## basicDIM Wireless passive MP

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
_ Digital output to control IEC 62386 compatible drivers
_ Supplied via IEC 62386 compatible power supply
_ Support for Tridonic PSensor and DALI MSensor
_ Device firmware can be updated over-the-air
_ Can be used as repeater to extend the coverage of the wireless signal
_ 350 mm long fixed connection cable
_ Lifetime up to 100,000 h at tc = 72 °C
_ 5 years guarantee (conditions at https://www.tridonic.com/en/int/services/manufacturer-guarantee-conditions)
_ We will provide security updates for the next five years after the date of purchase of this product

**Housing properties**

_ Casing: plastic, white
_ Type of protection IP20
_ Impact protection degree IK03

**Typical applications**

_ Indoor luminaire in-built
_ Outdoor luminaire installation for luminaires without Zhaga interface (e.g. decorative luminaires, bollard lights)
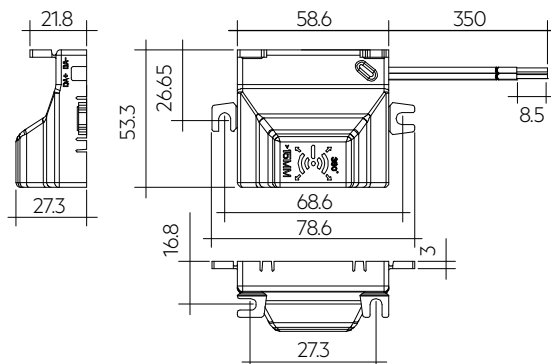_ Can be used as a DALI gateway

**Website**

http://www.tridonic.com/28005689

## basicDIM Wireless passive MP
Casambi Ready wireless modules



### Ordering data

| Type | Article number | Packaging, carton | Weight per pc. |
|---|---|---|---|
| **basicDIM Wireless passive MP** | **28005689** | 18 pc(s). | 0.03 kg |

### Technical data

| | |
|---|---|
| Supply voltage [1] | 9.5 – 22.5 V |
| Current draw | 13 mA (30 mA at start) |
| Typ. power consumption [2] | 0.16 W |
| Connection cable [3] | Yes |
| Radio transceiver operating frequencies | 2.4 – 2.483 GHz |
| Max. output power radio transceiver (E.I. R.P.) [4] | < + 20 dBm |
| Max. radio range [5] | 150 m |
| Radio protocol | Bluetooth 4.0 or 5.0 Low Energy (BLE) |
| Capable for mesh network | Up to 250 nodes / Standard networks and Long Range |
| Interface | Digital interface according to IEC 62386 |
| Ambient temperature ta | -40 … +70 °C |
| tc point | 72 °C |
| Storage temperature ts | -40 … +75 °C |
| Vent humidity range | 0 – 90 % |
| Dimensions L x W x H | 78.6 x 53.3 x 27.3 mm |
| Housing material body | PA polyamid |
| Type of protection | IP20 |
| Impact protection degree | IK03 |
| Lifetime | up to 100,000 h |
| Guarantee (conditions at www.tridonic.com) | 5 Year(s) |

### Approval marks

CE UKCA RoHS

### Standards

EN 55015, 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] Use only IEC 62386 compatible power supply.
[2] At 16 V supply voltage.
[3] 350 mm rigid cable with 0.5 mm².
[4] E.I.R.P.: Equivalent Isotropically Radiated Power.
[5] With line of side and mounting height > 4 m.

## 1. Standards

EN 55015
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 passive MP is a Casambi Ready Bluetooth device. 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 MSensor for simple integration of daylight control and motion detection is possible.

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 passive MP 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. Installation basicDIM Wireless passive MP.

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 passive MP** | | 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 %.
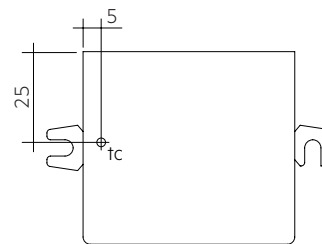


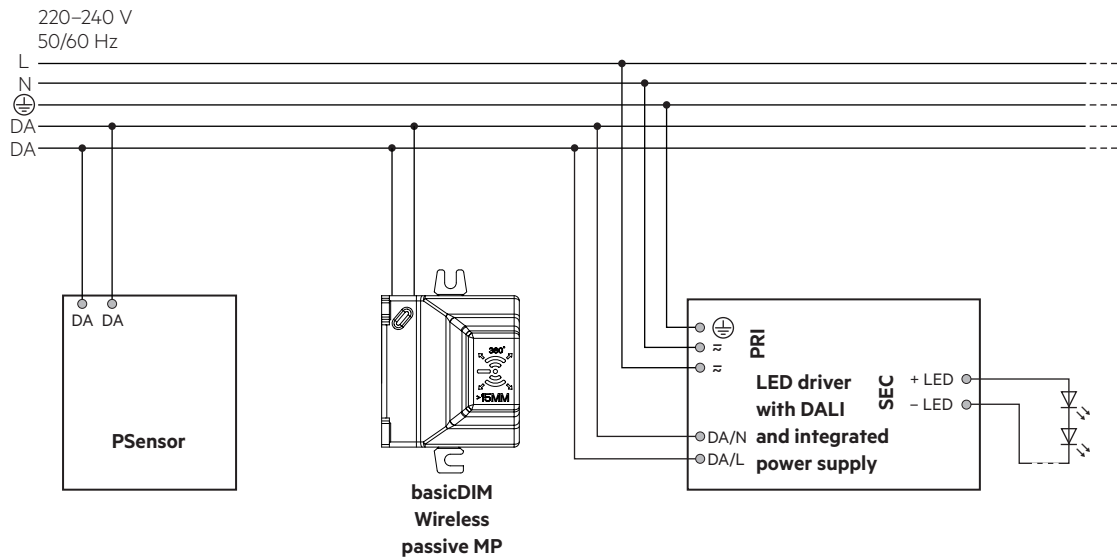## 4. Interfaces / communication

### 4.1 Digital output

The basicDIM Wireless passive MP module draws its operating power directly from the bus. Ensure the supply of the external bus with a IEC 62386 compatible power supply.
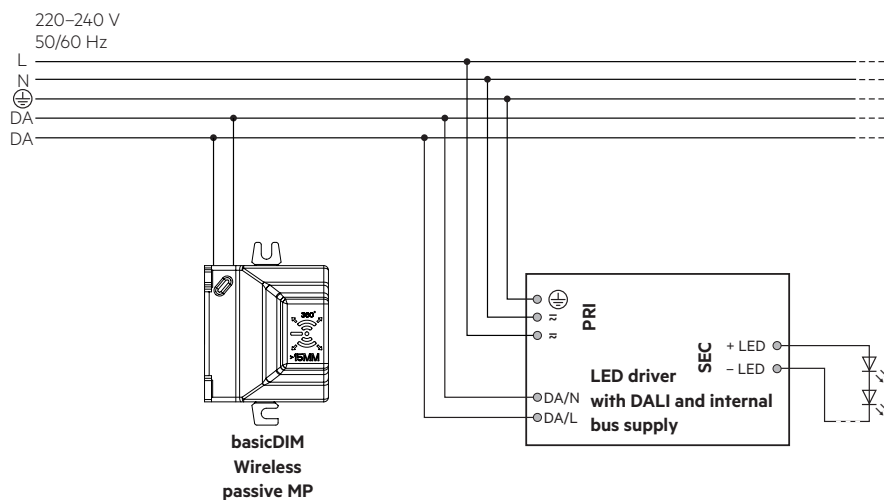
### 4.2 Status LED

Orange LED lights permanently during operation.
Green LED flashes when „Identify" is activated in the Tridonic app "4remote BT".
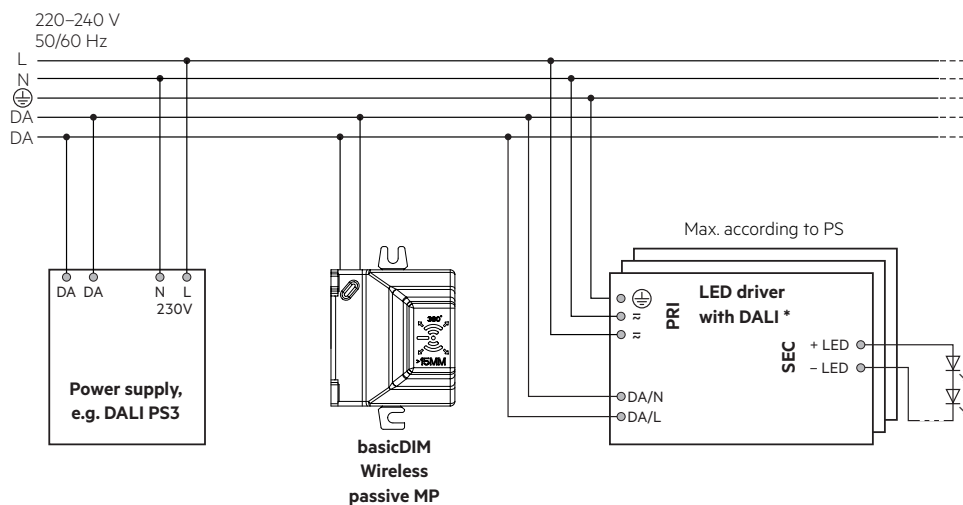
## 5. Installation / wiring

### 5.1 Wiring diagram with PSensor and internal bus supply

220–240 V
50/60 Hz

L
N
⏚
DA
DA

DA  DA

**PSensor**

**basicDIM
Wireless
passive MP**

⏚
≈
≈
**PRI**

**LED driver
with DALI
and integrated
power supply**

DA/N
DA/L

**SEC**

+ LED
− LED

### 5.2 Wiring diagram with an internal bus supply

220–240 V
50/60 Hz

L
N
⏚
DA
DA

**basicDIM
Wireless
passive MP**

⏚
≈
≈
**PRI**

**LED driver
with DALI and internal
bus supply**

DA/N
DA/L

**SEC**

+ LED
− LED

### 5.3 Wiring diagram with an external bus supply

220–240 V
50/60 Hz

L
N
⏚
DA
DA

DA  DA    N    L
         230V

**Power supply,
e.g. DALI PS3**

**basicDIM
Wireless
passive MP**

Max. according to PS

⏚
≈
≈
**PRI**

**LED driver
with DALI ***

DA/N
DA/L

**SEC**

+ LED
− LED

* 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.

**5.4 Wiring type and cross section**

Rigid cable: 2 x 0.5 mm²
Cable length: 350 mm
Stripping length: 8.5 mm ±1 mm

## 6. Installation basicDIM Wireless passive MP

⚠ 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 passive MP operation use the device only within the ta window.
- Ensure correct assembly and locking of the basicDIM Wireless passive MP.
- Other RF signals may cause disturbances to the basicDIM Wireless passive MP communication.
- Fastening straps can be easily removed.

**6.1 Mounting**
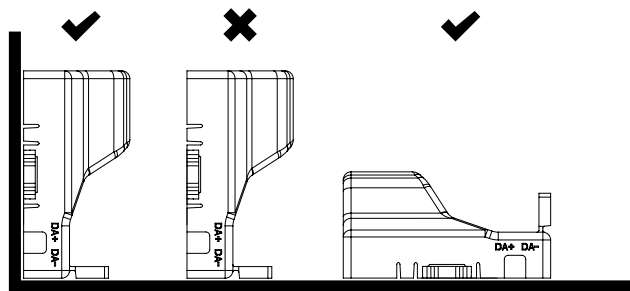


**6.2 Placement**

basicDIM Wireless passive MP devices have 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.
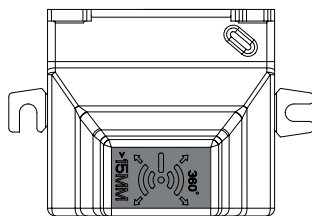


■ Antenna location

⚠ 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 module completely with metal!

**6.3 Installation note**

Max. torque at screw fixing: 0.4 Nm / M4.

## 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. +75 °C

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

**7.3 Additional information**

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.