



CASAMBI  
INSIDE

## ■ Description

CAS-24V-ZHAGA-4P-80-DA controller 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.

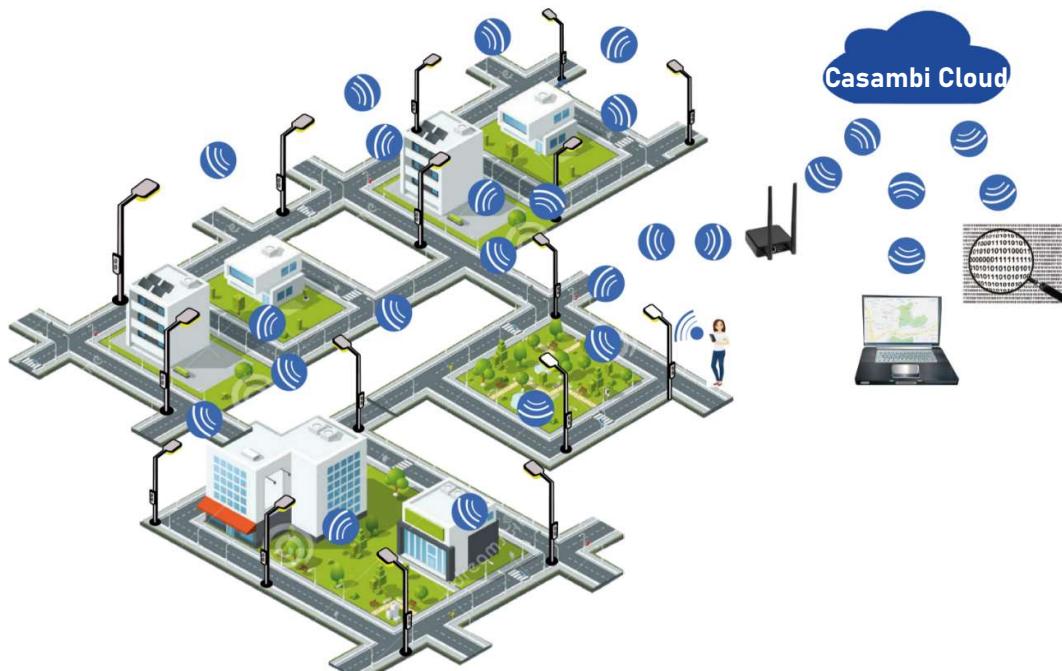
Communication is achieved by a meshed Bluetooth 4.0 network.

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 controllers is up to 70m outdoors without obstacles. Adding the controllers 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, controllers communicate with each other until the information reaches the controller 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 controller receives a firmware update, it will automatically be retransmitted to the other controllers.

Each network supports up to 250 controllers. 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.).

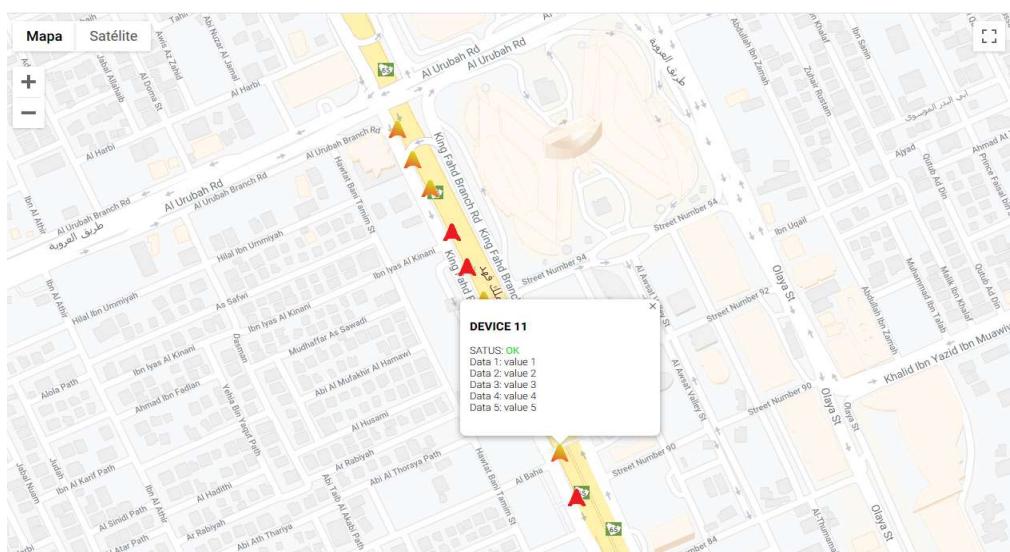
Different communication profiles can be configured to match the luminaire requirements (see profile list).

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 luminaires, 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	-40° to +80°C
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.

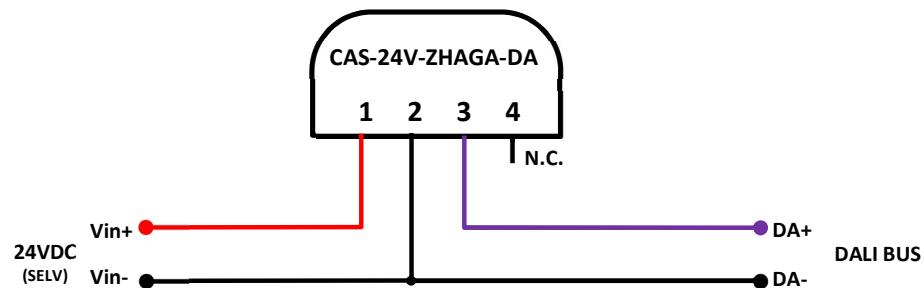
## ■ Profiles

DALI lin Broadcast	<b>DALI Broadcast.</b> Linear dimming curve. DALI power on level 0%.
DALI Log Broadcast	<b>DALI Broadcast.</b> Logarithmic dimming curve. DALI power on level 0%.
DALI lin (4 Groups)	<b>DALI 4xGroup.</b> Linear dimming curve. Controls DALI groups G0-G3. DALI power on level 0%.
DALI log (4 Groups)	<b>DALI 4xGroup.</b> Logarithmic dimming curve. Controls DALI groups G0-G3. DALI power on level 0%.
DALI Lin (6 Groups)	<b>DALI 6xGroup.</b> Linear dimming curve. Driver memory power on level.
DALI Lin RGB Short Address	<b>DALI RGB Short Address.</b> Linear dimming curve. DALI power on level 0%.
DALI Log RGB Short Address	<b>DALI RGB Short Address.</b> Logarithmic dimming curve. DALI power on level 0%.
DALI Lin 2xRGBW Short Add. 8Sliders	<b>DALI 2xRGBW Short Address.</b> 8 Sliders. DALI power on level 0%.
DALI Lin RGB/W+W Short Address	<b>DALI RGB/W+W Short Address.</b> Linear dimming curve. DALI power on level 0%.
DALI Lin DT8 RGB Broadcast	<b>DALI2 DT8 RGB broadcast.</b> Linear dimming curve. DALI power on level 0%.
DALI Log DT8 RGB Broadcast	<b>DALI2 DT8 RGB.</b> Logarithmic dimming curve. DALI power on level 0%.
DALI Lin DT8 RGB Short Address	<b>DALI2 DT8 RGB Short Address.</b> Linear dimming curve. DALI power on level 0%.
DALI Log DT8 RGB Short Address	<b>DALI2 DT8 RGB Short Address.</b> Logarithmic dimming curve. DALI power on level 0%.
DALI Lin DT8 RGBW BC	<b>DALI2 DT8 RGBW.</b> Linear dimming curve. Driver memory power on level. Dedicated slider for White colour.
DALI lin TW 2200-3000K Short. Addr.	<b>DALI TW 2200-3000K Short Address.</b> Linear dimming curve. DALI power on level 0%.
DALI lin TW 2200-6000K Short. Addr.	<b>DALI TW 2200-6000K Short Address.</b> Linear dimming curve. DALI power on level 0%.
DALI lin DT8 TW 1800-3000K Broadcast	<b>DALI2 DT8 TW 1800-3000K.</b> Linear dimming curve. Driver memory power on level.
DALI lin DT8 TW 2000-3000K Broadcast	<b>DALI2 DT8 TW 2000-3000K.</b> Linear dimming curve. Driver memory power on level.
DALI lin DT8 TW 2700-6000K Broadcast	<b>DALI2 DT8 Tunable white broadcast. 2700K-6000K.</b> Linear dimming curve. DALI power on level 0%.
DALI Log DT8 TW 1500-7900K Broadcast	<b>DALI2 DT8 Tunable white broadcast. 1500K-7900K.</b> Logarithmic dimming curve. DALI power on level 0%.
DALI Lin DT6 x2 Short Add. Icon dim	<b>DALI 2xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.
DALI Lin DT6 x3 Short Add. Icon dim	<b>DALI 3xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.
DALI Lin DT6 x4 Short Add. Icon dim	<b>DALI 4xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.
DALI Lin DT6 x5 Short Add. Icon dim	<b>DALI 5xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.
DALI Lin DT6 x6 Short Add. Icon dim	<b>DALI 6xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.

DALI Lin DT6 x7 Short Add. Icon dim	<b>DALI 7xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.
DALI Lin DT6 x8 Short Add. Icon dim	<b>DALI 8xShort Addresses.</b> Linear dimming curve. Automatic DALI addressing. Individual slider levels are overwritten if dimmed by sliding on the App icon. Driver memory power on level.

Other profiles available on request, please contact us.

## ■ Wiring diagram



Bottom view



The information presented in this document may change without notice.