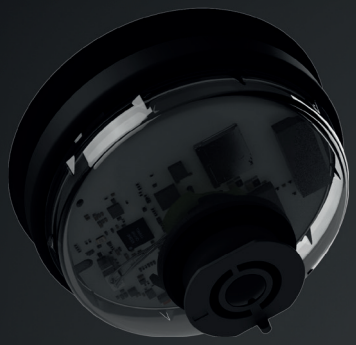
# SLC-Motion203-C



## Description

Like its predecessor, it continues to combine the esave SLC hub and esave PIR5 Zhaga sensor. It combines the intelligent street light control with the “light on demand” solution in one product. The integrated PIR motion detector detects movements from the infrared rays. If an object moves in the detection area of the street light controller, the sensor reacts directly.

The Communication is ensured via an automatic, organizing 2.4 GHz mesh network. The integrated eSIM enables individual luminaires to connect directly to the web platform without a gateway.

## Benefits

- Display of the current luminaire status data
- Evaluation of traffic volume
- Display of energy consumption
- Operational cost savings through real-time monitoring and real-time maintenance
- Remote monitoring of individual controllers without gateway

## Features

**Mesh Network**
The Communication is ensured via an automatic, organizing 2.4 GHz mesh network. Each street light communicates with all luminaires which can be reached.

**Remote Management**
The Light Management Platform provides real-time and historical data of the entire lighting network. It allows the remote management and control of all connected lighting points using the cloud.

**On-Site Management**
The intuitive, easy-to-use configuration tool allows the on-site configuration of all parameters (i.e. dimming level etc.) for either a individual or a group of luminaires

**Brightness Sensor**
Due to the integrated brightness sensor, the light can be switched on or off depending on the set brightness value. Each SLC-Hub is equipped with a brightness sensor.

**Tilt Sensor**
Due to the integrated inclination sensor, movements of the X-, Y- and Z-axis can be perceived. If a road user collides with a pole, a message can be generated that the inclination is no longer the same.

**Temperature Sensor**
Due to the integrated temperature sensor, the controller can be actively monitored. By regularly checking the information about the luminaire status, proactive maintenance and failures can be detected prematurely.

**AstroDim**
AstroDim provides the accurate sunrise and sunset timing of the very location as a basis for the definition of the light control profiles.

**Automatic Positioning**
Provision of precise geolocation data with the built-in GNSS receiver for the automatic location and commissioning of every street light.

**Built-In GNSS**
The GNSS receiver provides precise, geo-located date/time data, enabling the accurate and automatic control of the lighting behavior.

**Cellular Connection**
Each street light can be direct controlled over a web-interface and by using the cloud network. The following worldwide protocols are supported: LTE Cat M1, NB-IoT NB2, EGPRS.

**Motion Sensor**
Through the use of motion sensors, the lighting becomes dynamic. Once the sensors register analogue movement in the illumination area, light intensity is automatically increased to a higher level.

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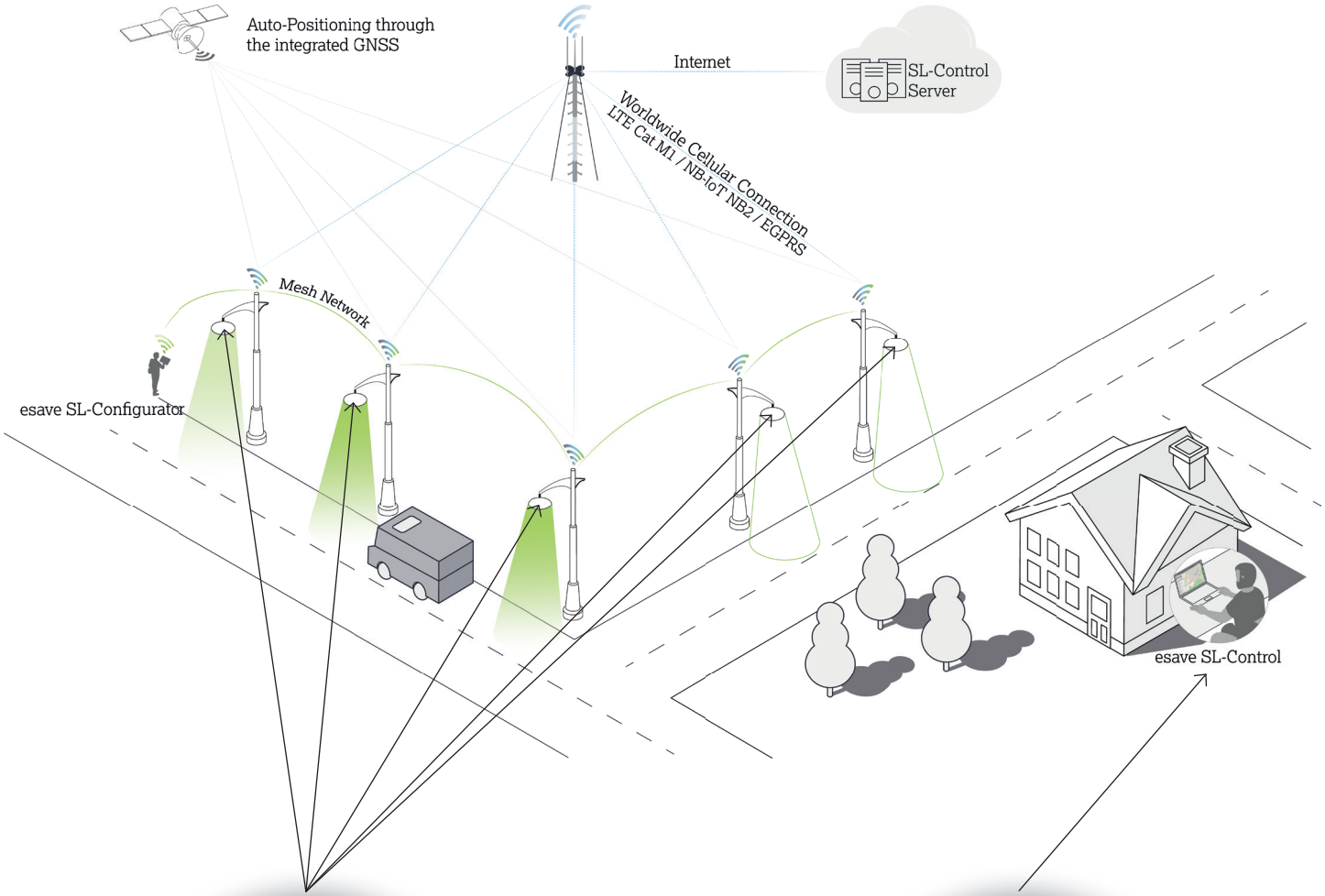
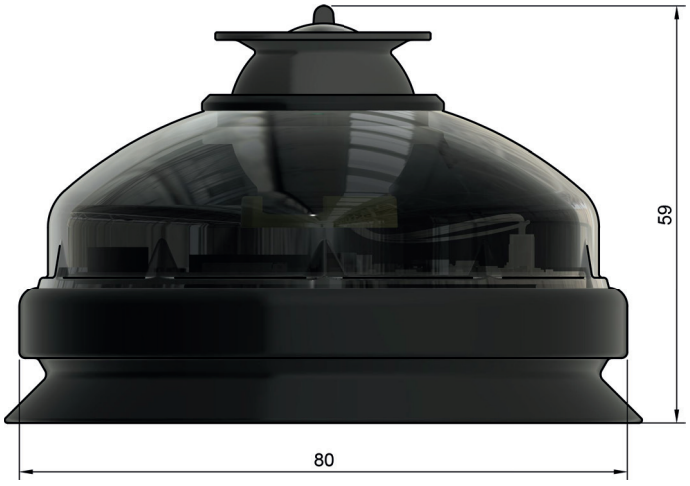



**esave SLC-Motion203-C**

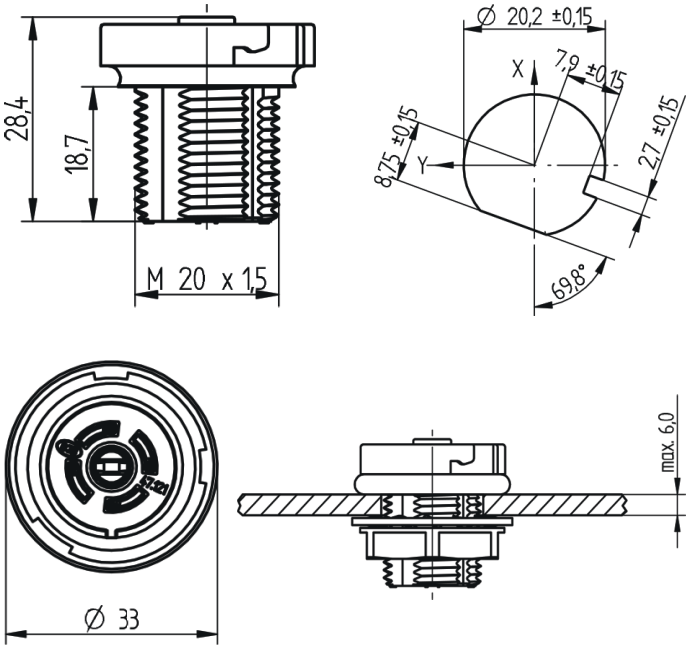
**esave SL-Control**

# SLC-Motion203-C

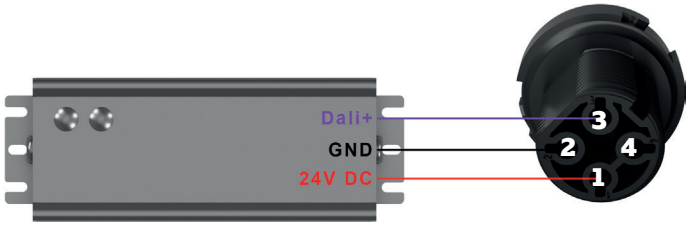
## Dimensions SLC-Motion203-C



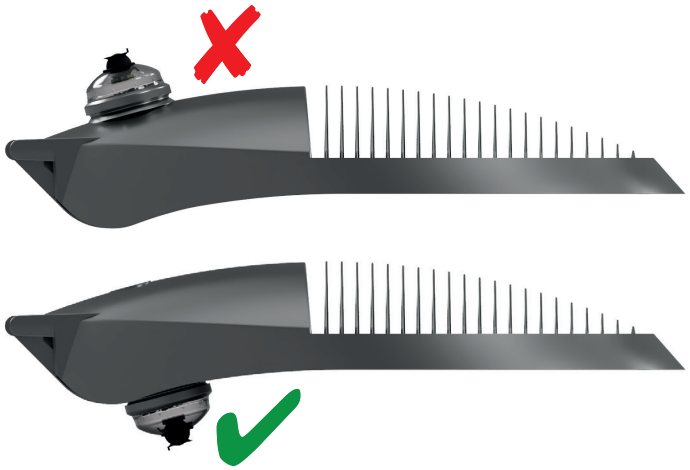

## Zhaga Connector




## Wiring




## Installation



## Housing

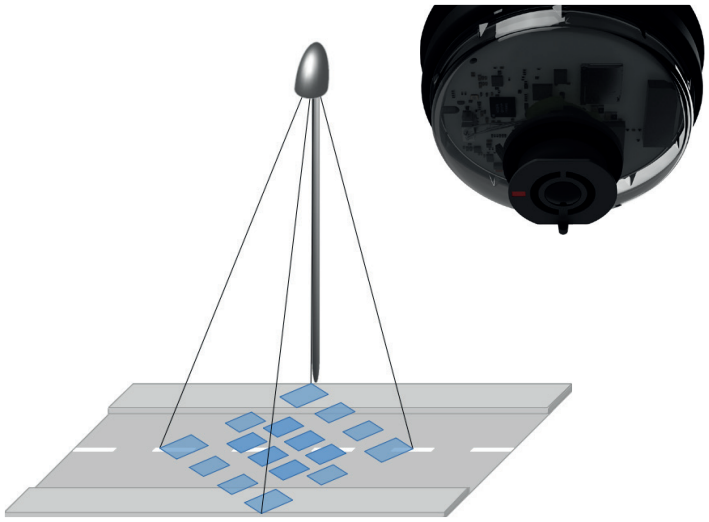
**Dome:**
- Outer Diameter: max 81.5 mm
- Height: max. 32.5 mm
- Material: Polycarbonate
- Color: Transparent Smoke Gray

**Base:**
- Outer Diameter: max 75.0 mm
- Height without plug: max. 19.5 mm
- Material: PBT
- Color: Grey

**Zhaga Stecker:**
- Outer Diameter: 30.0 mm
- Height without plug: 28.4 mm
- Thread length: 18.7 mm
- Thread pitch: M20 x 1.5
- Material: PBT
- Color: Black
- Wire size: 20-16 AWG (0.5 - 1.5 $mm^2$)
- Mounting: Torque mounting nut within the range of 1.8 to 2.4 Nm using a 27 mm hex socket

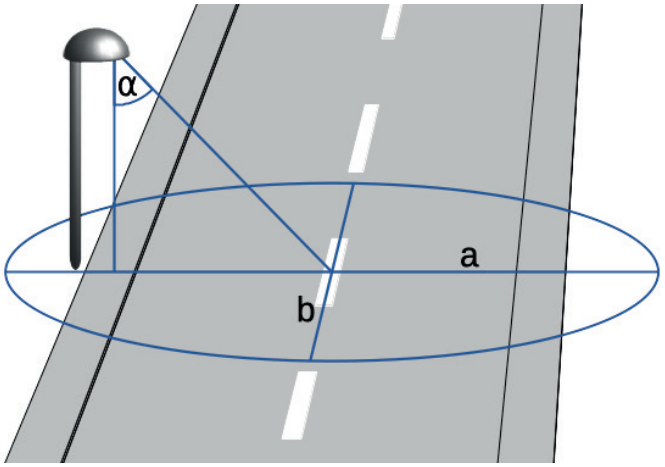
## Alignment of the sensor

- Rotate the detection field 45°
- The small marking should point towards the middle of the street
- The PIR adapter allows the tilt of the sensor in all directions



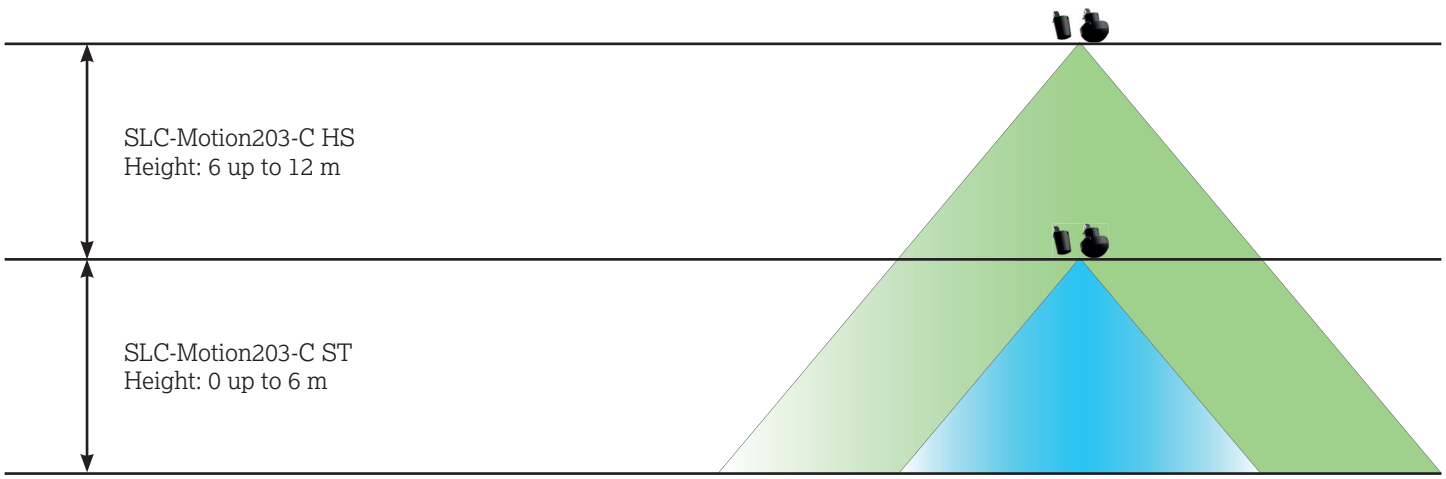
## Alignment angle

| Height | | Alignment angle Alpha | | | |
|---|---|---|---|---|---|
| | | 0° | 10° | 20° | 30° |
| 5m | a | 8.4 | 8.8 | 10.5 | 14.6 |
| | b | 8.4 | 8.5 | 8.9 | 9.7 |
| 6m | a | 10.1 | 10.6 | 12.6 | |
| | b | 10.1 | 10.2 | 10.7 | |
| 7m | a | 11.7 | 12.4 | 14.7 | |
| | b | 11.7 | 11.9 | 12.5 | |
| 8m | a | 13.4 | 14.2 | | |
| | b | 13.4 | 13.6 | | |
| 9m | a | 15.1 | 15.9 | | |
| | b | 15.1 | 15.3 | | |
| 10m | a | 16.8 | 17.7 | | |
| | b | 16.8 | 17.0 | | |
| 11m | a | 18.5 | | | |
| | b | 18.5 | | | |




SLC-Motion203-C ST

SLC-Motion203-C HS



## Maximum ratings

| Parameter | Sym | Min | Max | Unit |
|---|---|---|---|---|
| **Supply Voltage** | $V_{in}$ | 0 | 34 | V DC |
| **Current input** | $I_{in}$ | | 50 | mA |
| **Operating temp.** | $T_A$ | -40 | +80 | °C |
| **Storage temp.** | $T_S$ | -40 | +90 | °C |
| **Dim interface input current** | $I_{inD}$ | | 250 | mA |

## Operating characteristics

| Parameter | Type | Sym | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| **Supply Voltage Range** | | $V_{in}$ | 12 | 24 | 30 | V DC |
| **Current input at 24 V DC** | SLC-Motion203-C | $I_{in}$ | | 7 | 15 | mA |
| **Power usage $V_{Sup}$ = 24 V DC** | SLC-Motion203-C | P | | 180 | | mW |
| **Motion detection signal input** | | $V_{MOT\ HIGH\ Pegel}$ | 12 | | Vcc | V |
| | | $V_{MOT\ LOW\ Pegel}$ | 0.0 | | 0.5 | |
| **Protection class** | | IP | 66 | | | |

## Wireless characteristics

| Parameter | Sym | Min | Typ | Max | Unit |
|---|---|---|---|---|---|
| **RF frequency range (center frequency)** | $f_w$ | 2.420 | | 2.480 | GHz |
| **RF nominal output power** | | | +8 | | dBm |
| **Receiver sensitivity** | | | -100 | | dBm |

## Approvals

| Category | Declaration / Certificates |
|---|---|
| **CE conformity** | CE compliant |
| **Hazardous substances** | RoHS compliant: Restriction of Hazardous Substance Directive |
| **Housing flame resistance** | UL Recognized Flame Class Rating: UL 94 V-0 |
| **Electromagnetic compatibility (EMC / ERM)** | • EN 300 328 V2.1.1 (2016-11)<br>• EN 301 489-1 V2.2.0:2017-03<br>• EN 301 489-17 V3.2.0:2017-03<br>• EN 61000-6-2:2005 |
| **Safety** | • EN 62368-1:2014+AC:2015 |