

Product Description

The SLC-Motion203-C is a smart street light controller that incorporates motion sensing, GPS positioning, and global cellular connectivity for LED luminaires with Zhaga connector system.

It offers intelligent street light control and a "light on demand" solution in one highly integrated product. The adjustable motion sensor automatically responds when detecting an object in the detection area, and communication is enabled via an automatic 2.4 GHz mesh network. With the integrated global eSIM, individual controllers can connect directly to the cloud platform without gateway.

The SLC-Motion203-C is a D4i ready / Type A device and SR certified.

BENEFITS

- Operational cost savings through remote monitoring and real-time maintenance.
- Evaluation of traffic volume.
- Display of the current luminaire status data.
- Track and evaluate your energy use.
- Remote monitoring of individual controllers without gateway (eSIM included).
- Support of DALI DT6 and DT7

FEATURES



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 a user-friendly cloud interface.



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 an individual or a group of luminaires.



Mesh Network

The Communication is ensured via an automatic, organizing 2.4 GHz mesh network. Each streetlight communicates with all luminaires which can be reached.



Global Cellular Connectivity

Preinstalled eSIM for instant data connection worldwide. Protocols supported: LTE Cat M1, NB-IoT NB2, EGPRS.



Automatic GPS Positioning

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



AstroDim

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



Brightness Sensor

With the integrated brightness sensor, the light can be automatically switched on or off depending on the ambient light level.



Tilt Sensor

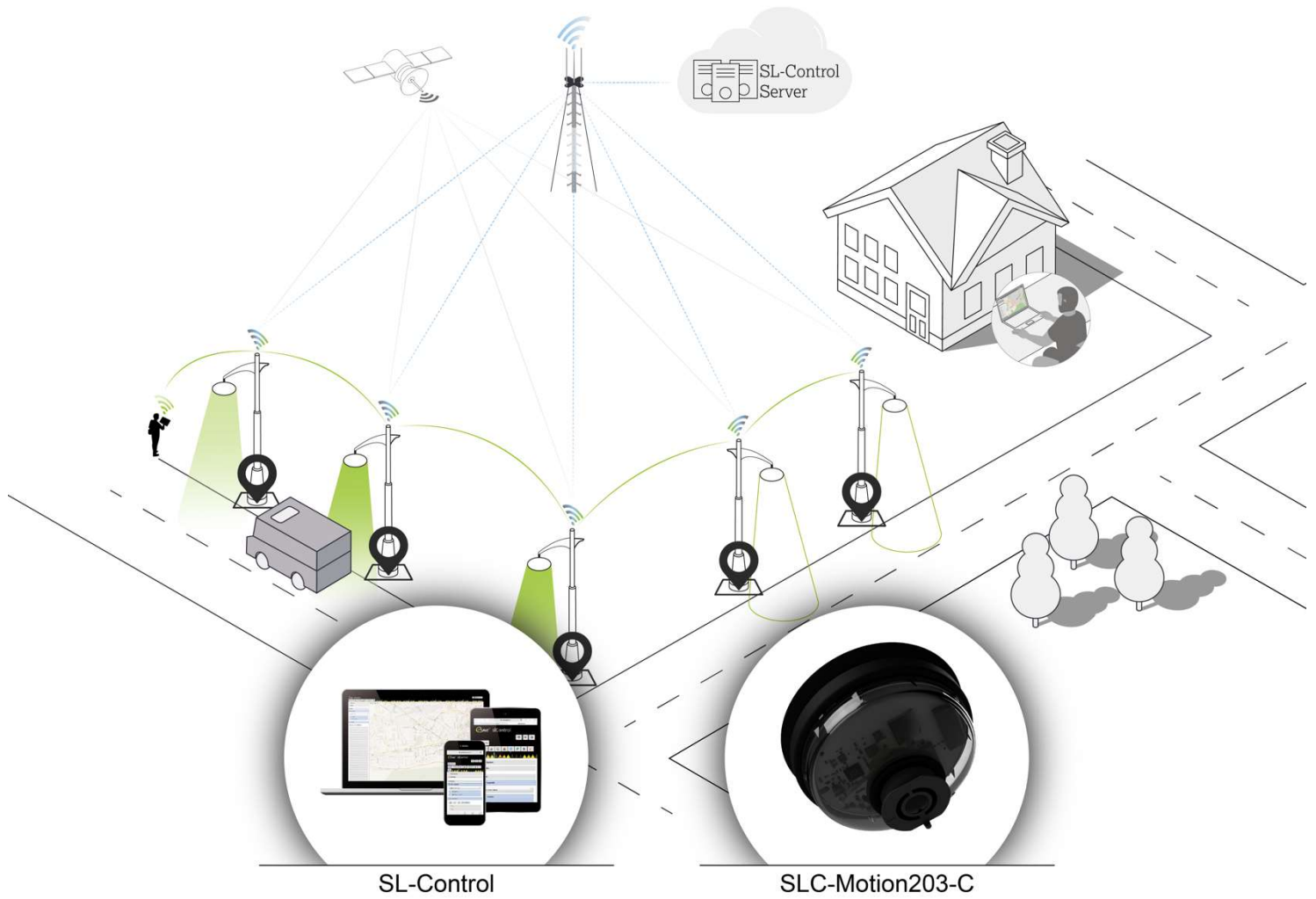
Detects X, Y, and Z-axis movements through integrated inclination sensing. Generates alerts when changes in inclination occur, such as in the event of a collision of a road user with a pole.



Temperature Sensor

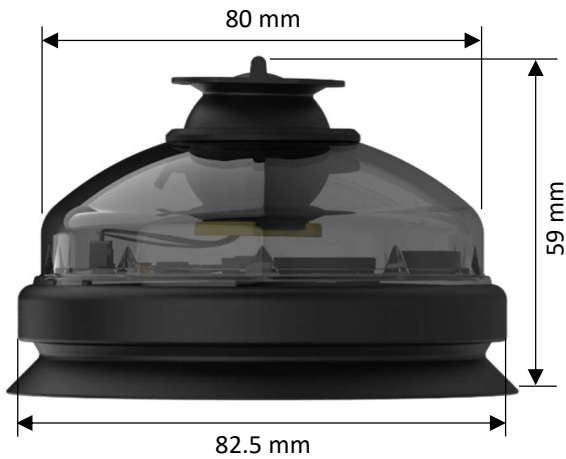
With the integrated temperature sensor, the controller can be actively monitored. By regularly checking the information about the luminaire status, proactive maintenance and failures can be avoided.





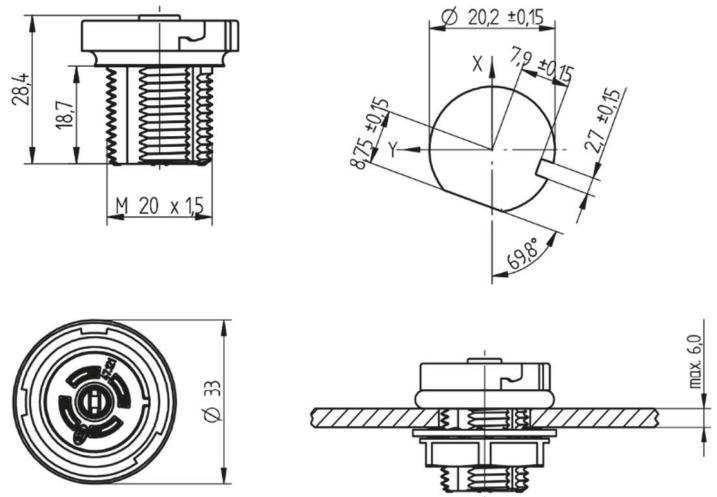
DIMENSIONS & WEIGHT

SLC-Motion203-C



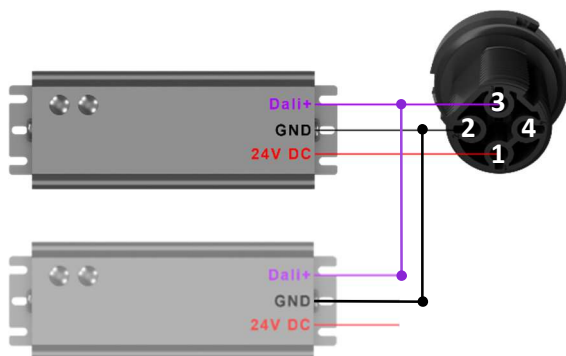
Width	82.5 mm
Dome width	80 mm
Height	59 mm
Product weight	79 g

Zhaga Connector

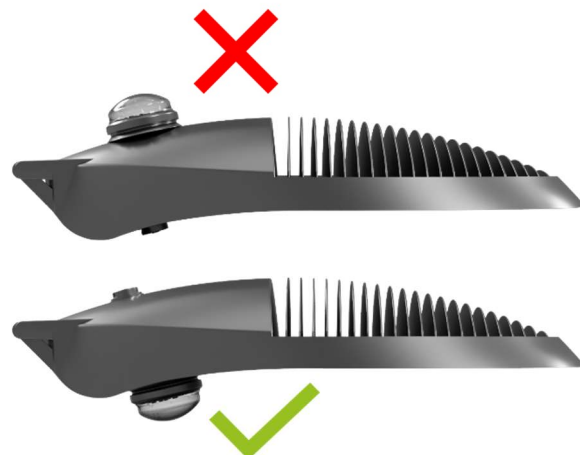


Outer diameter	30.0 mm
Height without plug	28.4 mm
Thread length	18.7 mm
Thread pitch	M20 x 1.5
Material	PBT
Wire size	20-16 AWG (0.5 - 1.5 mm ²)
Mounting	Torque mounting nut 1.8 to 2.4 Nm using a 27 mm hex socket

WIRING



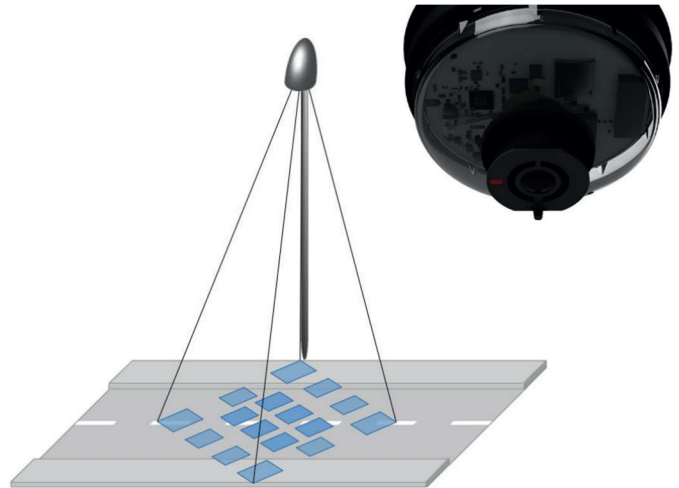
INSTALLATION



Note: The controller supports up to 4 LED Drivers simultaneously.

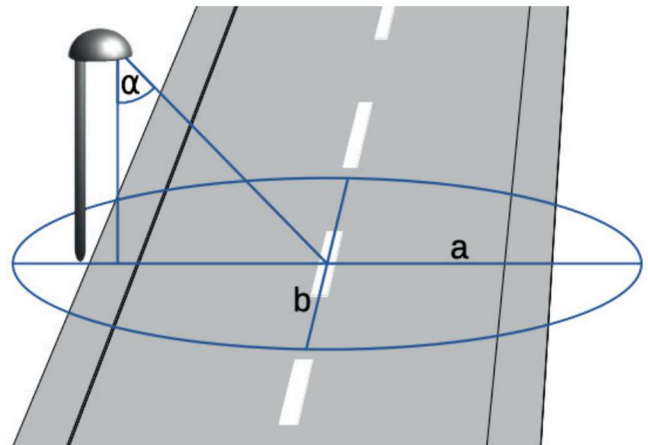
SENSOR ALIGNMENT

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



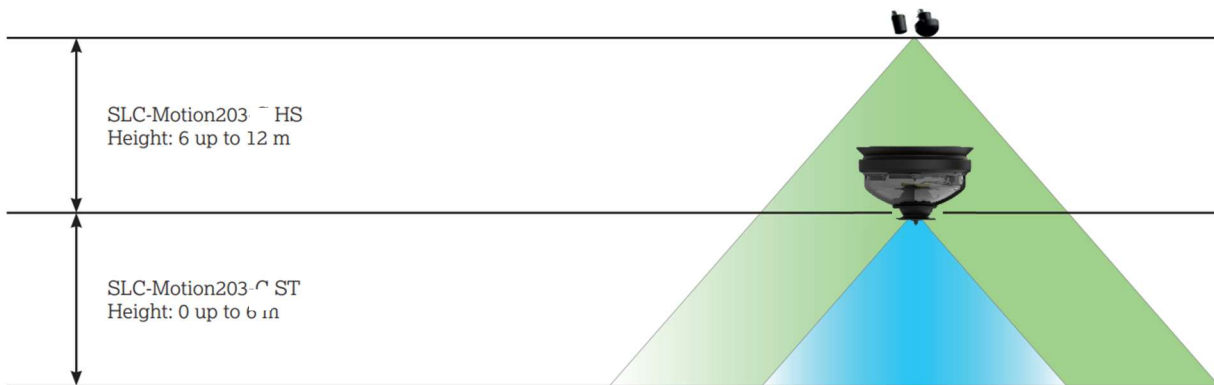
Alignment Angle

Height	Alignment angle (α)				
		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 ST
- SLC-Motion203 HS





Maximum Ratings

Supply voltage	0 – 34 V DC
Current input	6 – 60 mA
Storage temperature	-40...+90 °C

Operating Characteristics

Supply voltage range	12 – 30 V DC typ. 24 V DC
Current input (24 V DC)	7 – 15 mA
Power usage (24 V DC)	180 mW
Signal input (motion detection)	$V_{MOT\ HIGH\ Level}: 12 - V_{CC}$ $V_{MOT\ LOW\ Level}: 0.0 - 0.5\ V$
Operating temperature	-40...+80 °C
DALI input current	max: 250 mA
Protection class	IP66

Mesh characteristics

RF frequency range	2.420 – 2.480 GHz
RF nominal output power	+8 dBm
Receiver sensitivity	-100 dBm

Cellular characteristics

Protocols	LTE Cat M1, NB-IoT NB2, EGPRS
Frequency Bands (MHz)	CAT M1: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/B8 NB-IoT NB2: B1/B2/B3/B4/B5/B8/B12/B13/B18/ B19/B20/B25/B28/B66/B71/B8 EGPRS: 850/900/1800/1900 MH

Materials & Colors

Dome material	Polycarbonate
Dome color	Transparent Smoke Gray
Body material	PBT
Body color	Grey