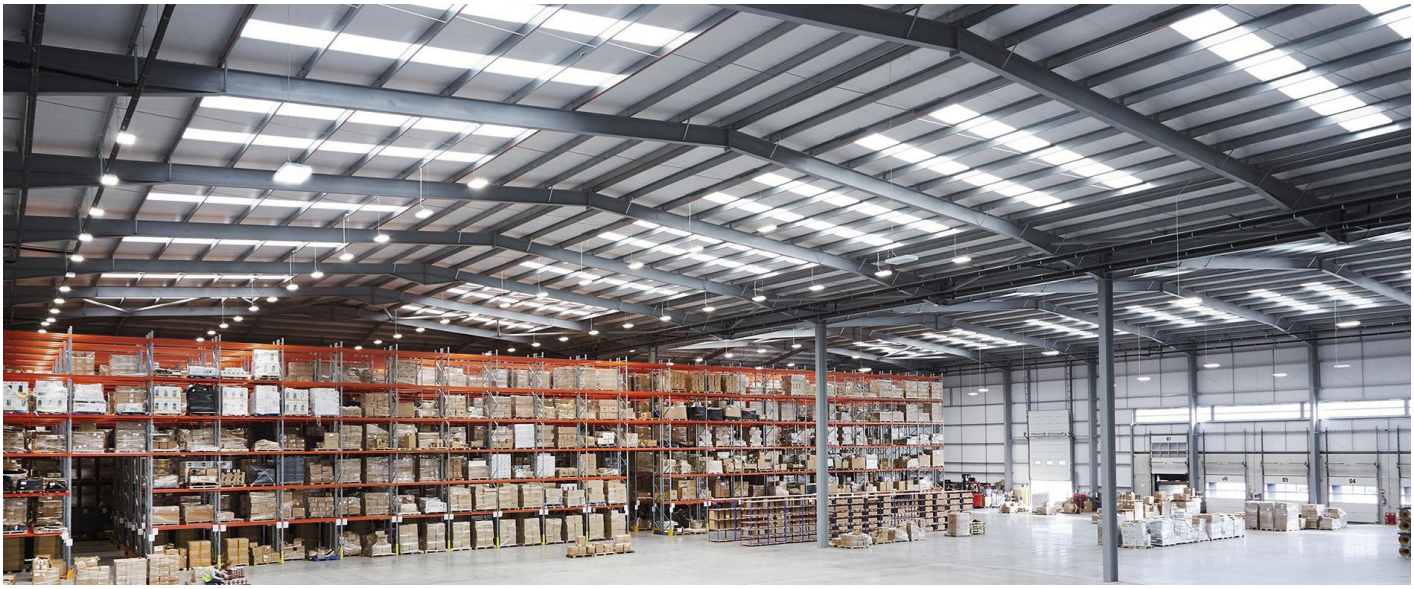
Highlights



Industrial spaces are one of the more complex building types to illuminate. Industrial facilities, particularly industrial warehouses and storage areas have one of the highest energy consumption for lighting (46kWh/sqm per year), therefore reducing operational and maintenance costs while increasing energy savings is very important. Workshops or production halls are areas that, in many cases, may operate 24/7, so energy efficient luminaires and more efficient use of daylight are beneficial not only for energy savings, but also for improved visual conditions, and the general wellbeing of employees.

Casambi offers a wireless communication solution that caters well to today's industrial facilities – by directly answering their need for powerful lighting control while tapping into further energy savings with sensors, switches, and other devices from the Casambi ecosystem. With the Casambi app, adjustable lighting such as daylighting can be implemented independently, conforming to localized needs and enabling energy saving through optimized use of light throughout the space. Based on Bluetooth Low Energy – the most popular and reliable low-power radio technology found in all modern smartphones, tablets, and smartwatches today – changes can be made at the touch of a button.

Casambi provides the best solution for renovation and extensions. As no control wires are needed, the installation is quick and non-disruptive. The versatility of the Casambi system makes it possible to extend the lifetime of existing installations by adding the layer of smart controls in a seamless way.

This guide outlines the transformative power of Casambi's wireless lighting control solution when applied within industrial spaces. It has been written with a view to demonstrating just how easy and joyful it can be to specify lighting solutions for industrial environments.

Facility Management Advantages

- Energy efficiency and sustainability
- Data and connectivity, occupancy control
- No internet connection required for daily operation
- Reduced operational costs
- Wireless emergency lighting with automated testing & reporting
- Non-disruptive installation, easy commissioning

Specifier Advantages

- The range and robustness of the mesh
- Advantages for future-proofing the installation
- Task-related predefined lighting scenes
- Flexibility
- Scalability
- Intuitive UI

Occupant Advantages

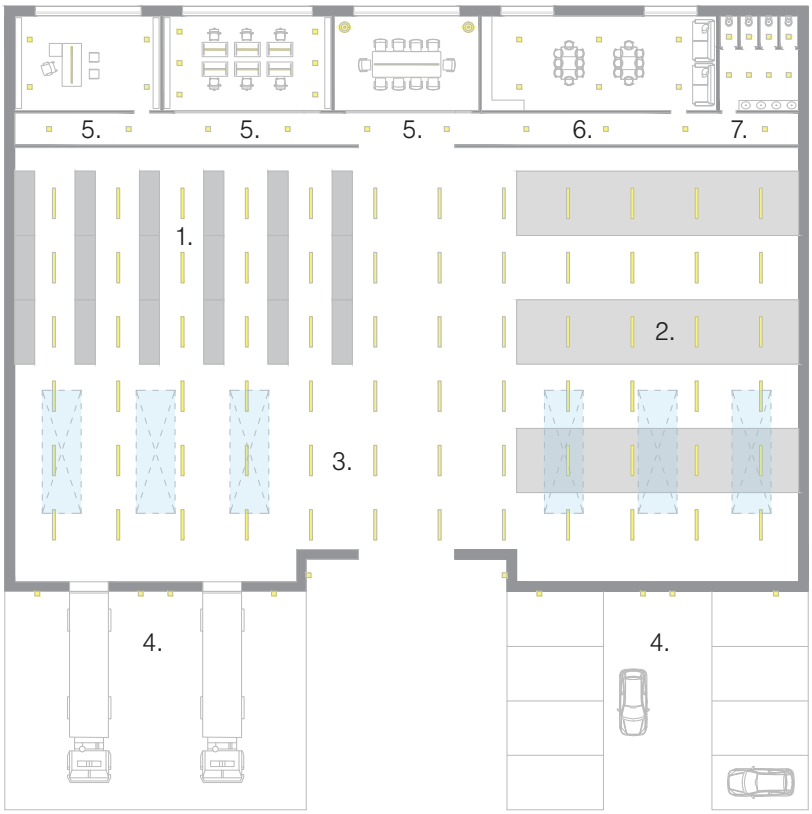
- Non-disruptive installation, easy commissioning
- Scalability

Installer/Contractor Advantages

- Future-proof the installation
- Free software updates over the air

Floor Plan

Industry



Possible Functionalities

1. Offices and Meeting Room

2. Lounge Area & 3. Bathrooms

4. Aisles/ Storage

5. Loading Hall & 6. Assembly

7. Exterior/ Parking

- **Switch**: ON/OFF switch or dimming controller.
- **Xpress**: Casambi wall-mounted switch to control up to 4 scenes, dimming and color temperature.
- **Casambi App**: Full functionality for commissioning and end-user control.
- **Daylight**: Level of artificial lighting is adjusted in response to available daylight.
- **Occupancy detection**: Lights are activated or dimmed based on presence.
- **Calendar & Timer**: Activate or deactivate light scenes based on the time of day or specific dates.
- **Scenes**: Programmed scenes or animations adjusting the light level, color or color temperature.
- **Circadian Lighting**: Personalized circadian profiles to adjust the color temperature (K) of luminaires based on the time of day.

Controllers

Manual Control

Sensors

Calendar & Timer

Network

Planning a project with Casambi is as simple as deciding on the functionality of the required control and then combining it with devices from the Casambi ecosystem.

Each device from the Casambi ecosystem is 100% interoperable with all Casambi enabled devices from other manufacturers.

The free Casambi app works as the user interface, commissioning tool, and remote gateway, so no additional devices or software is required to operate a standard Casambi mesh network.

Wireless and self-powered switches from the Casambi ecosystem can be used as a handheld device or easily attached to any surface. They work both as an on/off switch and a dimming controller.

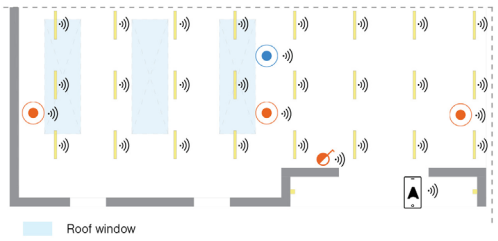
How to read this guide?

Room Type

Solution Type

2. Loading Hall

Individual Control



Casambi Ready luminaire

Casambi Ready occupancy and light sensor

Casambi Ready air quality sensor

Casambi Ready switch

Benefits

Casambi Application: You can control the luminaires individually or create control groups anytime via the Casambi App.

Using Casambi Ready products would be the easiest and most economic option.

Devices

LUMINAIRE	Casambi Ready luminaire	24
SENSOR	Casambi Ready occupancy and light sensor	3
	Casambi Ready air quality sensor	1
SWITCH	Casambi Ready switch	1
APPLICATION	Casambi App on a smart mobile device *Not mandatory for daily use.*	

Functionality

- Casambi App on a Smart Mobile Device
- Occupancy Detection
- Calendar and Timer
- Daylight Harvesting
- Data Analytics

5 Industry - V3.0 EN

For more information www.casambi.com/ecosystem

CASAMBI

Learn about the products used in the space

Understand how the products are laid out in the space

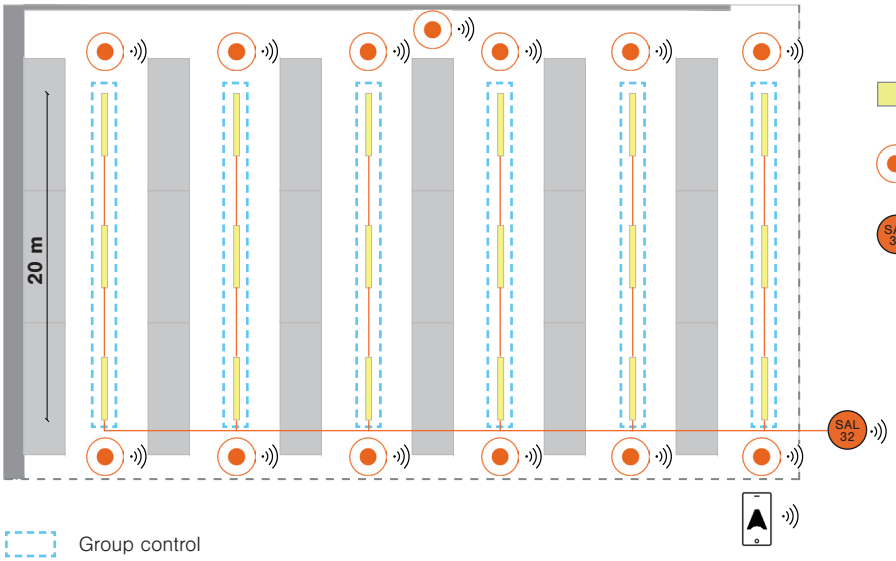
Understand the benefits

Understand what products would be needed to achieve the strategies

Learn what strategies can be implemented in the space

1. Aisles/ Storage

Retrofit



Group control

DALI Bus

Standard luminaire DALI

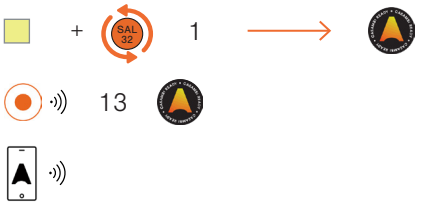
Casambi Ready occupancy sensor

Casambi Salvador 32 DALI Controller

The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

Devices

LUMINAIRE	Standard luminaire DALI
SENSOR	Casambi Ready occupancy sensor
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*



Functionality

Casambi App on a Smart Mobile Device

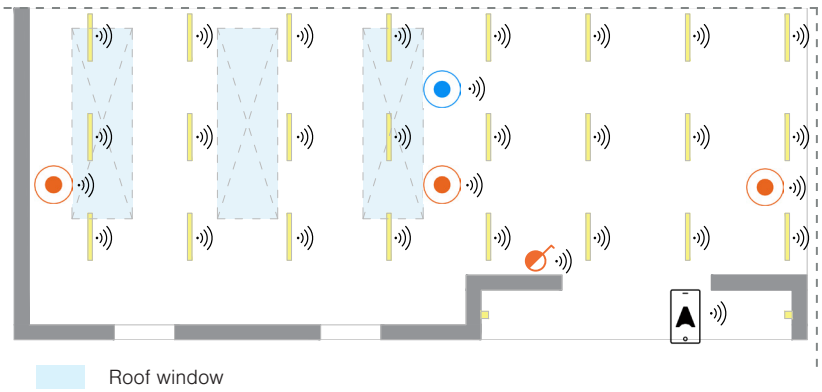
Occupancy Detection

Calendar and Timer

Data Analytics

2. Loading Hall

Individual Control



Casambi Ready luminaire

Casambi Ready occupancy and light sensor

Casambi Ready air quality sensor

Casambi Ready switch

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Casambi Application: You can control the luminaires individually or create control groups anytime via the Casambi App.

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Devices

LUMINAIRE	Casambi Ready luminaire	24
SENSOR	Casambi Ready occupancy and light sensor	3
	Casambi Ready air quality sensor	1
SWITCH	Casambi Ready switch	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

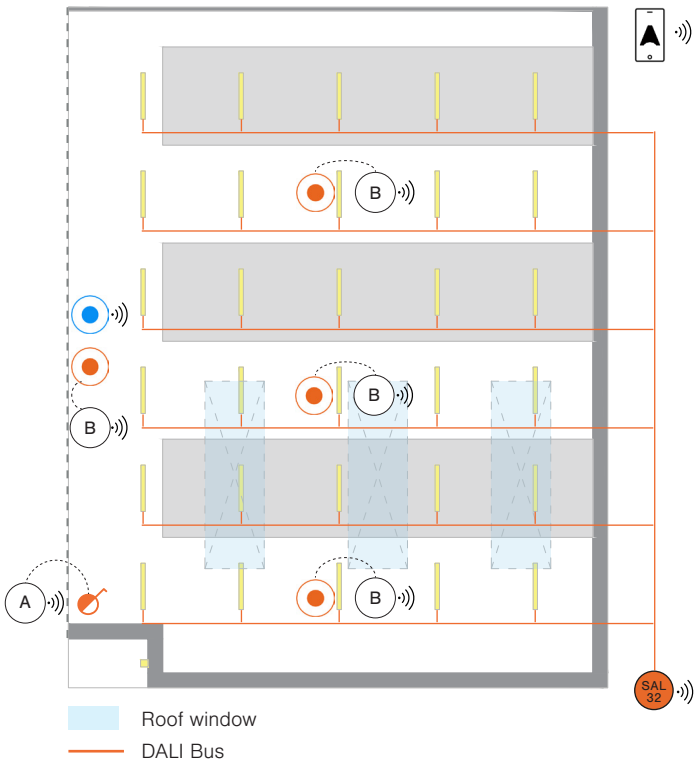
Casambi App on a Smart Mobile Device

Occupancy Detection

Calendar and Timer

Daylight Harvesting

Data Analytics



Standard luminaire DALI

Conventional wired switch

Standard occupancy and light sensor

Casambi Ready air quality sensor

Casambi Ready Input controller

Casambi wireless controller

Casambi Salvador 32 DALI Controller

The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

Recommissioning for new energy saving strategies and the addition of new sensors can be difficult in industrial spaces with high ceilings or hard-to-reach areas. Casambi's Salvador can be connected to an existing DALI bus to control up to 64 DALI luminaires individually, enabling them to become part of a Casambi mesh network. Multiple Salvadors can be part of the same Casambi mesh network, as long as the 250 nodes limit is adhered to. This allows ease of programming and control for all devices via the Casambi App.

The network can easily be extended later with the addition of new luminaires or devices, as shown here with exterior lighting.

Devices

LUMINAIRE	Standard luminaire	+ SAL 32 1 →
SWITCH	Conventional wired switch	+ A 1 →
SENSOR	Standard occupancy and light sensor	+ B 4 →
	Casambi Ready air quality sensor	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

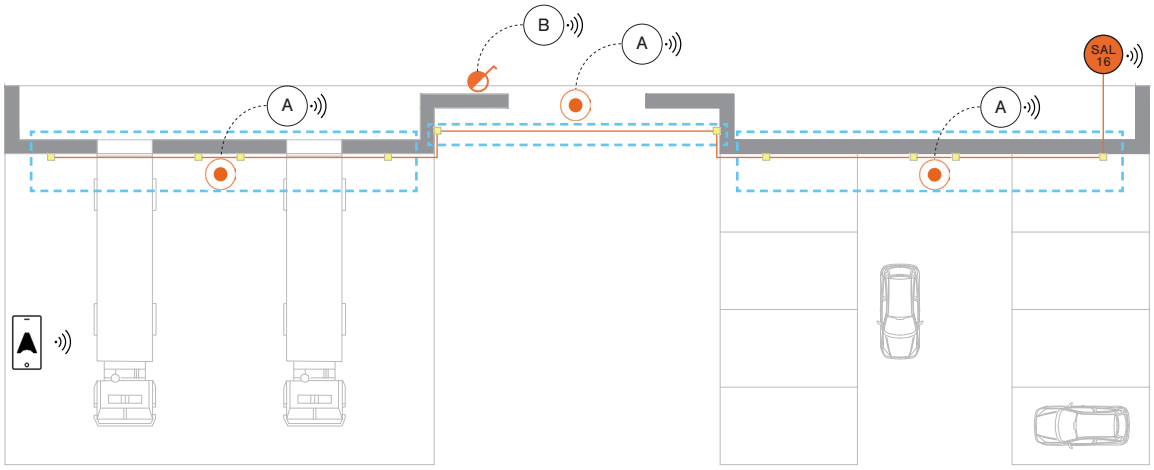
Casambi App on a Smart Mobile Device

Occupancy Detection

Calendar and Timer

Daylight Harvesting

Data Analytics



Standard luminaire DALI

Standard occupancy and light sensor DALI

Conventional wired switch

A Casambi wireless DALI controller

B Casambi Ready Input controller

SAL 16 Casambi Salvador 16 DALI Controller

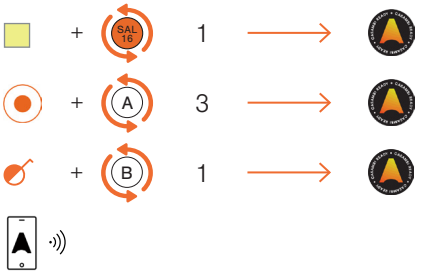
The Casambi Salvador Series DALI Controller offer product versions both with and without DALI supply. Depending on the version used, a power supply for the DALI bus might be required.

In this specific exterior layout, the Casambi Salvador DALI Controller is installed inside, with the switch that can control the exterior and interior lights.

Salvador, can be installed remotely, but always within BLE range of the mesh, so indoor and outdoor can be linked.

Devices

LUMINAIRE	Standard luminaire DALI
SENSOR	Standard occupancy and light sensor DALI
SWITCH	Conventional wired switch
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*



Functionality

Casambi App on a Smart Mobile Device

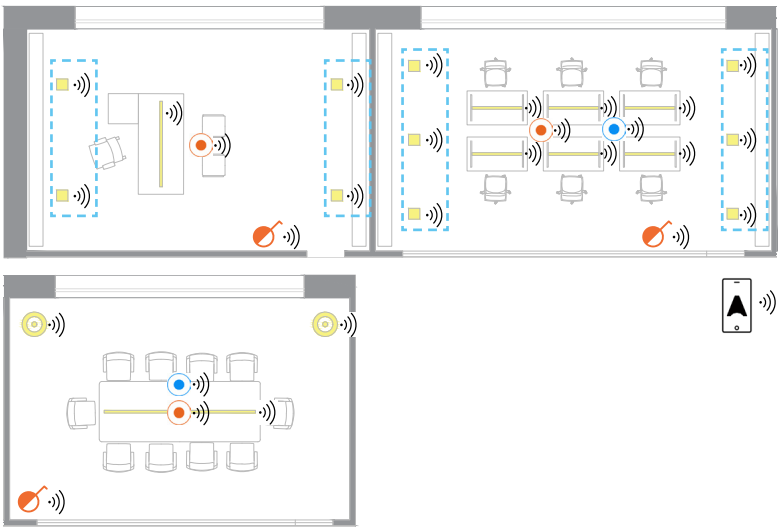
Occupancy Detection

Daylight Harvesting

Data Analytics

5. Offices and Meeting Room

Group Control



Group control

Casambi Ready luminaire

Casambi Ready luminaire

Casambi Ready luminaire

Casambi Ready occupancy and light sensor

Casambi Ready air quality sensor

Casambi Ready switch

Benefits

Casambi Application: You can create separate control groups or create new control groups anytime via the Casambi App.

Devices

LUMINAIRE	Casambi Ready luminaire	10
	Casambi Ready luminaire	8
	Casambi Ready luminaire	2
SENSOR	Casambi Ready occupancy and light sensor	3
	Casambi Ready air quality sensor	2
SWITCH	Casambi Ready switch	3
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device

Occupancy Detection

Calendar and Timer

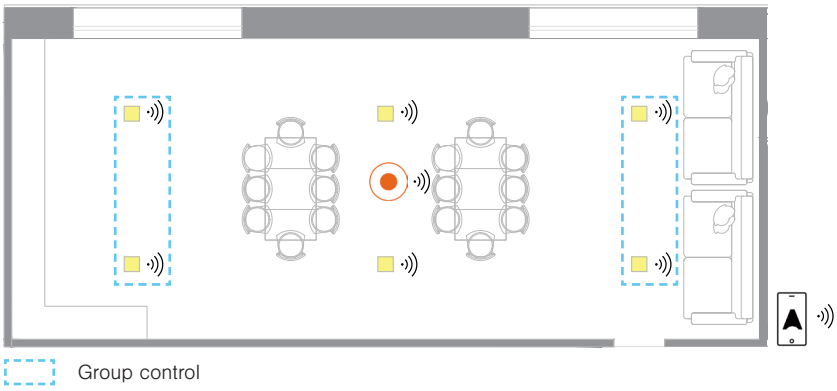
Human Centric Lighting

Daylight Harvesting

Data Analytics

6. Lounge Area

Individual & Group Control



Group control

Casambi Ready luminaire

Casambi Ready occupancy sensor with inbuilt relay

Devices

LUMINAIRE	Casambi Ready luminaire	6
SENSOR	Casambi Ready occupancy sensor with inbuilt relay	1
APPLICATION	Casambi App on a smart mobile device **Not mandatory for daily use.*	

Functionality

Casambi App on a Smart Mobile Device

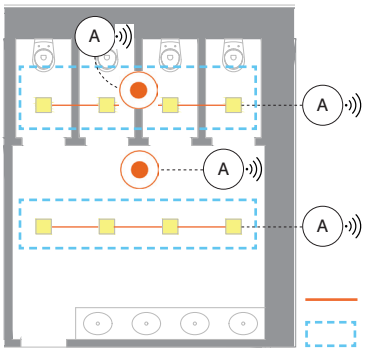
Occupancy Detection

Daylight Harvesting

Calendar and Timer

Data Analytics

Group Control with DALI Dimming



Standard luminaire DALI

Standard occupancy sensor DALI

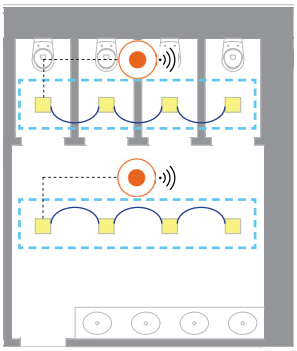
A Casambi wireless controller DALI

*Internal walls don't reach up to the ceiling.

Devices

LUMINAIRE	Standard luminaire DALI	+ A 2 →
SENSOR	Standard occupancy sensor DALI	+ A 2 →

Group Control with Relay Switching



Standard ON-OFF luminaire

Casambi Ready occupancy sensor with inbuilt relay

*Internal walls don't reach up to the ceiling.

Devices

LUMINAIRE	Standard ON-OFF luminaire	8
SENSOR	Casambi Ready occupancy sensor with inbuilt relay	2 →

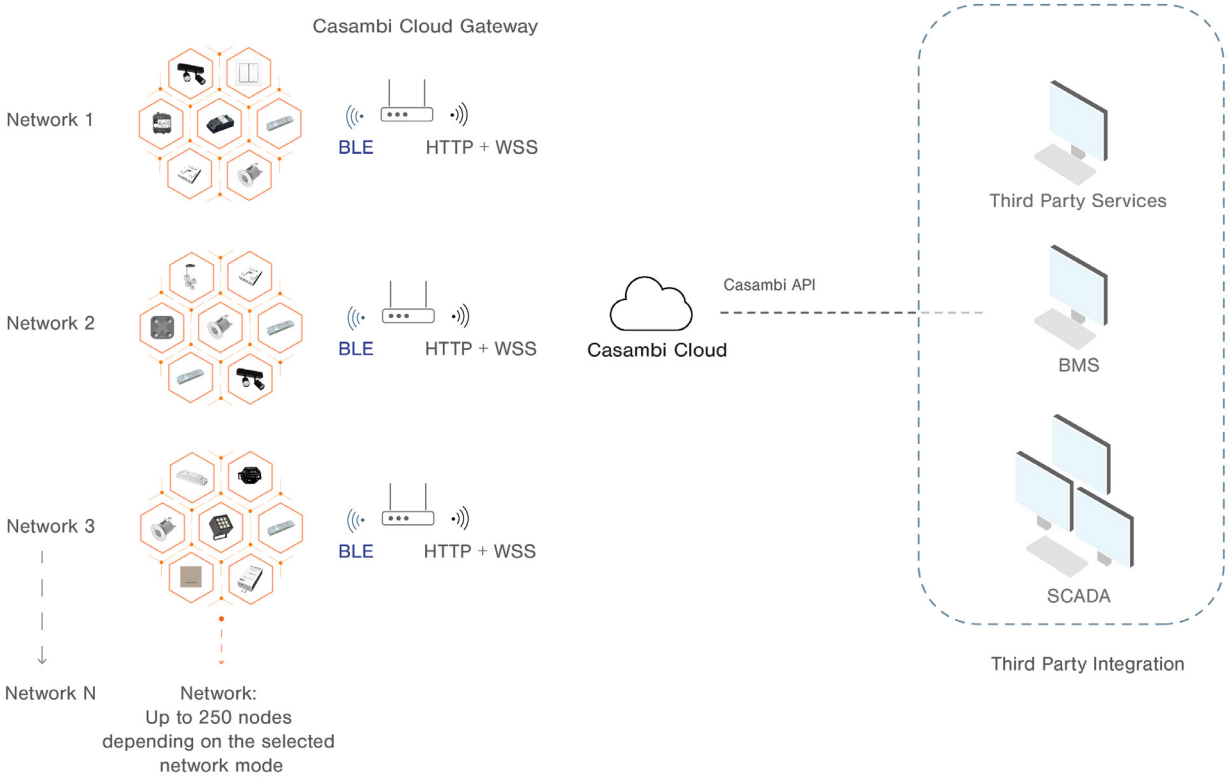
Functionality

Occupancy Detection

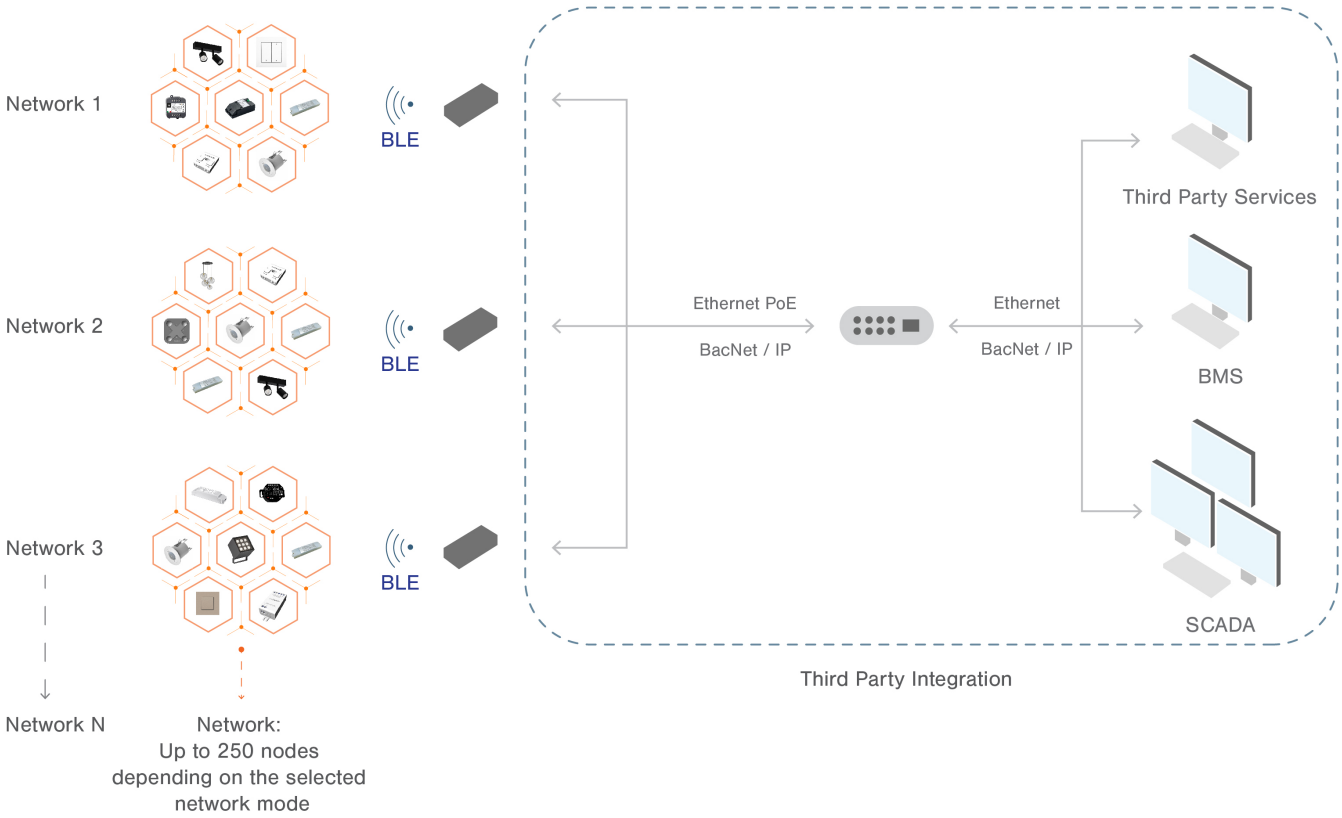
Calendar and Timer

Data Analytics

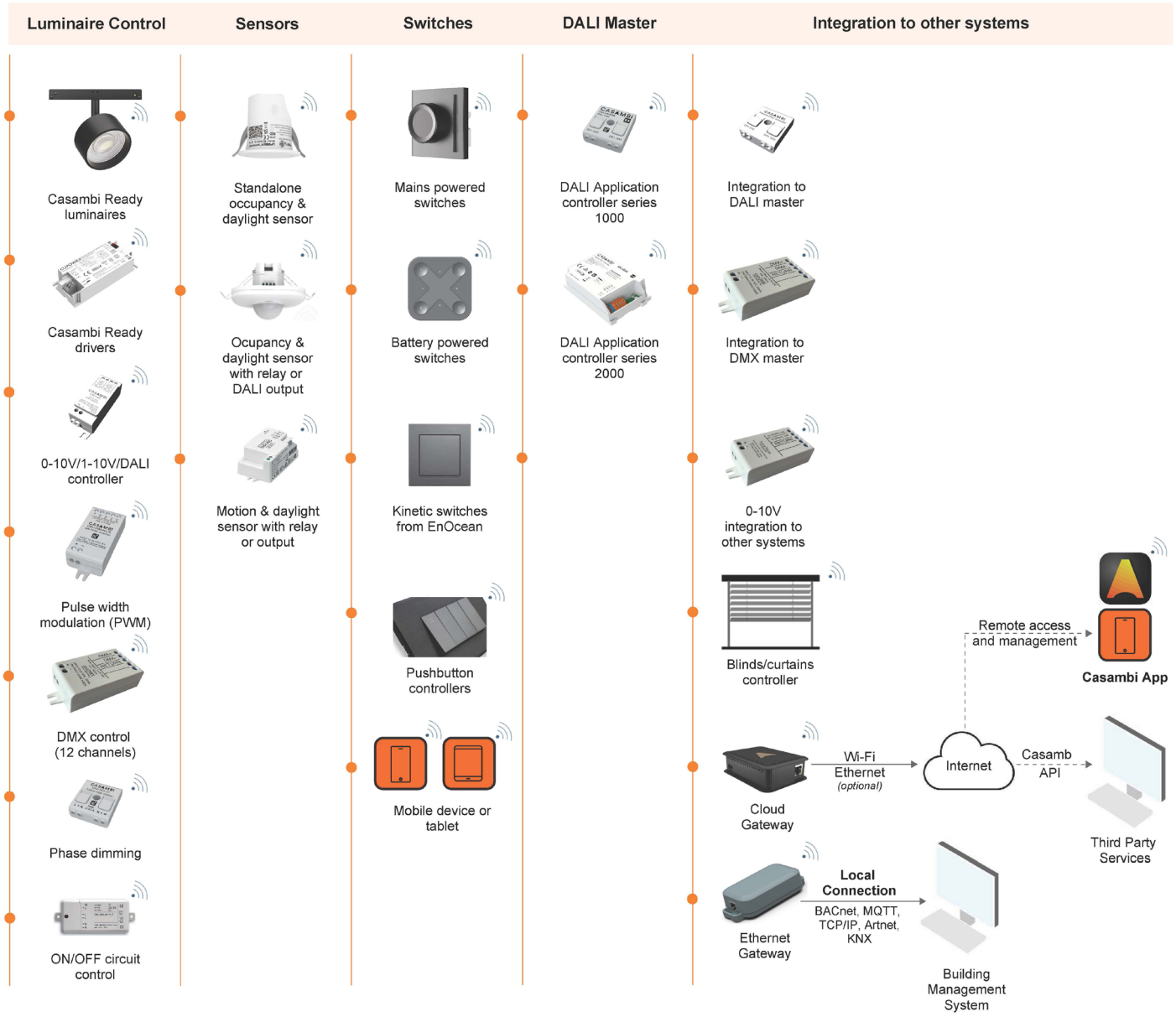
Linking multiple networks with Casambi Cloud Gateway



Linking multiple networks locally

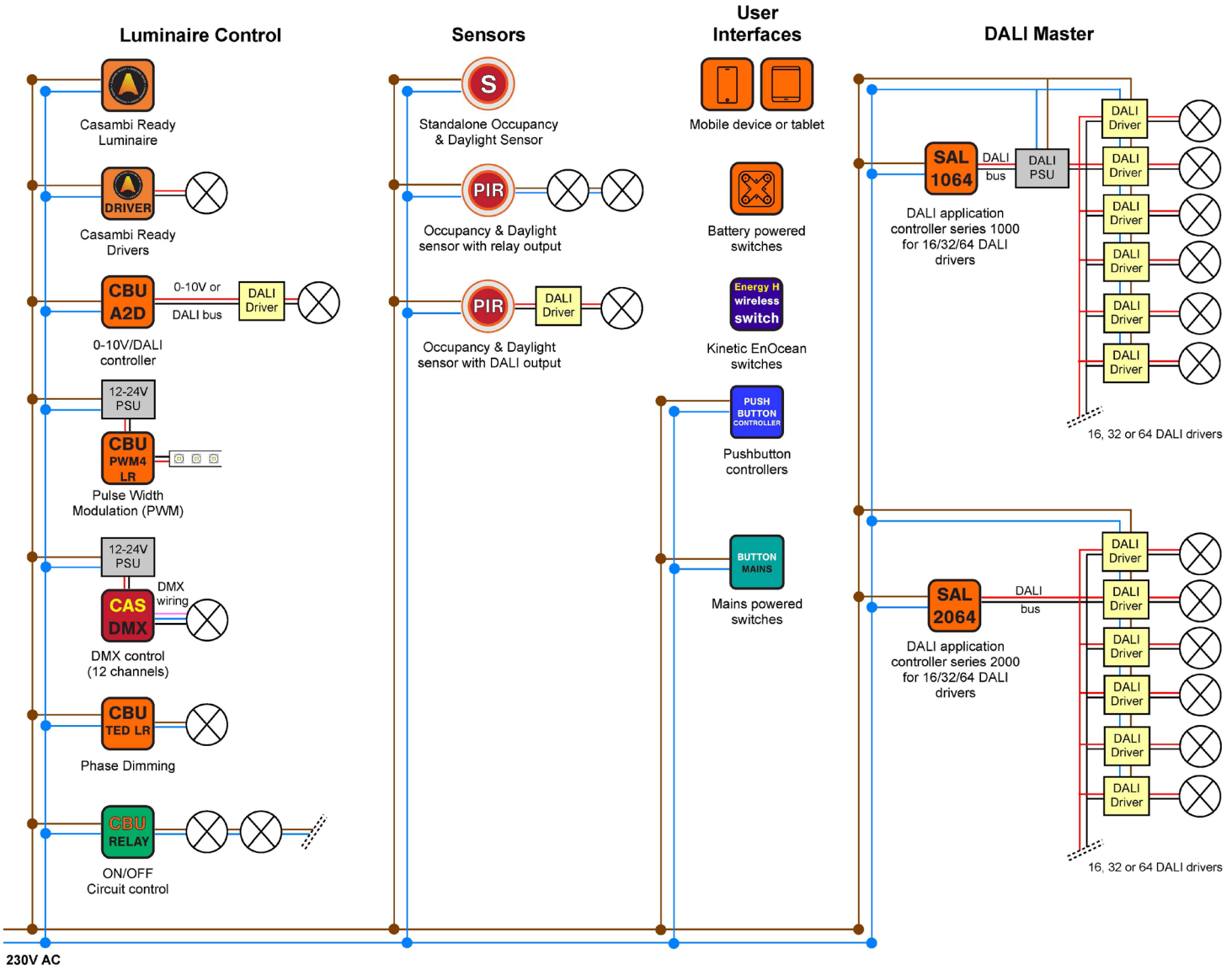


Casambi System Diagram



For more information www.casambi.com/ecosystem

Casambi System Diagram



Casambi System Diagram