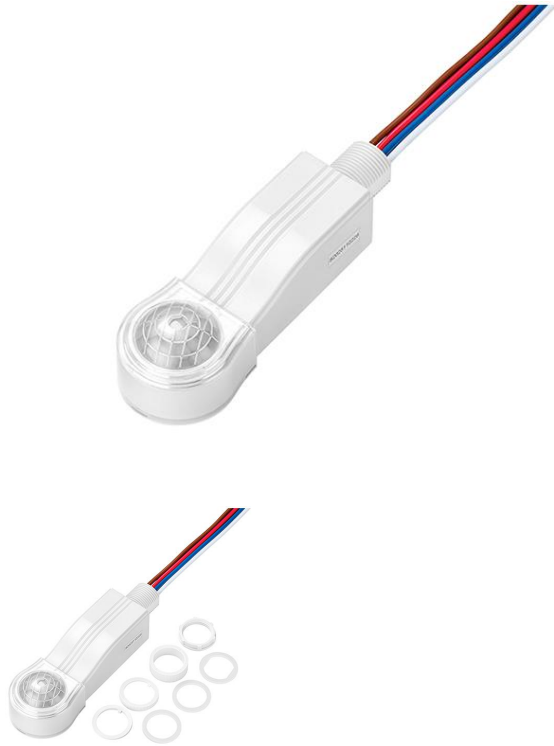


**battenSENSE SFI 20 PIR 12DPI WH**

DALI-2 multi-sensor



**Product description**

- \_ Sensor developed to work with the latest DALI-2 specification
- \_ Designed for mid-bay applications (installation height up to 12 m)
- \_ Wide detection angle and detection range
- \_ Integrated daylight sensor for ambient light measurement and daylight harvesting
- \_ Remote control interface for parameter adjustment via 28006400 - battenSENSE PROGRAMMER
- \_ Integrated DALI Power supply providing 30 mA
- \_ IP65 protection for robust installation
- \_ Suitable for mounting onto batten-style luminaires
- \_ 5 years guarantee (conditions at <https://www.tridonic.com/en/int/services/manufacturer-guarantee-conditions>)

**Housing properties**

- \_ Casing: polycarbonate, telegrey
- \_ Type of protection IP65

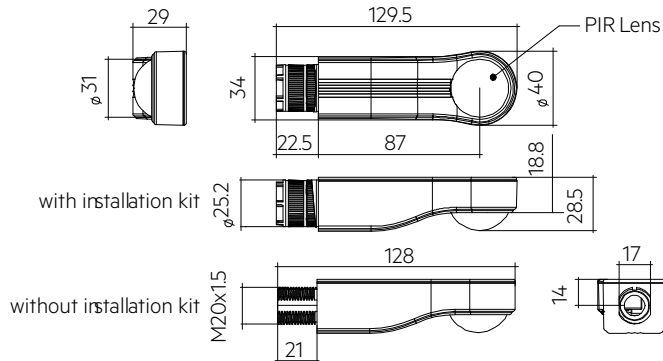
**Website**

<http://www.tridonic.com/28006399>



**battenSENSE SFI 20 PIR 12DPI WH**

DALI-2 multi-sensor



**Ordering data**

Type	Article number	Suitable for	Colour	Dimensions L x W x H	Packaging, carton	Weight per pc.
battenSENSE SFI 20 PIR 12DPI WH	28006399	Luminaire installation	Telegrey	129.5 x 40 x 29 mm	7 pc(s).	0.095 kg

**Technical data**

Sensor type	PIR sensor
Supply voltage	220 – 240 V
Mains frequency	50 / 60 Hz
Typ. power consumption on stand-by	< 0.5 W
Max. level voltage DC, DALI	22.5 V
Min. level voltage DC, DALI	14 V
Typ. level voltage DC, DALI	15 V
Guaranteed output current, DALI	30 mA
Max. output current, DALI	125 mA
Starting time <sup>①</sup>	≤ 30 s
Mounting height	3 – 12 m
Mounting hole diameter	20 mm
Housing thickness of the luminaire	0.75 – 2.2 mm
Detection range for light measurement <sup>②</sup>	1 – 1,000 lx
Light measurement resolution	10 lx
Min. temperature difference between ambient temperature and detected object	± 4 °C
Ambient temperature ta	-20 ... +50 °C
Humidity	20 ... 90 % not condensed
tc point	60 °C
Storage temperature ts	-25 ... +60 °C
Housing material body	PC polycarbonate
Housing material lens	HDPE
Housing colour body	telegrey (similar to RAL 7047)
Housing colour lens	Milky white to slightly translucent
Type of protection	IP65
Lifetime	up to 50,000 h
Guarantee (conditions at www.tridonic.com)	5 Year(s)

**Approval marks**



**Standards**

EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3, EN 61347-1, EN 61347-2-11, EN 62386-101, EN 62386-103

<sup>①</sup> Starting time is the time until the PIR element of the sensor is ready and delivers correct values.

<sup>②</sup> The measured value by the sensor is typically 2-4 times less than the lux value measured on the surface below the Sensor.

**battenSENSE PROGRAMMER**

Accessory

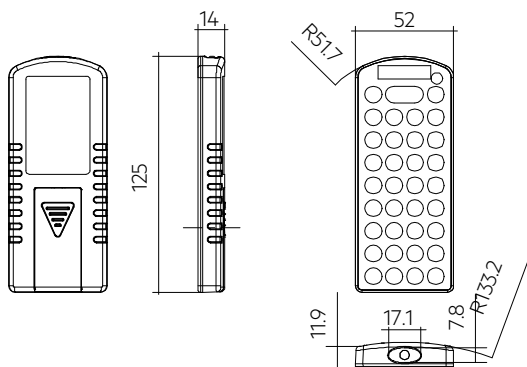


**Product description**

- \_ Optional infrared programming unit for 28006399 - battenSENSE SFI 20 PIR 12DPI WH
- \_ Setting of predefined discrete parameter values
- \_ Programmable functions such as light level, time delay, P.I.R., bright-out, power-up
- \_ Requires 2 AAA 1.5 V batteries (not included)

**Website**

<http://www.tridonic.com/28006400>



**Ordering data**

Type	Article number	Packaging, carton	Weight per pc.
battenSENSE PROGRAMMER	28006400	14 pc(s).	0.05 kg

### 1. Standards

EN 55015  
EN 61547  
EN 61000-3-2  
EN 61000 3-3  
EN 61347-1  
EN 61347-2-11  
EN 62386-101  
EN 62386-103

#### 1.1 DALI note



Device is developed as Single master application controller and is only applicable for DALI-2 installations according to EN 62386-101.

#### 1.2 Glow wire test

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

### 2. Common

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

Device is created for following main applications:

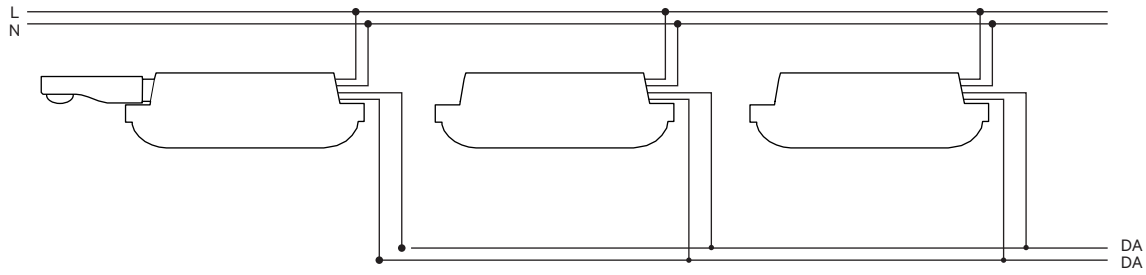
Mid height buildings such as

- Office applications
- Factory buildings
- Storage buildings and warehouses
- Corridors, passages and Garages

### 3. Installation

- DALI is not SELV.  
The installation instructions for mains voltage therefore apply.
- 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 overlap.  
This may have influence to the lighting control.
- When installed at a height other than the recommended installation height, the sensor might show different characteristics.
- Heaters, fans, printers and copiers located in the detection zone may cause incorrect occupancy detection.
- Avoid direct illumination of the light source on the sensor including housing.
- Do not use aggressive detergents to clean the e.g. sensor lens. Always make sure that the used detergent does not harm the sensor materials.
- Connect the wires correctly according to the color coding – incorrect wiring may cause damage.

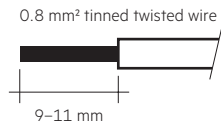
3.1 Wiring



3.2 Wiring type and cross section

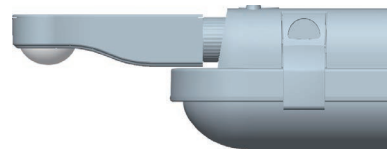
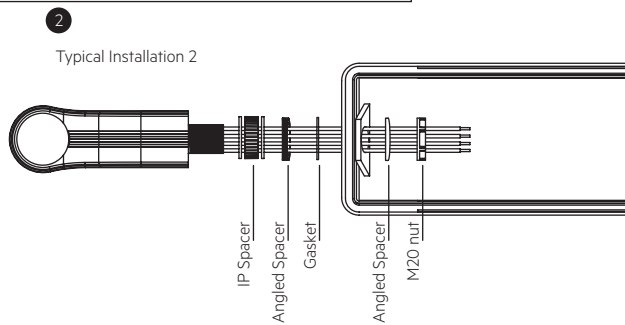
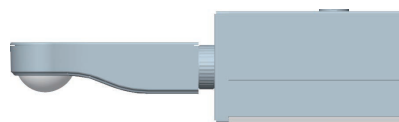
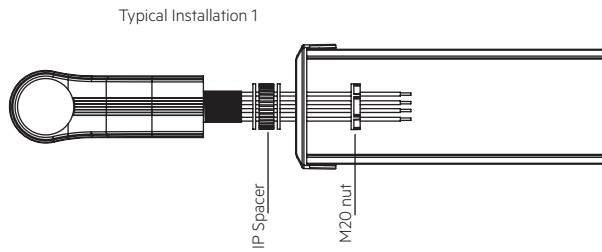
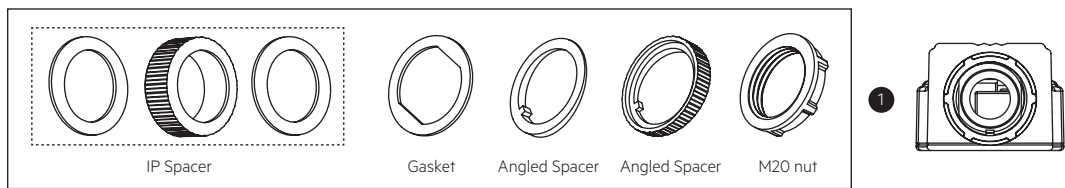
Wires:

Wire length 600 +-10mm  
 Diameter 0,158mm  
 Area 0,8mm<sup>2</sup> / AWG 18  
 Tinned twisted wire 10+-1mm



Wire	Colour
L	brown
N	blue
DA+	red
DA-	white

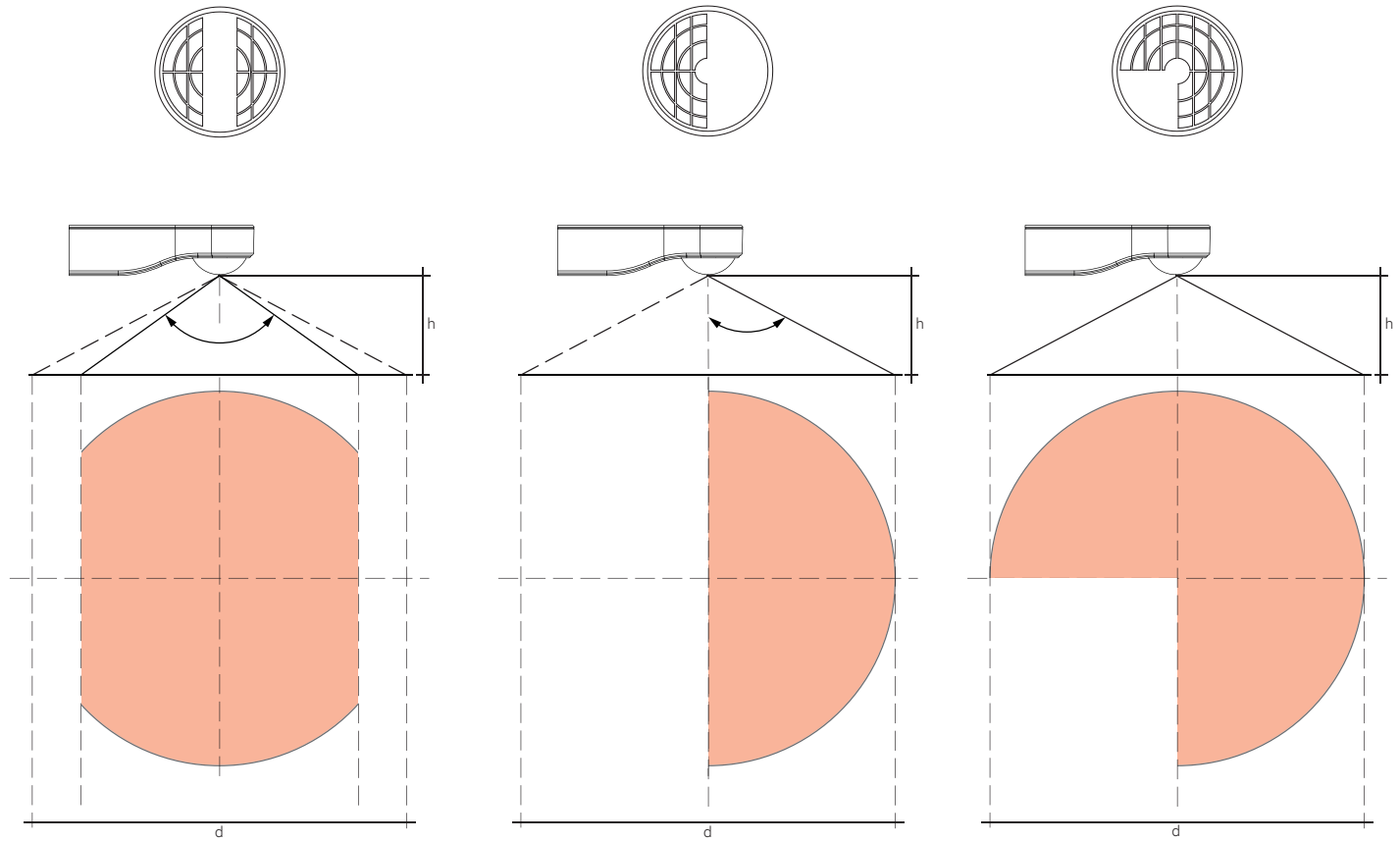
3.3 Mounting:



### 3.4 Detection area covers

Each product comes with a rotating shutter. The shutter consists of several segments that can be broken off. Here are a few examples.

Area which is masked by the shutter:



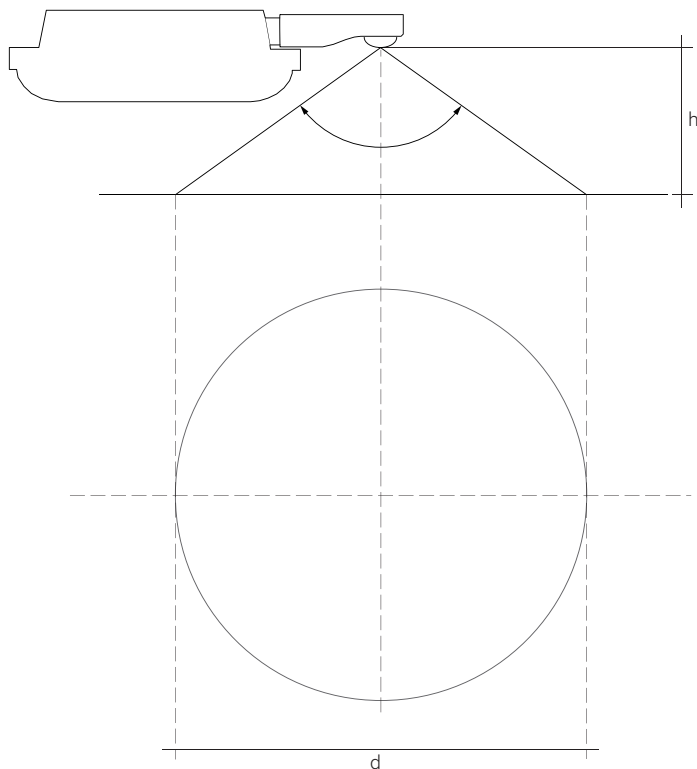
**4. Sensor function**

**4.1 Motion detection**

For occupancy detection PIR technology is used. The PIR Lens is made to detect moving people in areas such as office, open space or corridors with the following performance criteria:

- Mounting height from 3 up to 12 m
- Movement of human body

**4.2 Detection area**



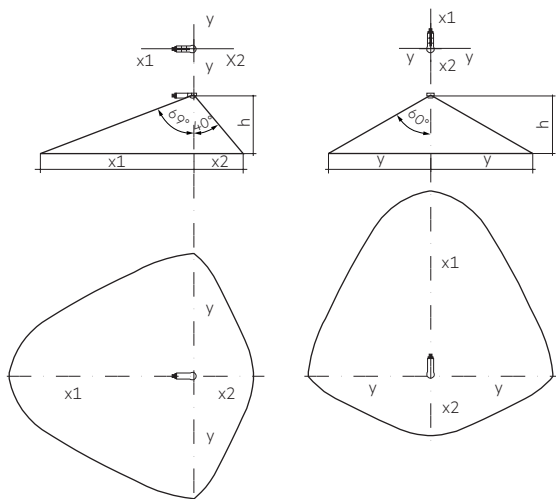
Reaction time of the sensor (time between occupancy detected and event information sent to DALI Bus) is  $\leq 25$  ms.

The reaction time of the system can be extended by factors such as the amount of data on the bus, the number of connected devices or the voltage drop on the DALI Line.

The point at which the light responds must therefore not be equated with the outer detection range.

h = height	d = Detection range (diameter)
3.0 m	6.0 m
4.0 m	8.0 m
5.0 m	10.0 m
6.0 m	6.0 m
7.0 m	6.5 m
8.0 m	7.5 m
9.0 m	8.5 m
10.0 m	9.5 m
11.0 m	10.0 m
12.0 m	11.0 m

4.3 Light measurement



h [m]	x1 [m]	x2 [m]	y [m]
3	7.9	2.5	5.2
5	13.1	4.2	8.7
8	20.1	6.7	13.9
12	31.5	10.1	20.8

4.4 Status LED's

There is a LED built in to indicate different status information to the user.

Event	Blinking sequence	LED Color
Turning on the power supply	on 20 seconds	Red
IR-Signal received	4x blinking (150 ms on / 150 ms off) on every received IR-command.	Red

## 5. Configuration

Configuration must be done with the battenSENSE PROGRAMMER  
28006400

## 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](http://www.tridonic.com) → Technical Data

Guarantee conditions at [www.tridonic.com](http://www.tridonic.com) → Services

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