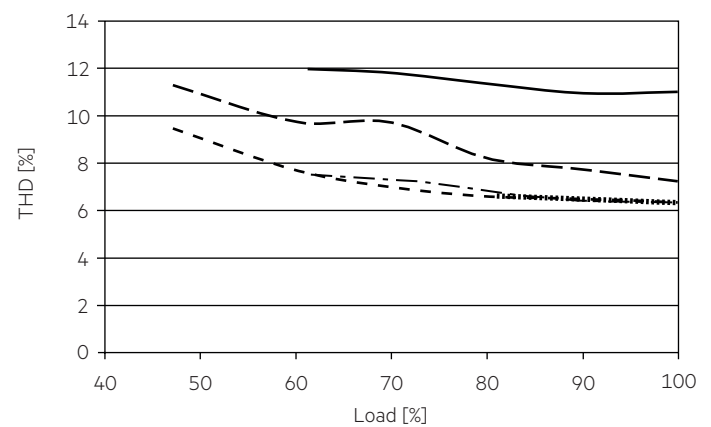


DALI bus power supply deactivated. No-load on AUX power supply.

4.3 Power factor vs load (HV)

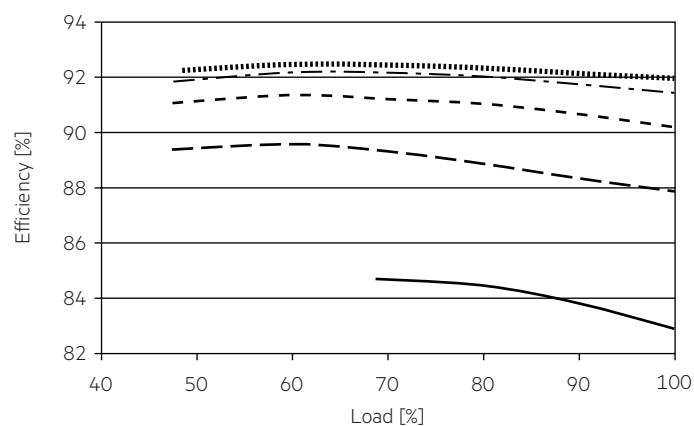


4.4 THD vs load (HV)



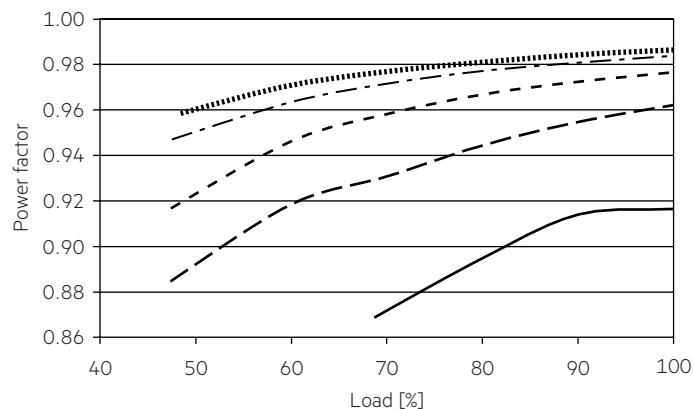
- 200 mA
- - - 400 mA
- . - 600 mA
- - - 800 mA
- 1050 mA

4.5 Efficiency vs load (LV)

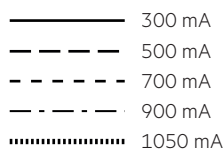
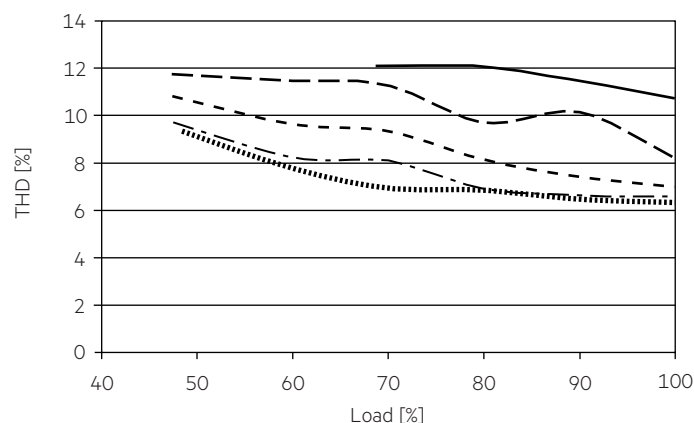


DALI bus power supply deactivated. No-load on AUX power supply.

4.6 Power factor vs load (LV)



4.7 THD vs load (LV)



100 % load corresponds to the max. output power (full load) according to the table "Specific technical data".

4.8 Maximum loading of automatic circuit breakers in relation to inrush current

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm ²	1.5 mm ²	2.5 mm ²	4 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	4 mm ²	I_{max}	time
LCO 135/200-1050/220 pD+ NF C PRE3	5	6	8	10	3	4	5	6	56 A	277 µs

These are max. values calculated out of inrush current! Please consider not to exceed the maximum rated continuous current of the circuit breaker.

Calculation uses typical values from ABB series S200 as a reference.

Actual values may differ due to used circuit breaker types and installation environment.

4.9 Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load)
in %

	THD	3.	5.	7.	9.	11.
LCO 135/200-1050/220 pD+ NF C PRE3	< 9	< 9	< 5	< 5	< 5	< 3

5. Software / Programming / Interfaces

5.1 Software / programming

With appropriate software and interface different functions can be activated and various parameters can be configured in the LED driver. The Driver supports the following software and interfaces:

Software / hardware for configuration:

- companionSUITE (deviceGENERATOR, deviceCONFIGURATOR, deviceANALYSER)
- masterCONFIGURATOR
- ready2mains Programmer

Interfaces for data transfer:

- NFC
- Control input DALI
- Control input ready2mains
- U6Me2

5.2 Nearfield communication (NFC)

The NFC Interface allows wireless communication with the LED driver. This interface offers the option to write configuration and to read configuration, errors and events with the companionSUITE. A correct communication between the LED driver and the NFC antenna can only be guaranteed if the antenna is placed directly on the Driver. Any material placed between the LED driver and the NFC antenna can cause a deterioration of the communication quality. After programming the device via NFC power up the device one time for one second till the deviceANALYSER can read out the parameters. We recommend the use of following NFC antenna:
www.tridonic.com/nfc-readers

NFC is complied with ISO/IEC 15963 standard.

Changing parameters via NFC shall be done by qualified engineers only.

5.3 Control input DALI

The control input is non-polar for digital control signals (DALI). The control signal is not SELV. The control cable has to be installed in accordance to the requirements of low voltage installations.

Digital control with:

- DALI signal: 16 bit

Dimming is realized by amplitude dimming.

5.4 Control input ready2mains (L, N)

The digital ready2mains protocol is modulated onto the mains signal which is wired to the mains terminal (L and N).

The configuration is done via the ready2mains Programmer, either directly at the Programmer itself or via a respective software tool. For details on the configuration via ready2mains see the technical information of the Programmer and its tools.

Following tools can be used:

- deviceCONFIGURATOR (companionSUITE)
- masterCONFIGURATOR
- ready2mains Programmer

5.5 U6Me2

Settings of chronoSTEP function could be done via switching mains commands.

For detailed description for timings and intervals see product manual.

Key features:

- Auto-dimming with 8 sequences
- Every sequence can hold 8 parameter pairs
- Separate dim-level for each time parameter
- Various commands + parameter for extensions

6. Functions

☉ companionSUITE:

DALI-USB, ready2mains Programmer, NFC

The companionSUITE with deviceGENERATOR, deviceCONFIGURATOR and deviceANALYSER is available via our WEB page:
<https://www.tridonic.com/com/en/products/companionsuite.asp>

◇ masterCONFIGURATOR:

DALI-USB, ready2mains Programmer (in DALI mode)

The masterCONFIGURATOR is available via our WEB page:
<https://www.tridonic.com/com/en/software-masterconfigurator.asp>

▣ 4service NFC app:

Smartphone with NFC

4service NFC app is available via the corresponding app store.

Additional information: https://www.tridonic.com/com/en/download/brochures/Leaflet_companionSUITE_EN.pdf

Icon	Function	NFC	DALI-2	ready2mains	U6Me2
	OEM Identification	☉ ▣	☉ ◇	☉	-
	OEM GTIN	☉ ▣	☉ ◇	☉	-
	LED current	☉ ▣	☉ ◇	☉	-
	Device operating mode	☉ -	☉ ◇	☉	☉
	chronoSTEP	☉ ▣	☉ ◇	-	☉
	External temperature management (ETM + NTC)	☉ -	☉ ◇	☉	-
	Enhanced constant light output (eCLO)	☉ -	☉ ◇	☉	-
	DC level	☉ -	☉ ◇	☉	-
	Enhanced power on level (ePOL)	☉ -	☉ ◇	☉	-
	Intelligent temperature guard (ITG)	☉ -	☉ ◇	☉	-
	DALI default parameters	☉ -	☉ ◇	-	-
	Scenes and groups	☉ -	☉ ◇	-	-
	Customer memory bank	☉ -	☉ -	-	-
	Energy reports	☉ -	☉ -	-	-
	Diagnostic and monitoring	☉ -	☉ -	-	-
	pDALI integrated DALI bus voltage	☉ -	☉ -	-	-
	sensorMODE	☉ -	☉ ◇	-	-
	deviceKEY	☉ -	☉ ◇	-	-
	Power-up fading	☉ -	☉ ◇	-	-
	Dimming curve	☉ -	☉ ◇	-	-
	Last Gasp	☉ -	☉ -	-	-

6.1 LED current



The LED output current must be adapted to the connected LED module. The value is limited by the current range of the respective device.

The priority for current adjustment methods is NFC / DALI (highest priority) and ready2mains (lowest priority).

6.2 chronoSTEP (Virtual Midnight)



In the outdoor lighting and street lighting sector it often makes sense to dim the lighting level during night hours in order to save energy.

The chronoSTEP function is a tool that makes this easy to do.

The device automatically measures the switch-on and switch-off times of the lighting installation over the past three days.

The switch-on and switch-off times are typically the times at which the sun sets and rises. The midpoint of these two reference points is the time referred to as Virtual Midnight. The overall time interval between switch-on and switch-off points is called On Time.

Notice

When calculating the On Time, only values between 4 and 24 hours are counted. Values less than 4 hours could indicate a power failure and are therefore not saved. For settings longer than 24 hours, 24 hours is saved as the maximum possible value.

6.3 External temperature management (ETM + NTC)



ETM protects the LED module against thermal overstress.

An external temperature sensor (NTC) detects the LED module temperature and the LED driver will limit the output current according to this temperature:

If the temperature is between the limits T1 (normal condition) and T2 (overload), the LED output current will be decreased.

If the temperature exceeds the limit T3 (critical temperature), the device will switch to the shutdown level.

The shutdown level will be active until the module temperature decreases below T1 or until the LED driver is restarted (switch off or mains reset).



The LED module's temperature is only measured if the output is active (lamp is on).

The allowed NTC resistor value is between 0 to 2 MΩ.

By default there are three predefined values that can be set via programming software, up to five individual values can be added.

6.4 Enhanced Constant Light Output (eCLO)



With this function the light output of the LED module can be kept equal over the lifetime.

The light output of an LED module reduces over the course of its lifetime.

The Constant Light Output (eCLO) function compensates for this natural decline by constantly increasing the output current of the LED driver throughout its lifetime.

Enhanced eCLO shall be achieved by limitation of the LED current at the commissioning of the LED driver and providing a linear interpolation of the current over the time, depending on the data points given by the user. The user has to insert up to eight pairs of data (time, level). The output curve is the result of connecting the user data points linear. Detailed description for eCLO see product manual.

6.5 Light level in DC operation



In emergency light systems with a central battery supply the DC recognition function uses the input voltage to detect if emergency mode is present.

The LED driver then automatically switches to DC mode and dims the light to the defined DC level.

Without DC recognition different and more complex solutions would have to be applied in order to detect emergency mode.

DC recognition is integrated in the device as standard.

No additional commissioning is necessary for activation.



This is a safety-relevant parameter.

The setting is relevant for the dimensioning of the central battery system.

The LED driver is designed to operate on DC voltage and pulsed DC voltage. For a reliable operation, make sure that also in DC emergency operation the LED driver is run within the specified conditions as stated in chapter "4.1 operating window".

Light output level in DC operation: programmable 1 – 100 %
(factory default = 15 %, EOF_i = 0.13).

The voltage-dependent input current of Driver incl. LED module is depending on the used load.

The voltage-dependent no-load current of Driver (without or defect LED module, DALI bus power supply deactivated and no-load on AUX power supply) is for:

AC: < 57 mA

DC: < 2.6 mA

In DC operation dimming mode can be activated.

If Dimming on DC is activated the requirements of the DC recognition function are ignored.

Even if DC is detected, the LED driver continues to behave as in AC mode

- The present dimming level is retained
- An emergency light level defined for the DC recognition function (DC level) is ignored
- Control signals via DALI continue to be executed

If Dimming on DC is activated then emergency mode is not recognised. The device no longer automatically switches to the emergency light level.

6.6 Intelligent Temperature Guard (ITG)



The intelligent temperature guard protects the LED driver from thermal overheating by reducing the output power or switching off in case of operation above the thermal limits of the luminaire or ballast. Depending on the luminaire design, the ITG operates at about 5 to 10 °C above t_c temperature.

If temperature threshold values are exceeded, the LED output current is limited.

These limits can be adjusted using the programming software.

Even the current ITG temperature in the device can be read out. With this function, the sensitivity of the temperature control can be adjusted.

6.7 Power-up fading



The power-up function offers the opportunity to modify the on behavior. The time for fading on can be adjusted in a range of 0.2 to 16 seconds. According to this value, the device dims either from 0 % up to the power-on level.

By factory default no fading time is set (= 0 seconds).

6.8 Memory bank 1 extension



This function complies to DiiA specification DALI Part 251 - Memory bank 1 extension.

It provides an extension to memory bank 1 to enable asset management functionality. Several internal values from the driver could be read out from this memory bank. For example luminaire year, week and description. Also power levels, AC mains voltages and light output can be read out.

6.9 Energy reporting



This function complies to DiiA specification DALI Part 252 - Energy reporting. It provides the information related to energy reporting accessible through memory banks in this driver. Several functions and values could be read out to gain access in Content management systems. Report and values for Active power, Active Energy and many more can be read out.

6.10 Diagnostics and maintenance



This function complies to DiiA specification DALI Part 253 - Diagnostics and maintenance. It provides the information related to diagnostics and maintenance information accessible through memory banks. Several functions and values could be read out to gain access in Content management systems. Report and values for failure behaviour, driver conditions and malfunctions trigger points can be read out.

6.11 Integrated DALI bus power supply



This function complies to DiiA specification DALI Part 250 - Integrated bus power supply.

The output power of the integrated DALI Bus Power Supply (pDALI) has an output current of 50 mA (max. 62.5 mA).

It is activated by factory default.

Sensors and also external drivers could be directly connected to this power supply. The DALI power supply could be deactivated via software.



Power supplies can be combined up to 250 mA max in total.

This maximum must not exceed. The polarity has to be considered.

If the DALI power supply is activated, the driver must not be integrated into an existing, already with 250 mA powered DALI network.

6.12 AUX power supply



This function complies to DiiA Specification DALI Part 150 - AUX power supply. An auxiliary (AUX) supply provides 24 V DC to power e.g. a controller, an occupancy sensor, a photo sensor or other device. It eliminates the need of an AC/DC supply and the associated need of surge suppression and an EMI filter in such devices.

AUX supply specification:

Average power of 3 W.

Average output voltage of 24 V ± 10 %

Maximum voltage does not exceed 30 V under any load condition including open circuit.

Start-up time: 90 % of the nominal specified voltage level within 600 ms after applying mains power.

Start-up: After power-on, the load must limit the current consumption at the AUX terminals to at most 160 mA until the specified voltage is reached.

6.13 sensorMODE



The sensorMODE combines the features chronoSTEP and corridorFUNCTION and adds the possibility to control them with a DALI input device directly connected to the LED driver.

There are different control modes supported by the sensorMODE function:

- Ambient light control
- Motion control
- Ambient light with motion control
- Mains with motion control

6.14 deviceKEY



This function enables a password protection for device settings to prevent unauthorized access or changes.

6.15 Last Gasp



This function enables the connected application controller to identify a mains power supply loss situation and perform "last second" operations before shutdown, e.g.:

- Send out a message (e.g. wireless to host system)
- Store data

If mains shut down the driver supports:

- Signaling the mains power supply outage by pulling the DALI-2 internally bus power supply signal to low
- Providing the required energy budget via 24V AUX power supply (≥ 300 mJ)

Per default the function is deactivated and can be activated via DALI-2 or NFC over the companionSUITE.

This function is only available in AC mains operation.

7. Protective features

7.1 Overtemperature protection

The LED driver is protected against temporary thermal overheating. If the temperature limit is exceeded the output current of the LED module(s) is reduced. The temperature protection is activated above $t_{c\ max}$. The activation temperature differs depending on the LED load. On DC operation this function is deactivated to fulfill emergency requirements.

7.2 Short-circuit behaviour

In case of a short-circuit at the LED output the LED output is switched off. After restart of the LED driver the output will be activated again. The restart can either be done via mains reset or via interface (DALI, ready2mains).

7.3 No-load operation

The LED driver will not be damaged in no-load operation. The output will be deactivated and is therefore free of voltage. If a LED load is connected, the device has to be restarted before the output will be activated again.

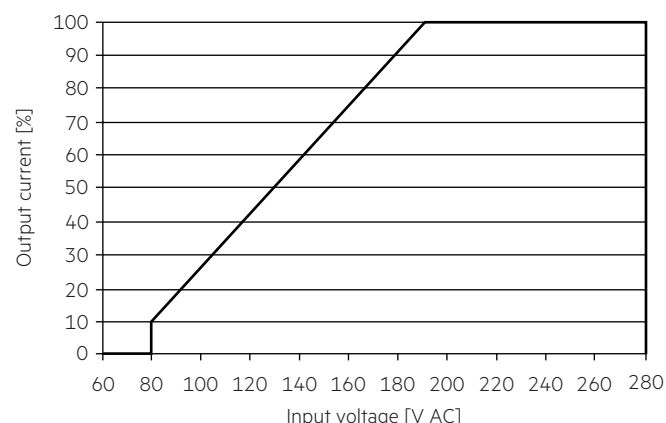
7.4 Overload protection

If the maximum load is exceeded by a defined internal limit, the LED driver turns off the LED output. After restart of the LED driver the output will be activated again. The restart can either be done via mains reset or via interface (DALI, ready2mains).

7.5 IVG+ – Intelligent Voltage Guard Plus



In some cases mains voltage is not stabilized and has some voltage peaks which are lower or higher than the nominal voltage range. Between 192 V and 80 V input voltage, the LED driver operates in under-voltage mode and dims the secondary side linearly down to 10 %. Below 80 V input voltage, the LED driver shuts down, restarts at 90 V (without a reset) and dims linearly up back to 100 %. Above 280 V input voltage, the LED driver shuts down. If input voltage drops below 270 V, the LED driver restarts (without a reset).



7.6 Insulation between terminals

Insulation	Mains	FE	NTC / LED	AUX / DALI
Mains	–	double	double	double
FE	double	–	basic	basic
NTC / LED	double	basic	–	basic
AUX / DALI	double	basic	basic	–

basic ... represents basic insulation.

double ... represents double or reinforced insulation.

7.7 ESD protection

The potential risk of electrostatic discharge (ESD) during certain weather conditions (like dry air and wind) and using the drivers in an installation on non-conductive poles is avoided.

8. Miscellaneous

8.1 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 550 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.
The insulation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1550 V_{AC} (or 1.414 x 1550 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

The equipotential terminal is used to connect the heat sink and the LED driver to reduce transients.

8.2 Conditions of storage and use

Humidity: 5 % up to max. 95 %,
not condensed

Storage temperature: -40 °C up to max. +80 °C

The devices have to be acclimatised to the specified temperature range (ta) before they can be operated.

The LED driver is declared as inbuilt LED controlgear, meaning it is intended to be used within a luminaire enclosure.

If the product is used outside a luminaire, the installation must provide suitable protection for people and environment (e.g. in illuminated ceilings).

8.3 Maximum number of switching cycles

All LED driver are tested with 50,000 switching cycles.

The actually achieved number of switching cycles is significantly higher.

8.4 Additional information

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

Module DLA G2 system

Engine DLA G2



DLA G2 100mm 1000lm 8x0 SNC EM MOD + DLA G2 100mm 1000lm 8x0 SNC EM ECG + Reflector 90° + Trim Ring



DLA G2 100mm 1000lm 8x0 SNC



DLA G2 150mm 1000/2000lm 8x0 SNC

Product description

- _ LED replacement for downlight with compact fluorescent lamps
- _ Complete ready2apply solution comprising module, driver, reflector and trim ring
- _ Ripple current 5 % and UGR19 (specific model only) makes office installation possible
- _ Approved emergency solution with EM converterLED
- _ Optional reflector solution with 60° and 90°
- _ Nominal lifetime of 50,000 h (L70/B50)
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Optical properties

- _ Colour temperatures 3,000 and 4,000 K
- _ Typ. luminous flux category: 1,000/2,000/3,000 lm
- _ High colour rendering index CRI > 80
- _ Small colour tolerance (MacAdam 4)

Mechanical properties

- _ Fit for ceiling cutout 100, 150 and 200 mm
- _ Tool-free assembly, simple as push and rotate
- _ Spring clip pre-assembled

System solution

- _ High system efficacy up to 111 lm/W

Website

<http://www.tridonic.com/28002241>



Spotlights



Downlights



Linear



Area



Floor | Wall



Free-standing



Street



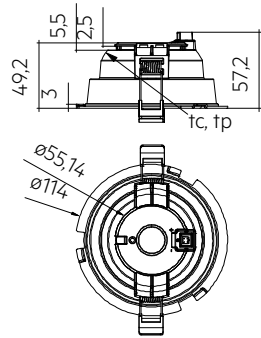
Decorative



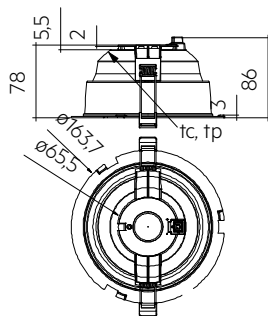
High bay

Module DLA G2 system

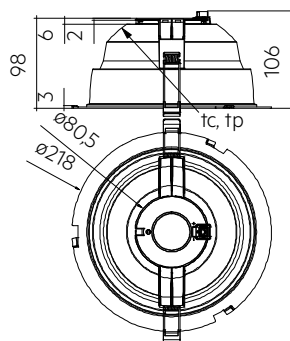
Engine DLA G2



DLA G2 100mm 1000lm 8x0 SNC



DLA G2 150mm 1000/2000lm 8x0 SNC



DLA G2 200mm 2000/3000lm 8x0 SNC

Ordering data

Type	Article number	Colour temperature	Packaging	Weight per pc.
DLA G2 100mm 1000lm 830 SNC EM MOD	28002241	3,000 K	42 pc(s).	0.085 kg
DLA G2 100mm 1000lm 840 SNC EM MOD	28002242	4,000 K	42 pc(s).	0.085 kg
DLA G2 150mm 1000/2000lm 830 SNC EM MOD	28002243	3,000 K	42 pc(s).	0.157 kg
DLA G2 150mm 1000/2000lm 840 SNC EM MOD	28002244	4,000 K	42 pc(s).	0.157 kg
DLA G2 200mm 2000/3000lm 830 SNC EM MOD	28002245	3,000 K	42 pc(s).	0.252 kg
DLA G2 200mm 2000/3000lm 840 SNC EM MOD	28002270	4,000 K	42 pc(s).	0.252 kg

Technical data

Beam characteristic	60° / 90° / 100°
Ambient temperature t_a	-20 ... +40 °C
t_c temperature (100 mm, 1000lm) ^①	60 °C
t_c temperature (150 mm, 1000lm) ^①	55 °C
t_c temperature (150 mm, 2000lm) ^①	65 °C
t_c temperature (200 mm, 2000lm) ^①	60 °C
t_c temperature (200 mm, 3000lm) ^①	65 °C
ESD classification	Severity level 2
Colour tolerance	4 SDCM
Risk group (IEC 62471)	RG1
Type of protection	IP20
Lumen maintenance L70B50	50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

Approval marks**Standards**

EN 62031, EN 62471, IEC 61000-4-2, IEC 62778

Specific technical data

Combination	Photometric code	Typ. tp temperature	Expected luminous flux at tp rated	Typ. power at tp rated	Luminous efficacy at tp	Beam angle	UGR	Colour rendering index CRI	Energy
Without reflector									
Module: DLA G2 100mm 1000lm 830 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	830/4xx	45 °C	980 lm	10.2 W	96 lm/W	100°	25	>80	A+
Module: DLA G2 100mm 1000lm 840 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	840/4xx	45 °C	1,030 lm	10.2 W	101 lm/W	100°	25	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	830/4xx	40 °C	1,000 lm	10.1 W	99 lm/W	100°	23	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	830/4xx	50 °C	1,970 lm	20.2 W	97 lm/W	100°	25	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	840/4xx	40 °C	1,020 lm	10.1 W	101 lm/W	100°	23	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	840/4xx	50 °C	2,050 lm	20.2 W	101 lm/W	100°	25	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	830/4xx	45 °C	2,090 lm	20.4 W	102 lm/W	100°	23	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	830/4xx	50 °C	2,900 lm	29.8 W	97 lm/W	100°	25	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	840/4xx	45 °C	2,120 lm	20.4 W	104 lm/W	100°	23	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	840/4xx	50 °C	3,000 lm	29.8 W	101 lm/W	100°	25	>80	A+
With 60° reflector									
Module: DLA G2 100mm 1000lm 830 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	830/4xx	45 °C	1,060 lm	10.2 W	104 lm/W	60°	20	>80	A+
Module: DLA G2 100mm 1000lm 840 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	840/4xx	45 °C	1,110 lm	10.2 W	109 lm/W	60°	20	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	830/4xx	40 °C	1,100 lm	10.1 W	109 lm/W	60°	16	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	830/4xx	50 °C	2,130 lm	20.2 W	105 lm/W	60°	19	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	840/4xx	40 °C	1,120 lm	10.1 W	111 lm/W	60°	16	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	840/4xx	50 °C	2,210 lm	20.2 W	109 lm/W	60°	19	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	830/4xx	45 °C	2,200 lm	20.4 W	108 lm/W	60°	17	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	830/4xx	50 °C	3,070 lm	29.8 W	103 lm/W	60°	18	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	840/4xx	45 °C	2,250 lm	20.4 W	110 lm/W	60°	17	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	840/4xx	50 °C	3,180 lm	29.8 W	107 lm/W	60°	18	>80	A+
With 90° reflector									
Module: DLA G2 100mm 1000lm 830 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	830/4xx	45 °C	1,060 lm	10.2 W	104 lm/W	90°	23	>80	A+
Module: DLA G2 100mm 1000lm 840 SNC EM MOD + Driver: DLA G2 100mm 1000lm 8x0 SNC EM ECG	840/4xx	45 °C	1,110 lm	10.2 W	109 lm/W	90°	23	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	830/4xx	40 °C	1,100 lm	10.1 W	109 lm/W	90°	20	>80	A+
Module: DLA G2 150mm 1000/2000lm 830 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	830/4xx	50 °C	2,130 lm	20.2 W	105 lm/W	90°	22	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 1000lm 8x0 ADV EM ECG	840/4xx	40 °C	1,120 lm	10.1 W	111 lm/W	90°	20	>80	A+
Module: DLA G2 150mm 1000/2000lm 840 SNC EM MOD + Driver: DLA G2 150mm 2000lm 8x0 SNC EM ECG	840/4xx	50 °C	2,210 lm	20.2 W	109 lm/W	90°	22	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	830/4xx	45 °C	2,200 lm	20.4 W	108 lm/W	90°	20	>80	A+
Module: DLA G2 200mm 2000/3000lm 830 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	830/4xx	50 °C	3,070 lm	29.8 W	103 lm/W	90°	21	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 2000lm 8x0 ADV EM ECG	840/4xx	45 °C	2,250 lm	20.4 W	110 lm/W	90°	20	>80	A+
Module: DLA G2 200mm 2000/3000lm 840 SNC EM MOD + Driver: DLA G2 200mm 3000lm 8x0 SNC EM ECG	840/4xx	50 °C	3,180 lm	29.8 W	107 lm/W	90°	21	>80	A+

① If the max. temperature limits are exceeded, the life of the module will be reduced or the module may be damaged. The temperature of the LED engine at the tc-point is to be measured in the thermally stable state. For tc-point see the above diagram.

② Tolerance range for optical data: ±10 %.

ACD REFLECTOR G2

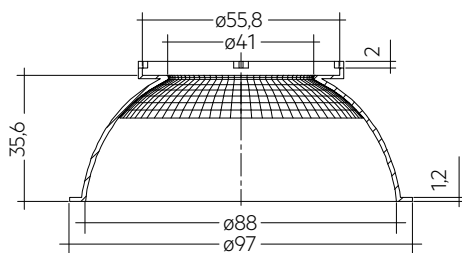
Accessory



Product description

_ Reflector for DLA G2 modules with 60° or 90°

Website

<http://www.tridonic.com/28002190>


Ordering data

Type	Article number	Diameter	Packaging, carton	Weight per pc.
ACD REFLECTOR G2 100mm 60D	28002190	100 mm	42 pc(s).	0.033 kg
ACD REFLECTOR G2 100mm 90D	28002191	100 mm	42 pc(s).	0.033 kg
ACD REFLECTOR G2 150mm 60D	28002192	150 mm	42 pc(s).	0.071 kg
ACD REFLECTOR G2 150mm 90D	28002193	150 mm	42 pc(s).	0.071 kg
ACD REFLECTOR G2 200mm 60D	28002194	200 mm	42 pc(s).	0.120 kg
ACD REFLECTOR G2 200mm 90D	28002195	200 mm	42 pc(s).	0.120 kg

ACD TRIM RING

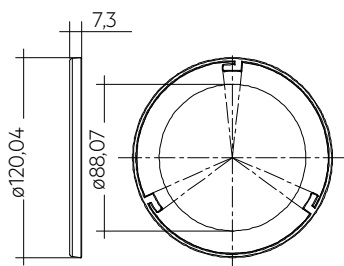
Accessory

Product description

_ Trim rings in 100, 150 and 200 mm diameter



Website

<http://www.tridonic.com/28002196>


Ordering data

Type	Article number	Colour	Packaging, carton	Weight per pc.
ACD TRIM RING 100MM WHITE	28002196	White	240 pc(s).	0.019 kg
ACD TRIM RING 150MM WHITE	28002197	White	120 pc(s).	0.032 kg
ACD TRIM RING 200MM WHITE	28002198	White	60 pc(s).	0.053 kg

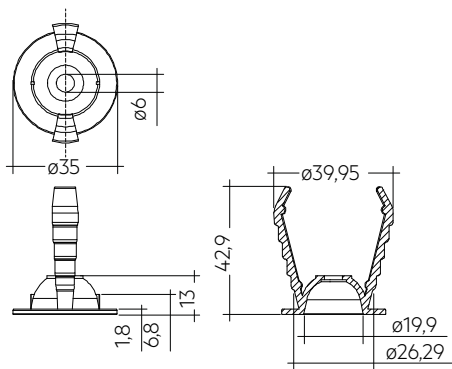
ACD EM LED INDICATOR HOLDER

Accessory



Product description
_ Holder for indicator LED in emergency operation
_ Glow-wire test with a temperature of 850 °C passed

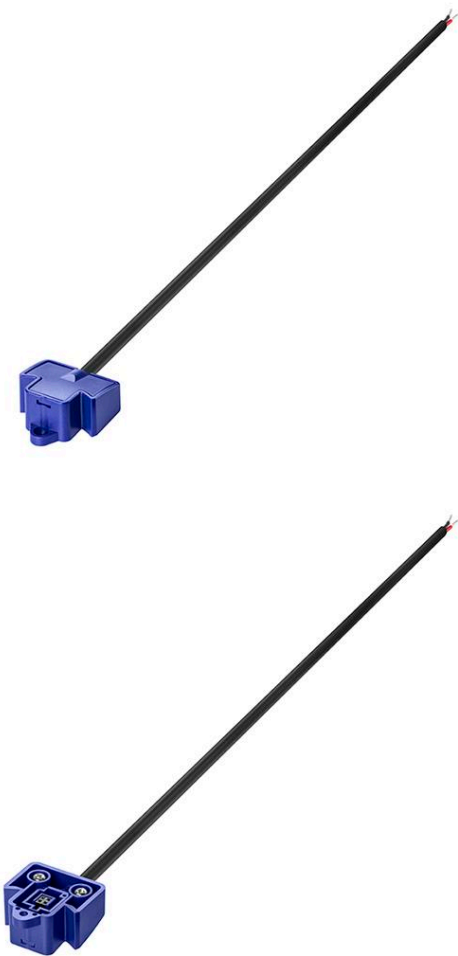
Website
<http://www.tridonic.com/28002189>



Ordering data				
Type	Article number	Colour	Packaging, carton	Weight per pc.
ACD EM LED INDICATOR HOLDER	28002189	White	120 pc(s).	0.006 kg

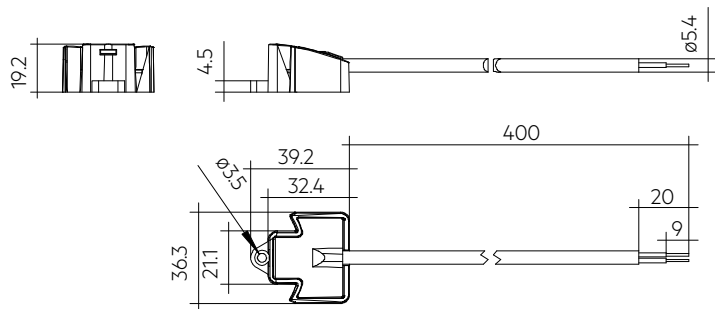
ACY DLA G2 connector

Accessory



- Product description**
- _ Additional driver connector to enable the use of standard drivers with DLA G2 modules
 - _ ST 3 x 8 mm screw included
 - _ Cable type H03VV-F 2 x 0.5 mm²
 - _ Length 400 mm
 - _ Glow-wire test with a temperature of 850 °C passed
 - _ Adjust stripping length according to driver

Website
<http://www.tridonic.com/28004642>



Ordering data			
Type	Article number	Packaging, carton	Weight per pc.
ACY DLA G2 connector	28004642	100 pc(s).	0.029 kg

Module DLA G2

Product description

1. Standards

EN 62031
 EN 62471
 IEC 61000-4-2
 IEC TR 62778: 2014

1.1 Glow wire test

according to EN 62031 with increased temperature of 850 °C passed.

1.2 Photometric code

Key for photometric code, e. g. 830 / 469

1 st digit	2 nd + 3 rd digit	4 th digit	5 th digit	6 th digit
Code CRI	Colour temperature in Kelvin x 100	MacAdam initial	MacAdam after 25% of the lifetime (max.6000h)	Luminous flux after 25% of the lifetime (max.6000h)
7 70 – 79				Code Luminous flux
8 80 – 89				7 ≥ 70 %
9 ≥90				8 ≥ 80 % 9 ≥ 90 %

1.3 Energy classification

Type	Colour temperature	Energy classification	Energy consumption	Type of light source
DLA G2 100mm 1000lm 830 SNC EM MOD	3,000 K	G	9 kWh / 1,000 h	directional
DLA G2 100mm 1000lm 840 SNC EM MOD	4,000 K	F	9 kWh / 1,000 h	directional
DLA G2 150mm 1000/2000lm 830 SNC EM MOD	3,000 K	G	18 kWh / 1,000 h	directional
DLA G2 150mm 1000/2000lm 840 SNC EM MOD	4,000 K	F	18 kWh / 1,000 h	directional
DLA G2 200mm 2000/3000lm 830 SNC EM MOD	3,000 K	G	27 kWh / 1,000 h	directional
DLA G2 200mm 2000/3000lm 840 SNC EM MOD	4,000 K	F	27 kWh / 1,000 h	directional

Energy label and further information at www.tridonic.com in the certificates tab of the corresponding product page and at the EPREL data base <https://eprel.ec.europa.eu/>

1.4 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 500 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.
 The insulation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

2. Thermal details

2.1 tp point, ambient temperature and lifetime

The temperature at tp reference point is crucial for the light output and lifetime of a LED product.

The operating temperature of a LED product is crucial for the light output, the product lifetime but also for the product safety.

The thermal limits can be checked at the tp/tc point.

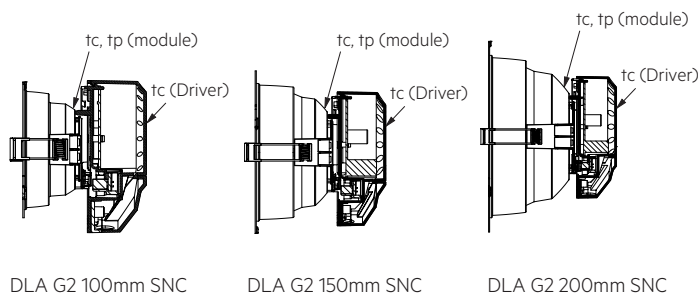
On page 11 the lumen maintenance is shown in relation to the temperature at tp. tp, rated shows the temperature at which the rated values are reached.

tc shows the thermal limit for safety reason und must never be exceeded under normal conditions.

For DLA G2 SNC the tp temperature has to be complied in order to achieve an optimum between heat sink requirements, light output and lifetime.

Compliance with the maximum permissible reference temperature at the tp point must be checked under operating conditions in a thermally stable state. The maximum value must be determined under worst-case conditions for the relevant application.

The tc and tp temperature of LED modules from Tridonic are measured at the same reference point.



2.2 Thermal behaviour

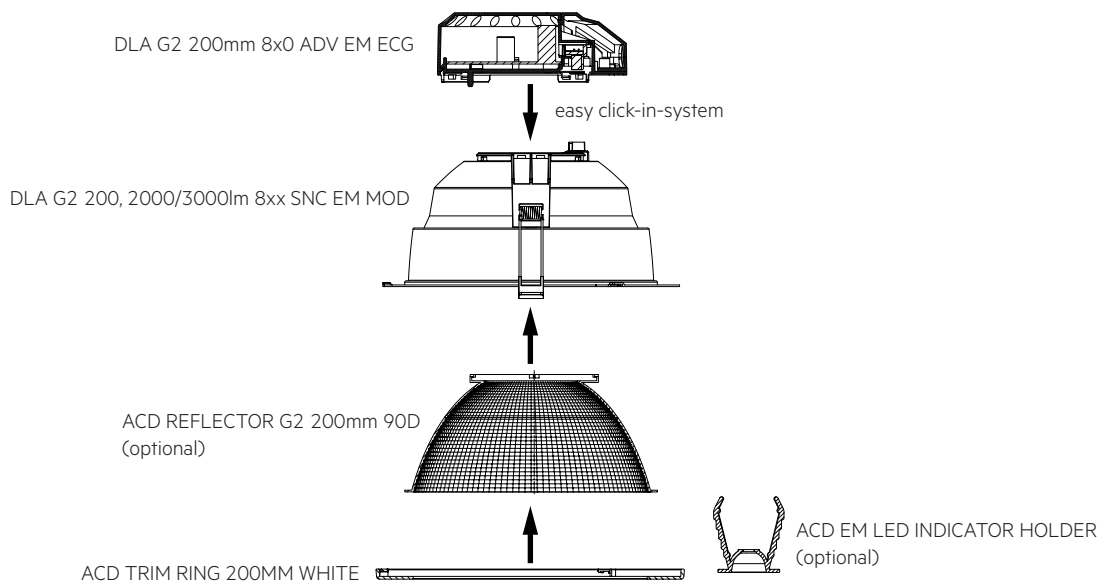
storage temperature	-30 ... +80 °C
---------------------	----------------

Operation only in non condensing environment.

Humidity during processing of the module should be between 30 to 70 %.

3. Installation

3.1 Assembly of DLA G2 SNC



3.2 Mounting hole size

	Mounting hole size
DLA G2 100mm SNC	ø 100 – 108 mm
DLA G2 150mm SNC	ø 145 – 158 mm
DLA G2 200mm SNC	ø 190 – 210 mm

4. Lifetime

4.1 Lifetime, lumen maintenance and failure rate

The light output of an LED module decreases over the lifetime, this is characterized with the L value.

L70 means that the LED module will give 70 % of its initial luminous flux. This value is always related to the number of operation hours and therefore defines the lifetime of an LED module.

As the L value is a statistical value and the lumen maintenance may vary over the delivered LED modules.

The B value defines the amount of modules which are below the specific L value, e.g. L70B10 means 10 % of the LED modules are below 70 % of the initial luminous flux, respectively 90 % will be above 70 % of the initial value. In addition the percentage of failed modules (fatal failure) is characterized by the C value.

The F value is the combination of the B and C value. That means for F degradation and complete failures are considered, e.g. L70F10 means 10 % of the LED modules may fail or be below 70 % of the initial luminous flux.

4.2 Lumen maintenance

DLA G2 100mm 1000lm 8x0 SNC EM MOD:

Type of Driver	tp temperature	L80 / F50	L80 / F10	L70 / F50	L70 / F10
DLA G2 100mm 1000lm 8xx SNC EM ECG	45 °C	35,000 h	29,000 h	56,000 h	49,000 h
	65 °C	35,000 h	29,000 h	56,000 h	49,000 h

DLA G2 150mm 1000/2000lm 8x0 SNC EM MOD:

Type of Driver	tp temperature	L80 / F50	L80 / F10	L70 / F50	L70 / F10
DLA G2 150mm 1000lm 8xx ADV EM ECG	40 °C	35,000 h	29,000 h	56,000 h	49,000 h
	55 °C	35,000 h	29,000 h	56,000 h	49,000 h
DLA G2 150mm 2000lm 8xx SNC EM ECG	50 °C	35,000 h	29,000 h	56,000 h	49,000 h
	65 °C	35,000 h	29,000 h	56,000 h	49,000 h

DLA G2 200mm 2000/3000lm 8x0 SNC EM MOD:

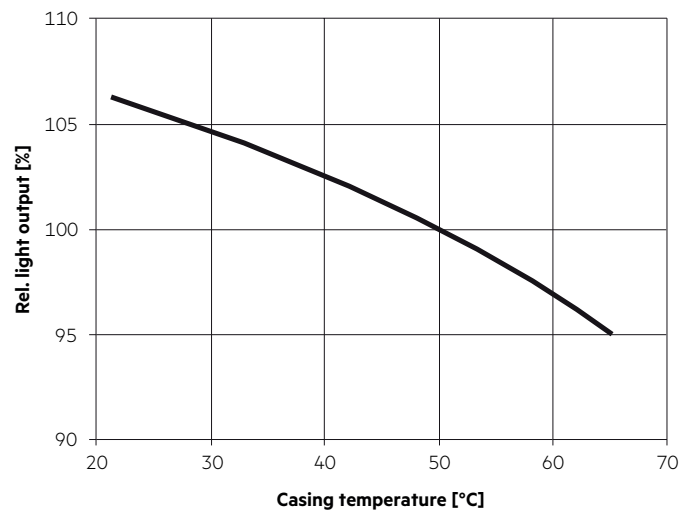
Type of Driver	tp temperature	L80 / F50	L80 / F10	L70 / F50	L70 / F10
DLA G2 200mm 2000lm 8xx ADV EM ECG	45 °C	35,000 h	29,000 h	56,000 h	49,000 h
	60 °C	35,000 h	29,000 h	56,000 h	49,000 h
DLA G2 200mm 3000lm 8xx SNC EM ECG	50 °C	35,000 h	29,000 h	56,000 h	49,000 h
	65 °C	33,000 h	27,000 h	53,000 h	47,000 h

The L70 / F50 lumen maintenance value represents the expected lifetime of the module with a failure probability of less than 10 %.

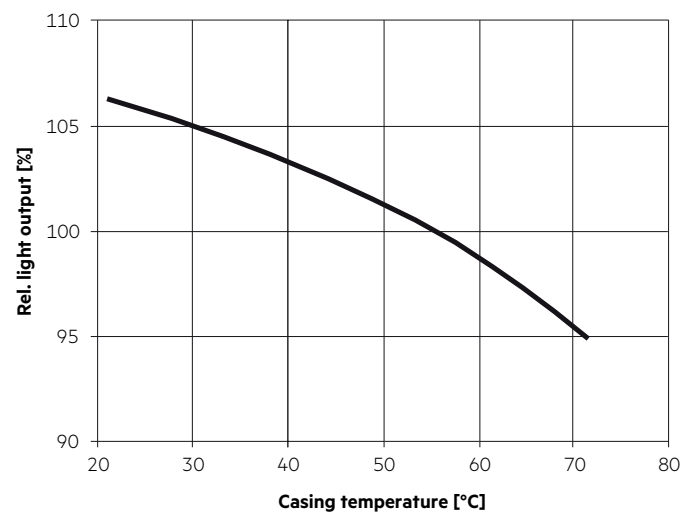
5. Optical values

5.1 Typ. light output vs. tc temperature

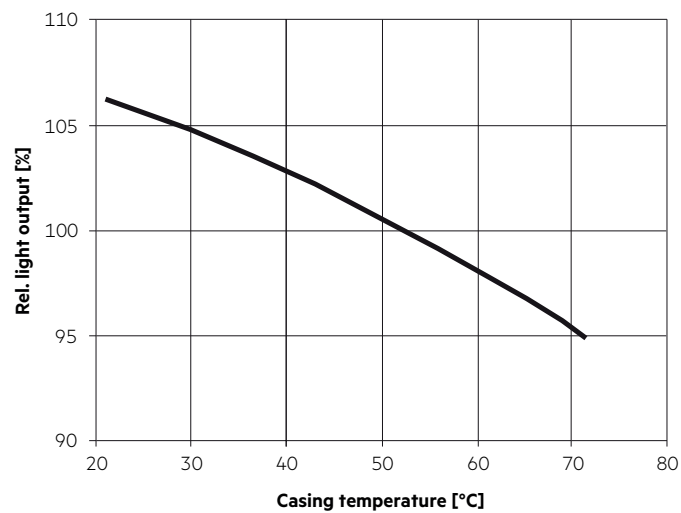
DLA G2 100mm 1000lm 8xx SNC EM MOD



DLA G2 200mm 2000/3000lm 8xx SNC EM MOD



DLA G2 150mm 1000/2000lm 8xx SNC EM MOD



6. Photometric characteristics

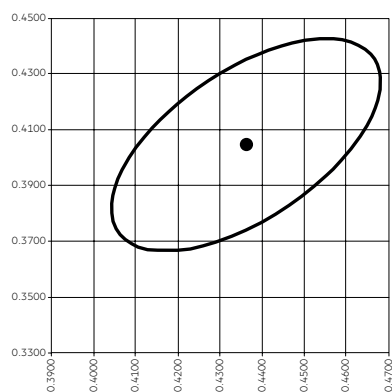
6.1 Coordinates and tolerances according to CIE 1931

The specified colour coordinates are measured integral in thermal saturated stage at specified t_p . The current impuls depends on the module type. The ambient temperature of the measurement is $t_a = 25^\circ\text{C}$. The measurement tolerance of the colour coordinates are ± 0.01 .

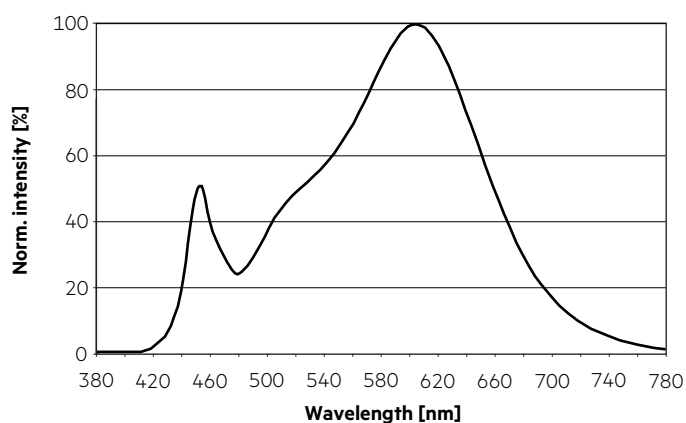
6.2 DLA G2 100mm 1000lm SNC ($t_p = 45^\circ\text{C}$)

3,000 K

	x0	y0
Centre	0.4365	0.4048

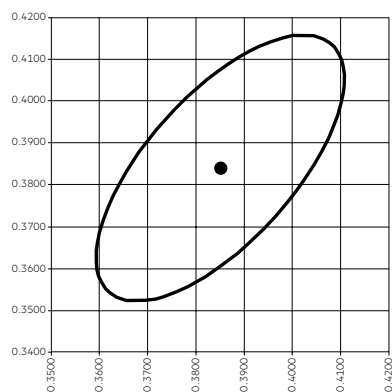


MacAdam ellipse: 4SDCM

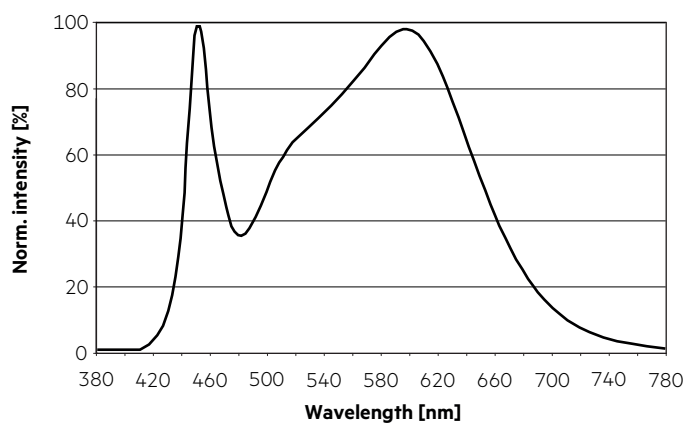


4,000 K

	x0	y0
Centre	0.3854	0.3832



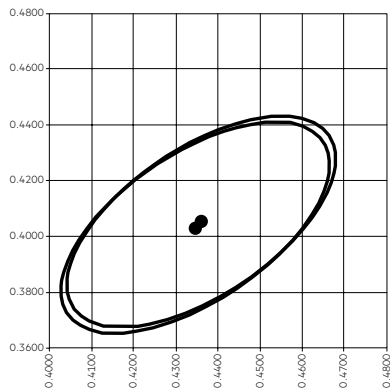
MacAdam ellipse: 4SDCM



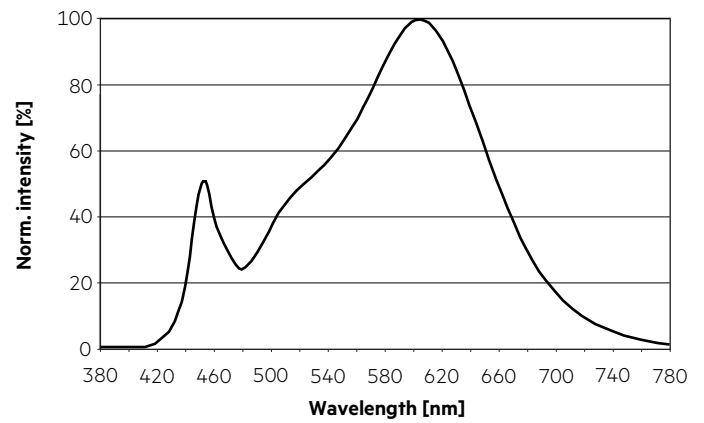
6.3 DLA G2 150mm 1000/2000lm SNC

3,000 K

	x0	y0
255 mA (tp = 40 °C)	0.4371	0.4055
530 mA (tp = 50 °C)	0.4344	0.4034

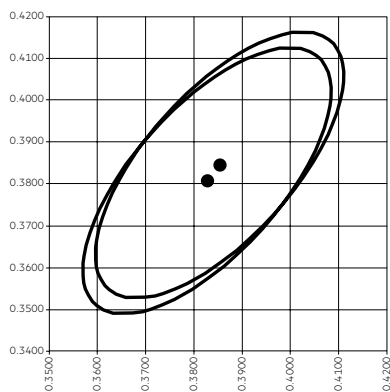


MacAdam ellipse: 4SDCM

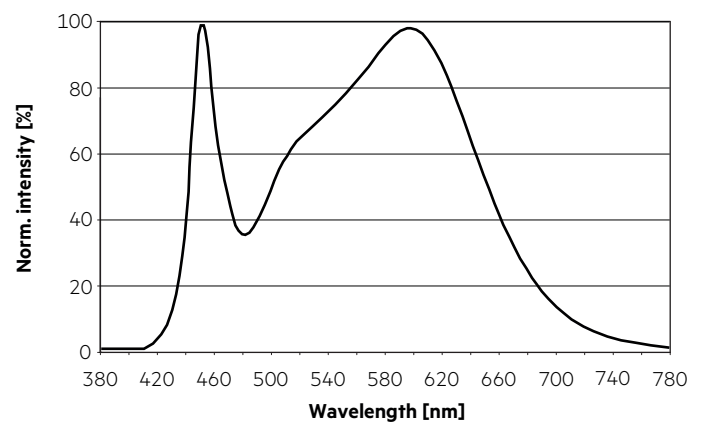


4,000 K

	x0	y0
255 mA (tp = 40 °C)	0.3863	0.3843
530 mA (tp = 50 °C)	0.3828	0.3807



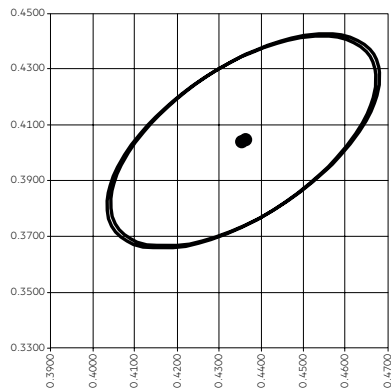
MacAdam ellipse: 4SDCM



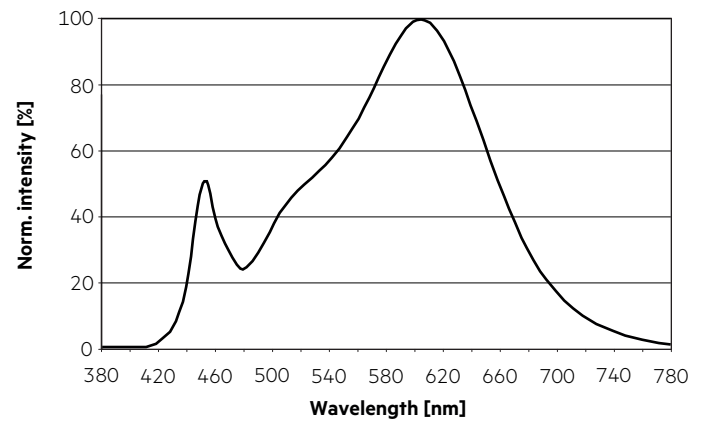
6.4 DLA G2 200mm 2000/3000lm SNC

3,000 K

	x0	y0
530 mA (tp = 45 °C)	0.4365	0.4048
790 mA (tp = 50 °C)	0.4355	0.4040

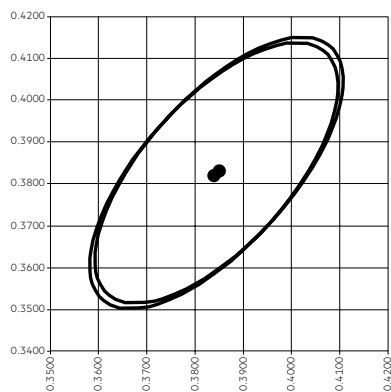


MacAdam ellipse: 4SDCM

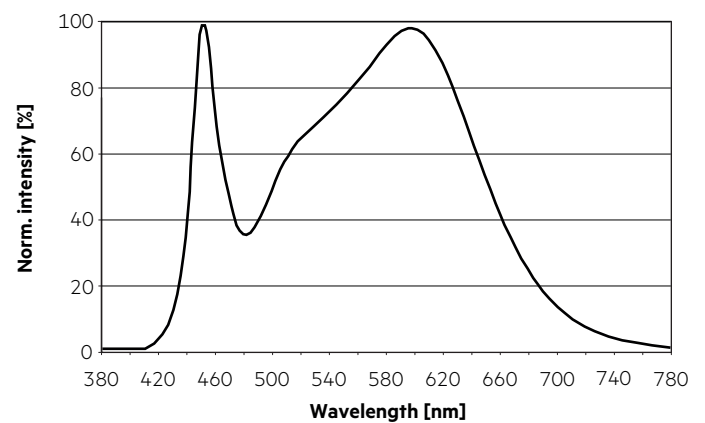


4,000 K

	x0	y0
530 mA (tp = 45 °C)	0.3850	0.3829
790 mA (tp = 50 °C)	0.3839	0.3817

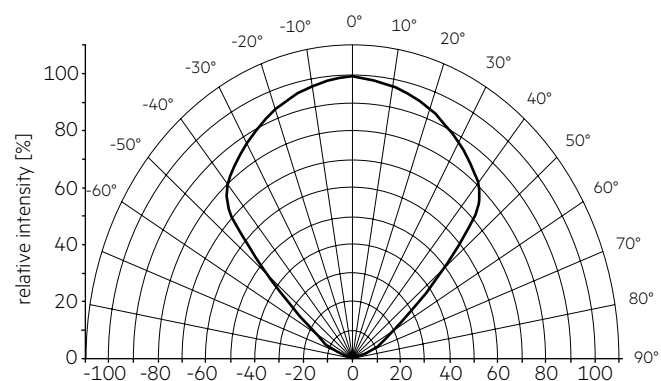


MacAdam ellipse: 4SDCM

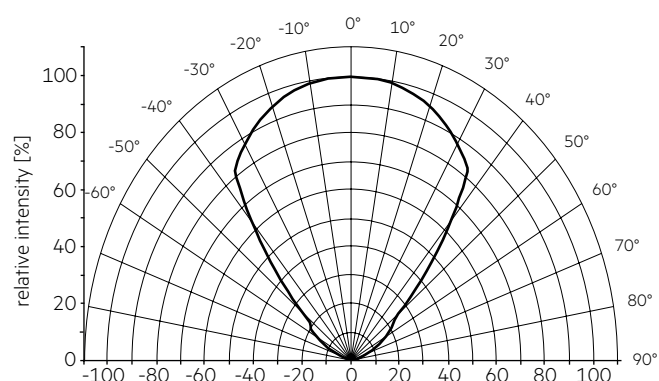


6.5 Light distribution

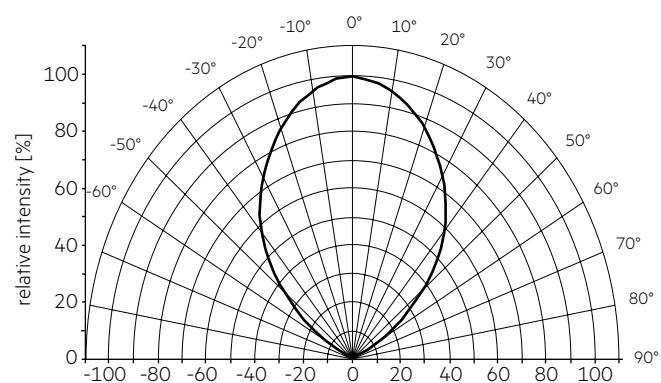
DLA G2 100mm SNC without reflector



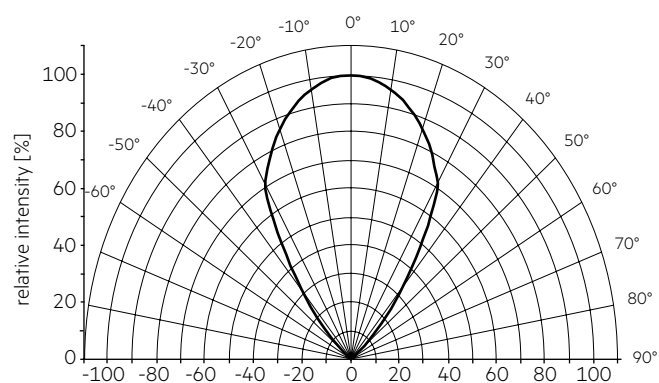
DLA G2 150mm SNC without reflector



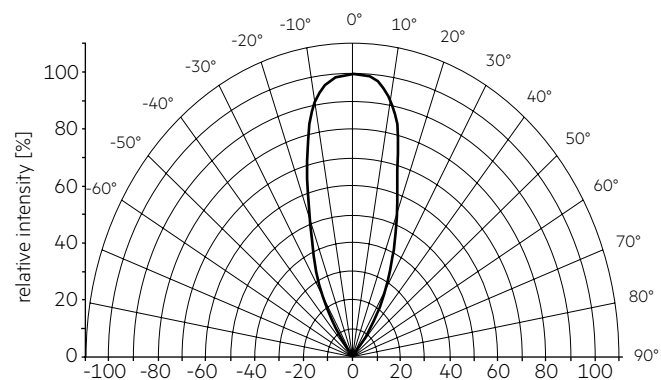
DLA G2 100mm SNC mit 90° Reflektor



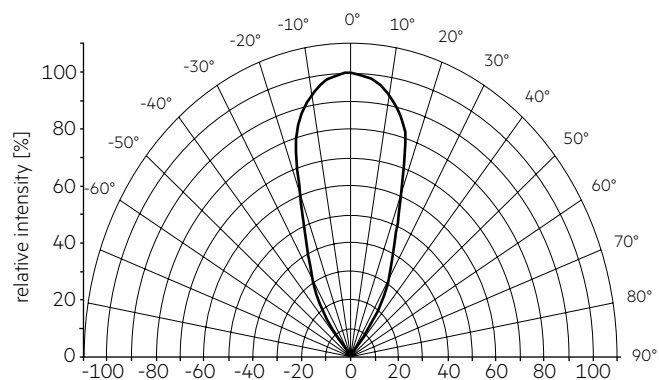
DLA G2 150mm SNC mit 90° Reflektor

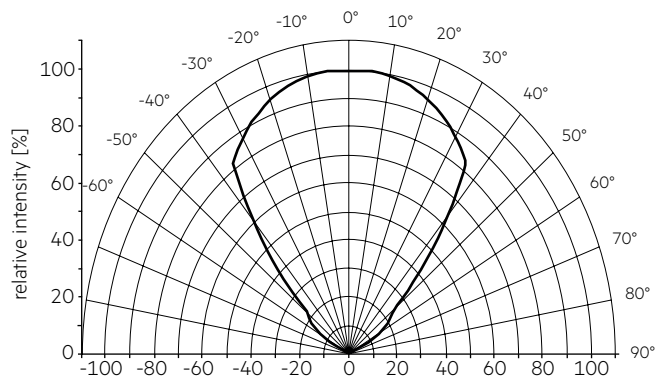
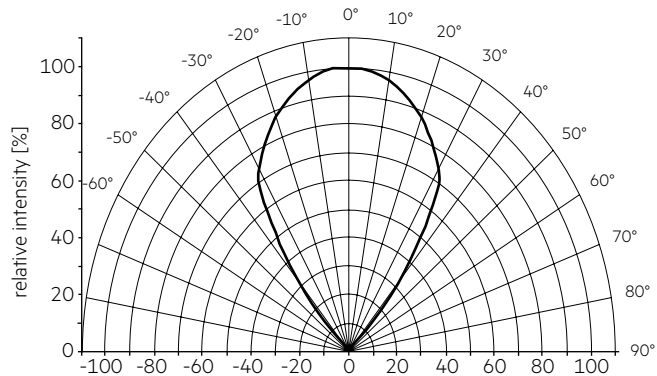
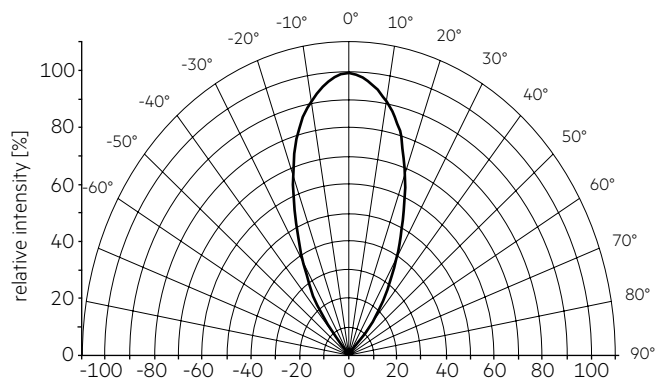


DLA G2 100mm SNC mit 60° Reflektor



DLA G2 150mm SNC mit 60° Reflektor



DLA G2 200mm SNC without reflector**DLA G2 200mm SNC mit 90° Reflektor****DLA G2 200mm SNC mit 60° Reflektor****7. Miscellaneous****7.1 Additional information**

Additional technical information at www.tridonic.com → Technical Data

Guarantee conditions at www.tridonic.com → Services

Lifetime declarations are informative and represent no warranty claim.

Driver DLA G2 SNC / ADV

Product description

1. Standards

EN 55015
EN 61000-3-2
EN 61000-3-3
EN 61347-1
EN 61347-2-13
EN 61547
EN 62384

1.1 Glow-wire test

according to EN 61347-1 with increased temperature of 850 °C passed.

2. Thermal details and lifetime

2.1 Expected lifetime

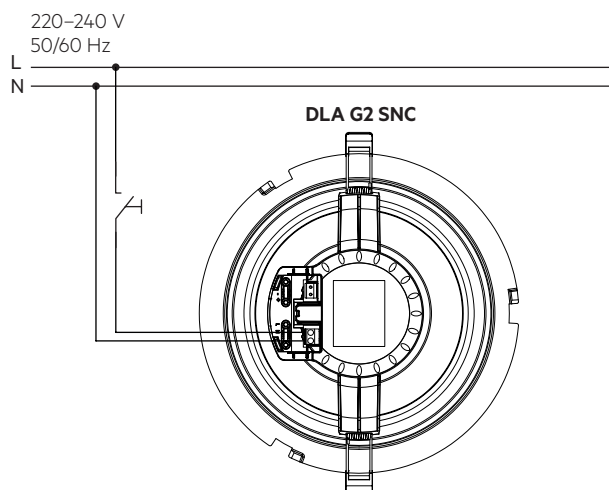
Expected lifetime

Type	ta	40 °C
DLA G2 100mm 1000lm 8x0 SNC EM ECG	tc	60 °C
	Lifetime	50,000 h
DLA G2 150mm 1000lm 8x0 ADV EM ECG	tc	60 °C
	Lifetime	50,000 h
DLA G2 150mm 2000lm 8x0 SNC EM ECG	tc	60 °C
	Lifetime	50,000 h
DLA G2 200mm 2000lm 8x0 ADV EM ECG	tc	60 °C
	Lifetime	50,000 h
DLA G2 200mm 3000lm 8x0 SNC EM ECG	tc	65 °C
	Lifetime	50,000 h

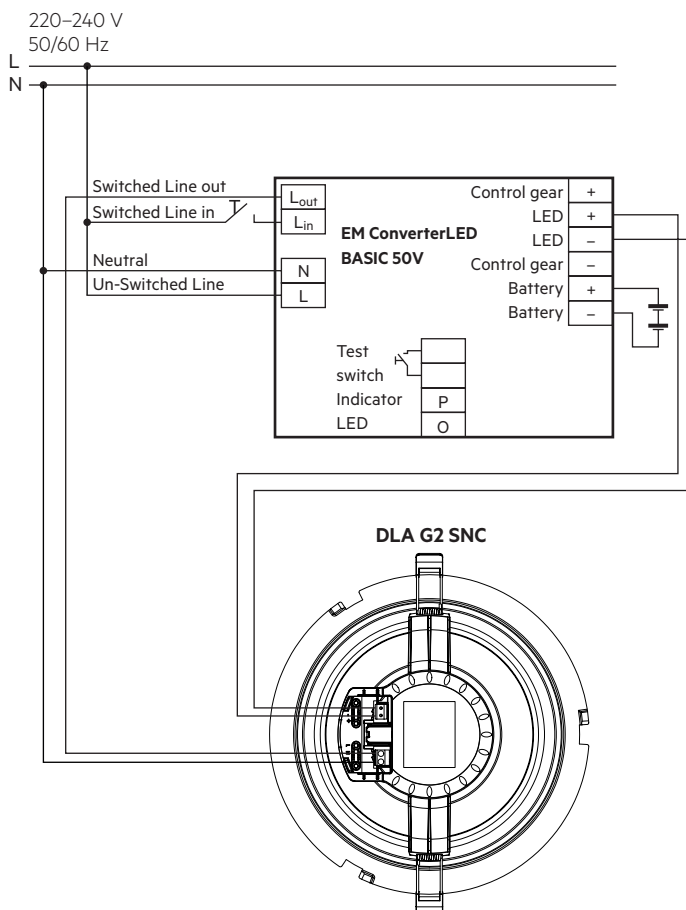
Failure rate per 1,000 h = 0.3 %.

3. Installation / wiring

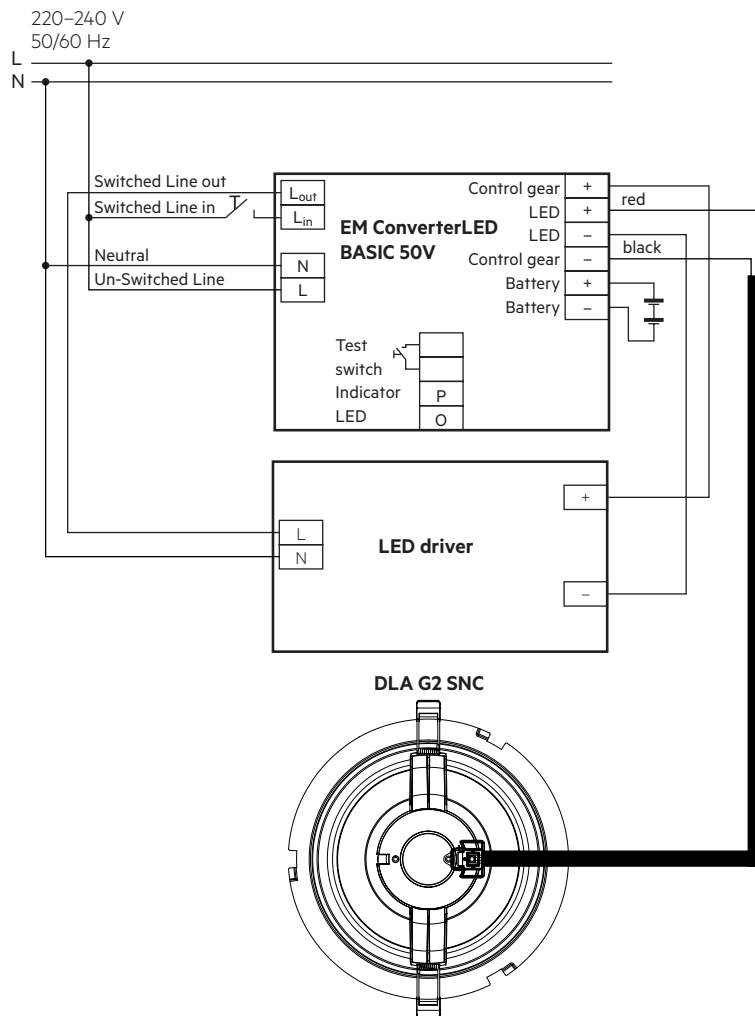
3.1 Circuit diagram



Emergency wiring:



Emergency wiring with ACY DLA G2 connector:



3.2 Electrical supply/choice of LED driver

DLA modules from Tridonic are not protected against overvoltages, overcurrents, overloads or short-circuit currents.

In combination with ACY DLA G2 connector the safe and reliable operation can only be guaranteed in conjunction with a LED driver which complies with the relevant standards.

The use of LED drivers from Tridonic in combination with DLA modules guarantees the necessary protection for safe and reliable operation.

If a LED driver other than Tridonic is used, it must provide the following protection:

- Short-circuit protection
- Overload protection
- Overtemperature protection



DLA modules must be supplied by a constant current LED driver.
Operation with a constant voltage LED driver will lead to an irreversible damage of the module.
Wrong polarity can damage the DLA.

Hot plug-in or secondary switching of LEDs is not permitted and may cause a very high current to the LEDs.

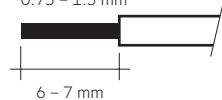
3.2 Wiring type and cross section

For wiring use stranded wire with ferrules or solid wire from 0.75 to 1.5 mm².

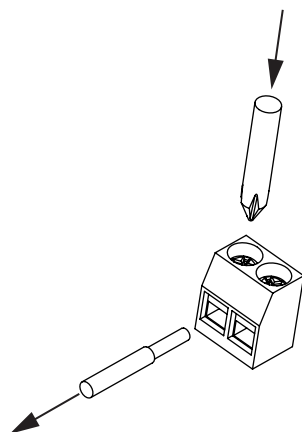
For the push-wire connection you have to strip the insulation (6–7 mm).

Loosen wire through twisting and pulling.

wire preparation:
0.75 – 1.5 mm²



3.3 Release of the wiring



3.4 Installation instructions

The LED module and all contact points within the wiring must be sufficiently insulated against 2 kV surge voltage.

Air and creepage distance must be maintained.

3.5 Terminal

Max. torque for terminal: 0.4 Nm/M2.5

4. Electrical values

4.1 Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation Ø	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	I _{max}	Time
DLA G2 100mm 1000lm 8x0 SNC EM ECG	100	130	165	200	60	80	100	120	9 A	100 µs
DLA G2 150mm 2000lm 8x0 SNC EM ECG	50	75	100	116	30	45	60	70	13 A	150 µs
DLA G2 200mm 3000lm 8x0 SNC EM ECG	33	50	65	75	20	30	40	45	30 A	60 µs
DLA G2 150mm 1000lm 8x0 ADV EM ECG	100	130	165	200	60	80	100	120	7 A	110 µs
DLA G2 200mm 2000lm 8x0 ADV EM ECG	50	75	100	116	30	45	60	70	28 A	50 µs

4.2 Harmonic distortion in the mains supply (at 230 V / 50 Hz and full load) in %

	THD	3.	5.	7.	9.	11.
DLA G2 100mm 1000lm 8x0 SNC EM ECG	< 13	< 10	< 5	< 5	< 2	< 2
DLA G2 150mm 2000lm 8x0 SNC EM ECG	< 14	< 13	< 3	< 4	< 3	< 2
DLA G2 200mm 3000lm 8x0 SNC EM ECG	< 15	< 12	< 4	< 5	< 3	< 2
DLA G2 150mm 1000lm 8x0 ADV EM ECG	< 13	< 9	< 5	< 5	< 3	< 2
DLA G2 200mm 2000lm 8x0 ADV EM ECG	< 14	< 12	< 4	< 4	< 3	< 2

5. Miscellaneous

5.1 Insulation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only!) or ENEC 303-Annex A, each luminaire should be submitted to an insulation test with 500 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.
The insulation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

5.2 Conditions of use and storage

Humidity: 5 % up to max. 85 %,
not condensed
(max. 56 days/year at 85 %)

Storage temperature: -30 °C up to max. +80 °C

The devices have to be within the specified temperature range (ta) before they can be operated.

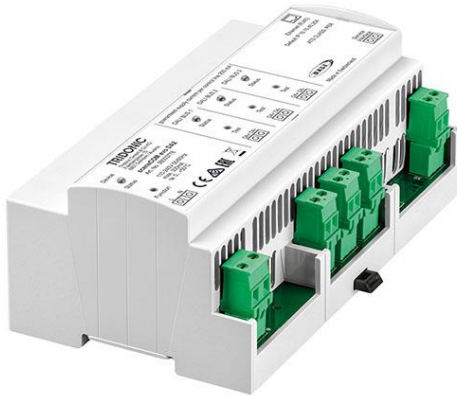
5.3 Additional information

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

sceneCOM evo DA2

sceneCOM evo DA2 – multi-channel lighting controller



Product description

- _ Single Master DALI-2 application controller
- _ Independent lighting control for up to 192 DALI control gears on 3 DALI lines
- _ Compatible with DALI MSensor G3 and XC G3 DALI-2 controls
- _ Simple setup via WEB interface
- _ Cross DALI line control
- _ Extension of functionalities via software licenses
- _ DALI emergency lighting control gear test scheduling and monitoring (number of emergency lighting units depending on the activated software license)
- _ Complying with IEC 62034
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

Housing properties

- _ Casing: polycarbonate, white
- _ Type of protection IP20
- _ For installation in switching cabinets

Interfaces

- _ 3 DALI lines
- _ BACnet interface (depending on the license model)
- _ Terminal blocks: screw terminals

Functions

- _ Addressing wizard
- _ Presence linking
- _ Local and downloadable backup
- _ Freely programmable daily scheduling with calendar function
- _ Self-contained emergency luminaires (depending on the license model)
- _ Daylight control (depending on the license model)
- _ Freely programmable shows (depending on the license model)
- _ RGB and Tunable White (depending on the license model)
- _ Scenes and zones

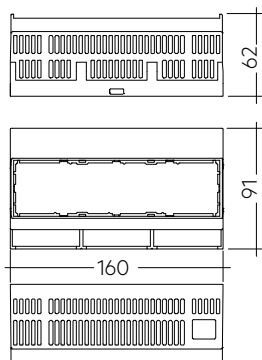
Website

<http://www.tridonic.com/28003778>



sceneCOM evo DA2

sceneCOM evo DA2 – multi-channel lighting controller



Ordering data

Type	Article number	Packaging, carton	Weight per pc.
sceneCOM evo DA2	28003778	36 pc(s).	0.37 kg

Technical data

Rated supply voltage	110 – 240 V
Mains frequency	50 / 60 Hz
Power consumption	< 20 W
Ethernet interface	1 x RJ45
DALI interface	3 x
Max. current per channel	200 mA
Ethernet port	1 x 10/100 Mbit/s
Status indicators LED	Device status, DALI status
Operating Temperature at upright mounted	0 ... +50 °C
Operating Temperature at flat mounted	0 ... +40 °C
Mounting	DIN rail mounting, 35 mm
Housing material	PC, halogen-free polycarbonate, non-flammable
Type of protection	IP20
Dimensions L x W x H	160 x 91 x 62 mm

Approval marks



Standards

IEC 60950-1, EN 55022, EN 55024, EN 61547, EN 61000-4-3, EN 61000-6-1, EN 61000-6-3, EN 61347-2-11, EN 62386-101, EN 62386-103

1. Standards

IEC 60950-1
 EN 55022
 EN 55024
 EN 61547
 EN 61000-4-3
 EN 61000-6-1
 EN 61000-6-3
 IEC 61347-2-11
 EN 62386-101 Ed.2
 EN 62386-103 Ed.1

2. Common

2.1 Description

sceneCOM evo DA2 is a DALI-2 lighting management system which is compatible with the DALI MSensors G3 and the XC G3 from the Tridonic DALI-2 portfolio.

sceneCOM evo DA2 is designed to easily control your luminaires.

The sceneCOM evo DA2 web application allows the automation of up to 192 luminaires with one sceneCOM evo DA2 control device.

The sceneCOM evo DA2 web application is therefore suitable for smaller and larger buildings or individual floors.

Besides the functional lighting in a building, self-contained emergency luminaires can also be used in a sceneCOM evo DA2 system.

3. Interfaces / communication

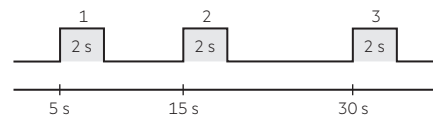
3.1 Device LED

Status-LED	Description
Green, intermittently flickering	Fault-free operation
Off	No mains voltage (L, N)
Red	Serious internal error

3.2 DALI LED

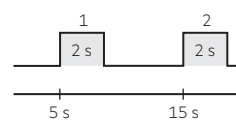
Status-LED	Description
Green, intermittently flickering	Fault-free operation
Green, flashing on/off every 0.5 s	Test mode
Orange, flashing on/off every 0.5 s	Addressing or DALI initialisation
Off	No mains voltage (L, N)
Red	More than 64 DALI-compliant devices connected
Red, intermittently flickering	DALI control line short-circuited or more than 100 DALI loads
Red-green, intermittently flickering	Lamp failure

3.3 Function key

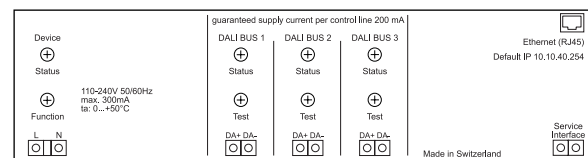


Orange phase	Function
1	Restart the sceneCOM evo DA2.
2	Delete the addresses and short addresses of all control gear and input devices connected to the 3 DALI control lines.
3	Reset the IP address to the factory setting (10.10.40.254).

3.4 Function switch



Orange phase	Function
1	Exit test mode for all outputs.
2	Delete the addresses and short addresses of all control gear and input devices connected to the corresponding DALI control line.



4. Installation

4.1 Safety instructions



The device may only be used for the specified area of application.

Relevant health and safety regulations must be observed.

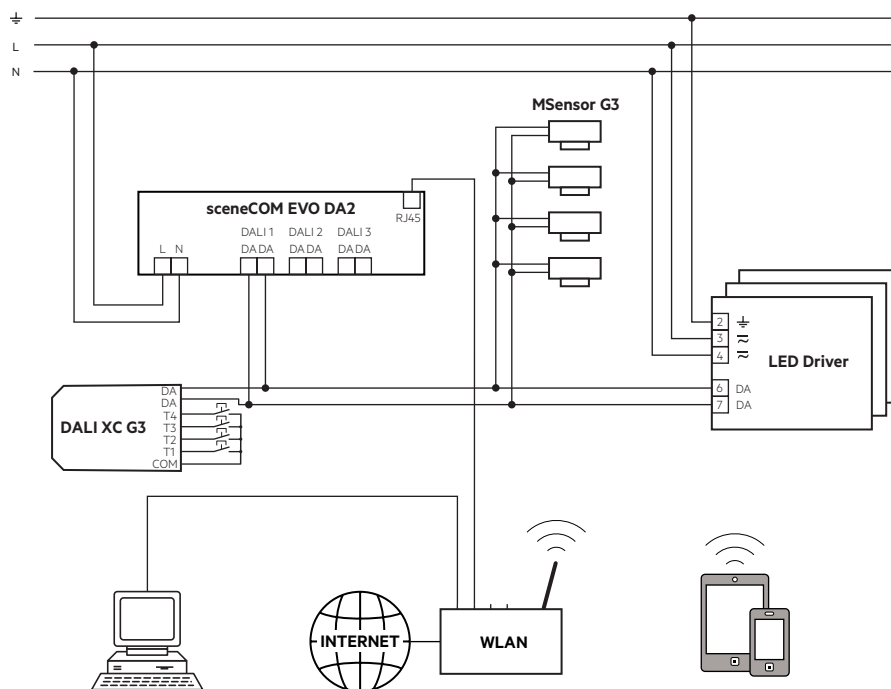
The voltage supply must be disconnected when the device is being assembled and installed.

Only qualified personnel may assemble, install and commission the device.

Protection class II can only be guaranteed when the terminal covering has been correctly installed.

If a fault occurs, dangerous voltage levels may be present at the DALI terminals and on the DALI control line.

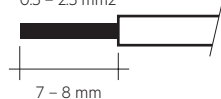
4.2 Wiring examples



4.3 Wiring type and cross section sceneCOM evo DA2 Controller

For wiring use stranded wire with ferrules or solid wire from 0.5 to 2.5 mm².

wire preparation:
0.5 – 2.5 mm²



5. em-LINK

The em-LINK software allows you to remotely monitor the status of all connected emergency gears from up to 200 sceneCOM evo DA2 controllers. It is accessible via WEB interface. More information on the em-LINK software can be found in it's manual or at www.tridonic.com/software.

6. Miscellaneous

6.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

6.2 Additional information

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

sceneCOM evo Touchpanel

Interactive user interface



Product description

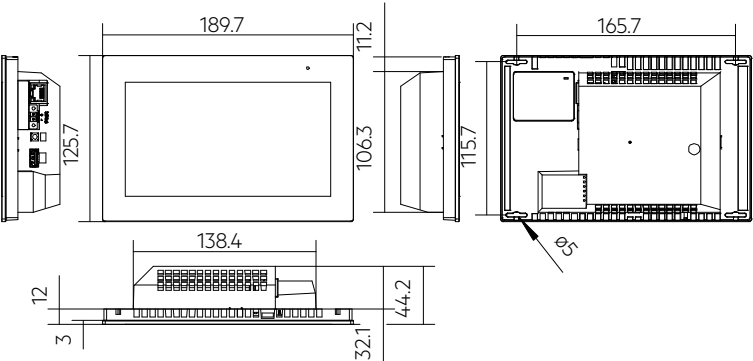
- _ 7" touchpanel for intuitive operation and configuration of a sceneCOM evo system
- _ Complete access to the web-based sceneCOM evo user interface
- _ Pre-installed web browser for connection to a sceneCOM evo controller
- _ Colour display with 1024 x 600 pixel image resolution
- _ Linux operating system
- _ Suitable for installation in walls (wallmount box available as an accessory)
- _ Integrated LAN connection
- _ Powered via PoE+ or external power supply (available separately as an accessory)
- _ 2 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Website

<http://www.tridonic.com/28005694>



sceneCOM evo Touchpanel
Interactive user interface



Ordering data

Type	Article number	Dimensions L x W x H	Packaging	Weight per pc.
sceneCOM evo Touchpanel	28005694	190 x 126 x 45 mm	1 pc(s).	1.4 kg

Technical data

Supply via	External power supply (optional) or PoE+
Rated voltage range DC	22 – 26 V
Current draw	1,000 mA
Power consumption	< 16.3 W
Operating temperature	0 ... +35 °C
Storage temperature ts	-20 ... +70 °C
Humidity	10 ... 80 % not condensed
Touchscreen size	7"
Touchscreen pixel	1,024 x 600
Type of protection	IP20
Housing colour	Black
Dimensions L x W x H	190 x 126 x 45 mm
Guarantee (conditions at www.tridonic.com)	2 Year(s)

Approval marks



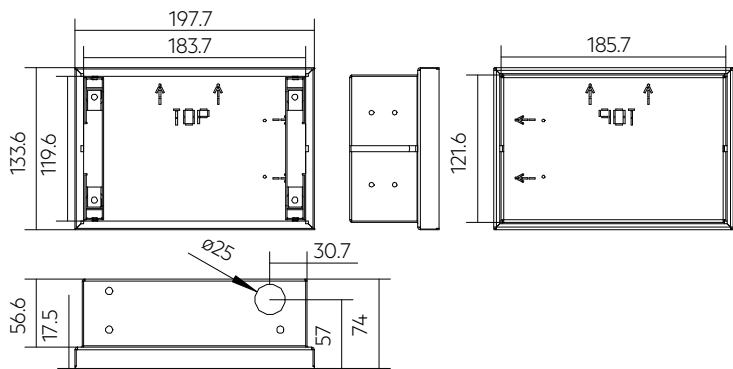
Wall mounting box

Accessory



- Product description**
- _ Wall mounting box for the sceneCOM evo Touchpanel
 - _ Suitable for flush-fitting, cavity and concrete installation
 - _ IP30

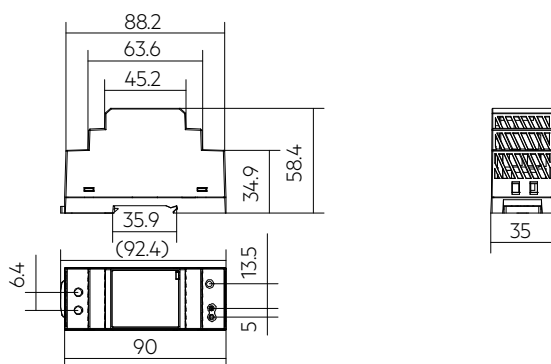
Website
<http://www.tridonic.com/28005695>



Ordering data				
Type	Article number	Dimensions L x W x H	Packaging	Weight per pc.
sceneCOM evo WMB-Touchpanel	28005695	197.7 x 133.6 x 74 mm	1 pc(s).	0.788 kg

Power supply MW 24VDC

Accessory



Product description

- _ Ultra slim design with 35 mm (2SU) width
- _ Power input on stand-by < 0.3 W
- _ Isolation class II
- _ Pass LPS (Limited Power Source)
- _ DC output voltage adjustable
- _ Protective features (short circuit, overload, over voltage)
- _ Cooling by free air convection (working temperature: -30 ... +70 °C)
- _ DIN rail TS-35/7.5 or 15 mountable
- _ LED indicator for power on
- _ 3 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)

Typical applications

- _ lichtMONITOR server x5 (28004946)
- _ sceneCOM evo Touchpanel (28005694)

Website

<http://www.tridonic.com/28005796>



Ordering data

Type	Article number	Packaging, carton	Weight per pc.
Power supply MW 24VDC	28005796	96 pc(s).	0.13 kg

Approval marks



1. Common

1.1 Description

The sceneCOM evo Touchpanel is a 7 inches multitouch screen to fully master a sceneCOM evo installation by using the sceneCOM evo web application and suitable for wall mounting.

2. Installation

- Attach to Ethernet cable using the supplied split ferrite before installation.
- The touchpanel must be installed as described in the manual.
- The default IP address of the sceneCOM evo is: 10.10.40.254.
- The default IP address of the touch panel is: 10.10.40.11.
- The supply voltage on the touchpanel must be between 22 and 26 V DC. Connect the touchpanel only when the supply lines are disconnected from the power. Otherwise the touch panel may start in an impermissible operating status. If this occurs, you will hear a beep or noise on the touchpanel.

3. Commissioning

3.1 Commissioning version 1: touchpanel directly connected to sceneCOM evo via an ethernet cable

1. Connect the voltage supply to the touchpanel.
Chromium browser starts in kiosk mode and automatically establishes a connection to the sceneCOM evo.
The start page of the sceneCOM web application is displayed.

Requirements:

- Touchpanel is directly connected to a sceneCOM evo via an Ethernet cable.
- Touchpanel and sceneCOM evo each use their default IP address.

3.2 Commissioning version 2: touchpanel connected to sceneCOM evo within a network

1. Connect the voltage supply to the touchpanel.
Chromium browser starts in kiosk mode.
2. Tap the four corners of the touchpanel, starting at the top left and following a U shape (top left, bottom left, bottom right, top right).
The device settings are displayed.
3. Switch to the Network settings tab.
4. Enable Static IP address.
You can also obtain the IP address automatically.
Activate DHCP instead of static IP address.
5. Set the IP address, subnet mask, default gateway and DNS server of the touchpanel so that it is in the same network as the sceneCOM evo.
6. Tap Apply changes.
7. Switch to the Homepage tab.
8. Enter the IP address of the sceneCOM evo.
9. Tap the X icon at the top left.
A connection to the sceneCOM evo is established.
The start page of the sceneCOM web application is displayed.

3.3 Safety instructions



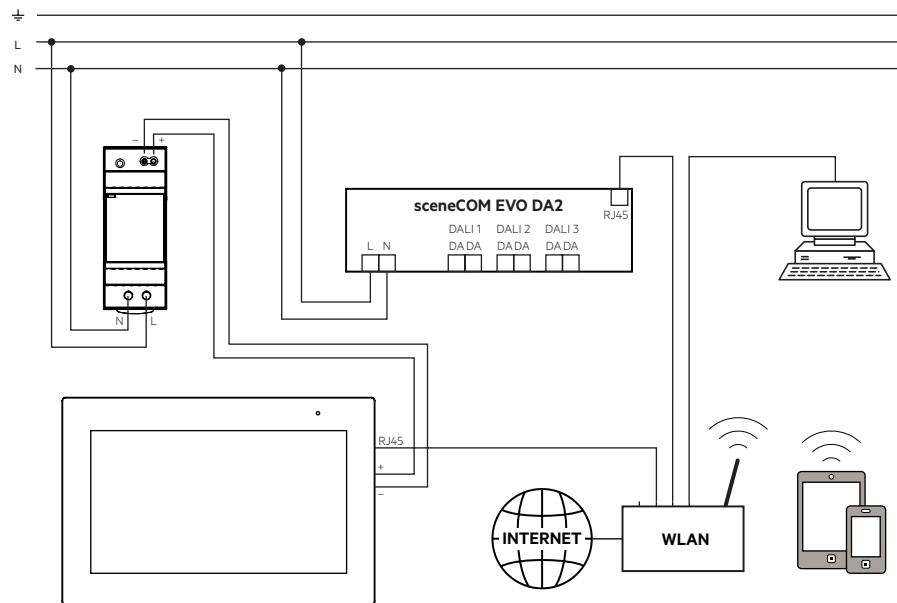
The device may only be used for the specified area of application.

Relevant health and safety regulations must be observed.

The voltage supply must be disconnected when the device is being assembled and installed.

Only qualified personnel may assemble, install and commission the device.

3.4 Wiring examples

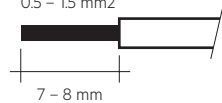


3.5 Wiring type and cross section sceneCOM evo DA2 Controller

For wiring use stranded wire with ferrules or solid wire from 0.5 to 1.5 mm².

wire preparation:

0.5 – 1.5 mm²



4. Supply line

Conductor cross-section	Maximum line length
0.5 mm ²	15 m
1.0 mm ²	30 m
1.5 mm ²	55 m

5. Miscellaneous

5.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

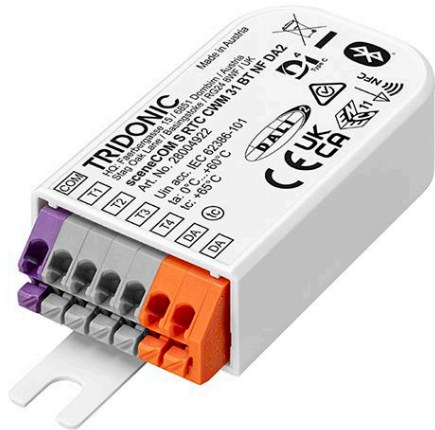
5.2 Additional information

Additional technical information at www.tridonic.com → Technical Data

Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

sceneCOM S RTC CWM 31 BT NF DA2

sceneCOM S (single-channel)



Product description

- _ DALI-2 Application Controller for management of small and mid-size room / area lighting installations, can be easily integrated into the wall socket behind the push button interface
- _ Ultra-compact dimensions and new housing with detachable mounting flaps enable use as a luminaire controller for stand-alone and networked applications
- _ Support for complete Tridonic control gear with DALI and DALI-2, as well as control gear certified by other manufacturers with DALI and DALI-2
- _ Future-proof thanks to simple firmware update via Bluetooth App (sCS commissioning)
- _ 4 independent inputs enabling connection of floating contact, standard momentary switches
- _ Power supply via DALI line
- _ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacture-guarantee-conditions>)
- _ We will provide security updates for the next five years after the date of purchase of this product

Interfaces

- _ DALI line
- _ 4 independent inputs enabling connection of floating contact, standard momentary switches
- _ NFC ready to enable commissioning in production in the future
- _ Real Time Clock to share precise timing information in dynamic lighting and emergency applications ^①
- _ Wireless communications via Bluetooth
- _ Ready for future companionSUITE integration ^②

Functions

- _ DALI addressing
- _ DALI Grouping
- _ Sensor-based automation including presence/movement detection, daylight-linking
- _ Static and dynamic Tunable White applications
- _ Extendable with basicDIM Wireless
- _ Mobile commissioning and user App with intuitive user interface, available for Android and iOS
- _ adaptiveSWARM module support

^① Emergency application will be supported in future software releases. To be sure that the Emergency applications are supported, please read the release notes.

^② companionSUITE Integration will be implemented in the future.

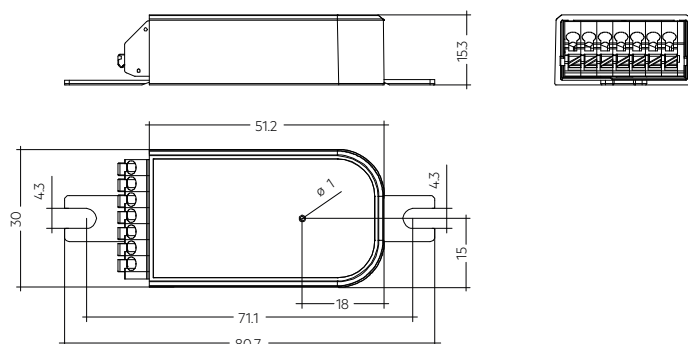
Website

<http://www.tridonic.com/28004922>



sceneCOM S RTC CWM 31 BT NF DA2

sceneCOM S (single-channel)



Ordering data

Type	Article number	Packaging, carton	Weight per pc.
sceneCOM S RTC CWM 31 BT NF DA2	28004922	18 pc(s).	0.018 kg
sceneCOM S RTC CWM 31 BT NF DA2 BP	28004930	30 pc(s).	0.018 kg

Technical data

Supply via	DALI cable
Supply voltage ^③	9.5 – 22.5 V
Current draw ^④	max. 30 mA
Bluetooth version	≥ 5.1
Bluetooth range	up to 20 m
Input	4 momentary-action switches or relays
Output	DALI
Ambient temperature t _a	0 ... +60 °C
t _c point	65 °C
Storage temperature t _s	-25 ... +60 °C
Humidity	20 ... 90 % not condensed
Starting time	≤ 6 s
Type of protection	IP20
Mounting	Mounting box 60 x 61 (ø x d)
Housing material	PC GWFI
Housing colour	White
Dimensions L x W x H	80.07 x 30 x 15.3 mm
Lifetime	up to 50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

Approval marks



Standards

EN 61347-2-11, EN 61347-2-13, EN 61347-1, EN 300 328, EN 300 330, EN 301 489-1, EN 301 489-3, EN 301 489-17, EN 55015, EN 61547, EN 62479, EN 62493, EN 62311, EN 62386-101, EN 62386-103, EN 62386-301, EN 62386-351

^③ U_{in} acc. IEC 62386-101.

^④ Typical operational consumption average of 3.5 mA during steady operation.

1. Standards

EN 61347-2-11:2014
 EN 61347-2-13 / A1:2017
 EN 61347-1:2015
 EN 300 328 V2.1.1
 EN 300 330
 EN 301 489-1 V2.1.1
 EN 301 489-3 V2.1.1
 EN 301 489-17 V3.1.1
 EN 55015:2019 + A1:2020
 EN 61547:2009
 EN 62479:2010
 EN 62493:2015
 EN 62311:2020
 EN 62386-101 Ed.2
 EN 62386-103 Ed.1
 EN 62386-301
 EN 62386-351

1.1 DALI note



Device is developed as Multi-Master Application Controller according to DALI Standard EN 62386-101 Ed.2, also known as DALI-2.
 Device should not be used in combination with other application controllers.

1.2 Glow wire test

according to EN 61347-2-11 passed for temperatures up to 850°C.

1.3 Note system test

All components of the sceneCOM S system must be DALI-2 certified and listed on the DIIA web-page.
 sceneCOM S system was tested with Tridonic DALI-2 components only.
 Check compatibility yourself before installing, if Tridonic DALI-2 components are not used.

2. Common

2.1 Feature description

sceneCOM S RTC supports the full range of Tridonic DALI 2/D4i input devices as well as 3rd party input devices in case they are listed in DiiA database.

Static and Dynamic Tunable White applications make it possible to create, edit and store multiple dynamic lighting profiles in sCS Commissioning APP. 1 Dynamic lighting profile (lighting scene) is able to control multiple groups with TW luminaires.

Easy extension and integration with basicDIM Wireless devices via basicDIM Wireless DALI gateway is possible. basicDIM Wireless luminaires, sensors and push buttons can be visible and commissioned via sCS commissioning APP.

Mobile commissioning APP (sCS commissioning) with the intuitive user interface is available for Android and iOS.

Mobile User APP offers extensive user control possibilities for lighting installations and individual luminaires.

The physical Real Time Clock (RTC) on board complies with the strict emergency lighting standards in terms of accuracy and has an own independent battery.^①

adaptiveSWARM module support is possible when sceneCOM S RTC works as an individual luminaire controller.

Support of IR6+ remote with the possibility to adjust color temperature and advanced IR grouping possibilities. The new IR6+ remote, in combination with sceneCOM S RTC, is able to pair with up to 4 MSensors G3 individually. sceneCOM S RTC is the first Tridonic control device with NFC on board and is prepared for further integration with companionSUITE towards fully automated commissioning in OEM production.

There are two packaging options available, including single package focused on installers needs and bulk packaging (30 pcs) for lighting OEMs.

Bulk packaging was optimized for NFC commissioning.

With the sCS Commissioning APP it is possible to commission luminaires using new luminaire commissioning profile and import the floor plan as a picture.

For the device, companionSUITE integration is planned.

Together with the new sceneCOM S RTC Tridonic offers unic commissioning in production and testing workflow for Lighting OEMs, this workflow allows OEMs to commission luminaires in production using companionSUITE and BT interface.

2.2 Mobile sceneCOM S Remote User App

The Mobile User APP is available for iOS and Android smart devices and offers extensive user control possibilities for lighting installations and individual luminaires.

Android:



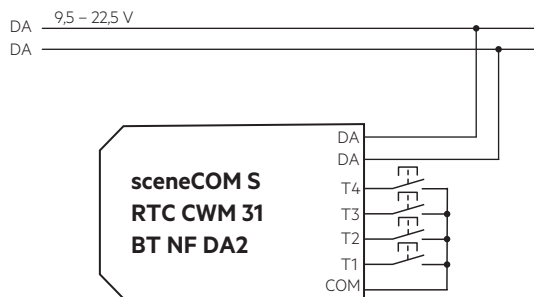
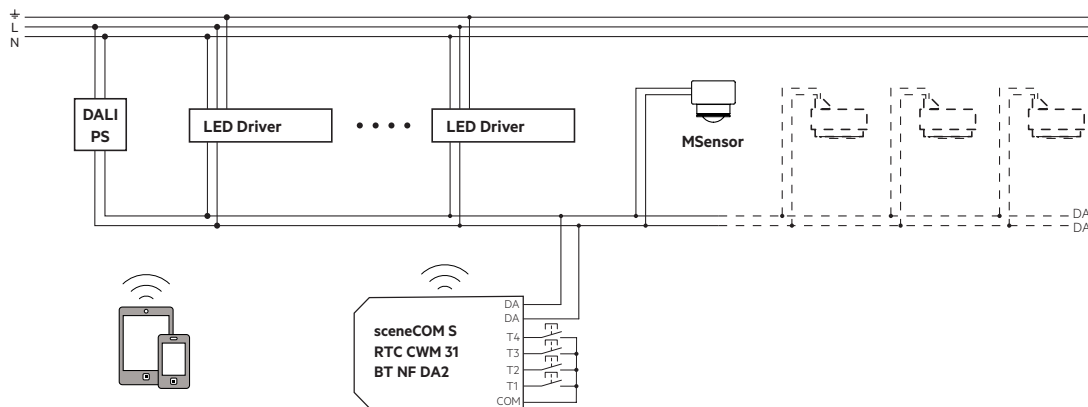
iOS:



3. Installation

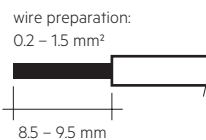
- Device can be inserted into the mounting box for the momentary switch.
- Device must not be connected to the mains. It is supplied directly via the DALI signal line.
- The momentary switches are connected directly to the device (potential free contacts) and must not be connected to the mains.
- DALI signals are not SELV. Therefore the same procedures should be applied as working with mains voltage.
- Only one momentary switch for each device output.
- Only one application controller in the same DALI network allowed.
- Maximum range of the signal is up to 20 m. Avoid mount the device behind glass, concrete surfaces or in metal enclosures. If mounted behind such materials the signal range will be reduced.

3.1 Connection diagrams



3.2 Wiring type and cross section

For wiring use stranded wire with ferrules or solid wire from 0.2 to 1.5 mm².
Maximum cable length between momentary switch and sceneCOM S is 50 cm.



3.3 Terminals

Orange = DALI D1 and D2
Grey = Push button inputs T1 – T4
Purple = Push button common

3.4 Mounting

Maximum range of the signal is up to 20 m.

Avoid mount the device behind glass or concrete surfaces and in metal enclosures.

If mounted behind such materials the signal range will be reduced.

3.5 Configuration

For commissioning and configuration the App „sCS commissioning“ (sceneCOM S) is provided by Tridonic. App can be installed on iOS and Android devices. Compatible with Android 11 / iOS 13 or later. Recommended to be used with devices with a screen size of 20 cm diagonal.

The device must support Bluetooth Low Energy version 5.1 or higher.

Android:



iOS:



3.6 Application Controller Features

The Application Controller is developed to be future safe. To achieve this the firmware can be updated via the commissioning app over the air.

Features like addressing, grouping, scenes are already implemented and can be used.

- Number of control gears = 64
- DT 1 Emergency Self-contained[®]
- DT 7 Switching relay
- TuWh, Device Type 8 (as specified in IEC-62386-209 Ed.1) fully supported
- Number of input devices in total = 16
- Max. 224 instances in total supported
- Number of groups = 16 according to DALI-2 Standard
- Number of scenes = 16 according to DALI-2 Standard

All Tridonic DALI-2 control devices e. g. MSensor G3 or DALI XC G3 are fully implemented and configurable.

As the application controller supports an easy way to update the firmware and develop new features an additional document with the extended release notes is available and can be downloaded from the Tridonic web page.

3.7 Nearfield communication (NFC)

The NFC Interface allows wireless communication with the device.

This interface offers the option to write and read configuration with the companionSUITE as soon it is integrated.

A correct communication between the device and the NFC antenna can only be guaranteed if the antenna is placed directly on the device.

Any material placed between the device and the NFC antenna can cause a deterioration of the communication quality.

After programming the device via NFC power up the device one time for one second till the deviceANALYSER can read out the parameters.

We recommend the use of following NFC antenna:

www.tridonic.com/nfc-readers

NFC is complied with ISO/IEC 15963 standard.

3.8 Description BP Version

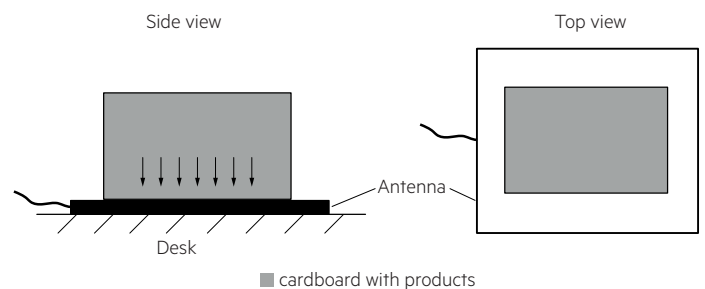
The Products sceneCOM S RTC CWM 31 BT NF DA2 (28004922) and sceneCOM S RTC CWM 31 BT NF DA2 BP (28004930) are technically the same.

The difference is in the packaging. The BP (Bulk Package) version is meant for Production lines where multiple Products can be programmed simultaneously via NFC in this package the Products are packed as Bulk and not in Single packaging. In the non-BP version, on the other hand, each product is also individually packaged.

3.8.1 Correct placement of the cardboard on the NFC antenna

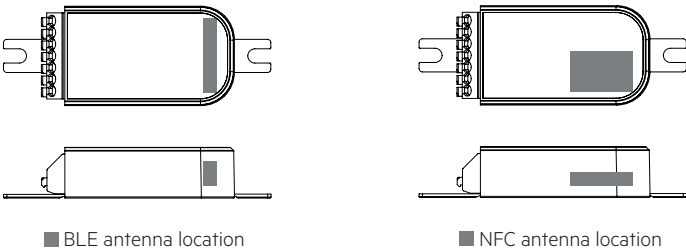
It must be ensured that the cardboard is placed in the center of the antenna and does not protrude beyond it.

The cardboard must be placed so that the arrows on the cardboard point in the direction of the antenna.



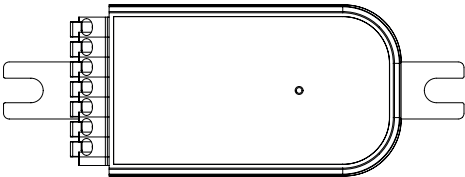
3.9 Placement

Device has an integrated antenna. Certain materials can reduce the range of the antenna. During assembly, the following should be observed.
The antenna is located at the corner of the case, at the bottom of the PCB, just above the bottom of the device. By placing the antenna at this point, the influence of other components on the antenna performance is minimized.
In addition, the device should be placed as far away as possible from metal structures.
Wires of the device should not lead past the antenna.



3.10 Status LED

Device is equipped with an multi color LED placed behind the label.
Depending on colour and flashing pattern different status information are provided.



Status LED	Indicates
Blue blinking	Bluetooth connection active
Red blinking	At least one input closed

3.11 RTC Clock parameters

Time drift	
Seconds / week	± 35
Minutes / Year	± 15

3.12 RTC backup time

The RTC keeps the time for up to 10 days if the sCS was powered for at least 24 h. Then the internal backup battery is fully charged. If your sCS is disconnected from the DALI power supply during that time frame, the RTC will still work. In case of prolonged disconnection, connect the sCS with your mobile device to re-establish time synchronization.
Depending on the environment, time can also get out of synchronization earlier.
During usage of the RTC feature it is recommended to always keep the sCS powered, or keep the duration where power supply is cut as short as possible.

4. Miscellaneous

4.1 Disposal of equipment



Return old devices in accordance with the WEEE directive to suitable recycling facilities.

4.2 Additional information

Additional technical information at www.tridonic.com → Technical Data
Guarantee conditions at www.tridonic.com → Services
Lifetime declarations are informative and represent no warranty claim.
No warranty if device was opened.

falcoSENSE

Visuell unterstützter Sensor

**Produktbeschreibung**

- _ Was ist falcoSENSE? falcoSENSE ist ein hochmoderner Sensor zur Anwesenheitsanalyse, der über WiFi oder basicDIM Wireless (bdW) nahtlos in Beleuchtungssysteme integriert werden kann.
- _ falcoSENSE kann als Einzelgerät installiert oder einfach in 230 V Lichtschienen integriert werden.
- _ Er nutzt die Computer-Vision-Verarbeitung, um präzise Echtzeitdaten über die Raumnutzung zu liefern und gleichzeitig den Datenschutz und die Sicherheitsstandards zu wahren.
- _ Was macht falcoSENSE? Echtzeit-Analytik: Überwacht Bereichsbelegung, Personenzählung, Linienüberquerung und Verweildauer.
- _ Multi-Applikationseinsatz: Ideal für Büros, Bibliotheken, Einzelhandelsflächen, Gastgewerbe und hybride Arbeitsbereiche.
- _ Datenschutz-Grundverordnung (DSGVO)-konformer Datenschutz: Verarbeitet Daten lokal mit unscharfen Übertragungen zur Inbetriebnahme und speichert niemals biometrische Daten.
- _ PSTI-Konformität: vollständig konform mit den neuesten PSTI-Vorschriften.
- _ Weshalb falcoSENSE wählen? falcoSENSE ermöglicht Unternehmen den Übergang zu intelligenten, datengesteuerten Arbeitswelten mittels datenschutzsicherer, skalierbarer und zukunftssicherer Lösungen.
- _ Flexible Anbindung: Unterstützt Wireless LAN und bdW für die Integration von Beleuchtungsnetzen.
- _ Benutzerfreundlichkeit: Schnelle Installation, Ferninbetriebnahme und intuitive Konfiguration der Bereiche für die Analyse.
- _ Mehrwert für Beleuchtungssysteme: Erweitert die bestehende Beleuchtungsinfrastruktur um zusätzliche Funktionen und steigert so die Wertschöpfung des Projekts.
- _ Kosteneffektiv und genau: Liefert sehr hohe Genauigkeit und eröffnet neue Möglichkeiten für das Raummanagement.
- _ Konfigurierbare Alarmer: Löst Aktionen auf der Grundlage von definierten Anwesenheitsschwellenwerten aus.
- _ 5 Jahre Garantie (Bedingungen siehe <https://www.tridonic.com/de/int/services/herstellergarantiebedingungen>)
- _ Wir stellen Sicherheitsupdates für die nächsten fünf Jahre nach dem Kaufdatum dieses Produkts zur Verfügung

Gehäuse-Eigenschaften

- _ Gehäuse: schwarz oder weiß
- _ Schutzart IP20

Vorteile

- _ Datengestützte Entscheidungsfindung: Gewinnen Sie verwertbare Erkenntnisse zur Optimierung von Reinigung, Personaleinsatz und Energieverbrauch.
- _ Nachrüstbares Design: Einfache Nachrüstung bestehender Beleuchtungsanlagen.
- _ Skalierbare Lösungen: Unterstützt mehrere Anwendungsfälle mit einem einzigen Sensor.
- _ Nachhaltigkeit: Ermöglicht ein intelligentes, energieeffizientes Gebäudemanagement.

Typische Anwendung

- _ Typische Anwendungen Büroräume: Flexible Schreibtischnutzung und Belegungsüberwachung.
- _ Einzelhandel: Kundenbindung und Ladenoptimierung.
- _ Bibliotheken: Kapazitätsüberwachung und Serviceverbesserung.
- _ Gastgewerbe: Genaue Schichtplanung und Einblicke in die Kundenströme.
- _ Anwesenheitserkennung auf Fußgängerüberwegen und Gehwegen.
- _ Veranstaltungsmanagement: Überwachung der Teilnehmerzahl und Analyse der Zuschauerinteraktion.

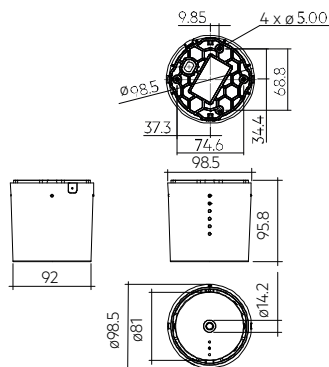
Website

<http://www.tridonic.com/28005817>



falcoSENSE

Visuell unterstützter Sensor

**Bestelldaten**

Typ	Artikelnummer	Farbe	Verpackung Karton	Gewicht pro Stk.
falcoSENSE SSM 40 CMOS 6 C IP WH	28005817	Weiß	10 Stk.	0,331 kg
falcoSENSE SSM 40 CMOS 6 C IP bDW WH	28005818	Weiß	10 Stk.	0,331 kg
falcoSENSE SSM 40 CMOS 6 C IP BK	28005930	Schwarz	10 Stk.	0,331 kg
falcoSENSE SSM 40 CMOS 6 C IP bDW BK	28005931	Schwarz	10 Stk.	0,331 kg

Technische Daten

Sensor Typ	Auf künstlicher Intelligenz basierendes Bildverarbeitungssystem
Netzspannungsbereich	220 – 240 V
Netzfrequenz	50 Hz
Typ. Leistungsaufnahme	4,5 W
Max. Leistungsaufnahme	7 W
Einschaltstrom	40 A
Startzeit	< 90 s
Montagehöhe	2,5 – 6 m
Installationsart	stationäre Geräte (ortsfest und dauerhaft angeschlossen)
Sichtfeld	bis zu 100 m²
Betriebsfrequenz Funk Transceiver	2,4 / 5 GHz
Max. Ausgangsleistung Funk Transceiver (E.I.R.P.) WiFi ①	< + 16 dBm
Max. Ausgangsleistung Funk Transceiver (E.I.R.P.) Bluetooth mesh ①	< + 4 dBm
Funkprotokoll	WiFi 802.11 a/b/g/n/ac, Bluetooth mesh
Umgebungstemperatur ta	-25 ... +50 °C
Lagertemperatur ts	-25 ... +60 °C
Luftfeuchtigkeit	0 ... 90 %
Abmessung Ø x H	Ø 98,5 x 95,8 mm
Schutzart	IP20
Gehäusematerial	PC + ABS
Gehäusematerial Linse	Glas
Gehäusefarbe	Schwarz, Weiß
Gehäusefarbe Linse	Glasklar
Garantie (Bedingungen siehe www.tridonic.com)	5 Jahr(e)

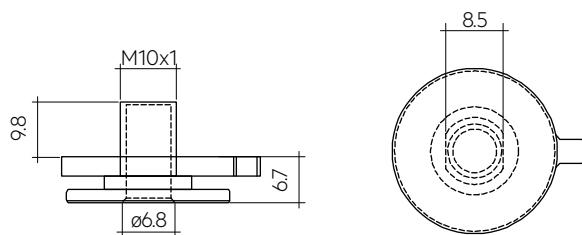
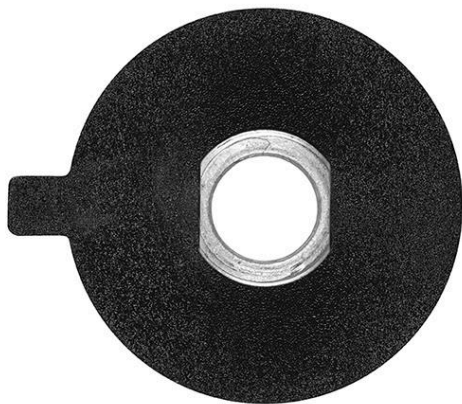
Prüfzeichen**Normen**

EN 300 328, EN 301 489-1, EN 301 489-17, EN 55032, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 60695-2-13, EN 62311, EN 62368-1

① E.I.R.P.: Equivalent Isotropically Radiated Power (Äquivalente Isotrope Strahlungsleistung).

ACU ALU NIPPLE M10x8

Zubehör

**Produktbeschreibung**

- _ Optionale Gewindehülse zur Leuchtenmontage
- _ Passend für M10x8 mm Gewindemutter
- _ Wir empfehlen, den Nippel und die Stromschiene auf mechanische Weise (mit Schrauben) zu befestigen. Bei Verwendung von Klebstoff besteht die Gefahr, dass sich die Materialeigenschaften verändern und die Kunststoffdichtung und der Nippel zerstört werden.

Website
<http://www.tridonic.com/28005589>
**Bestelldaten**

Typ	Artikelnummer	Gewicht pro Stk.
ACU ALU NIPPLE M10x8 BK	28005589	0,005 kg
ACU ALU NIPPLE M10x8 WH	28005590	0,005 kg
ACU ALU NIPPLE M10x8 GR	28005591	0,005 kg

1. Normen

EN 300 328
EN 301 489-1
EN 301 489-17
EN 55032
EN 55035
EN 61000-3-2
EN 61000-3-3
EN 60695-2-13
EN 62311
EN 62368-1

1.1 Glühdrahttest

nach EN 60695-2-13 mit 850 °C bestanden.

2. Allgemeines

Dieser Sensor wird an der Decke montiert und überwacht den darunter liegenden Raum.

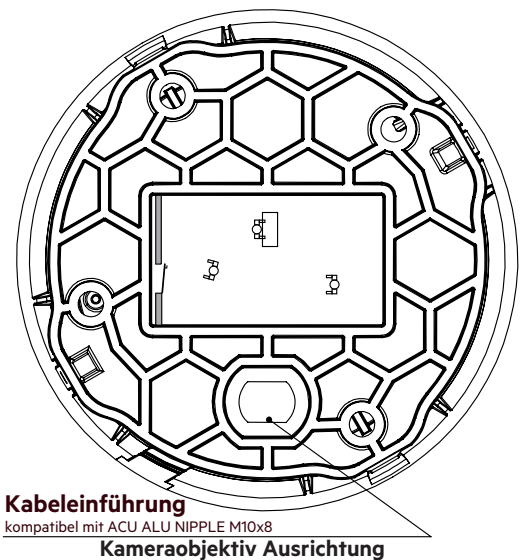
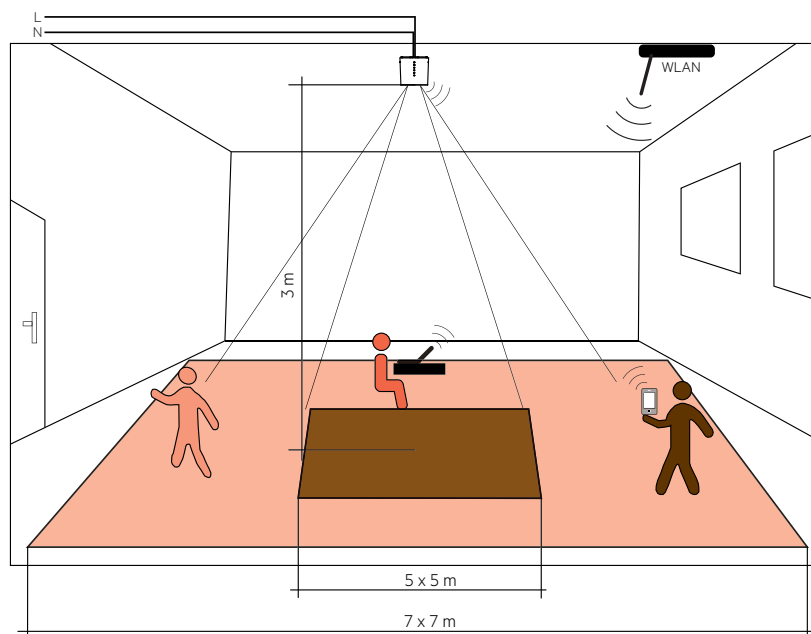
Der Sensor bietet eine Benutzeroberfläche für die Inbetriebnahme und unterstützt folgende Plattformen für die Metadaten-Integration:

Casambi
Azure IoT
MQTT rebroadcast

3. Installation

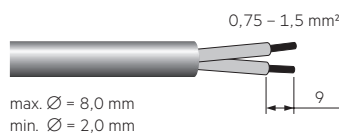
- Für den elektrischen Anschluss des Geräts muss die Versorgungsspannung in der elektrischen Anlage des Gebäudes abgeschaltet werden.
- Ein allpoliger Netzschalter muss in die Elektroinstallation des Gebäudes eingebaut werden.
- Wenn der Sensor in einer anderen als der angegebenen Höhe installiert wird, ist es sehr wahrscheinlich, dass er nicht wie vorgesehen funktioniert (z. B. falsche Erkennung, keine Erkennung usw.).
- Vergewissern Sie sich, dass der Sensor korrekt montiert.
- Die korrekte Erkennung kann durch Hindernisse beeinträchtigt werden, die die direkte Sichtlinie zwischen Kamera und Erfassungsbereich blockieren.
- Eine direkte Anstrahlung einer Lichtquelle auf den Sensor inklusive Gehäuse vermeiden.
- Für den ordnungsgemäßen Betrieb des Sensors muss sichergestellt sein, dass die Beleuchtungsstärke im gesamten Erfassungsbereich zu jeder Zeit mindestens bei 100 Lux liegt. Direkt unter dem Sensor auf der Bodenoberfläche gemessen.
- Weniger aber größere Erkennungsbereiche begünstigen eine bessere Erkennungsgenauigkeit.

3.1 Verdrahtung



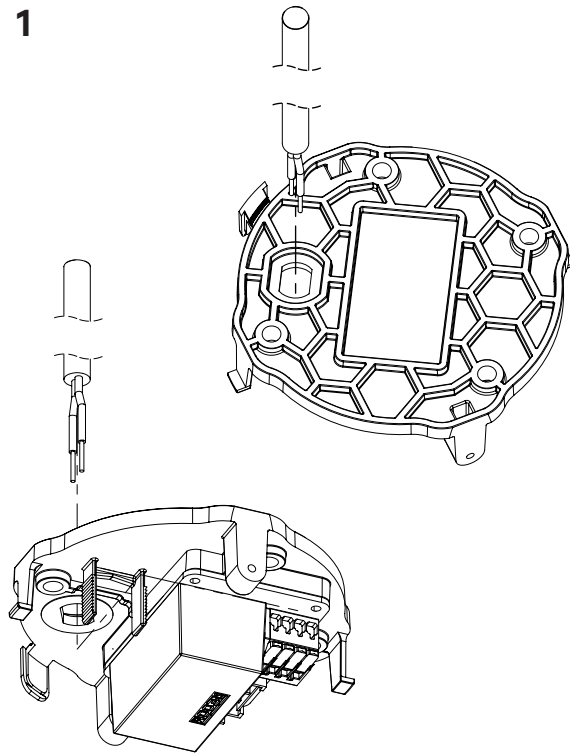
3.2 Leitungsart und Leitungsquerschnitt

Zur Verdrahtung Litzendraht mit Aderendhülsen oder Volldraht verwenden. Um eine gut funktionierende Zugentlastung zu erreichen, muss der Durchmesser des Kabelmantels innerhalb der genannten Maße bleiben.



3.3 Montageanleitung

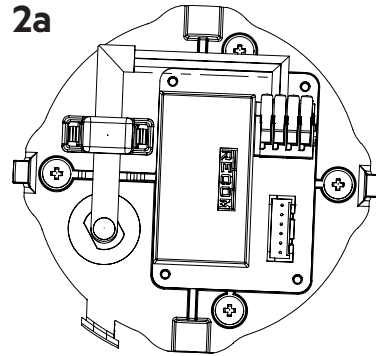
1



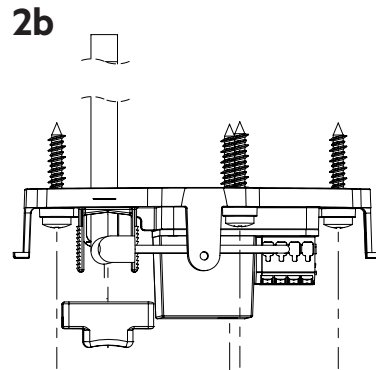
1

Kabel durch die Öffnung in der Grundplatte oder seitlich einführen.

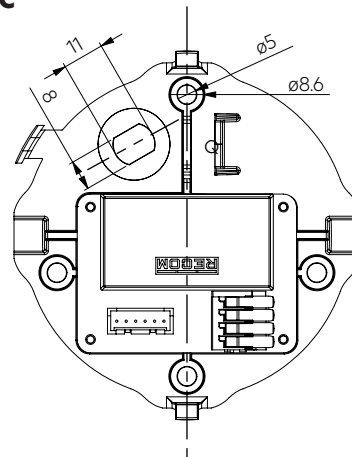
2a



2b



2c



2a

Kabel wie abgebildet einfädeln und Drähte in die L- und N-Klemmen stecken.

2b

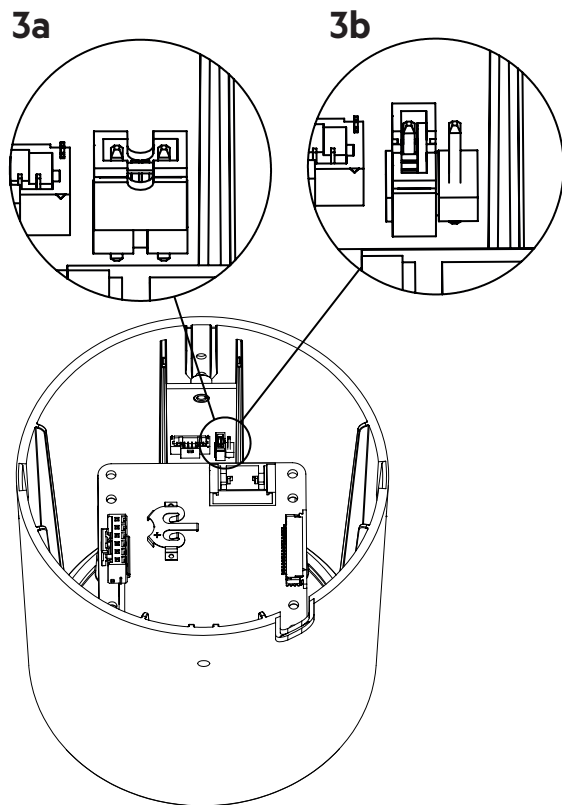
Zugentlastung durch kräftiges Zusammendrücken des Kabels montieren. Sicherstellen, dass sie fest einrastet.

2c

Montageschrauben und Dübel werden nicht mitgeliefert.

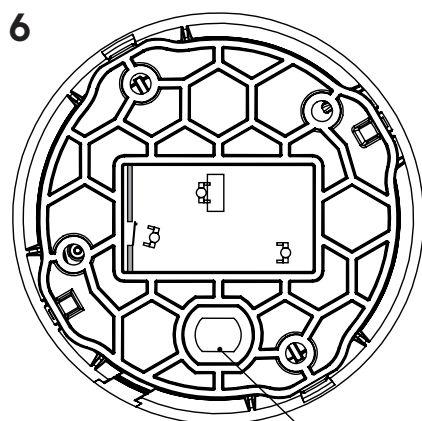
Schrauben und Dübel verwenden, die für das Untergrundmaterial geeignet sind, auf dem der Sensor montiert wird.

Flachkopfschrauben: max. Schraubendurchmesser 5 mm, max. Kopfdurchmesser 8,6 mm verwenden.



3

In Werkseinstellung 3a ist der Jumper gesetzt und die Status LEDs aktiviert. In Stellung 3b oder bei Entfernung des Jumpers sind die Status LEDs deaktiviert.



Kabeleinführung

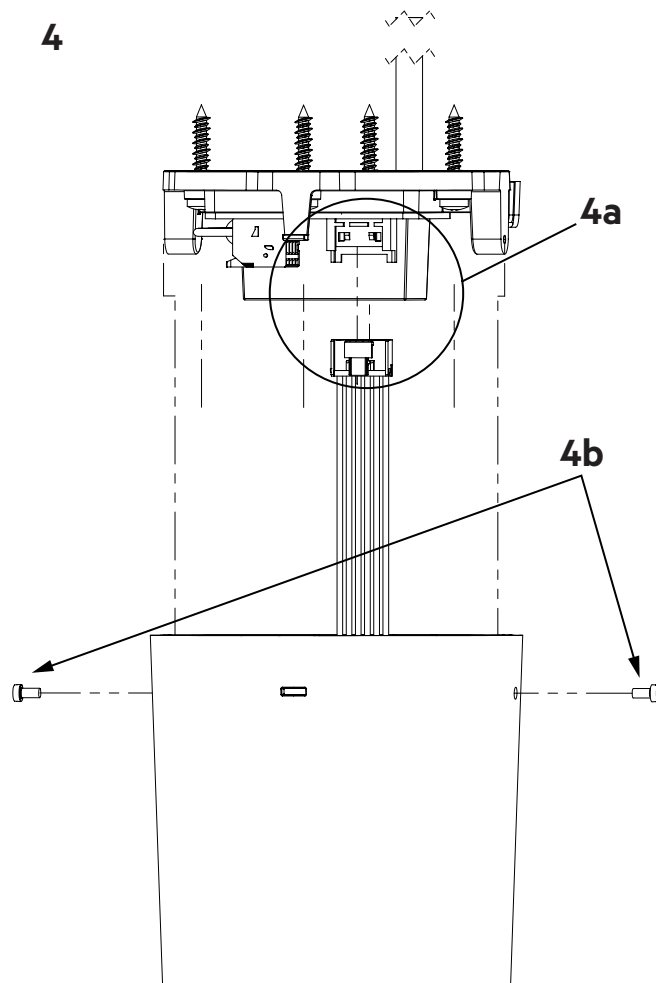
kompatibel mit ACU ALU NIPPLE M10x8

Kameraobjektiv Ausrichtung

6

Richtung des Kameraobjektivs und visualisiertes Bild in der Benutzeroberfläche.

4

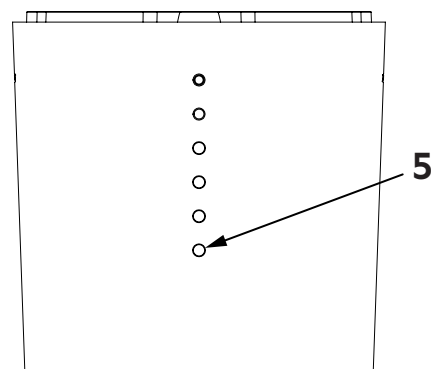


4a

Flachbandkabel des Sensors mit der montierten Grundplatte verbinden.

4b

Sensorgehäuse auf die Grundplatte stecken, bis es einrastet. Gehäuseteile mit den mitgelieferten Schrauben zusammenschrauben. Maximales Anzugsmoment: 0,2 Nm.



5

Neustart Taster 1s drücken, der Sensor startet neu.

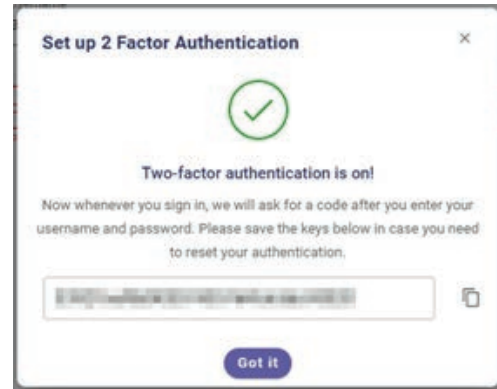
3.4 Ersteinrichtung

Bitte befolgen Sie die folgenden Schritte, um den Sensor einzurichten

1. Montieren Sie den Sensor an der Decke.
2. Stellen Sie sicher, dass die Netzspannung anliegt
3. Erstellen Sie einen drahtlosen Hotspot mit folgendem Login
SSID: tridonic
Kennwort: tridonic
4. Es wird empfohlen, dass dieses Netzwerk Zugang zum Internet hat, um die interne Uhr synchronisieren zu können. Eine genaue interne Uhr ist notwendig, um die 2-Faktor-Authentifizierung (2FA) einzurichten. Dazu ist es notwendig, dass das NTP-Protokoll nicht von der Firewall blockiert wird.
5. Der Sensor verbindet sich nun mit diesem Hotspot
6. Um die IP-Adresse des Sensors herauszufinden, gibt es verschiedene Möglichkeiten je nachdem, welches Gerät zur Erstellung des Hotspots verwendet wurde.
 - a. Hotspot von einem Router: Überprüfen Sie die Seite des Routers
 - b. Hotspot von einem Windows-Laptop aus:
Überprüfen Sie die verbundenen Geräte in den Einstellungen für den mobilen Hotspot
 - c. Android- oder iOS-Telefon:
Installieren Sie ein Programm zum Scannen der IP-Adresse
 - d. Verwenden Sie die IP-Adressen-Scan-Software auf dem Windows-PC
7. Verbinden Sie sich über einen Browser mit dem Sensor
Geben Sie in die Adresszeile die IP-Adresse ein: z.B.: „https://xxx.xxx.xxx.xxx“ xxx= die vom Hotspot oder Router vergebene IP-Adresse Ihres Sensors.
8. Bei der ersten Anmeldung müssen die folgenden Anmeldedaten verwendet werden
Benutzer: admin
PW: 123456
9. Das System fragt nach einer Passwortänderung. Bitte geben Sie ein neues Passwort ein.
 - a. Mindestens 12 Zeichen lang
 - b. Mindestens ein Großbuchstabe
 - c. Mindestens eine Ziffer
 - d. Mindestens ein Sonderzeichen (!,@,#,\$,%,^,&,*+,=)
10. Einrichten von 2FA mit gängigen 2FA-Apps auf Ihrem Telefon
 - a. Installieren Sie eine 2FA-App auf Ihrem Telefon und führen Sie sie aus (z. B.: Google Authenticator oder Microsoft Authenticator)
 - b. Scannen Sie den angezeigten QR-Code mit der Authenticator-App



- c. Geben Sie den in der App angezeigten Code in das Feld „Sicherheitscode“ ein und drücken Sie Bestätigen
- d. Kopieren Sie den angezeigten Reset-Schlüssel und speichern Sie ihn irgendwo ab! Dieser wird benötigt, falls die 2FA zurückgesetzt werden muss.



11. Melden Sie sich mit dem neuen Passwort und dem 2FA-Schlüssel an.
12. Das Dashboard wird angezeigt.
13. Navigieren Sie zur Registerkarte „Konfiguration“ und zum Abschnitt „Einstellungen“.
14. Klicken Sie in „Netzwerke“ auf „+ NETZWERK HINZUFÜGEN“.
15. Geben Sie die Netzwerk-SSID und das Passwort des gewünschten drahtlosen Netzwerks ein.
Wählen Sie die Netzwerkpriorität. Je niedriger die Zahl, desto höher die Priorität.
16. Nachdem Sie „Senden“ gewählt haben, trennt der Sensor sofort die Verbindung zum aktuellen Netzwerk und versucht, sich in das neue Netzwerk einzuloggen. Gelingt dies nicht, wird er sich erneut mit dem „Tridonic“-Netzwerk verbinden.
17. Verbinden Sie sich mit dem neuen Netzwerk und suchen Sie erneut nach der IP-Adresse.
Gehen Sie dabei genauso vor wie in Punkt 5 beschrieben.
18. Melden Sie sich am Sensor an, wie unter Punkt 11 beschrieben.

4. Sensorfunktion

Dieser Sensor bietet die folgenden Funktionalitäten:

Bereichskontrolle

Anwesenheit von Personen in einem vordefinierten Bereich, der in der Inbetriebnahmephase markiert wurde.

Linienüberquerung:

Zählung der ein- und ausgehenden Personen von einem bestimmten Ort aus.

4.1 Bereich Kontrolle

Kommissionieren Sie eine Reihe von getrennten oder sich überschneidenden Bereichen, in denen das Bereichsinspektionsmodul aktiviert werden kann.

4.2 Ein- und Ausgänge Personenzählung (Linienzählung)

Top-Down-Ansicht erforderlich.

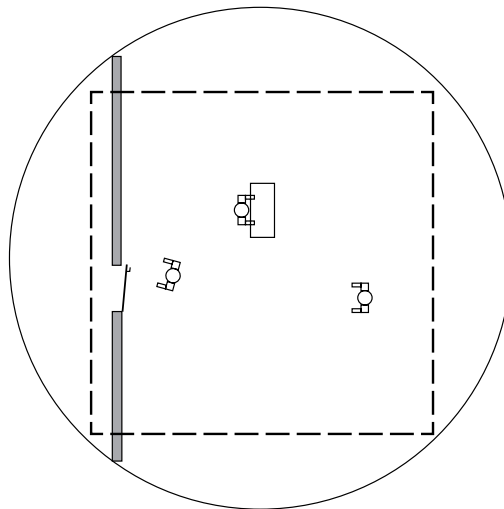
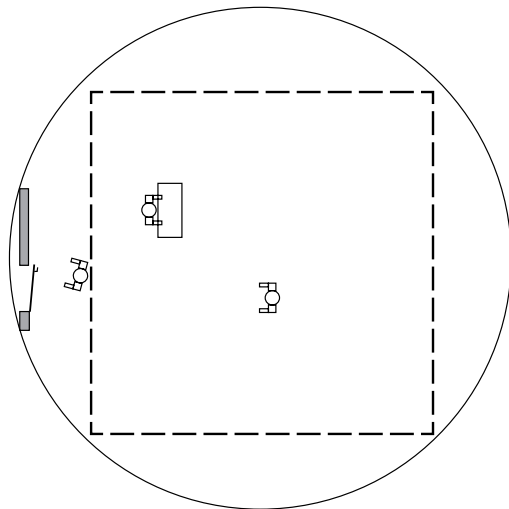
Das bedeutet, dass die Kamera über dem Punkt platziert werden sollte dem Punkt, an dem die Linie gezogen wird.

Der Einsatzbereich für die Personenzählung ist etwas kleiner als der der Bereichskontrolle, wie auch in der Erfassungsbereichstabelle dargestellt.

4.3 Installation position guide

4.3.1 Installation position guide Anwesenheit von Menschen

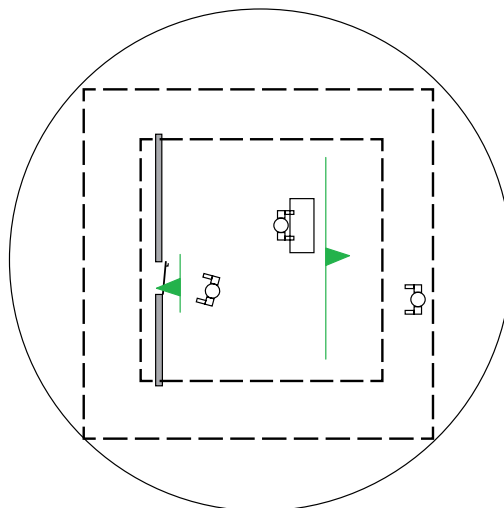
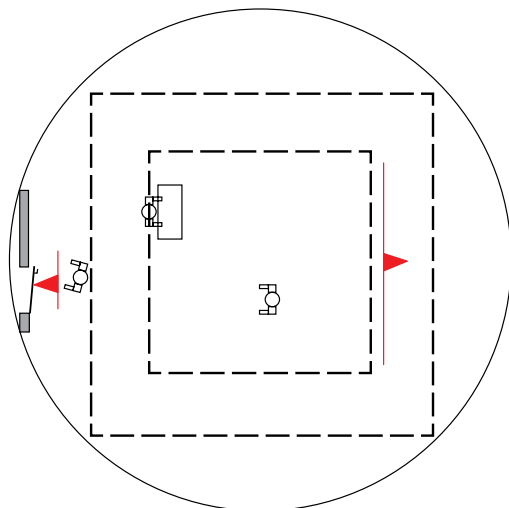
Um eine hohe Genauigkeit zu erzielen, nehmen Sie nur den Bereich innerhalb des gestrichelten Bereichs in Betrieb, dieser Bereich ist auch im Sensor UI zu sehen, wenn Sie Bereiche außerhalb des Bereiches in Betrieb nehmen, ist die Genauigkeit geringer. Der ideale Bereich für die Erkennung der Anwesenheit von Personen wird auch im Kapitel Erfassungsbereich erwähnt.



4.3.2 Installation position guide Linienzählung

Um eine hohe Genauigkeit zu erzielen, nehmen Sie nur den inneren strichlierten Bereich in Betrieb, dieser Bereich ist nicht im Sensor UI zu sehen, wenn Sie Linien außerhalb des Bereiches in Betrieb nehmen, ist die Genauigkeit geringer.

Der ideale Bereich für die Linienzählung wird auch im Kapitel Erfassungsbereich erwähnt.



4.4 Erfassungsbereich

Einbau Höhe	Anwesenheit von Menschen Breite x Höhe	Linienzählung Breite x Höhe
2.5 m	5 x 5 m	3 x 3 m
3.0 m	7 x 7 m	5 x 5 m
3.5 m	8.5 x 8.5 m	6.5 x 6.5 m
4.0 m	10 x 10 m	8 x 8 m
4.5 m	10 x 10 m	8 x 8 m
5.0 m	10 x 10 m	8 x 8 m
6.0 m	10 x 10 m	8 x 8 m

4.5 Status LEDs

Nach dem Einschalten des Geräts sollten die folgenden Anzeigen überprüft werden.

Rote LED:

- sollte dauerhaft leuchten

Grüne LED:

Wenn das Gerät nicht mit dem Internet verbunden ist

- blinkend, 5 Sekunden EIN – 5 Sekunden AUS

Wenn das Gerät mit dem Internet verbunden ist:

- blinkend, 2 Sekunden EIN – 2 Sekunden AUS

WiFi-Netzwerk hinzufügen/entfernen:

- blinkt alle 0,1 Sekunden für 30 Sekunden

5. Sonstiges

5.1 Geräteentsorgung



Alte Geräte gemäß der WEEE-Richtlinie bei geeigneten Rücknahme-einrichtungen abgeben.

5.2 Zusätzliche Informationen

Weitere technische Informationen auf www.tridonic.com → Technische Daten

Garantiebedingungen auf www.tridonic.com → Services

Lebensdauerangaben sind informativ und stellen keinen Garantieanspruch dar. Keine Garantie wenn das Gerät geöffnet wurde!