

**ZEMPER**

THE EMERGENCY LIGHTING SPECIALIST

Smart 

Smart monitoring system  
for emergency lighting



## Are you prepared for an emergency?

Regular monitoring and testing of emergency lighting installations are essential to safeguard the lives of building occupants during emergencies. To enhance visitor and user safety in emergency situations, it is imperative to consistently maintain and document the health of emergency lighting. As the owner or manager of the building, you bear legal responsibility and accountability for the emergency lighting setup.

In the era of the Internet of Things (IoT), digital connectivity is driving transformation and innovation. The push towards smarter, more efficient, and secure buildings is opening up a plethora of opportunities.



The wireless monitoring system with cutting edge technology suitable for projects of any size, ranging from small businesses to those with thousands of luminaires.

SmartZ<sup>®</sup> is designed to enable anyone, from building owners to maintenance operators, to easily maintain and test emergency lighting. There is no need to physically verify the luminaire's health as the system creates alerts.

**Benefit from the most up-to-date technological features,  
and the highest level of cyber security.**

**Easy to install, easy to maintain.**

**PLUG AND PLAY**  
Luminaires fully connected in minutes.  
Intuitive and fast.

**LOWER INSTALLATIONS COSTS**  
We are committed to helping our clients by  
eliminating wires and installation hours.

**EASY MONITORING**  
Monitor the system's status in real time,  
whenever and wherever you are.

**HIGHLY RELIABLE**  
Ultra reliable,  
intelligent mesh network.

**SIMPLE INTEGRATION  
WITH BMS**  
Interconnectivity with  
other systems or BMS.

**REDUCTION  
OF CARBON FOOTPRINT**  
Reduction of installation  
and maintenance footprint.



**1. FAST**



**2. LOWER COSTS**



**3. EASY**



**4. RELIABLE**



**5. SIMPLE**



**6. SUSTAINABLE**



# 1. Plug and Play

Luminaires fully connected in minutes.  
Intuitive and fast.

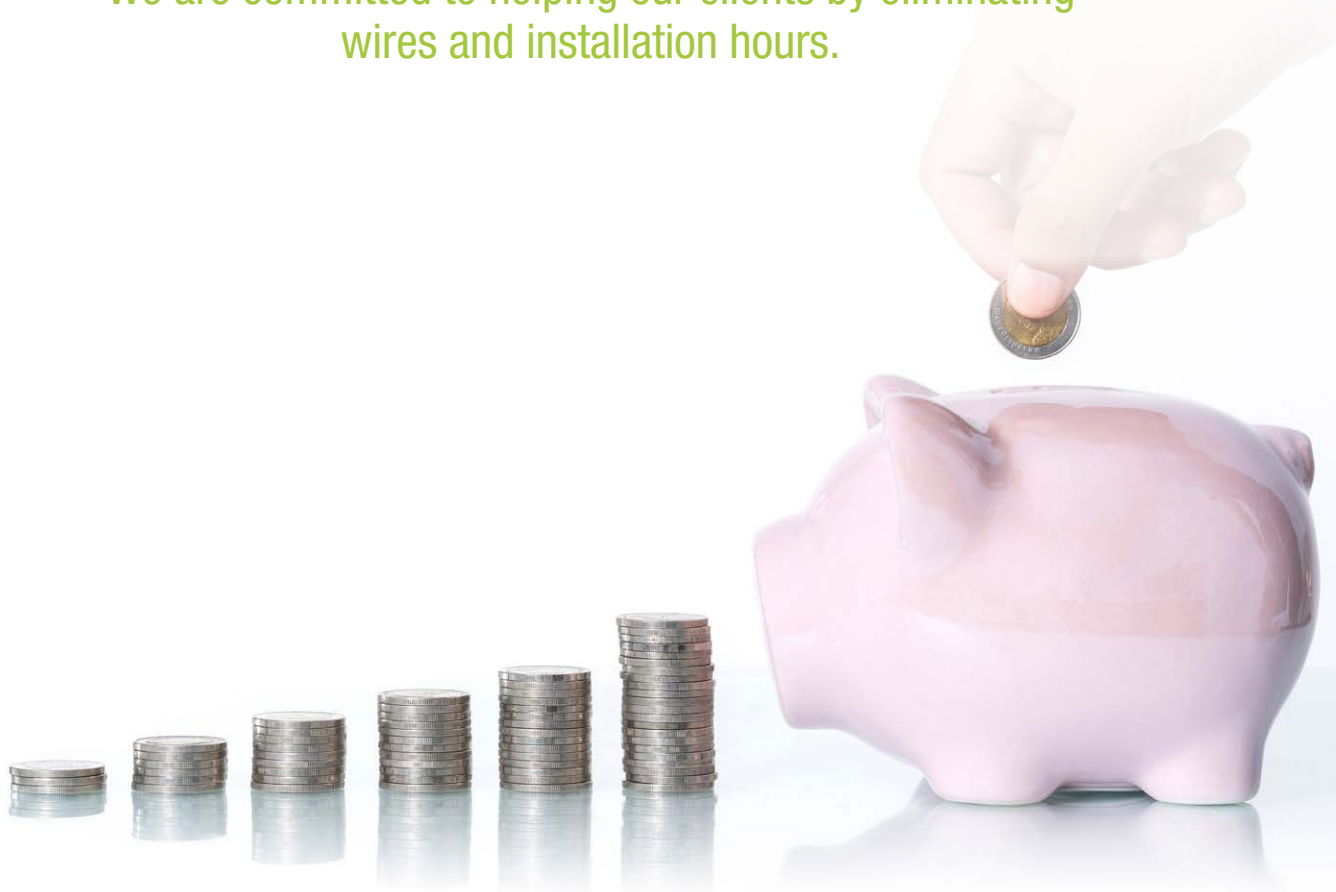


- Automatic luminaire recognition, automatic numbering.
- Luminaires are connected with each other, every luminaire is emitting and receiving signals creating a dynamic mesh.
- The nodes of the mesh are connected quickly and securely. No interference, and communication is established immediately.
- No need for pre-loaded data bases.
- Set-up with unlimited number of luminaires. The mesh allows the connection of more than 10 000 luminaires to the same control unit.
- Simple and fast installation and commissioning. Immediate set up.

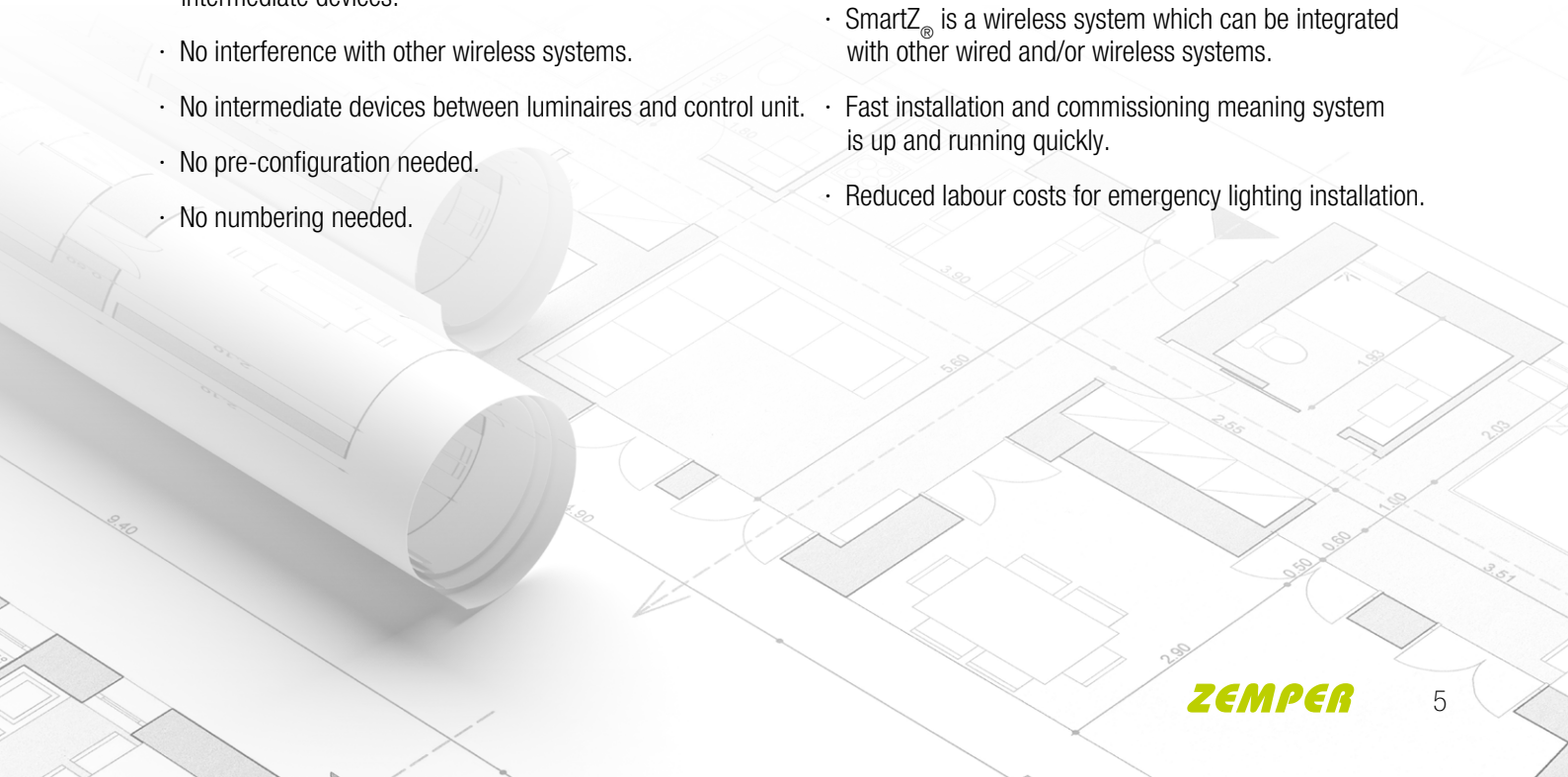


## 2. Lower Installation Costs

We are committed to helping our clients by eliminating wires and installation hours.



- True wireless system. No wiring needed from control unit to intermediate devices.
- No interference with other wireless systems.
- No intermediate devices between luminaires and control unit.
- No pre-configuration needed.
- No numbering needed.
- Only one control unit per 10 000 wireless luminaires.
- SmartZ<sup>®</sup> is a wireless system which can be integrated with other wired and/or wireless systems.
- Fast installation and commissioning meaning system is up and running quickly.
- Reduced labour costs for emergency lighting installation.





## 3. Easy Monitoring

Monitor the system's status in real time,  
whenever and wherever you are.

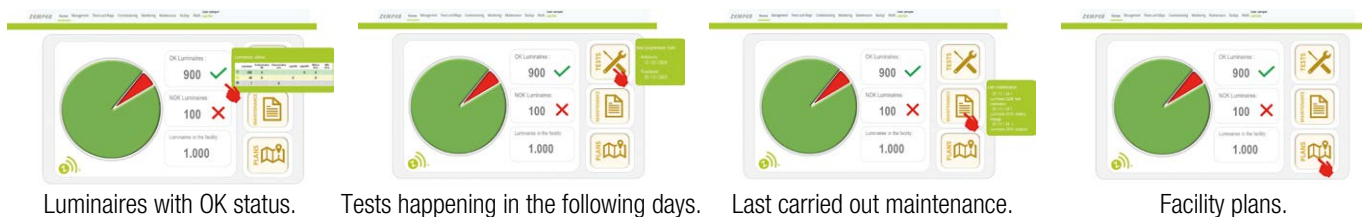


- User-friendly web based graphical user interface.
- Access from your mobile, laptop or tablet.
- No need to install any additional software. Our user interface works in any browser.
- Schedule functional and duration test and collect reports.
- Upload your building plans and see status and precise location of each emergency lighting luminaire in your building in real time.
- Share test results or status information with others.
- Easily updated or expanded.
- OTA software update. OTA (On The Air) technology allows firmware upgrades without the need of physical connections. Excellent for devices that are in remote or hard-to-reach locations.
- Real-time self-monitoring and maintenance alerts.

# Easy to use and understand the status of the system devices. View the entire system's status at a glance.



For more detail, simply hover over.



## Interactive 2D floor plan layout showing emergency lighting positioning.



- Easy to manage multiple facilities, areas and/or groups.
- List the luminaires with their main characteristics (filters, test management, ...).
- Test reports provide compliance with legal requirements.
- Maintenance logbook.



## 4. Highly Reliable

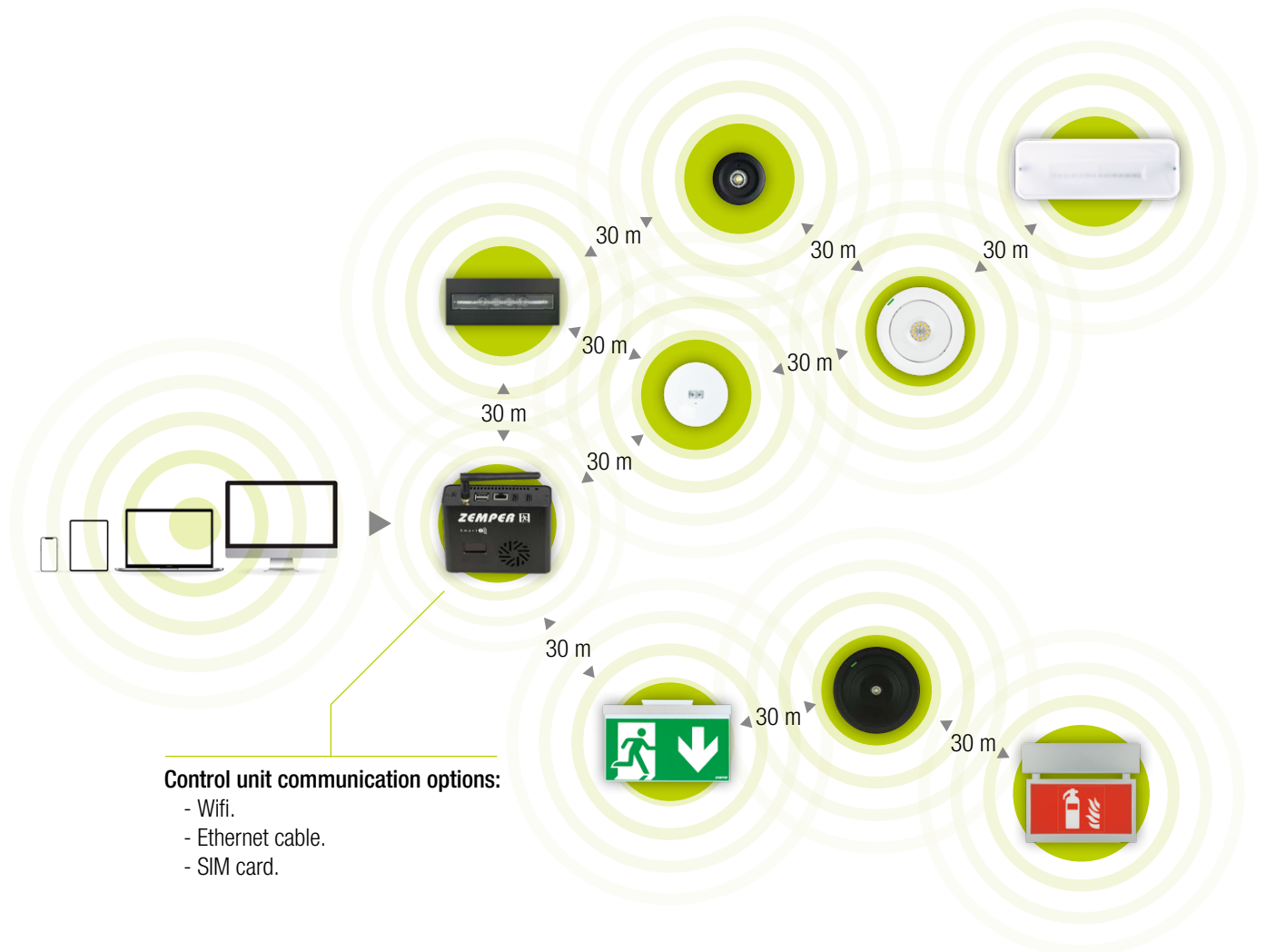
Ultra reliable, intelligent mesh network



- The dynamic mesh network is fully secure. It uses industry-standard AES128 encryption in all messaging.
- System communication uses ultra reinforced 2.4 GHz radio frequency band.
- 10 000 luminaire system capacity, per control unit.
- Management of the system is done via web interface, where 24-7, 365 access is possible.



# High signal penetration.



- SmartZ<sup>®</sup> utilises cutting-edge technology to create a reliable mesh network.
- The system uses up to 40 channels to communicate without interference from other systems. Systems adapt automatically and allow large scale applications alongside other wireless systems.



## 5. Simple Integration with BMS

Interconnectivity with other systems or BMS.



- Communication with MODBUS and BACnet protocols are supported.
- Potential smart sensors integration.
- Utilising the mesh network created by the emergency luminaires it is possible to add other potential features such as asset tracking or indoor wayfinding.

**The control unit allows communication with other system hubs and integration into BMS (Building Management Systems).**



## 6. Reduction of Carbon Footprint

Reduction of installation and maintenance footprint.

**Your emergency lighting monitoring system for a more sustainable world.**



SmartZ<sup>®</sup> contributes to lowering greenhouse gases emissions and developing environments that enhance the well-being of people in both the short and long terms:

- Reduction of installation and maintenance footprint. The simple and fast installation, commissioning and maintenance ensure less people are required on site, lower energy consumption and less transport pollution.
- Eliminating the need for additional devices or cables helps conserve natural resources by reducing material consumption and minimising waste at the end of their lifecycle.
- Reports are easy to understand and share, no need for printing.
- The housing of SmartZ<sup>®</sup> control unit is made of aluminium. 100% recyclable.
- Ecodesign and energy consumption are always in our R&D team's minds. SmartZ<sup>®</sup> control unit has been designed as small and compact as possible.
- SmartZ<sup>®</sup> product identification has been printed using a laser on the control unit itself to avoid paper or plastic stickers.
- 100% recycled and recyclable packing.
- SmartZ<sup>®</sup> makes your building safer, saving lives in case of an emergency, creating a better world. Corporate Social Responsibility is also a big pillar of our Sustainability commitment with society.
- Our EVO10 range, our most durable and sustainable range, with 10 year warranty is also available with SmartZ<sup>®</sup>.



[Download the EVO10 range brochure](#)

**Sustainability is more than just a buzzword for Zemper.  
It's leading our entire business strategy.**



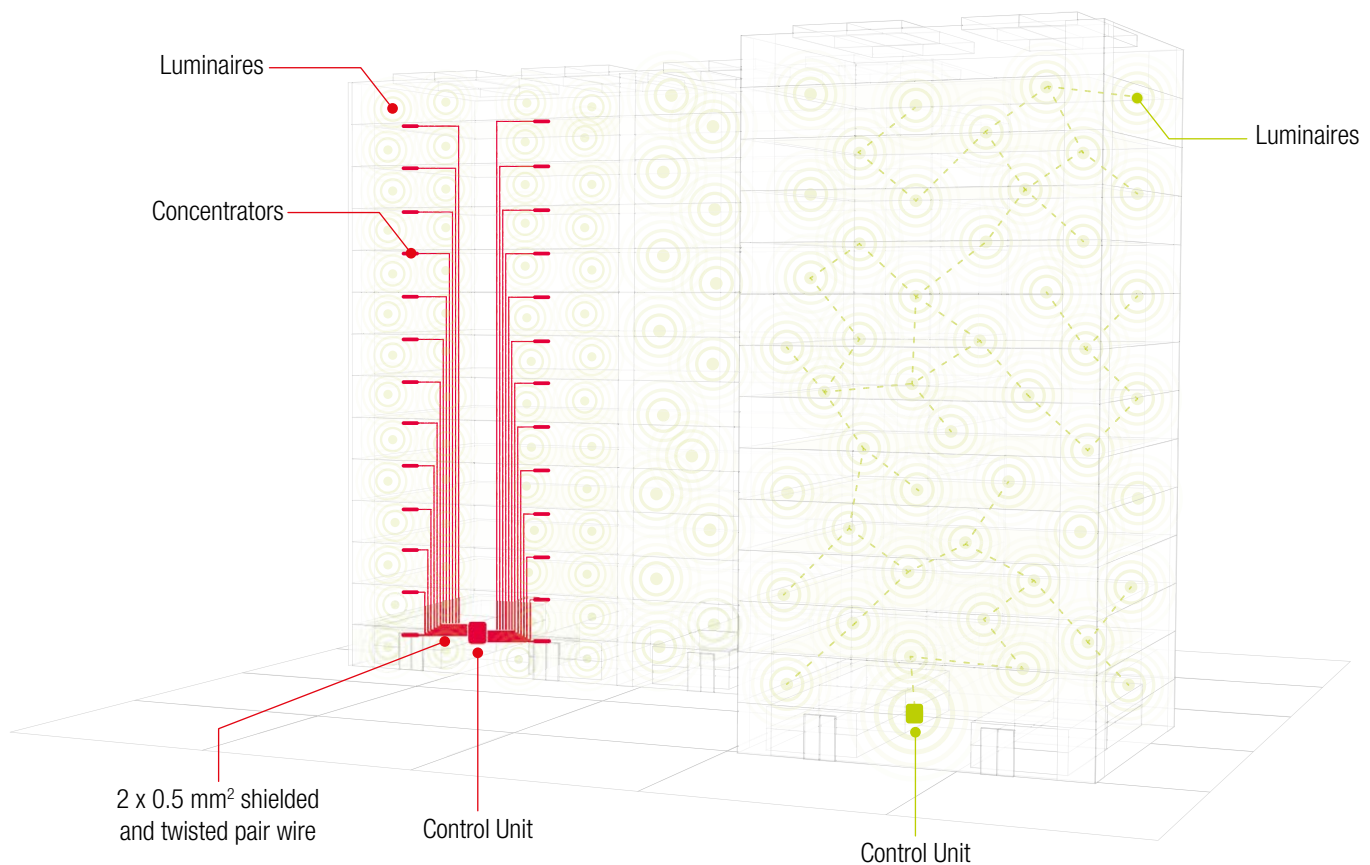


- Manufacturing: each luminaire has to be programmed with a specific address.
- Logistics: each luminaire has to be packed and delivered in an individual way.
- Installation: each luminaire has to be installed in a specific location.
- Additional networking equipment required.

- Manufacturing: no need to pre-programme special wireless addresses or parameters.
- Logistics: all luminaires are the same, they don't need special addresses.
- Installation: luminaires can be installed in any location.
- No additional repeaters and ancillary devices required to make the system work.

## Simpler, faster, easier.

Control of several buildings **at the same time.**



Other wireless communication systems



Smart-Z®



# Wireless SmartZ<sup>®</sup> CONTROL UNIT

## SPECIFICATION



Power supply: 5 Vdc - USB power unit (supplied)



Consumption: 20 W



Battery backup (accessory)



Interfaces: 1 x RJ45 (Ethernet)  
3 x USB 2.0  
2 x HDMI  
1 x USB C Power



Working temperature: 0 °C - 40 °C



Protection class: III



Dimensions (mm):  
89 (without antenna) x 125 x 44

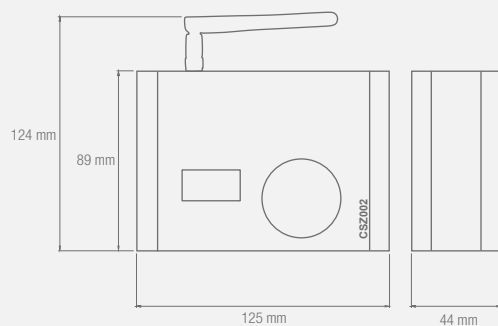


Weight: 400 g



Mounting: Wall / DIN Rail

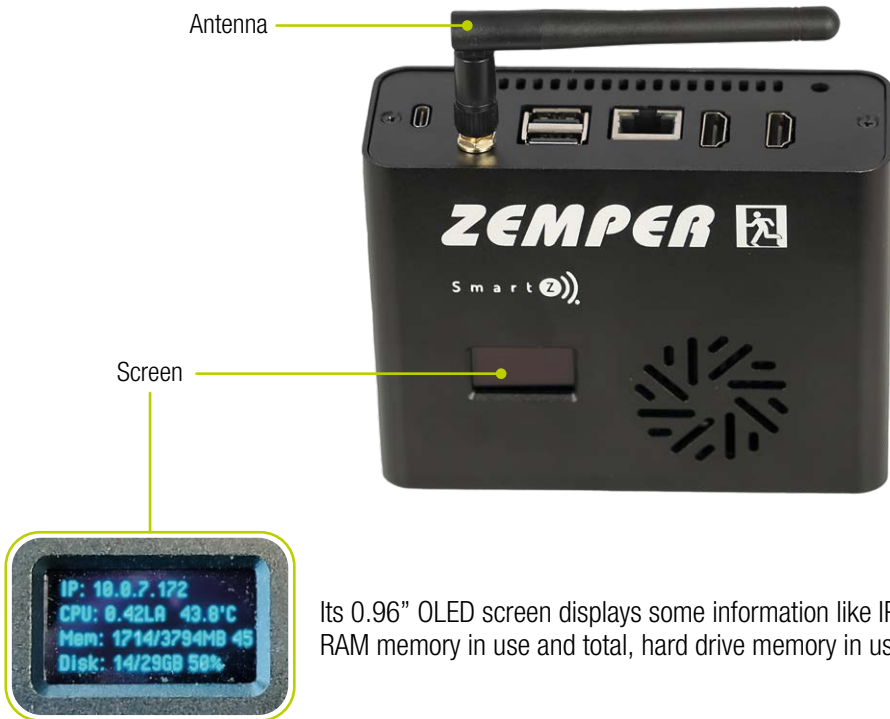
## DIMENSIONS (mm)



Description	Part number
SmartZ <sup>®</sup> control unit	CSZ002

## ONGOING CERTIFICATIONS

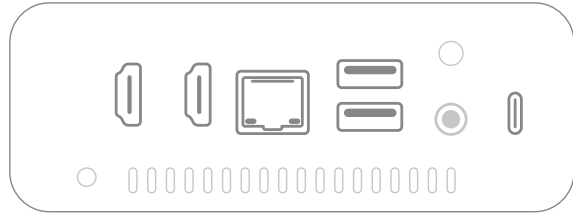
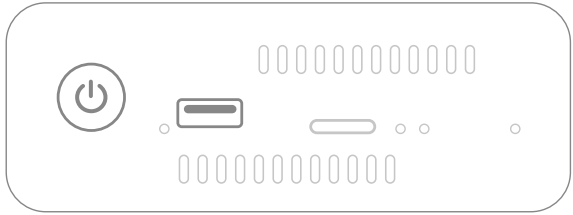
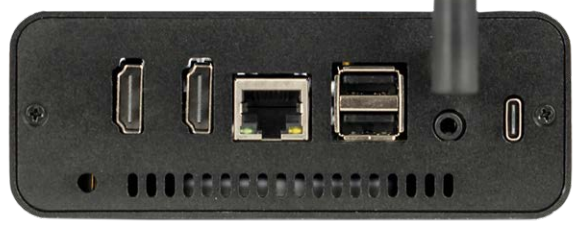




Its 0.96" OLED screen displays some information like IP address, CPU temperature, RAM memory in use and total, hard drive memory in use and total.

- Connectivity via Ethernet, Wifi or SIM card.
- Backup battery operation with additional accessory.
- Installation plans can be uploaded.
- Testing sequences, for example annual duration tests, are fully configurable.
- Graphical user interface shows real time status of devices.
- Log of events and exportable test results.
- Email sending of configurable fault list.
- Multiple language options.
- Operating frequency: 2.4 GHz.

Supplied with USB 5v DC power supply and DIN-rail terminal blocks.



Power button 1 x USB2.0

2 x Full-size HDMI Ethernet 2 x USB2.0 USB-C 5V Power In



Entirely designed and  
manufactured in **Spain**



## The Zemper Way to a Better World

We use recycled paper in the production of our catalogues, thus contributing to the conservation of forests and biodiversity. This paper requires up to 50% less energy and 90% less water, which significantly reduces environmental impact, reduces carbon dioxide emissions and promotes the circular economy. The ink we use is free of mineral oils, cobalt salts and VOCs (volatile organic compounds) so we contribute to limiting the environmental impact. We make more sustainable decisions and help protect our Planet.

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# ZEMPER

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