urbannode by obiWAN®

Data sheet

# urbannode® DC Zhaga - UN320

The **urban**node® **DC Zhaga - UN320** works with the Itron Network platform (with over 90 million connected devices), Streetlight Vision CMS (managing devices in more than 500 cities worldwide) and SLV:Go Provisioning tool, enabling an easy and fast deployment of individually managed light points on street lighting networks.

## Main features

- D4i certified
- High Reliability
- Improved safety from the usage of an extra-low voltage power supply (24VDC)
- Extremely Low Power consumption
- Accurate energy and electrical parameters metering suitable for supporting utility billing
- Asset Management oriented, extended control and data exchange with the new D4i drivers
- Automatic identification of all lamp failures reducing on-site activities
- Default Auto-photocell mode prevents day burning
- Motion Detection Input Ready for Dynamic Lighting Scenario
- Over-the-air firmware upgrades
- The mechanical configuration for installation mounting is external Zhaga Book 18 standard push-and-twist lock Socket

**Options**

- On-board GPS Option for self-location and commissioning
- Optional Impact and Vibration Detection (Accelerometer) and / or Luminaire and Pole Tilting Detection (Gyroscope)
- Digital Signal Input allows connection of motion sensor

## Dimensions

Zhaga 43 x 80mm (HxD)


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# Technical specifications

| | |
|---|---|
| **Operating Voltage** | • 24VDC |
| **Power Consumption** | • Average < 0.7 W |
| **Interfaces** | • Output Control: DALI communication bus (up to 4 Drivers, individually addressed)<br>• Digital Input: Max. 24VDC, 20mA / PWM signal |
| **Onboard GPS** | • Option for an automatic and precise self-location and commissioning of the smart device. Standalone GPS, acquisition Sensitivity -130dBm. |
| **3D Accelerometer** | • Option for impact and vibration detection |
| **3D Gyroscope** | • Option for luminaire tilting detection over the 3 dimensional axis |
| **Motion Detection** | • Input Ready for Dynamic Lighting Scenario |
| **Metering/Monitoring** | • Line and load side<br>• Accuracy: EN50470 or ANSI C136.52<br>• Metered parameters: Voltage, Current, Active and Apparent Power, Frequency, Active and Apparent, Energy, Power Factor, Lamp Burning Hours, Device Up Time, Enclosure Temperature, Ambient Light Level (photocell variants only), Lamp Brightness Level, Driver Temperature, LED Module Temperature, Device Boot Counter, Driver Boot Counter, Lamp On Cycles, LED Voltage, LED Current<br>• Power Quality Monitoring: Mains power events notification |
| **Emissions Compliance (EMC)** | • FCC Part 15, Subpart B CFR 47 / CISPR 11 |
| **Safety Compliance** | • IEC 60950-1 / IEC 60950-22 |
| **Environmental** | • Operating temperature range: -40 °C to +70 °C<br>• Humidity: 95% RH, non-condensing<br>• Storage Temperature: -40 °C to +85 °C |
| **Physical** | • IP rating: IP 66, when fitted<br>• Weight: Zhaga 125 g<br>• Dimensions: 43 x 80mm (H x D) |
| **Itron Network** | **Radio-Frequency:**<br>• 865-880 MHz - Europe<br>• 902-928 MHz - North America<br>• 902-907 MHz / 915-928 MHz - Brazil<br>• 915-928 MHz - Australia<br>• 921.5-928 MHz - New Zealand<br>• Approvals: ETSI EN 300 220-1, FCC 15.247, Industry Canada RSS-210, ANATEL, AS 4268/ ACMA, NZS 4268/GURL<br><br>**RF Communications:**<br>• Data Rate: up to 300kbps mesh networking<br>• Automatic data routing with self-configuration, auto-healing & redundant uplinks<br>• Spreading Technique: FHSS (Frequency Hopping), GFSK<br>• Transmit Power: 1 W<br>• Emission Designator: 250KF1D<br>• Receiver Sensitivity: -98 dBm for 10% PER<br><br>**Protocols/Security:**<br>• Addressing: IPv6<br>• Protocol: IEEE 802.15.4g (WI-SUN Certified)<br>• Security: Secure Hash Algorithm 256-bit (SHA-256) and RAS-1024 or ECC-256<br>• Encryption: Advanced<br>• Encryption Standard (AES-128 or AES-256)<br>• Authentication: ECDSA & RSA Signatures<br>• Key Storage: Secure NVRAM with tamper detection and key erasure |
| **Certifications** | • Itron Network Certified<br>• TALQ Certified<br>• D4i Certified |
| **Installation** | • Zhaga based Smart Photocell can be installed on the top or the bottom of a luminaire connected to a Zhaga B18 twist-lock socket |

All specifications subject to change without notice
*Warranty subject to **obiWAN** Terms & Conditions

About **obiWAN®**

For smart technology to truly benefit those that live in our cities, townsand boroughs, we believe that Local Authorities need to be at the heartof the revolution. At **obiWAN**, we want to give our local councils and their contractors the knowledge and tools to deliver a scalable, future-proofed Smart City strategy.

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