

## basicDIM Wireless SR

Casambi Ready wireless module

### Product description

- 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<sup>①</sup>
- 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 [www.tridonic.com](http://www.tridonic.com))



**Standards**, page 5



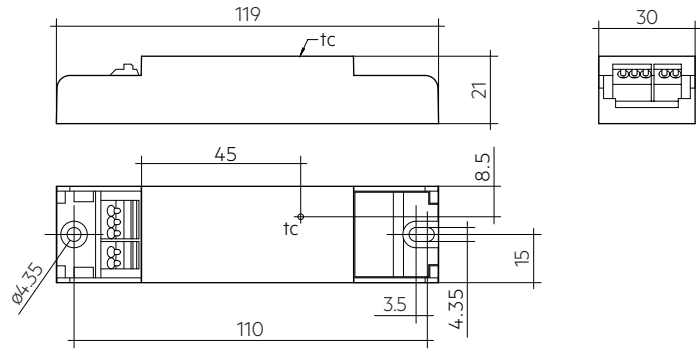


### basicDIM Wireless SR

Casambi Ready wireless module

#### Technical data

Rated supply voltage	220 – 240 V
Mains frequency	50 / 60 Hz
Max. mains current	18 mA
Typ. power input on stand-by	< 0.5 W
Input	1 push-button (mains operated)
Radio transceiver operating frequencies	2.4 – 2.483 GHz
Max. output power radio transceiver	+4 dBm
Output	DALI (compatible)
Number of DALI addresses <sup>①</sup>	4
Guaranteed output current, DALI <sup>②</sup>	50 mA
Max. output current, DALI	250 mA
Max. DALI wiring length	300 m at 1.5 mm <sup>2</sup>
Ambient temperature $t_a$	-20 ... +70 °C
Max. casing temperature $t_c$	80 °C
Storage temperature $t_s$	-25 ... +75 °C
Lifetime	up to 50,000 h
Guarantee (conditions at <a href="http://www.tridonic.com">www.tridonic.com</a> )	5 years
Dimensions LxWxH	119 x 30 x 21 mm
Type of protection	IP20
Protection class	I (II with strain relief)



#### Ordering data

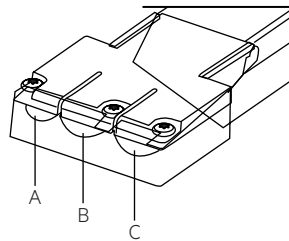
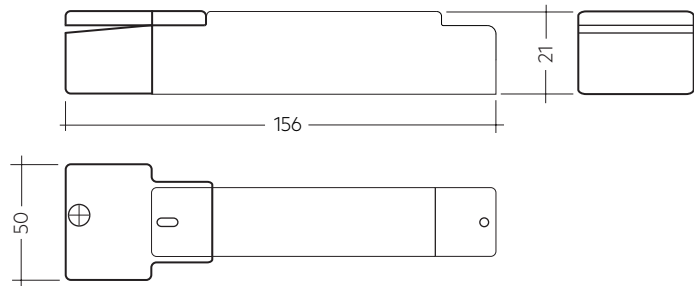
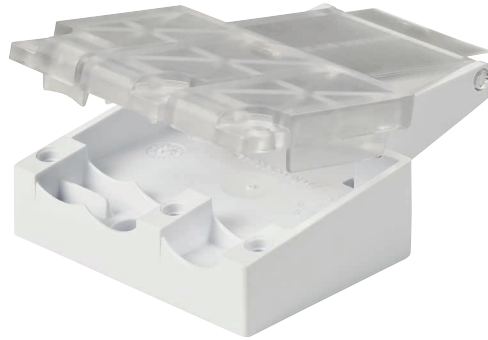
Type	Article number	Packaging, carton	Weight per pc.
basicDIM Wireless SR	28003542	10 pc(s).	0.036 kg

<sup>①</sup> Assignment of max. 4 single / group addresses, depending on the device profile.  
<sup>②</sup> Max. 25 loads.

## Strain-relief set

### Product description

- Strain relief for up to 3 cables suitable for cable with diameter from 2.5 up to 9 mm
- A: 2.5 – 5 mm diameter
- B: 5 – 9 mm diameter
- C: 5 – 9 mm diameter
- Optional strain-relief set for independent applications
- Transforms the unit into a full Class II compatible unit (e.g. for ceiling installation)
- 5 years guarantee



### Ordering data

Type	Article number	Packaging carton	Weight per pc.
Strain-relief set	28000881	10 pc(s).	0.05 kg

**Product description**

- Battery powered, wireless wall switch
- Forms automatically a wireless communication network with up to 250 nodes<sup>①</sup>
- Controls all types of basicDIM Wireless devices
- 4 scenes
- Dim up / down
- Colour temperature control
- 5 years guarantee



**Ordering data**

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

<sup>①</sup> Depends on production number, see data sheet basicDIM Wireless User Interface.

## 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 SR 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 device is designed to be used in a luminaire, but with the optional strain relief set it can be also safely used in e.g. ceiling installations.

The module can be connected to one or more DALI drivers also in combination with one DALI XC G3 or Tridonic DALI MSensor for easy integration of daylight control and motion detection. basicDIM Wireless SR can also be used as a DALI-Gateway to combine a wired DALI line with wireless luminaires, sensors and push-buttons.

DALI commands can be passed from the bluetooth network through the DALI-Gateway onto the physical DALI-Line and be processed by an DALI-2 application controller. Please note, that the basicDIM Wireless SR must not be connected to DALI lines that are already supplied by a DALI power supply.

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 SR 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. If a device is not compatible with Evolution networks, it can be only used in networks which support up to max. of 127 devices (Classic networks).

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 5.4 Placement for further instructions.

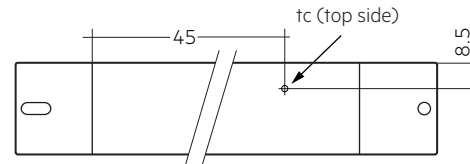
basicDIM Wireless devices can be used very flexible for different use cases. The operating modes (profiles) can be changed in the 4remote BT app.

## 3. Thermal details and lifetime

### 3.1 Expected lifetime

Expected lifetime		
Type	ta	70 °C
basicDIM Wireless	tc	76 °C
	Lifetime	50,000 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 SR has an integrated DALI power supply. A maximum of 25 drivers can be connected to this interface.

Before connecting the basicDIM Wireless SR 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 SR, so that it can be used in the already existing DALI bus.

### 4.2 Push-button input

An independent mains operated push-button can be connected to the input terminals of the basicDIM Wireless SR.

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.

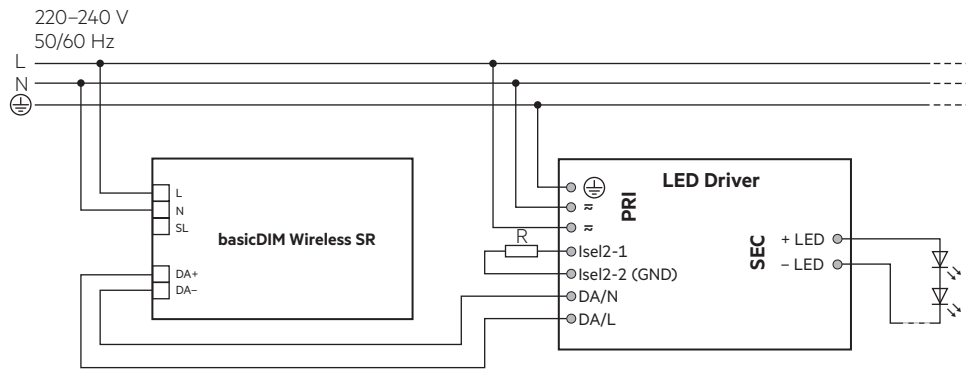
Please make sure that the correct profile has been uploaded to the basicDIM Wireless device, otherwise push-button presses cannot be recognized and also configuration of the inputs in the 4remote BT app is not available.



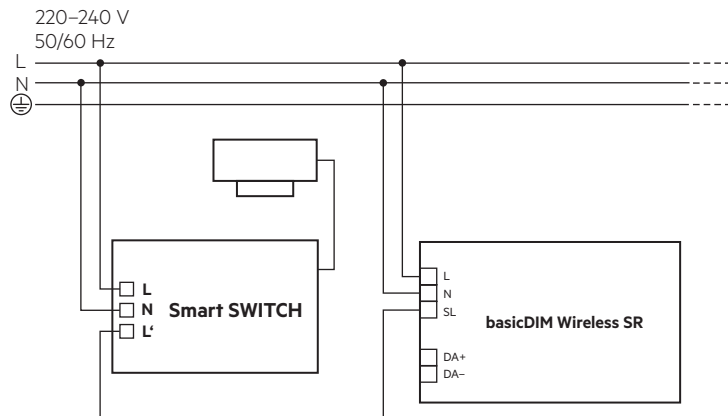
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## 5. Installation / wiring

### 5.1 Wiring diagram DALI (compatible mode)



### 5.2 Wiring diagram as sensor module for wireless switching

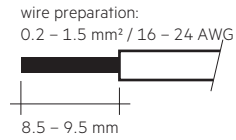


## 5.4 Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.2–1.5 mm<sup>2</sup> (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.



## 5.4 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. 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.



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

## 5.5 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

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Additional technical information at [www.tridonic.com](http://www.tridonic.com) → Technical Data

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