

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 $t_c = 72^\circ\text{C}$
- _ 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

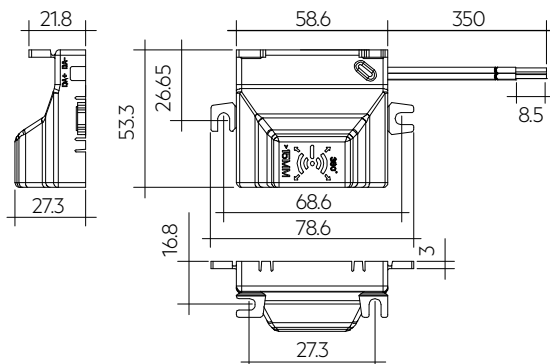
Website

<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



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.

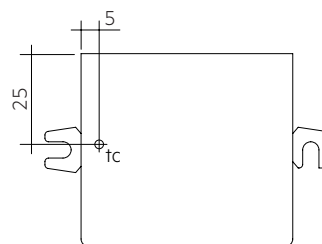
basicDIM Wireless devices can be used very flexible for different use cases. The operating modes (profiles) can be changed in the 4remote BT app.

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

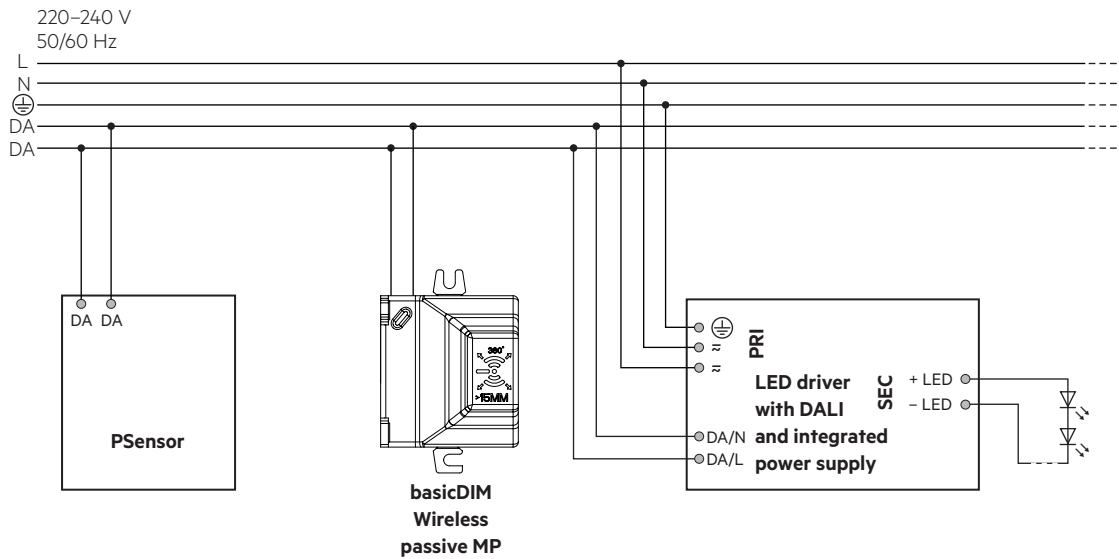
The basicDIM Wireless passive MP module draws its operating power directly from the bus. Ensure the supply of the external bus with a IEC 62386 compatible power supply.

4.2 Status LED

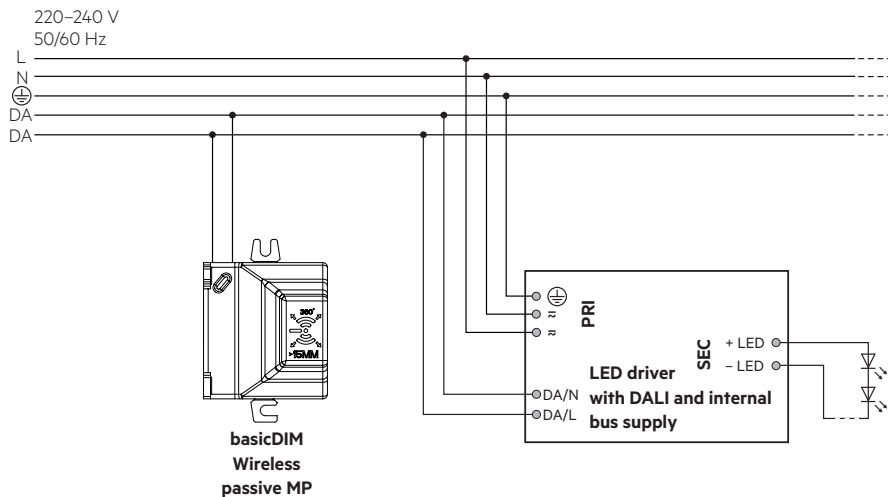
Orange LED lights permanently during operation. Green LED flashes when „Identify“ is activated in the Tridonic app "4remote BT".

5. Installation / wiring

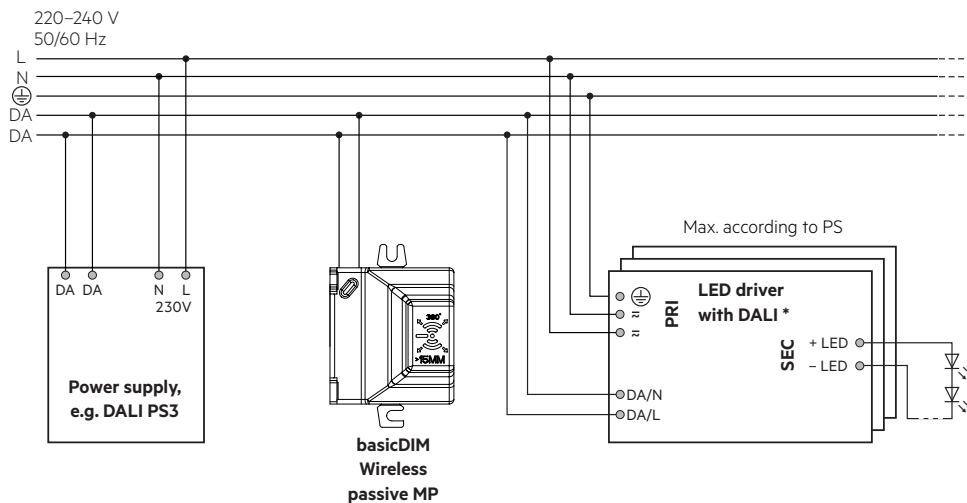
5.1 Wiring diagram with PSensor and internal bus supply



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.

5.4 Wiring type and cross section

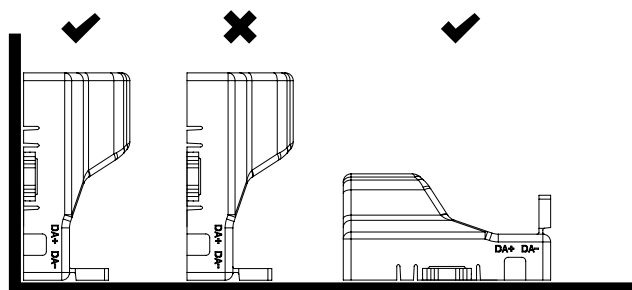
Rigid cable: 2 x 0.5 mm²
 Cable length: 350 mm
 Stripping length: 8.5 mm ±1 mm

6. Installation basicDIM Wireless passive MP



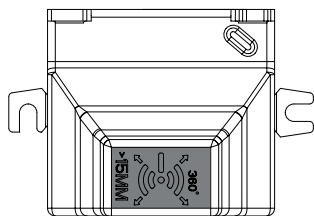
- It is supplied directly via the bus.
- The digital interface is not SELV.
The installation instructions for mains voltage therefore apply.
- For a correct basicDIM Wireless passive MP operation use the device only within the ta window.
- Ensure correct assembly and locking of the basicDIM Wireless 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.



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.