



Product Description

The SLC-Enviro203-C is a smart street light controller that incorporates GPS positioning, and global cellular connectivity for LED luminaires with Zhaga connector system with air quality sensing capability.

It offers intelligent street light control and a "light on demand" solution in one highly integrated product. 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-Enviro203-C is a D4i certified / Type A device and SR certified.

BENEFITS

- Operational cost savings through remote monitoring and real-time maintenance.
- Measure critical air quality parameters (particulate matter, VOC, NOx, humidity, and temperature).
- 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, DT7 and DT8

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.



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.



Air Quality Sensor

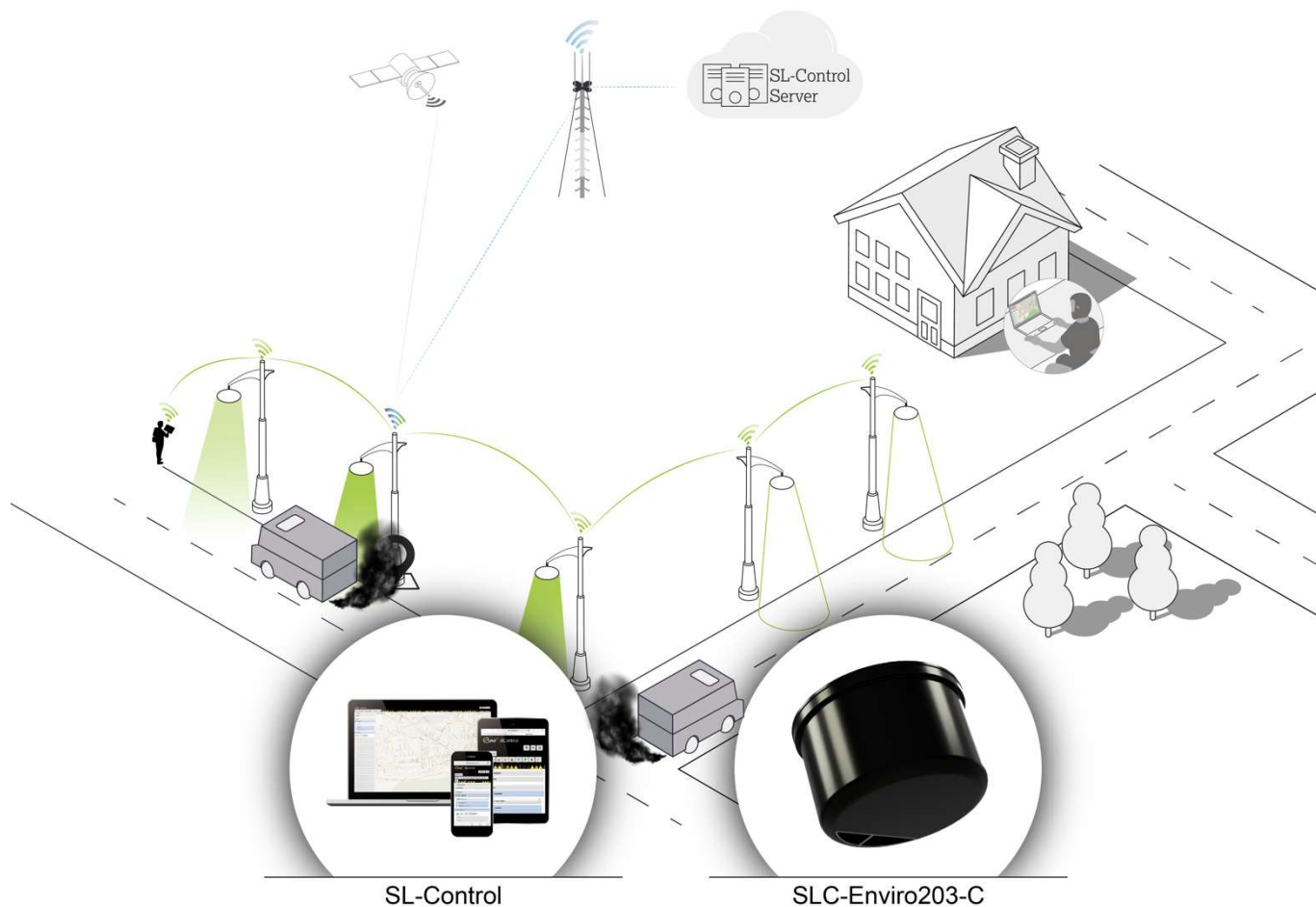
With the integrated air quality sensor, the air quality can be actively monitored and automatically collected.



Gateway Function

Remote monitoring of individual controllers without gateway (eSIM included).

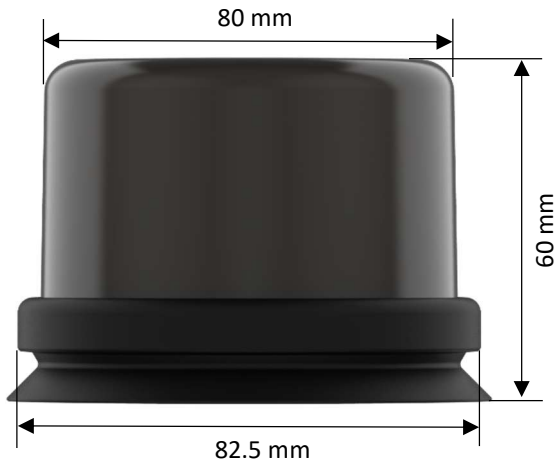




Thanks to the integrated eSIM and gateway function, an SLC-Enviro203-C can establish a connection to the SL-Control web platform while maintaining a network with all other esave equipped lights within reach.

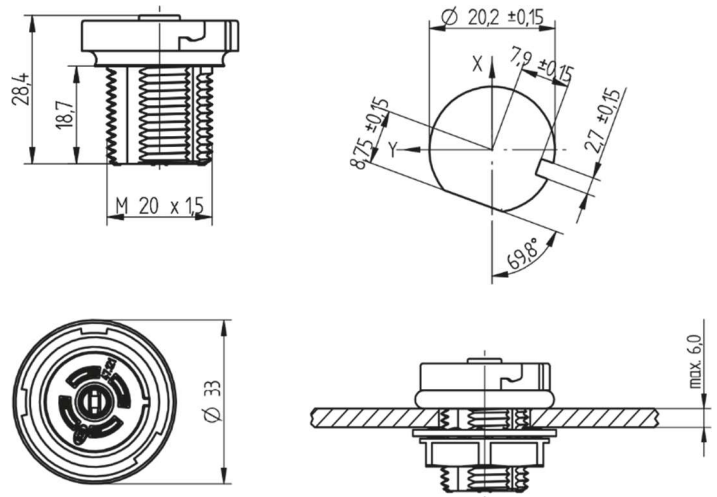
DIMENSIONS & WEIGHT

SLC-Enviro203-C



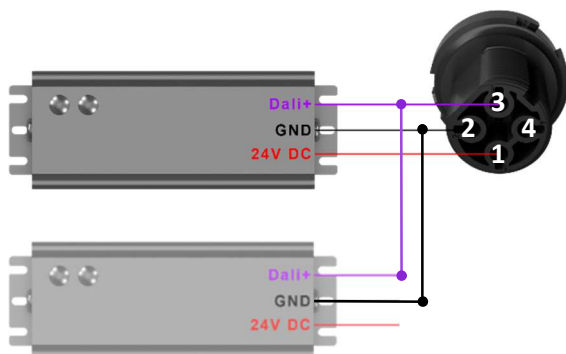
Width	82.5 mm
Dome width	80 mm
Height	60 mm
Product weight	145 g

Zhaga Connector

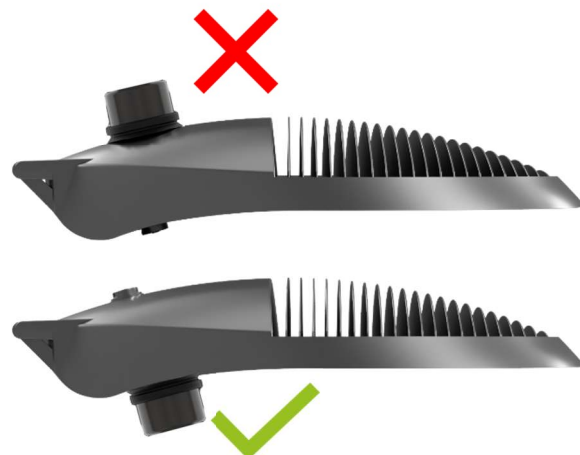


Outer diameter	30.0 mm
Height without plug	28.4 mm
Thread length	18.7 mm
Thread pitch	M20 x 1.5
Material	PBT
Wire size	20-16 AWG (0.5 - 1.5 mm ²)
Mounting	Torque mounting nut 1.8 to 2.4 Nm using a 27 mm hex socket

WIRING



INSTALLATION



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

Maximum Ratings

Supply voltage	0 – 34 V DC
Current input	10 – 170 mA
Storage temperature	-40...+70 °C

Operating Characteristics

Supply voltage range	12 – 30 V DC typ. 24 V DC
Current input (24 V DC)	12 – 24 mA
Power usage (24 V DC)	40 mW
Operating temperature	-40...+70 °C
DALI input current	max: 250 mA
Protection class	IP65

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

Air Quality Sensing

Particulate Matter	0 – 1000 $\mu\text{g}/\text{m}^3$ PM1.0, PM2.5, PM4 and PM10
VOC	0 – 500 VOC Index
NOx	0 – 500 NOx Index
Temperature	-40 – +80 °C

Humidity	0 – 90 %RH
Operating temperature	-10...+50 °C

Materials & Colors

Dome material	Polycarbonate
Dome color	Dark Gray
Body material	PBT
Body color	Grey