CASAMBI INSIDE

■ Description

CAS-24V-ZHAGA-4P-80-DA control unit enables easy autonomous control and dimming of DALI devices (drivers, electronic ballasts, etc.). There is no need to use hubs, master devices or complex computer programs.

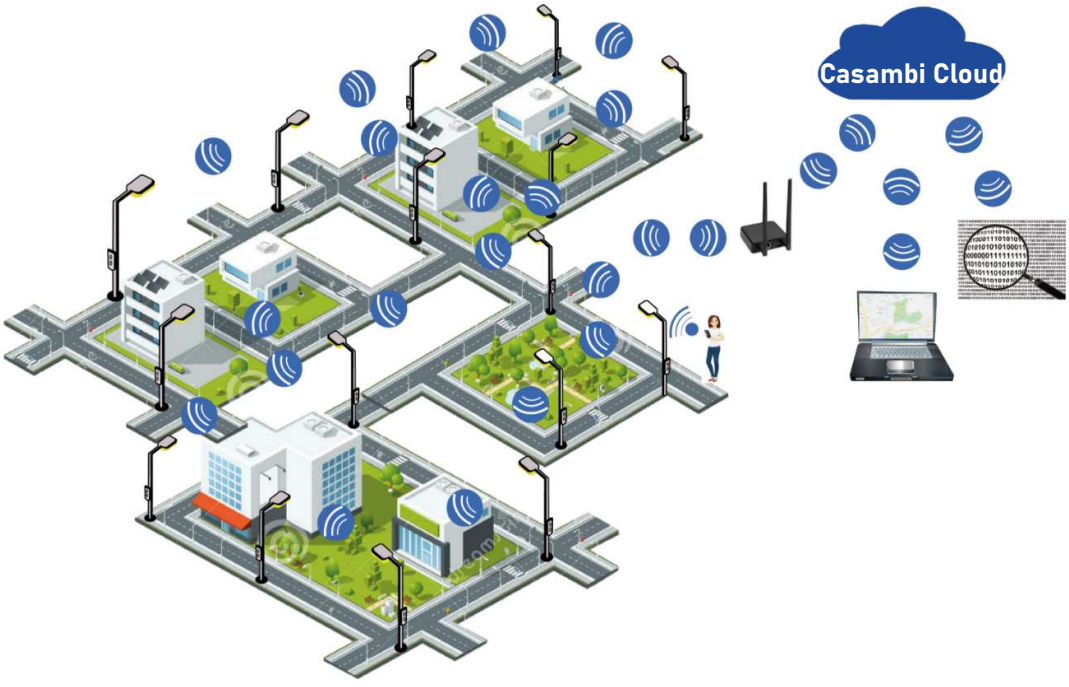
Communication is achieved by a meshed Bluetooth 4.0 network.

Each control unit stores information about its own configuration and also the configuration of the rest of controls installed in the same network. This provides the system with a high robustness level and also simplifies replacement of control units as programming them is not required.

Configuration and control can be done from a mobile phone or tablet using the free CASAMBI APP (available for iOS and Android). The networks work autonomously once configured. Remote control of the installation is also possible through the cloud by use of an internet connected device with Casambi App set up as gateway.

Main use is control of outdoor lighting applications. It is provided with an IP66 UV resistant enclosure. Hydrophobic vent is incorporated to prevent condensation.

Electrical connection and mechanical fixing are done through a standard ZHAGA Book 18 compatible socket by twist and lock, without tools.



■ Operation

By use of CASAMBI APP it is possible to group the luminaries by streets, set dimming levels based on the time, schedule special events for specific dates, etc.

Communication range between control units is up to 70m outdoors. Adding the control units to a net must be done individually with a mobile phone or tablet within range of each unit. For further installation setup and programming it is only necessary to be within the range of one of the controllers. Because it is a mesh type network, control units communicate with each other until the information reaches the control unit for which it is intended, even if it is located far away.

Communication security is provided by encrypted messages. It is possible to set different levels of access and configuration permissions. Network configuration information can optionally be stored in CASAMBI cloud and recovered if necessary. Several restoration points can be created. When a control unit receives a firmware update, it will automatically be retransmitted to the other control units.

Each network supports up to 250 control units. One installation can have unlimited number of networks which can be grouped together in one Site. Through the sites we can control different networks simultaneously, each network must have access to Internet through a Casambi router.

Diverse operating modes are possible (on/off, dimming 0-100%, circadian control, tunable white, etc.).

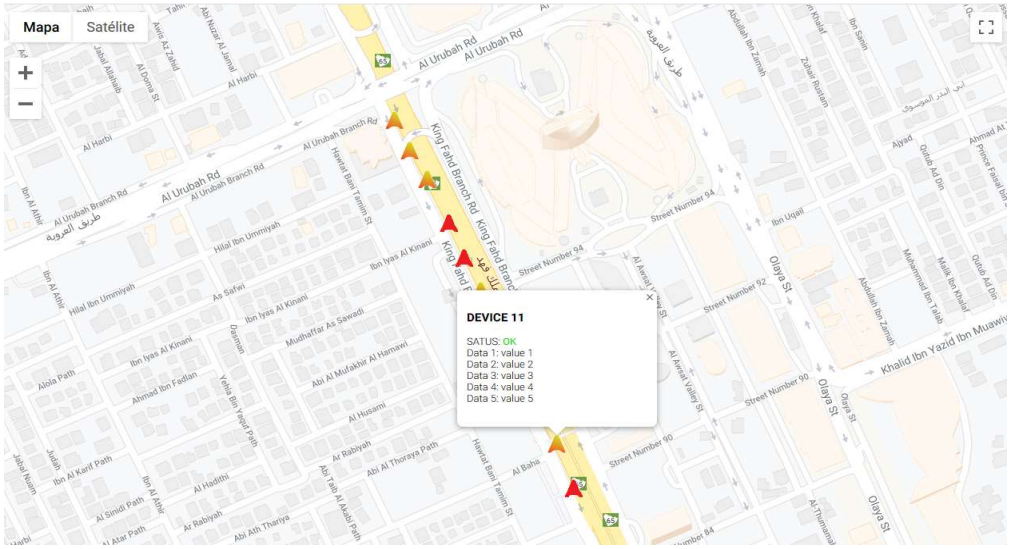
Different communication profiles can be configured to match the luminaire requirements (see profile list).

CAS-24V-ZHAGA-4P-80-DA features smart switching capability. It is possible to change between different preset light levels or scenes by flicking the power supply off and on.

Control unit temperature can be monitored in the App. Also internal data of DALI D4i drivers (power, etc).

It is compatible with any other devices from other manufacturers which also incorporate CASAMBI inside and CASAMBI Ready products like luminaries, presence and light sensors, relays, push buttons, etc.

CAS-24V-ZHAGA-4P-80-DA is IoT ready. It can receive information provided by the associated driver or ballast (power consumption, temperature, etc.) and send it to Casambi cloud by a device with internet connection and Casambi App set up as gateway. Access to this big data is possible through API and JSON protocol to exploit this information.



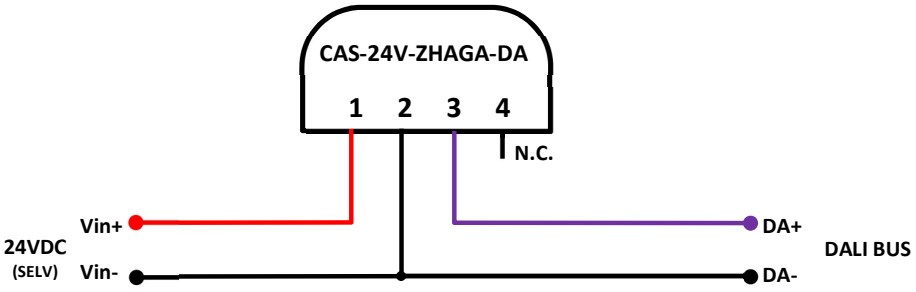
■ Technical data

Nominal input voltage	24 VDC SELV
Input voltage range	18-30 VDC SELV
Power consumption standby	<0,5W@24VDC (DALI bus disconnected)
Power consumption communicating	0,6W @24VDC (one DALI device connected)
Output control interface	DALI/DALI2
Integrated DALI voltage source	16VDC
DALI maximum output current	40mA max.
Dimming range	0-100%
RF communication interface	Bluetooth 4.0 Low energy (BLE)
RF communication protocol	Casambi
RF spectrum	2402–2483 MHz
RF network	Self-healing, frequency-hopping, spread spectrum mesh technology
Maximum transmission power	+4 dBm
Wireless class	Class 2
Data security	AES128 bit encryption + elliptical cryptography
Firmware update	OTA (Over the air)
Time/date update	Internal counter. Updatable from APP or by use of external timer after power disconnection or through Casambi gateway
Protections	Temperature
Temperature monitoring	Internal temperature is displayed in Casambi App
Operating temperature range	-40º to +80ºC
Dimensions	Diameter 80mm. Height 50mm
Weight	110gr.
Enclosure material	PC with anti-UV treatment
Enclosure isolation type	Reinforced isolation ⧇
IP	66
IK	09
Connector	ZHAGA Book 18
Standards	EN 61347-1:2016, EN 61347-2-11:2003, EN 55015:2013, EN 61547:2011, EN 61000-3-2, EN 61000-3-3, EN 301489-1, EN 301489-17.
DALI standards	IEC 62386 part 101, 102, 201, 203, 207, 250, 251, 252, 253
Directives	(LVD) 2014/35/UE, (EMC) 2014/30/UE, (RED) 2014/53/UE, (RoHS) 2011/65/UE, (REACH) 1907/2006.

■ Profiles

CAS-NODE (DALI lin Broadcast)	DALI Broadcast orders. Linear dimming curve.
CAS-NODE (DALI Log Broadcast)	DALI Broadcast orders. Logarithmic dimming curve.
CAS-NODE (DALI lin Group)	Controls four DALI groups. Linear dimming curve.
CAS-NODE (DALI Log Group)	Controls four DALI groups. Logarithmic dimming curve.
CAS-NODE (DALI lin DT8 TW Broadcast)	DALI2 DT8 Tunable white broadcast orders. Linear dimming curve.
CAS-NODE (DALI Log DT8 TW Broadcast)	DALI2 DT8 Tunable white broadcast orders. Logarithmic dimming curve.

■ Wiring diagram



Bottom view

The information presented in this document may change without notice.