

Description



The esave SLC-Hub203-C helps cities to easily upgrade their street light to smart street light. The luminaire only needs to be equipped with a Zhaga Connector. This creates an ideal foundation for the smart city.

The Communication is ensured via an automatic, organizing 2.4 GHz mesh network. There are no additional control lines need in the ground. Each street light communicates with all luminaires which can be reached. 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.



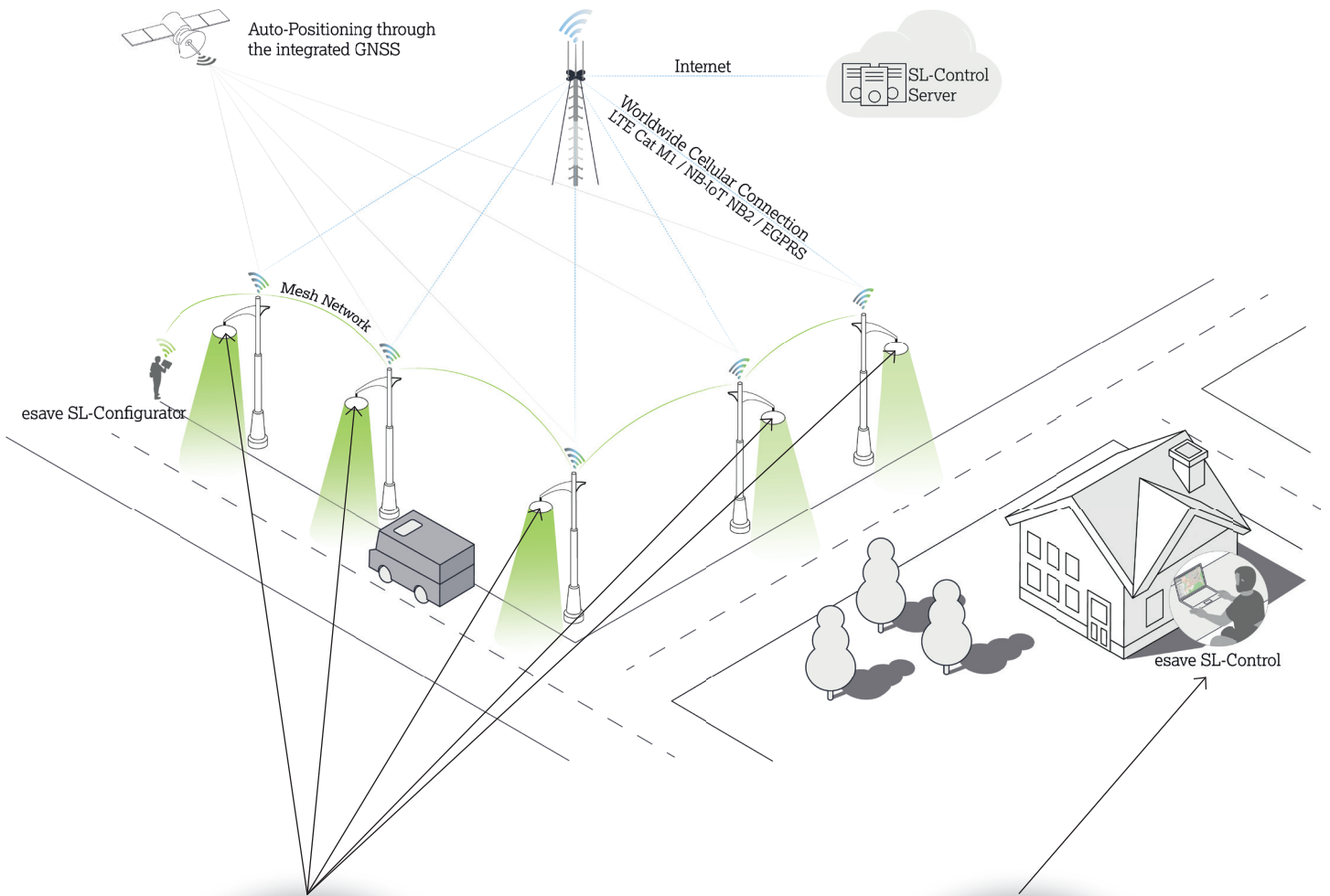
Cellular Connection

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.



Optional 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.

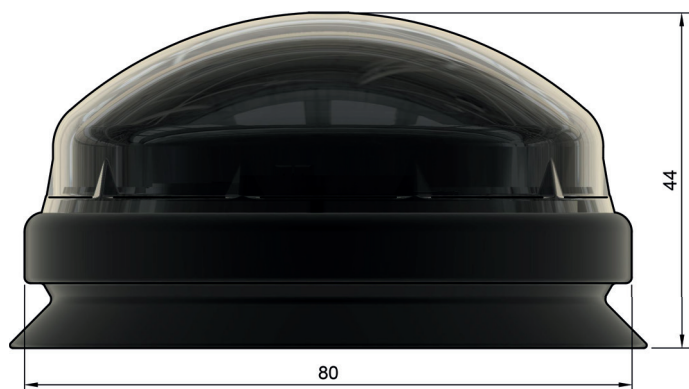


esave SLC-Hub203-C

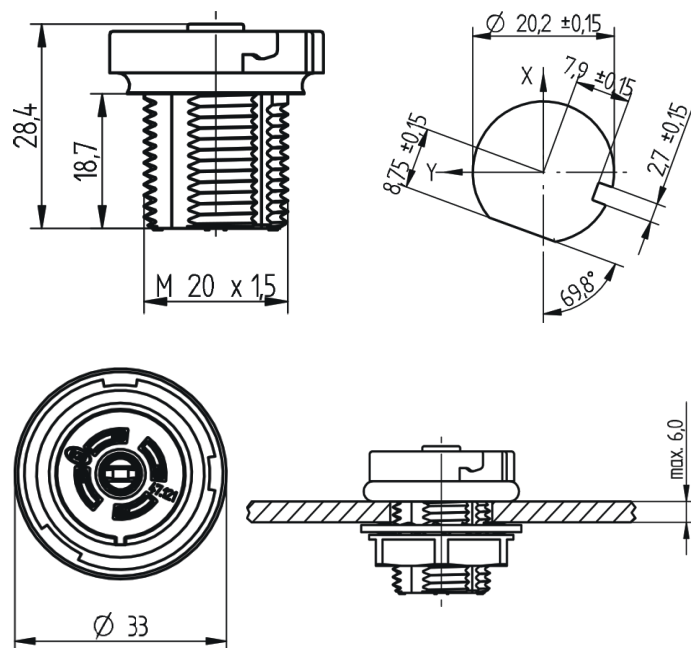


esave SL-Control

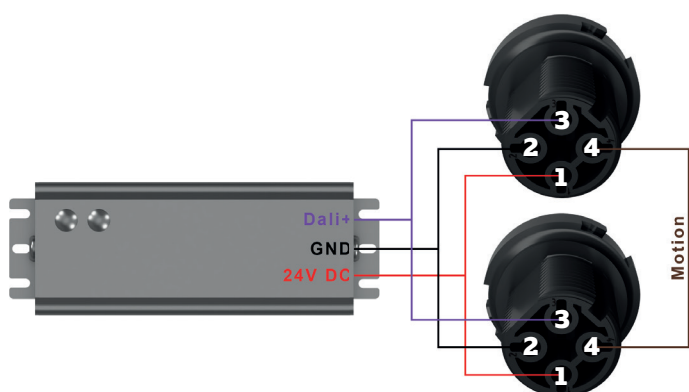
Dimensions SLC-Hub203-C



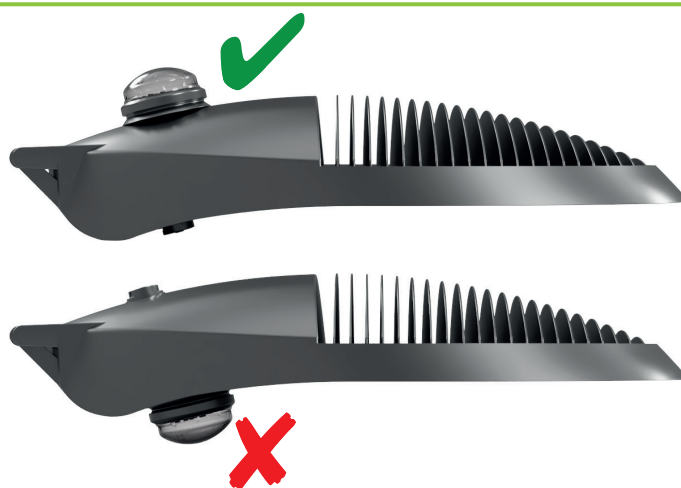
Zhaga Connector



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 mm²)
- Mounting: Torque mounting nut within the range of 1.8 to 2.4 Nm using a 27 mm hex socket

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-Hub203-C	I_{in}		7	15	mA
Power usage $V_{Sup} = 24$ V DC	SLC-Hub203-C	P		180		mW
Motion detection signal input		$V_{MOT\ HIGH\ Pegel}$	12		V_{CC}	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)	<ul style="list-style-type: none"> EN 300 328 V2.1.1 (2016-11) EN 301 489-1 V2.2.0:2017-03 EN 301 489-17 V3.2.0:2017-03 EN 61000-6-2:2005
Safety	<ul style="list-style-type: none"> EN 62368-1:2014+AC:2015