TRIDONIC

basicDIM Wireless SR

Casambi Ready wireless modules

With optional strain-relief (see accessory)

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
_ Can be either used build-in or independent with clip-on strain-relief (see accessory)
_ Optional strain-relief set for independent applications (see accessory)
_ Digital output: Standalone DALI (compatible)
_ One independent and mains operated 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/manufacturer-guarantee-conditions)
_ We will provide security updates for the next five years after the date of purchase of this product

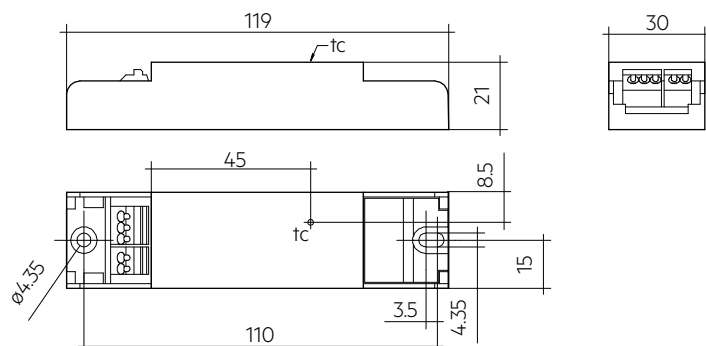① Assignment of max. 4 single / group addresses, depending on the device profile.

Website
http://www.tridonic.com/28003542

basicDIM Wireless SR

Casambi Ready wireless modules

Ordering data

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

Technical data

Rated supply voltage	220 – 240 V
Mains frequency	50 / 60 Hz
Max. mains current	18 mA
Typ. power consumption 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 (E.R.I.P.) [2]	< + 20 dBm
Output	DALI (compatible)
Number of DALI addresses [1]	4
Guaranteed output current, DALI [3]	50 mA
Max. output current, DALI	250 mA
Max. DALI wiring length	300 m at 1.5 mm²
Ambient temperature ta	-20 ... +70 °C
Max. casing temperature tc	80 °C
Storage temperature ts	-25 ... +75 °C
Lifetime	up to 50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)
Dimensions L x W x H	119 x 30 x 21 mm
Type of protection	IP20
Protection class	I (II with strain relief)

Approval marks

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] Assignment of max. 4 single / group addresses, depending on the device profile.
[2] E.I.R.P.: Equivalent Isotropically Radiated Power.
[3] Max. 25 loads.

Accessory

Strain-relief set

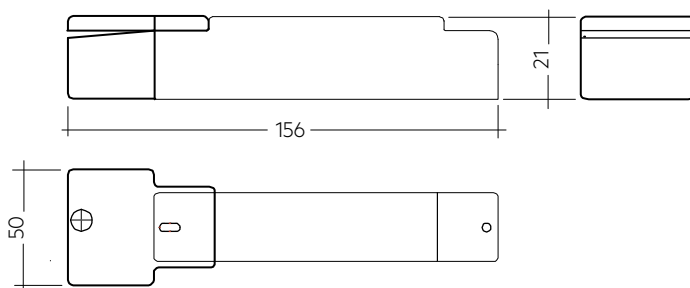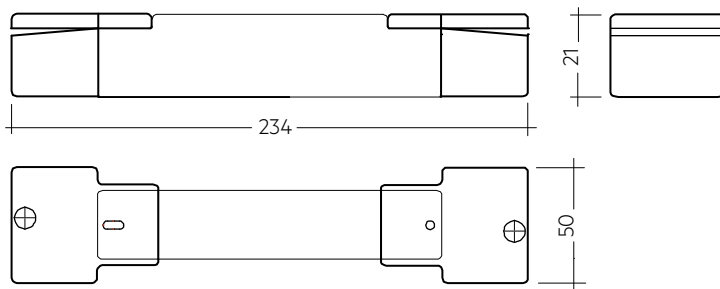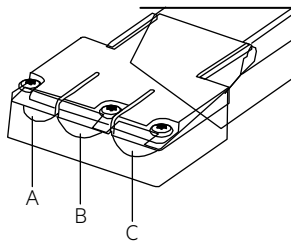### Product description

_ 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)
_ One set includes 2 pieces strain-reliefs
_ 5 years guarantee (conditions at https://www.tridonic.com/manufacturer-guarantee-conditions)

Website
http://www.tridonic.com/28000881

For basicDIM Wireless SR

A B C

Ordering data

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

Approval marks

RoHS

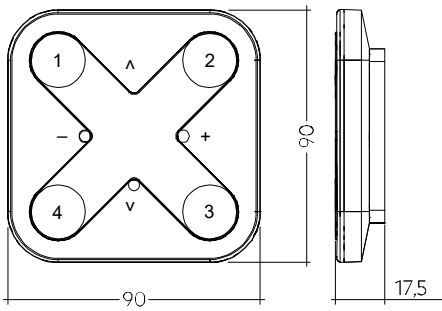## basicDIM Wireless User Interface

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/manufacturer-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 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.

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	75 °C	70 °C	60 °C
basicDIM Wireless	tc	80 °C	76 °C	66 °C
	Lifetime	35,000 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 %.
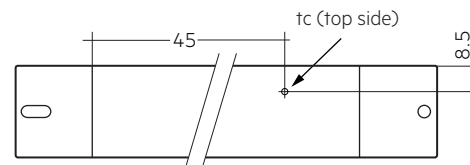
4. Interfaces / communication

4.1 DALI output

The basicDIM Wireless 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 (dependent on the used profile).

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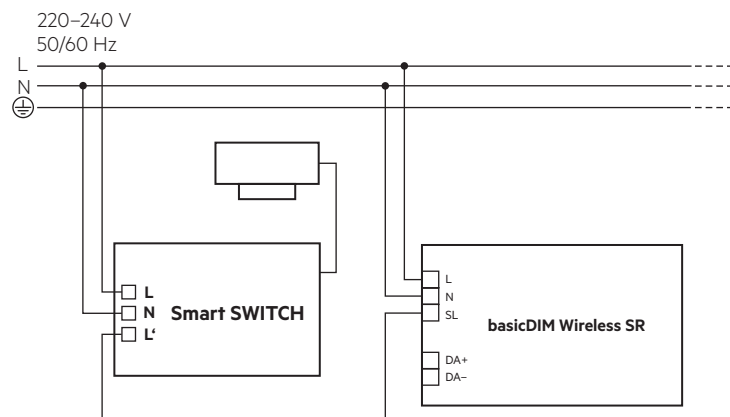
Please make sure that the correct profile has been uploaded to the basicDIM Wireless device, otherwise push-button presses cannot be recognized and also configuration of the inputs in the 4remote BT app is not available.

5. Installation / wiring

5.1 Wiring diagram DALI (compatible mode)
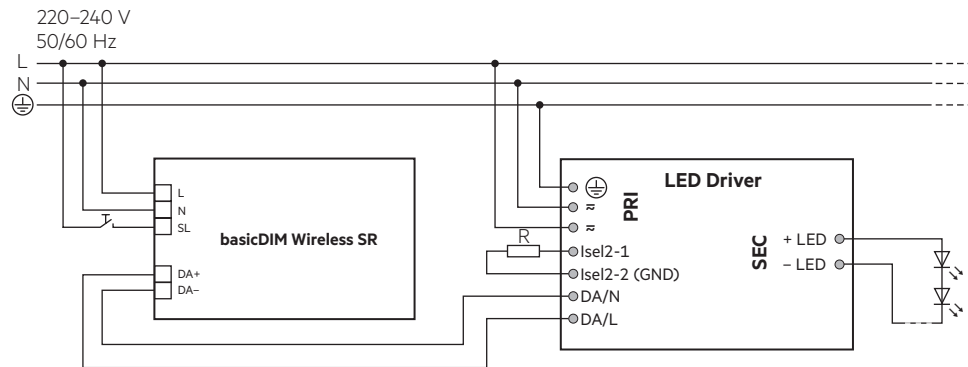
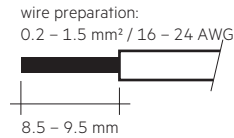### 5.2 Wiring diagram as sensor module for wireless switching

5.4 Wiring type and cross section

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.

wire preparation:
0.2 – 1.5 mm² / 16 – 24 AWG

8.5 – 9.5 mm

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 envi-
ronment 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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the Bluetooth SIG, Inc. and any use of such marks by Zumtobel Group AG is
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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.