

LCZG

Zhaga® 18 Street Light Control Device



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The Zhaga Streetlight Controller is a cutting-edge wireless remote-control unit engineered for LED streetlights featuring a Zhaga® Book 18-compliant connector. Its plug-and-play installation simplifies deployment across diverse street lighting modules.



Zhaga® 40

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This device is robust enough for outdoor environments and seamlessly integrates with both existing lighting setups and third-party solutions. We've prioritized cost-effective system integration by providing open communication protocols, an open-source JavaScript payload decoder, and our dedicated Zenosmart Connect app.

The controller communicates over LoRaWAN® and NB-IoT networks. For streetlight control, it supports DALI, DALI-2, D4i, and 0–10 V analog interfaces. Its sleek, modern design complements slim LED fixtures. Additionally, an optional GPS module is available to streamline map positioning and ensure precise time synchronization.

Measured and Monitored Parameters

- Lamp ontime
- Ambient light
- Controller temperature
- Forwards D4i energy registers for each driver
- Lamp/driver fault
- Controlgear faults
- Controller tilt angle and collision events
- GPS position (optional)

Controller Features

- Control up to 4 DALI / DALI-2 drivers independently powered measurement via DALI driver
- D4i energy registers reported for each driver
- Versatile astronomical calendar-based dimming
- Time-based dimming profiles
- Automatic device time synchronization
- Light intensity sensor
- Remote control and configuration
- Multicast control and configuration
- Configuration via Zenosmart app (iOS & Android)
- GPS positioning (optional)
- Simple push-and-twist lock installation
- Autonomous and adaptive operation (configure once, then operate)
- Realtime control and feedback
- RTC maintains 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

Technical Data

Zhaga Street Light Control Device

Supply		
Power supply	24 V DC or 100–240 V AC	
Peak power consumption	3 W (maximum)	
Surge protection	Built-in surge protection circuit	
Current protection	Built-in over current protection circuit with auto reset	
Communication		
Network Interface	LoRaWAN® 1.0.4 Class C	3 GPP LTE Release 14 Cat–NB1 & Cat–NB2 compliant
Rf Frequency	868 / 915 / 923 MHz	B3, B8, B20 (1710–1880, 880–960, 791–862 MHz)
Rx Sensitivity	–137 dBm @ 125kHz BW SF12	–108 dBm sensitivity (Cat–M1) for low band, –107 dBm for mid band
Tx Power	up to +22 dBm (depending on region)	up to +23 dBm
Network security	Encrypted communication based on security keys (AES128-bit)	APN / VPN Support
GPS	GPS/GLONASS/BeiDou/QZSS (Optional)	GPS/GLONASS/BeiDou/QZSS
Firmware update (OTA)	Bluetooth and LoRaWAN®	
Bluetooth	Optional	
Interfaces		
DALI control and power supply	Controls up to 4 DALI ballasts with Internal 15V power supply	
Analog output	0–10 V or 1–10 V Analog output	
Logical signal input (LSI)	2 x 0–24V Logic signal input configurable alert, dim levels (analog/digital), etc.	
Sensors		
Light sensor	Integrated, configurable threshold	
Tilt sensor	2-axis tilt sensor	

LoRaWAN® | NB-IoT | DALI-2 | D4i | TALQ

LoRaWAN® is a registered trademark of Semtech Corporation. DALI, the DALI Logo, DALI2, the DALI2 Logo, DiiA, the DiiA Logo, D4i, the D4i Logo, DALI+, and the DALI+ Logo are registered trademarks exclusively licensed in various countries by the Digital Illumination Interface Alliance (DiiA).

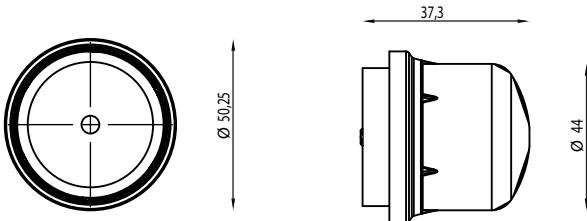
Technical Data

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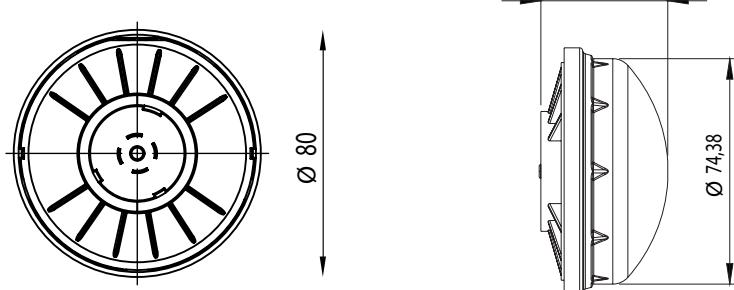
Lamp Control	
Dimming range	0%–100% (linear or logarithmic depending on control gear settings)
Control interface	DALI-2 / DiIA (IEC 62386) / D4i / 0–10 V / 1–10 V Analog
Metering	
D4i reported parameters	V, W, Wh, and PF, lamp-on time, and many others (Only for D4i Drivers)
Timing	
Real Time Clock (RTC)	Yes, super capacitor backup (up to 15 days)
Environmental	
Ingress protection	IP67 (IEC 60529)
Operating temperature	-20°C ... +60°C
Mechanical	
Weight	150 gr
Dimensions	154 x 65 x 59 mm (6.06 x 2.56 x 2.32 in)
Body material	ABS
Compliance	
Standards	EN 61347–1, EN 61347–2–11, EN 300220, EN 62368, EN 301489, EN 62479, EN 50581
Certifications	CE

Mechanical Dimensions

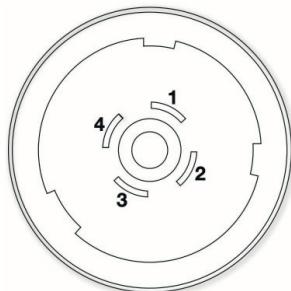
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Wiring Guide



PIN	Definition	Type
1	24VDC	DC Power output
2	GND	DC Power output
3	NC	Float
4	0-10V	Dim+ input

Note: That is the pin definition of the front socket, and the docking party is the light controller (foolproof socket).

All dimensions are in millimeters (mm).

ORDER CODE	LCZG	4	L	01	A	B	D	X	X
Body type and size									
Zhaga 40 mm		4							
Zhaga 80 mm		8							
Communication type									
LoRaWAN			L						
Nb-IoT			N						
Bluetooth			B						
Zigbee			Z						
Hardware version (1~n)				01					
LoRaWAN frequency									
Not available					X				
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				
Additional bluetooth option									
Not available						X			
Bluetooth for quick configuration and OTA						B			
Control option									
DALI-2 / DiIA (IEC 62386) / D4i							D		
0-10V Analog							A		
GPS option									
Not available							X		
GPS (Available for only 80 mm body size)							G		



Zenosmart intelligently enhances energy efficiency and sustainability with innovative, AI-powered, IoT-based solutions, making life easier.

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