NAS Nordic Automation Systems

UL2034

Zhaga® 18 Streetlight Controller

4th GENERATION

The Zhaga® 18 Streetlight Controller is a wireless remote control device designed for LED streetlights equipped with the Zhaga® Book 18 compliant connector. The device is easily installed through plug-and-play, making it an excellent fit for various street lighting modules. It can be used for outdoor installations and is suitable for use with existing lighting infrastructure and third-party solutions. Our open communication protocols, an open source JavaScript payload decoder and our LumaLink™ app all contribute to reducing system integration costs.

The Zhaga® 18 Streetlight Controller communicates through LoRaWAN®, NB-IoT, DECT NR+ or SensorLink™ networks. The controller uses the DALI or DALI-2 interface to control the streetlight. Its modern and compact design is ideal for slim LED fixtures. The optional GPS module can simplify map positioning and precise time sync.

Product Features

- Control up to 8 DALI / DALI-2 drivers independently
- Power measurement via DALI
- D4i Energy registers reported for each driver
- Versatile astronomical calendar based dimming
- Layered time based dimming profiles
- Automatic device time synchronisation
- Light intensity sensor
- Remote control and configuration
- Multicast control and configuration
- Configuration app LumaLink™ (iOS & Android)
- GPS positioning*

- External D4i Control devices**
- Simple push-and-twist lock installation
- Autonomous and adaptive operation (configure and forget)
- Real time control and feedback
- RTC to keep time after power loss
- Built in tilt sensor
- Surge protection
- Digital input (LSI) for external events (motion sensor, switch, photocell, etc)
- Fully Documented Open Communication Protocol

* with GPS option
** in development

Measured parameters

- Lamp on time
- Ambient light
- Controller temperature
- Forwards D4i Energy registers for each driver

Monitored parameters

- Lamp/driver fault
- Control gear faults
- Controller tilt angle, collision event
- GPS position*

* with GPS option

Technical Data

Supply				
Power supply	24 VDC (min 21.6 VDC- max 26 VDC)			
Peak power consumption	1W @ 24V			
Surge protection	provided by DALI 2 control gear			
Communication	**LoRaWAN**	**NB-IoT**	**DECT NR+**	**NanoLite™**
Network interface	LoRaWAN 1.1 Class C	3GPP LTE release 14 Cat-NB1 and Cat-NB2 compliant	DECT-2020 NR	n/a
RF Frequency	868MHz / 915MHz / 923MHz	Cat-NB1/NB2: B3, B8, B20 1710-1880, 880-960, 791-862MHz	NR+ band: 1, 2, 9 1880-1930MHz	
Rx Sensitivity	-137 dBm @ 125kHz BW SF12	-108 dBm sensitivity (Cat-M1) for low band, -107 dBm for mid band	-103 dBm	
Tx power	up to +22 dBm (depending on region)	up to +23 dBm	up to +19 dBm	
Network security	Encrypted communication based on security keys (AES128-bit)	APN / VPN	AES128-bit	
GPS	GPS/Glonass/BeiDou/QZSS *	GPS/Glonass	GPS/Glonass	GPS/Glonass/ BeiDou/QZSS *
SensorLink™ *	SensorLink™ Mesh networking		n/a	SensorLink™ Mesh networking
LumaLink™	Local configuration, diagnostics and firmware updates			
Firmware update	OTA (2.4 GHz)			
Interfaces				
DALI Control Device	Controls up to 8 DALI ballasts			
DALI Power Supply	Internal 19V, auto-detects external supply			
Logical Signal Input (LSI)	Configurable alert, dim levels			
Sensors				
Light sensor	Integrated. Configurable threshold			
Tilt Sensor	3-axis tilt sensor			
Lamp Control				
Dimming range	0%-100% (linear or logarithmic depending on control gear settings)			
Control interface	DALI-2 / DiiA (IEC 62386) / D4i / Philips SR			
Metering				
D4i reported parameters	V, W, Wh, and PF, lamp-on time			
Measurement accuracy	Depending on DALI control gear specifications			
Timing				
Real Time Clock (RTC)	Yes, supercap backup			
Environmental				
Ingress protection	IP67 (IEC 60529)			
Impact protection	IK09 (IEC 62262)			
Operating temperature	-20°C ... +60°C			
Mechanical				
Weight	40g			
Dimensions	47.3 mm x 33.4 mm			
Body material	ABS			
Compliance				
Standards	EN61347-1, EN61347-2-11, EN300220, EN62368, EN301489, EN62479, EN50581			
Certifications	CE, SR Signify			

* optional, see Ordering Info

Mechanical Dimensions

47.3mm   33.4mm
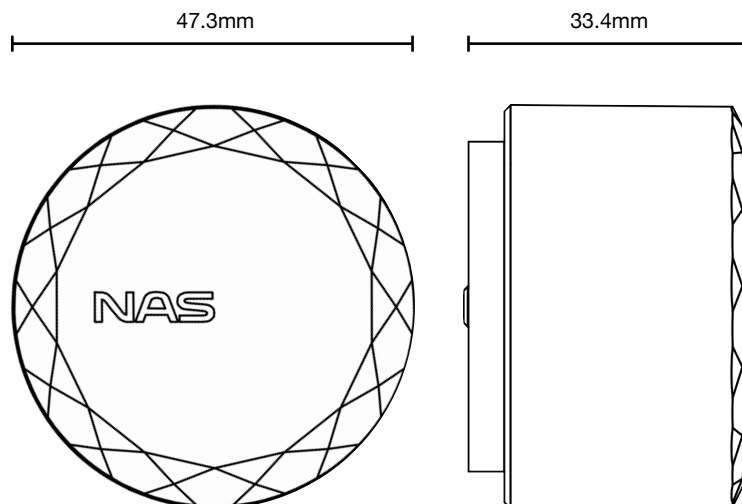
Wiring Guide

1	+24V Auxiliary power supply
2	DALI - / Ground for +24V
3	DALI +
4	LSI
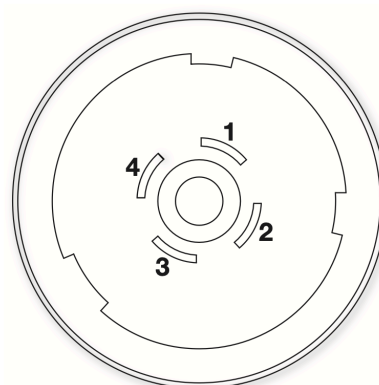
Ordering Info

Order code	UL2034	A	#	P	#	0036	WW

Communication type	
LoRaWAN EU 868	**A**
LoRaWAN AU 915	**B**
LoRaWAN US 915	**C**
LoRaWAN AS 923-1	**D**
LoRaWAN AS 923-2	**P**
LoRaWAN AS 923-3	**Q**
LoRaWAN AS 923-4	**R**
LoRaWAN 868 Multiregion (configurable via software)	**T**
LoRaWAN 915 Multiregion (configurable via software)	**U**
NB-IoT *band selection in options field	**N**
DECT NR+	**G**
NanoLite™ (without communication)	**Y**

Options	
GPS (included with NB-IoT and DECT NR+)	**P**
Sensorlink (not available with DECT NR+)	**S**
B8 900MHz	**B8**
B3 1800MHz	**B3**
B20 800MHz	**B20**

Packing Quantity	
Sample	**SS01**
Single packaging	**0001**
Multipack 36pcs	**0036**
Multipack 60pcs	**0060**

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