



Smart lighting

Zhaga RF node

Product sheet



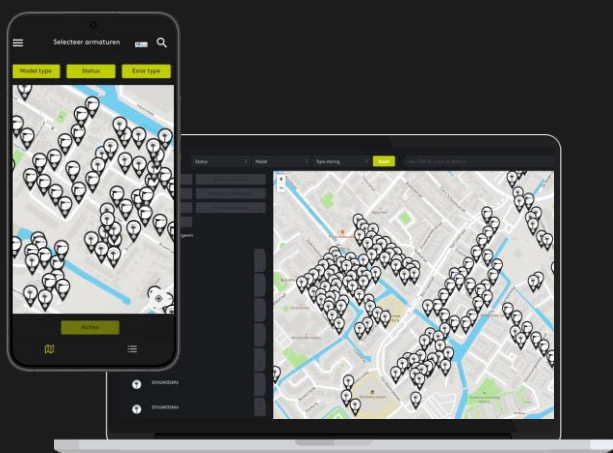
Sustainer 

Sustainer

Zhaga RF node

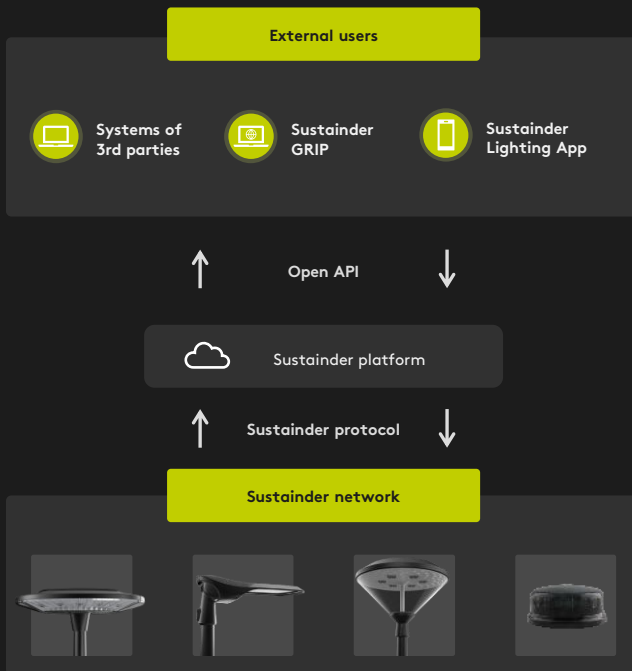
Product description:

- Monitor and control of public lighting based on the Zhaga D4i standard.
- Zhaga Book 18 receptable for easy installation on the luminaire.
- Powered by the AUX power supply as specified by D4i.
- Low energy consumption using device based on 868 MHz RF mesh technology.
- For use in full RF mesh networks.
- Integrated GPS for stand-alone execution of dimming schemes.
- Integrated ambient light sensor.
- Integrated accelerometer for detection of tilted poles.



- 100% compatible with other Sustainer luminaires and OLCs in the Sustainer architecture.
- Fully compatible with Sustainer GRIP (desktop and iOS/Android).

Sustainer Platform



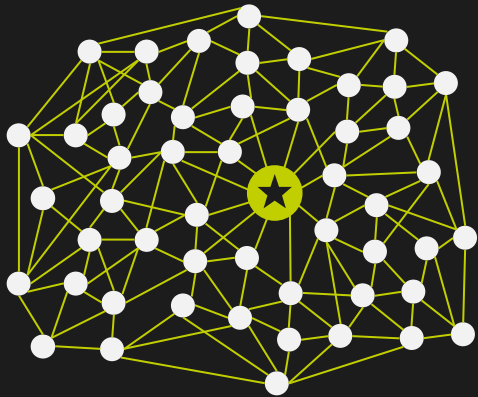
- An open API allows external sources and applications to use the secure Sustainer system.
- Sustainers own applications (GRIP and the App) use the same API for lighting control and management.
- The network administration is kept in the Sustainer Platform (Brokerage Layer).
- In addition, data from the devices is stored in the Brokerage Layer so that it is also available when the devices are offline.
- The Brokerage Layer also keeps track of who has access to which system and what data.
- The Sustainer luminaires and OLCs are interconnected via a secure RF mesh network.
- Through 1 gateway, the network is connected to the Sustainer platform: the Brokerage Layer.
- Up to 250 nodes can be installed per gateway.

Key features:

- Open API for integration with all tele management systems.
- Fully secure system.
- Automatic 'discovery' of new nodes within the network.
- Automatic installation of new nodes by the Sustainer platform.

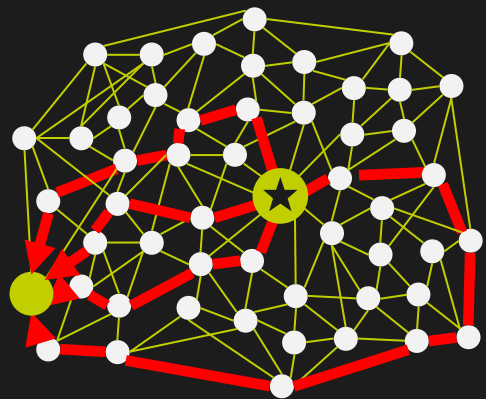
Sustainer

RF mesh network



- Proprietary full mesh RF network, similar to 6LoWPAN.
- Frequency: 868 MHz.
- AES128 encryption of messages.
- 1 Gateway per maximum 250 nodes.

- 'Flooding' principle: each node forwards every message to all other nodes.
- This allows an enormous number of paths through the network for a message to the nodes.



Advantages:

- Cost-effective solution.
- High redundancy.
- Long range: 200m pole distance guaranteed and up to 2 km possible in practice.
- Low latency within the network making this technology extremely suitable for motion sensors, for example.

Sustainer Zhaga RF node

Technical specifications

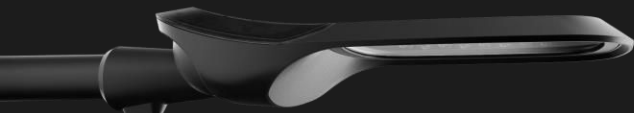
Electrical	
Supply voltage	24 V
Operating current average	34 mA
Operating power average	0.8 W
Environmental	
Operating temperature	-40 .. +50°C
Operating humidity	0 .. 90%
IP rating	IP66
IK rating	≤ IK09
Housing	
Dimensions (∅ x h)	80 mm x 42 mm
Dome	PC
Base	PBT
Top housing color	Transparent smoke grey
UV resistance	f1
Installation	
Mounting type	Zhaga book 18 Ed. 2 socket
Wireless Mesh Communication	
Frequency	869.525 MHz +/-30 ppm
Output power	16 dBm
Sensitivity	-105 dBm
Baudrate	130 kb/s
RF Range	121 dB
Sensors	
Accelerometer (tilt detection)	
Resolution	0.22 degrees
Accuracy	±0.5 degrees
Ambient Light	
Measurement range	1 .. 100k lux
GNSS (Location – Position on map)	
Signals	GPS, Beidou
Accuracy	CEP50 ≤ 2.5m

Specifications may change and should be treated as an indication only. You are welcome to contact us about your needs.

Sustainer Luminaires

Anne

- LED technology
- Ambient light functionality
- GPS-based position mapping
- Custom sensor options (future proof)
- Dimmable: 4 independent segments
- Flexible light programming
- Remote configuration and control
- Open platform



Alexia

- LED technology
- Ambient light functionality
- GPS-based position mapping
- Custom sensor options (future proof)
- Flexible light programming
- Remote configuration and control
- Open platform

Aspira

- LED technology
- Comfort LED covers
- GPS-based position mapping
- Custom sensor options (future proof)
- Flexible light programming
- Remote configuration and control
- Open platform



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