

Lighting
Intelligence
Catalogue

Helvar



Vi præsenterer



Det nuværende **Vanpee A/S** blev grundlagt i slutningen af 2000 som et handelsfirma med fokus på import/eksport af forskellige varer. I 2001 kom Vanpee i kontakt med det finske selskab OY Helvar, der producerede elektriske komponenter, og et samarbejde blev etableret. Senere er flere internationale producenter af kvalitetsprodukter kommet til. I dag har firmaet således en bred, men målrettet palette af produkter og løsninger til den professionelle del af elmarkedet.

I 2010 indgik **Vanpee A/S** i et endnu tættere samarbejde med Helvar og er i dag certificeret partner.

Vanpee er en del af Lagercrantz, som er en stor international koncern og har dermed søsterselskaber i mange europæiske lande.

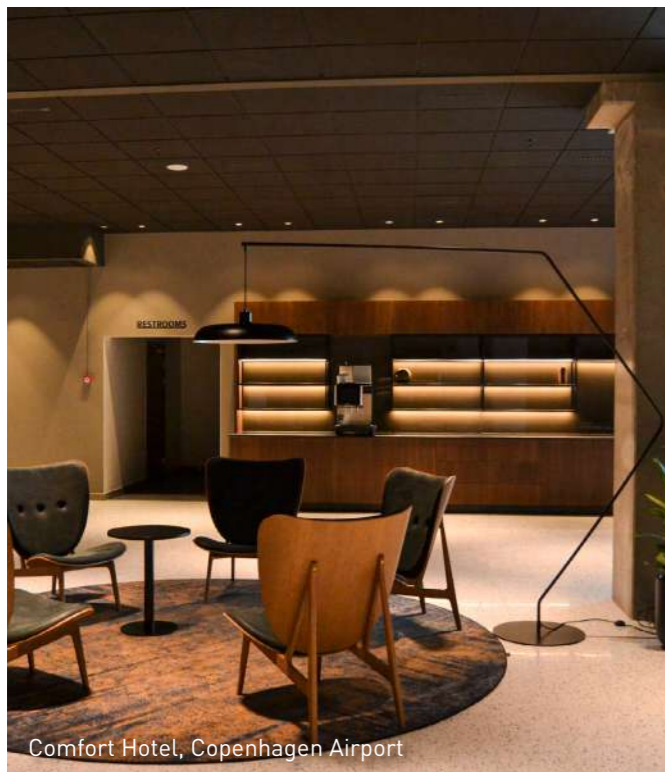
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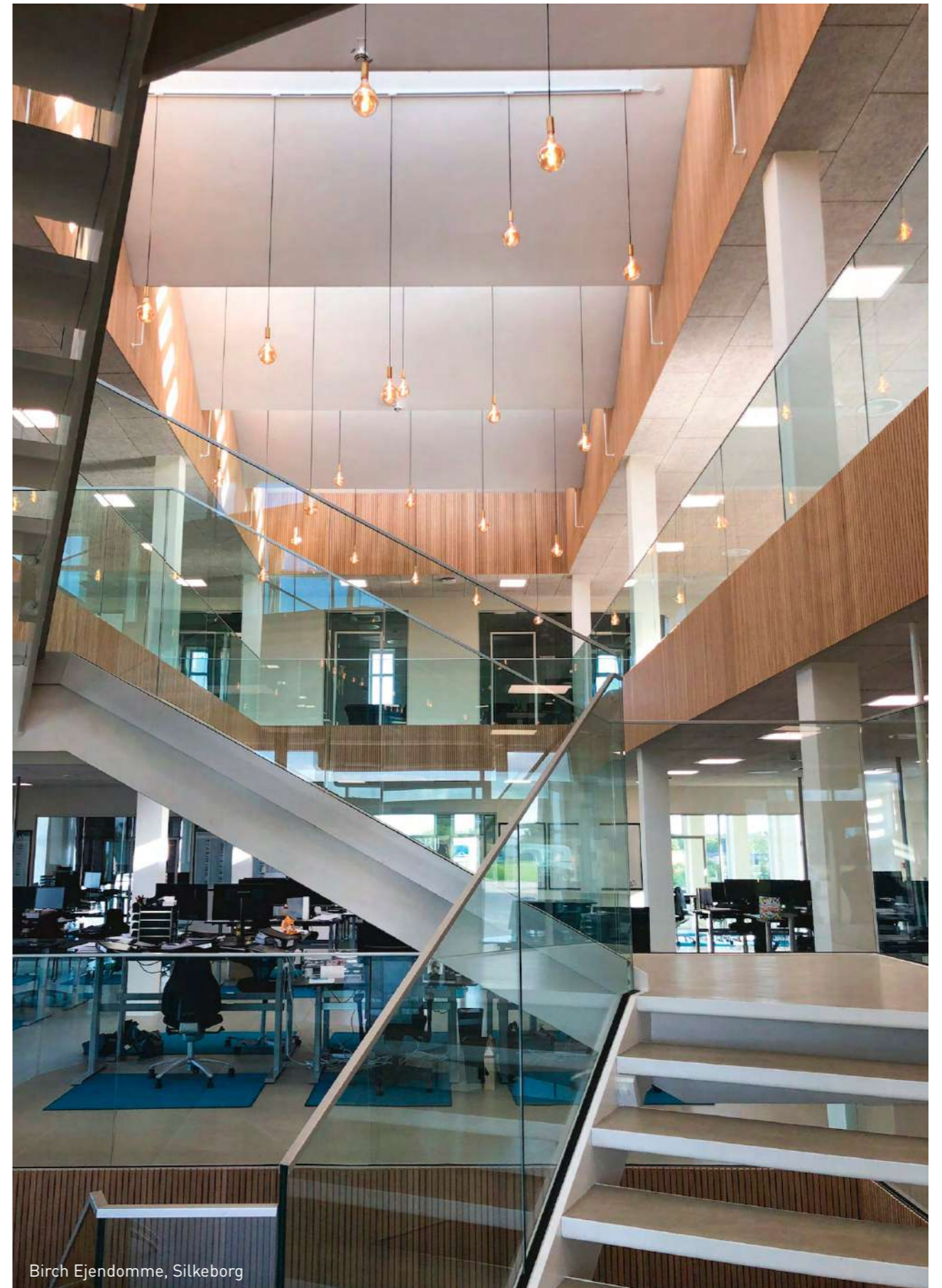
 [Vanpee A/S](https://www.linkedin.com/company/vanpee)



Comfort Hotel, Copenhagen Airport



Scandic Købbyen



Birch Ejendomme, Silkeborg

We are

Helvar

Turning Everyday Places into Brighter Spaces

At Helvar, we provide global lighting solutions.

Our heritage is what makes us unique. Within 100 years, our insight has led us to grow from a single factory in Finland to a growing global network with presence in over 80 countries. Our passion is people - our customers, our team and our partners. Working together, we can positively impact sustainability through our products, our solutions and our global projects. Through intelligence and insights, our focus is on improving the wellbeing of people. Innovation is at the heart of what we do. No matter what the next 100 years will bring, we are on a mission to create 'Brighter Spaces' - transforming everyday places into truly intelligent, connected spaces, that are sustainable over their lifetime and optimised for the people who use them.

Here's to the next 100 years!

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Why Helvar?

A century of expertise



Born in 1921, we're celebrating 100 years of intelligence, insights and innovation! As founding members of the DALI Alliance, we are at the forefront of new technology and industry advancements.



A truly global network

Worldwide, we serve our customers locally by our sales offices and our global network of over 50 partners, and we're proud to have incredible lighting projects in over 80 countries.

A sustainable future



From providing remote monitoring and maintenance, to using data to predict energy savings and reduce costs by integrating with building systems, our service offerings support buildings throughout their entire life cycle.



An award-winning portfolio

Our products are best-in-class for reliability, compatibility and flexibility. With the extensive selection of advanced lighting solutions and components, we're experts at creating future-proof lighting solutions across a range of applications.

Read our full story at helvar.com



Global Lighting Solutions Experts

At Helvar, we create intelligent and energy-saving lighting solutions.

Intelligent lighting is essential to the wellbeing of employees, customers, visitors, patients... and helps you to achieve your sustainability targets.

Helvar lighting control solutions help to create smart environments built for the future, using information and working seamlessly with other systems.

With a wide range of lighting control solutions and luminaire components, we design open and flexible solutions for lighting to

suit your specific needs. We pride ourselves on being lighting experts - you can find our solutions in all sorts of places - offices, schools, hotels, hospitals among many others.

Our headquarters are located in Finland, as are our luminaire component development and manufacturing operations.

Our lighting control competence centre is in England. Worldwide, we serve our customers locally by our sales offices and our global

network of partners in over 50 countries.

100 years of Innovation and Leadership

Helvar was founded in 1921. Since then we have been in radio and TV businesses, electronics and from the 60s we have been contributing to the lighting industry.

Today, Helvar delivers advanced intelligent lighting solutions and luminaire components using wireless technologies, such as



Bluetooth mesh and the digital lighting standard, DALI, to support a variety of needs in different applications.

Adaptability is in our DNA. Buildings are continuously evolving. Helvar solutions help to create smart environments built for today and the data-driven future.

Helvar intelligent lighting controls integrate seamlessly with other building systems meaning our products deliver valuable data. We bring insights on how your building is used, helping you to optimise the maintenance and usage of your space throughout its lifetime.

Lighting Intelligence for Wellbeing and Sustainability

Lighting should both energise and inspire. Our human-centric lighting solutions and luminaire components are designed with people in mind. With solutions that support your natural daily rhythm, they're designed to boost your wellbeing. Optimised light levels, light colour temperature and flicker-free lighting are essential for the comfort and safety in your space.

We provide solutions which boost building performance and minimise your energy usage, meaning you can do more, with less, helping you to meet your sustainability

targets. With our state-of-the-art intelligent lighting controls and LED luminaire components, we can help you achieve up to 75% energy savings.

With You All the Way

Together with our partners, we're here to support you every step of the way. We're proud to have a global network of talented professionals with combined expertise in lighting controls, luminaire components and DALI.

As a family-owned company with a century of experience, we know that people should always come first. That's why we put our people at the heart of our company.

Helvar in Offices

Lights to energise and inspire. Lights to boost health, mood and happiness. Cool blues for laser-sharp concentration. Warm tones to help you wind down. Our scalable, DALI-led open systems are future-proof and easy to use.

Office Applications

- Single Office Space
- Open Plan Office
- Meeting Room
- Reception Area
- Corridors
- Stairs
- Canteen or Restaurant
- Lift Lobby

Why choose Helvar?

- Fully scalable solutions, ranging from a single meeting room to the entire building
- Daylight Harvesting for energy saving
- Corridor hold function for safety and comfort
- Presence and/or Absence Detection
- Intergration with Building Management Systems
- Integrations with Audio Visual Systems
- Energy Monitoring
- Control of multiple load types
- Intergration with Blind Control
- Graphical floorplan user interface
- Alert monitoring and remote maintenance

Key Helvar Benefits

- Colour temperature and intensity change through the day, reflecting natural circadian rhythms.
- Room lights automatically switch on as you enter: useful when carrying files and a laptop.

Key Helvar Solutions

- Helvar ActiveAhead** An adaptable, easy and energy-saving solution for simple office spaces.
- Helvar RoomSet** Smart and easy lighting controls for repeatable office spaces.
- Helvar Imagine** A lighting management solution with great integration possibilities, which also aids users circadian rhythms via the Light-Over-Time profiles.
- Helvar Insights** Understand how a space is truly used, with sensor-driven energy and occupancy reporting and tangible optimisation insights.





Helvar in Education

Good light feeds growing minds. Flicker-free conditions help learners stay concentrated, and intelligent lux level monitoring efficiently harvests natural daylight to maintain the right level of light at any time of day. From controlling lights above whiteboards to connecting cross-campus buildings - Helvar speaks to your existing facilities and audio-visual systems, creating dazzle-free learning environments ideal for everyone.

Education Applications

- Classrooms
- Canteen or restaurant
- Corridor
- Library
- Sports Arena
- Stairs

Why choose Helvar?

- Student comfort
- Correct light level for every activity
- Classroom or whole building solution
- Integration with building management and audio-visual systems
- Automated or manual control
- Daylight harvesting and presence detection for energy saving
- Energy management
- Alert monitoring and remote maintenance
- Multi-site connectivity for campuses

Key Helvar Benefits

- Helvar controls can be fully integrated with classroom audio-visual systems and with the building management system.
- Setting up a number of classrooms can be done in record timing through our drag, drop, repeat RoomSet app.

Key Helvar Solutions

- Helvar ActiveAhead** An adaptable, easy and energy-saving solution ideal for spaces such as corridors and libraries.
- Helvar RoomSet** Smart and easy lighting controls for classrooms.
- Helvar Imagine** The perfect choice for a building or a campus - full control and customisation with the option for intergration with other building management systems.
- Helvar Insights** Understand how a space is truly used, with sensor-driven energy and occupancy reporting and tangible optimisation insights.

Helvar in Hospitality

Sleek spas. Relaxing restaurants. Rooms built to help you recharge. And all with an emphasis on award-winning style and energy-saving capabilities. We'll make sure you're being well served. The world's best hotels need to get the light right. For breathtaking scale or groundbreaking ambition, you're in good hands with Helvar. Day and night.

Hospitality Applications

- Hotel Room
- Restaurant
- Fitness Centre and Spa
- Business Centre
- Lift Lobby
- Corridor
- Reception or Atrium

Why choose Helvar?

- Scene section to create the right ambience
- Fully scalable, from a single hotel room to an integrated lighting solution for the whole building
- Integration with room management system
- Integration with audio visual system
- Control of multiple load types
- Energy monitoring
- Power on to last level used
- Automated control of public spaces
- Alert monitoring and remote maintenance

Key Helvar Benefits

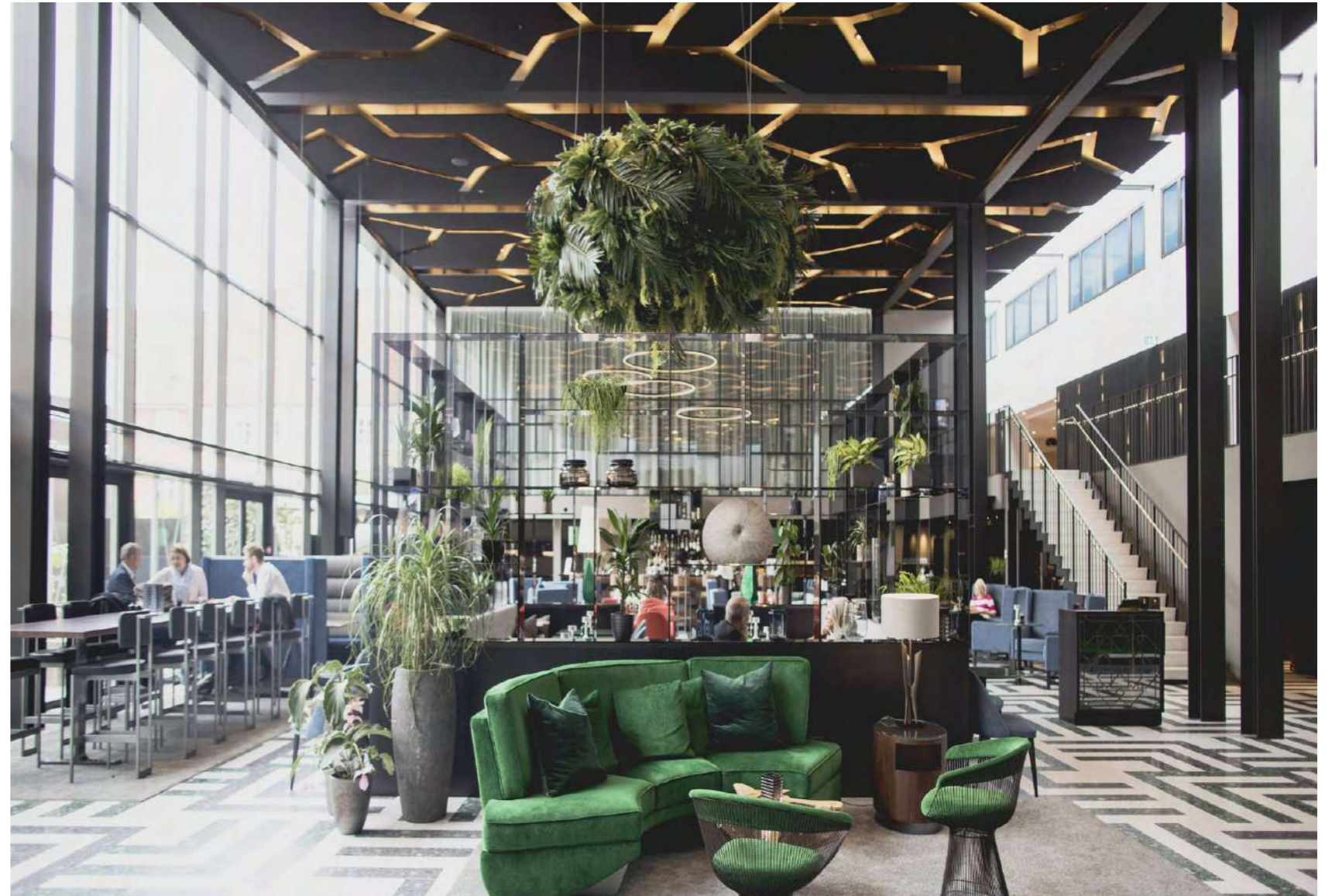
- We can combine vintage luminaires with the latest lighting control technology to create a contemporary and stylish atmosphere.

Key Helvar Solutions

Helvar ActiveAhead An adaptable, easy and energy-saving solution ideal for spaces such as corridors.

Helvar Imagine The ideal option for full integration with the entire building management system controls, this solution provides users with full control and connectivity.

Helvar Insights Understand how a space is truly used, with sensor-driven energy and occupancy reporting and tangible optimisation insights.





Helvar in Healthcare

Dynamic lighting means putting people first. Light plays an integral part in our everyday life, and we're most comfortable bathed in light which is as close to natural light as possible. Helvar lighting controls are designed around our bodies' natural circadian rhythm, and can automatically respond to seasonal and environmental changes to ensure we're always performing at our peak in the right light for us. Our aim is to provide a lighting solution for your space that suits your specific needs, with the aim to streamline your buildings efficiencies whilst maximising both patient and employee wellbeing.

Healthcare Applications

- Operating Theatre
- Reception
- Patient Room / Wards
- Corridor
- Restaurant
- Administration Area
- Waiting Room
- Stairs

Why choose Helvar?

- Simple control for patient comfort
- Task lighting for medical personnel
- Automated control of public spaces
- Power on to last level used
- Presence/absence detection
- Fully scalable, from a bed to a building
- Integration with building management system
- Energy monitoring
- Alert monitoring and remote maintenance

Key Helvar Benefits

- Improving comfort and saving energy, whilst offering full control in a number of buildings across hospital premises

Key Helvar Solutions

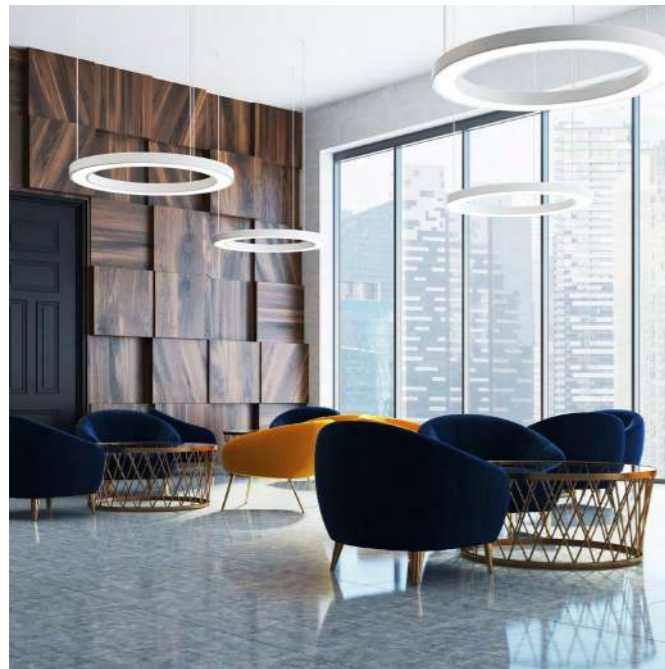
- Helvar ActiveAhead** An adaptable, easy and energy-saving solution ideal for spaces such as corridors, wings and entrances.
- Helvar Imagine** This dynamic solution is people-centric, enabling a functioning environment which helps patients feel relaxed and comfortable, aiding wellbeing and also providing the right light levels at the right time.
- Helvar Insights** Understand how a space is truly used, with sensor-driven energy and occupancy reporting and tangible optimisation insights.

Helvar Key Lighting Controls Solutions

From smart rooms to intelligent buildings — and much more

Helvar solutions are designed to be open. When you choose us, you're investing in scalable and future-proof kit. To help you find what you need more easily, we've grouped our key products into families.

Do you want lighting control for a campus, across an entire building, a whole floor, one room, or even a cruise liner? That's the first question we ask.



Repeatable rooms

Helvar RoomSet

- Drag, drop and repeat without a laptop
- Works straight out of the box
- Super simple set-up
- User friendly Bluetooth app, making even the largest of projects quick



Predictive lighting

Helvar ActiveAhead

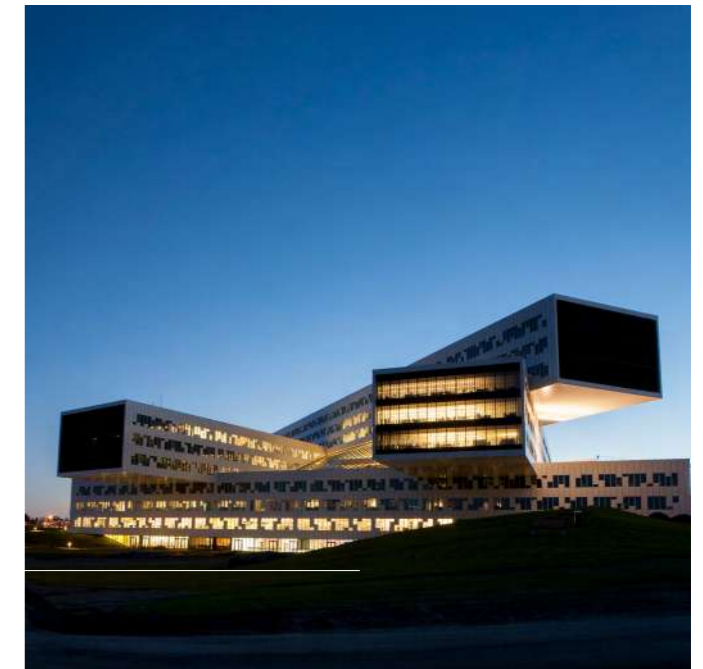
- Perfect for renovations
- Ready out of the box - simple installation, no wiring required
- Substantial energy savings
- Lighting controls that remember walkways and think ahead so you don't have to



Simple efficiency and control

Helvar DIGIDIM

- Program any section or area
- Control small rooms to very big spaces
- Stay comfortable and productive with tunable white control
- Speaks to AV systems and blinds



Versatile site lighting controls

Helvar Imagine

- Renowned DALI/DALI-2 lighting control solution for world-class projects
- Super-flexible — from single rooms to megastructures
- Realtime energy monitoring and app-based fine-tuning
- Bespoke automation, transitions and scenes

Helvar RoomSet

Intelligent Lighting for Repeatable Spaces

Helvar RoomSet is a state-of-the-art standalone lighting control solution, designed for repeatable spaces, including classrooms and meeting rooms.

Designed to work out of the box, with minimal set-up required, this is the super-simple intelligent lighting controls solution for repeatable spaces.

It doesn't get easier than **Helvar RoomSet**.

Turning Everyday Places into Brighter Spaces

HELVAR ROOMSET

Helvar

THE BENEFITS - HELVAR ROOMSET



EASY INSTALLATION

For the installer, the automatic preset programming allows for fast out-of-the-box installation, with no configuration needed - the system automatically finds all addressable switches, sensors and DALI luminaires.



COST EFFECTIVE

For commissioning a large number of rooms, the Helvar RoomSet app gives you the ability to duplicate room layouts, thus making the commissioning process faster and consequently more cost-effective.



SCALABLE

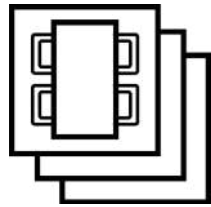
With Helvar RoomSet, you can set up one room in a matter of minutes, and then thousands more with the swipe of a finger. Using the intuitive app on your tablet, scene setting couldn't be easier.

Set up RoomSet in 5 easy steps

- 1 Switch on the power
- 2 Wait for the orange LED to turn off (takes up to 5 minutes)
- 3 Test the light panels work
- 4 Any problems? Check for missing or incorrect wiring
- 5 If everything's okay now, you're done.

CHOOSE YOUR SET-UP

Helvar RoomSet is available in **three packages**, each tailored to different requirements - whether you're commissioning a new build, or a retro-fit arrangement.



Helvar RoomSet Standard

Intelligent repeatable lighting, made easy.

The perfect solution for retrofit applications, where you can make use of a room's existing wall panel with our Bluetooth multisensor and DALI power supply.

What's in the box?

331

Advanced Multisensor

The 331 Advanced Multisensor has a light sensor for constant-light control, and a PIR presence detector.

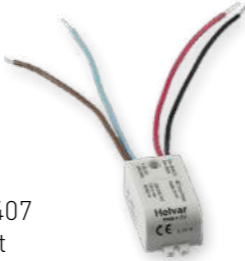
See [page 69](#) for more information.



407

Compact DA Power Supply

The Helvar 407 is a compact power supply, designed to be easily installed. See [page 47](#) for more.



444

Mini Input Unit

The Mini Input Unit is a DALI-compatible interface, designed to incorporate switches, sensors and other control devices with a Helvar system. See [page 84](#).



Helvar RoomSet Wireless

Rapid installation with wireless control.

Our most advanced room solution that includes a wireless Bluetooth® control panel, giving you full lighting control from anywhere in the room with no extra wiring.

What's in the box?

331

Advanced Multisensor



185W

Wireless Control Panel

This Bluetooth® enabled Wireless Control Panel is an energy harvesting user interface which allows the recall of four configurable lighting scenes. The panel can be screwed to a wall, or adhered to any flat surface, including glass, giving you ultimate flexibility when it comes to panel placement. See [page 78](#) for details.



407

Compact DA Power Supply

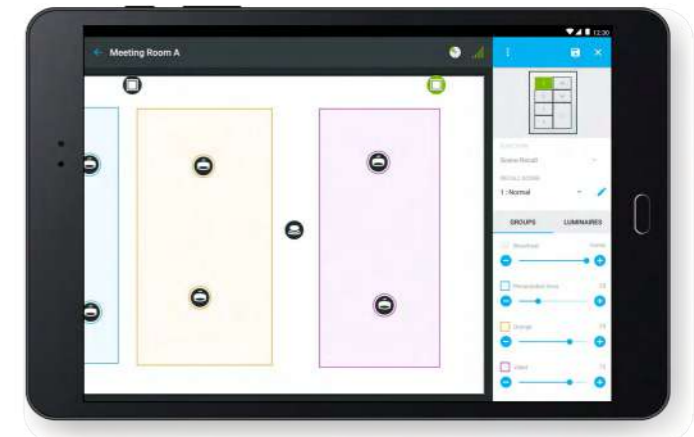


The Helvar RoomSet App

There's no need to start up your laptop, since RoomSet configures **everything through Bluetooth** from your Android tablet.

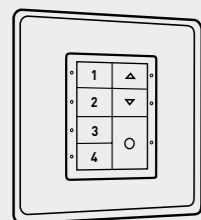
It's so **easy to configure rooms** with Helvar RoomSet.

- Once you've installed the 331 multisensor, power supply, wall panels and DALI drivers, simply switch on the power and wait for the sensor's orange LED to stop flashing.
- Select one of the preset room templates, or create a new custom room layout and tap to identify all available devices.
- Next, just drag and drop each device into the room layout as desired, and your basic set-up is complete!
- If required, you can group devices together to create different lighting scenes, such as for presentations, and configure luminaires to come on automatically when someone enters a room.



The Helvar RoomSet software **automatically updates with new features** - simply click the prompt in the Helvar RoomSet App to get the latest and greatest features sent straight to your tablet!

To see our RoomSet Walkthrough videos, search for 'Helvar RoomSet' on YouTube, or visit our website.



Helvar RoomSet with Scenes

Presentation time? We've got you covered.

Ideal for brand new installations — with a seven-button panel that's perfect for setting personalised room scenes to fit every moment.

What's in the box?

331

Advanced Multisensor



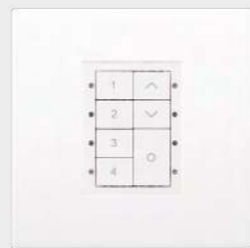
135W

Wall Panel

+

230S

Panel Frame Kit



407

Compact DA Power Supply



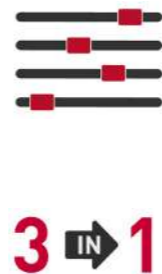
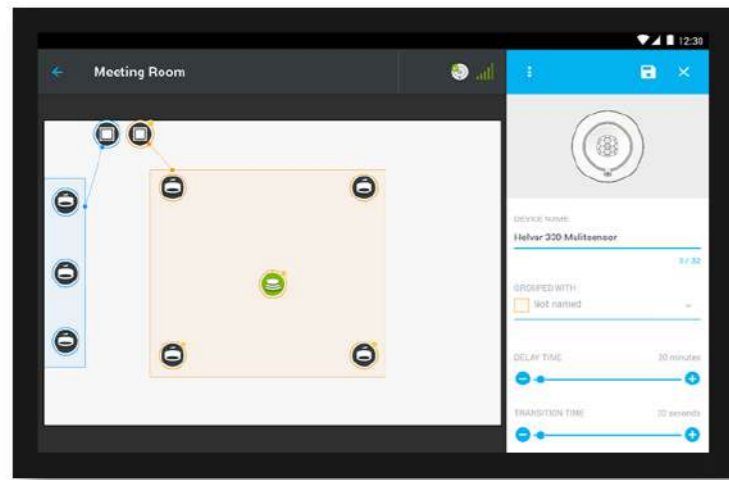
This Helvar RoomSet package comes with a 135W White 7-button Module, fitted with LED tellback and an infrared receiver, with a 230S white plastic panel. This panel features 4 customisable scene buttons, in addition to the Up / Down and Off buttons.

Fancy something different? Additional finishes are available separately. For the full range of panels and frame kits, see [page 76](#).

THE PERFECT ROOM SOLUTION

The installation and configuration of the Helvar RoomSet system couldn't be quicker or easier. The 331 Multisensor and Controller form the core of the installation. All existing DALI components are connected both to each other and to the 331 Multisensor. The sensor connects wirelessly via Bluetooth to the Helvar RoomSet App, and once connected, the DALI components can be fully configured via the app, meaning you can group luminaires and assign functionalities to a control panel in a matter of minutes.

Android Tablet



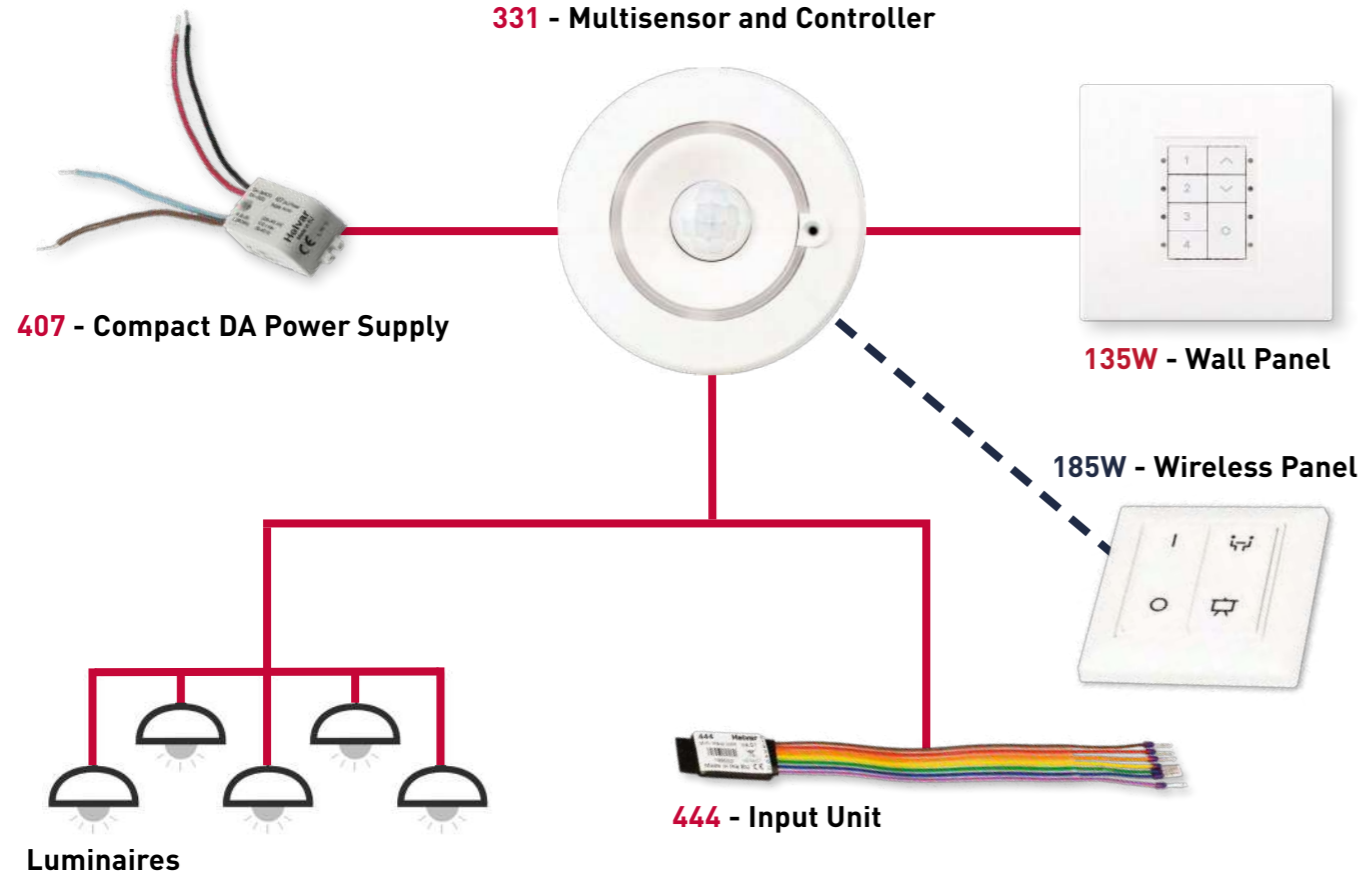
Easy installation & set-up

- Wireless configuration via an app
- All components connected to 1 DALI line

3-in-1 Package

- 331 Multisensor
- 407 Compact DA Power Supply
- Choice of 135W/185W Wall Panels or 444 Input Unit

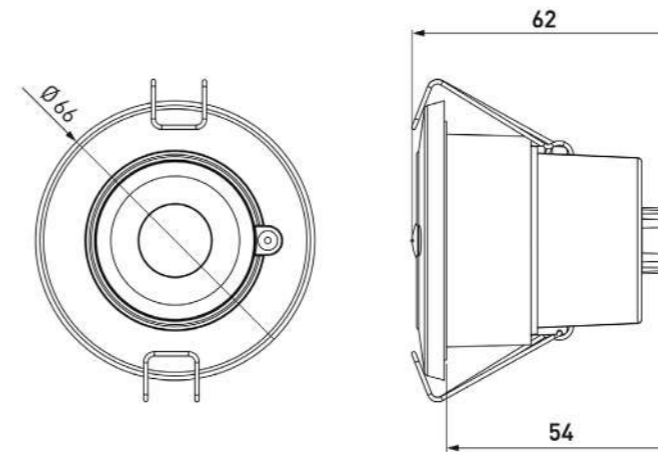
331 - Multisensor and Controller



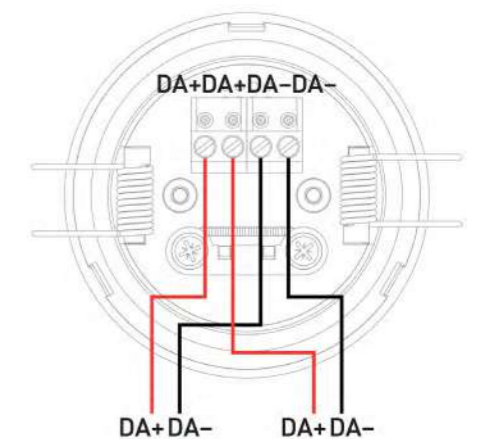
331 MULTISENSOR TECHNICAL DETAILS

For full technical information for each product in the Helvar RoomSet packages, please see their individual pages in this catalogue.

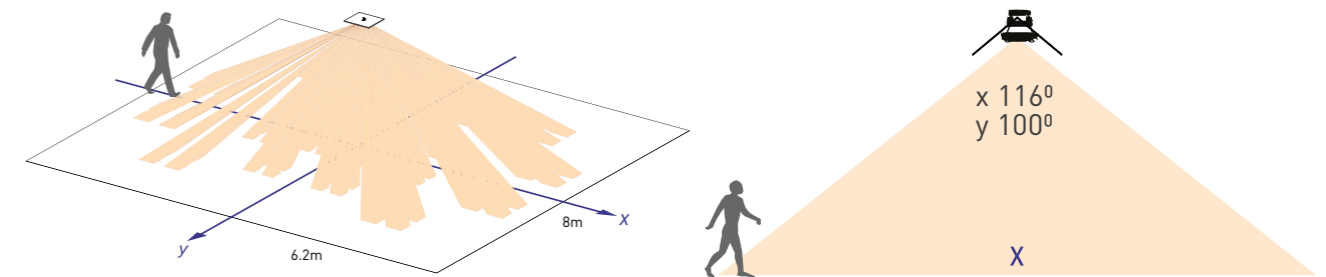
Dimensions (mm)



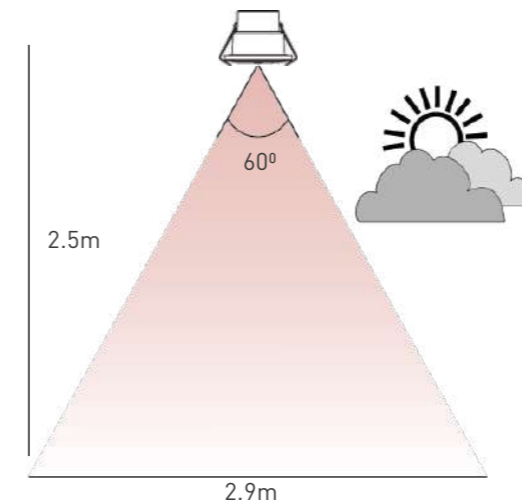
Connections



Presence Detection Coverage at 2.5m Height



Constant Light Coverage



Key features

- Excellent detection performance through high sensitivity and multidirectional coverage
- Programmable constant light control for energy efficiency
- Easily incorporated into Helvar RoomSet system/app.
- Simple "Over the Air" system upgrades
- Modern, compact and functional design

Helvar ActiveAhead

Truly Intelligent Wireless Lighting Controls

Helvar ActiveAhead® is an award-winning AI-based wireless lighting solution.

It's unique self-learning capabilities give ultimate efficiency in setup and operations. Helvar ActiveAhead will continuously learn and generate insights, maximising positive impact on wellbeing and optimising your ever-evolving building.

It's the perfect solution for offices, warehouses, stairways and parking garages.

Turning Everyday Places into Brighter Spaces

HELVAR ACTIVEAHEAD

Helvar

THE UNIQUE BENEFITS • INTELLIGENCE



SELF-LEARNING

Wirelessly networked ActiveAhead nodes use a smart algorithm to learn how the space is used. They also respond to the amount of natural light in the space.

The luminaires collect data from their own sensors as well as from the other luminaires that surround them. The nodes communicate with each other and learn the patterns of how the space is used. Due to its intelligence, the lighting level remains optimal for the user at all time, giving the right lighting at the right time and place.

ALWAYS ADAPTING

Helvar ActiveAhead continuously adapts to possible changes, for example, a wall installation or removal, or a change in the layout of a space.

Continuous learning means that system adjusts lighting automatically without the need of manual re-configuration.

FORWARD-THINKING

Lower building operation costs and increase peace of mind via advanced data analytics. Increase security and wellbeing for occupants through smart lighting logic.

Helvar ActiveAhead is designed for a data-driven future. It enables services that will improve performance and ensure spaces remain comfortable with round the clock monitoring and maintenance.

“ As we changed the layout of our office from a small-room office layout into an activity based open plan office, we wanted the lighting level to be the same in all areas when people move from one place to another. At the same time, we also wanted to be able to control the lighting system based on personal needs.

PIRJO PERNU - Director, Facilities at YIT

EFFICIENCY



ENERGY SAVINGS

Compared to an LED-based switched luminaire, Helvar ActiveAhead takes comfort to a totally new level while offering substantial energy savings. In addition to increasing the lights in a predictive manner, the nodes dim the lights in a smart way depending on the space usage, thus helping to save energy.

WELLBEING

ENHANCED COMFORT

An Helvar ActiveAhead node starts learning from the moment it's powered up and it never stops.

With Helvar ActiveAhead, your building will always stay one step ahead. It identifies your regular patterns and routes and automatically turns on the lights as you go along. With predictive lighting, lights can be automated, and can be switched on before you arrive.

SIMPLE INSTALLATION

Luminaires fitted with Helvar ActiveAhead are extremely easy to install. Just fix the luminaires to their intended position and switch on the mains. No control wiring, programming or configuration is needed. Optional customisation and grouping is possible using the Helvar ActiveAhead mobile app.

PERSONAL LIGHTING

You can also tune the light settings on your very own desk according to your needs, allowing you to manage the light settings you prefer. This can result in a boost in satisfaction and productivity, since we all feel better in environments that are tuned to our own needs.

“ Our YIT-staff have been really happy with this steady level of lighting and when they've been told that the lighting system is actual adjusting itself based on daylight, it has pleased them further. ”



HELVAR ACTIVEAHEAD CASE STUDIES

Ramboll Headquarters

Ramboll, a leading engineering, design and consultancy company, wanted to build a truly modern data driven headquarters.

Wireless, self-learning and future-proof lighting control solution Helvar ActiveAhead was selected to cover the office floors as well as the parking garage with a total of around 3000 Helvar ActiveAhead Control Units installed.

The rest of the building is controlled by the Helvar Imagine Router, making the entire site a perfect example of a hybrid wired and wireless solution. Digital services complete the Helvar offering at the Ramboll Headquarters.

YIT Headquarters

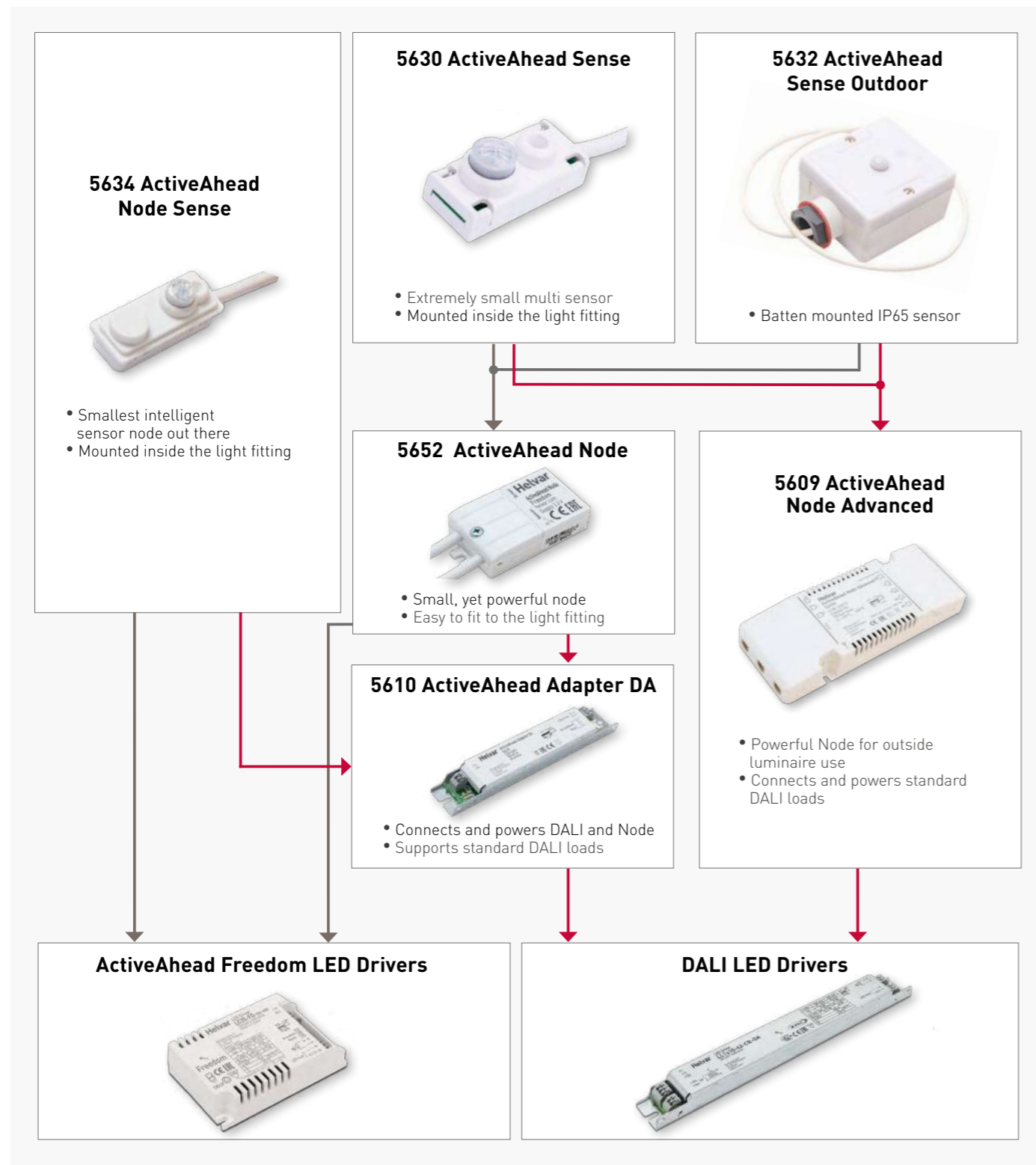
YIT, one of the largest North European construction companies, chose Helvar ActiveAhead when their headquarters was renovated.

The easy installation, setup and flexibility of the Helvar ActiveAhead solution was greatly appreciated by YIT, which is why they chose this intelligent wireless control solution for the second part of their headquarters renovation.

These two interlinked buildings were renovated in 2018 and 2019 with over a thousand ActiveAhead Control Units per building.

CHOOSING YOUR SETUP

Choosing the right setup for your project is easy. Based on the space and luminaire types, select the Node and the corresponding suitable LED driver. When needed, pick the sensor and a possible holder for it. For spaces such as meeting rooms, add the wireless control panel and you're good to go. If necessary, fine-tune the configuration on site using the Helvar ActiveAhead mobile app.



OPTIONAL - Select your Wall Panel

185W Wireless Control Panel

With no wires or cables, the self-powered panel sticks straight to the wall and is ideal for meeting room use. It speaks to ActiveAhead Nodes so you can choose four lighting scenes.

Helvar ActiveHeat Thermostat

Helvar ActiveHeat is an intelligent, easy to use, energy saving thermostat. It listens to the ActiveAhead Nodes and toggles between ECO and Comfort temperatures according to the actual nearby space occupancy. Wall mounted.

Helvar ActiveAhead App

Download the Helvar ActiveAhead app to manage your Helvar ActiveAhead luminaires from your device.

ActiveAhead

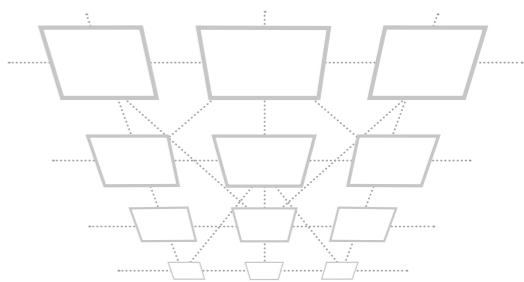
Helvar ActiveTune™

With Helvar ActiveTune™ you can tune the light settings at your desk using your mobile phone.

ActiveTune™

Bluetooth Mesh Network

Nodes connect through a Bluetooth Mesh network, a protocol based upon Bluetooth Low Energy that allows for many-to-many communication over Bluetooth radio, meaning devices can quickly transfer information between each other.



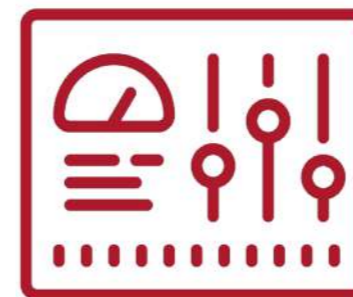
Flexible & programmable lighting solutions

As a programmable DALI lighting system, DIGIDIM offers flexibility in the design of modern lighting solutions.

With a wide range of user and load interfaces, DIGIDIM allows you to tailor intelligent lighting control for many applications ranging from education to open plan offices.

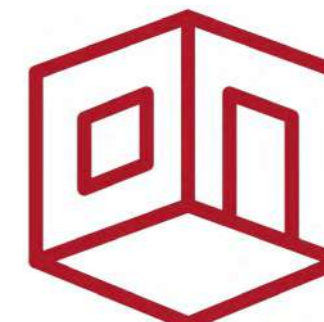
Turning Everyday Places into Brighter Spaces

THE BENEFITS - HELVAR DIGIDIM



SMART PROGRAMMABLE AREA CONTROL

Our easy to use Toolbox software makes programming quick and simple



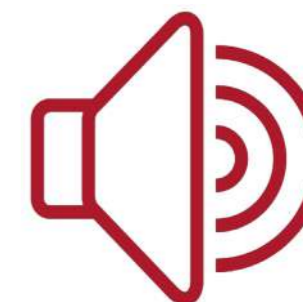
FROM ROOMS TO LARGE AREAS

Go beyond a single space and scale up to 16 groups and 64 devices



ENERGY EFFICIENCY & IMPROVED WELLBEING

Presence and daylight sensors can give save up to 40% energy savings, whilst ILLUSTRIS panels can provide added comfort with tuneable white or full colour control



INTEGRATION WITH AV SYSTEMS

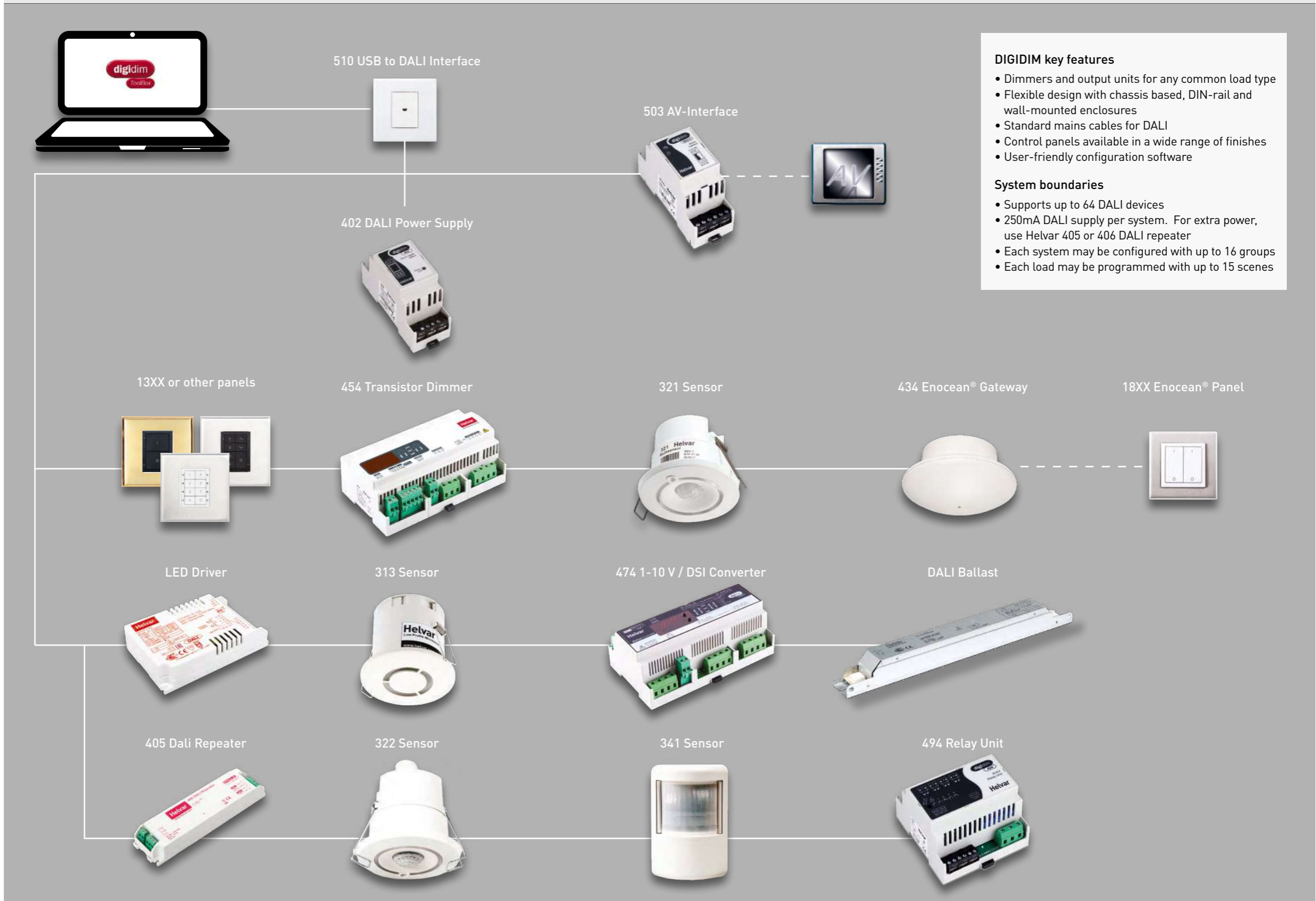
Create smart scenes beyond lighting by incorporating other room systems such as AV and blinds

digidim

Tailor intelligent lighting control with this programmable DALI-based system.

From single rooms to large areas, DIGIDIM has a wide range of load and user interfaces. Versatile enough for everything from education to open-plan offices.

Example configuration - Note, DIGIDIM system is compatible with a wider selection of components



- DIGIDIM key features**
- Dimmers and output units for any common load type
 - Flexible design with chassis based, DIN-rail and wall-mounted enclosures
 - Standard mains cables for DALI
 - Control panels available in a wide range of finishes
 - User-friendly configuration software
- System boundaries**
- Supports up to 64 DALI devices
 - 250mA DALI supply per system. For extra power, use Helvar 405 or 406 DALI repeater
 - Each system may be configured with up to 16 groups
 - Each load may be programmed with up to 15 scenes

Helvar Imagine

Imagine Endless Possibilities

Helvar Imagine brings wellbeing and intelligence into your space, offering efficiency and scalability for a wide variety of applications.

Helvar Imagine builds upon industry standards for easy installation and integration to provide a truly leading lighting control and management solution.

Turning Everyday Places into Brighter Spaces

THE BENEFITS - HELVAR IMAGINE

HELVAR IMAGINE is a complete lighting control and management solution. Built on top of open protocols such as DALI-2 and Ethernet, Helvar Imagine maximises on industry standards for easy installation and integration. It offers true scalability from a single room to entire buildings or campuses.



WELLBEING

The Helvar Imagine solution is designed around people. Lighting plays a big role in working, learning and patient environments. Helvar Imagine balances comfort and efficiency through user orientated automation and interfaces.



EFFICIENCY

The Helvar Imagine solution introduces features such as presence detection and daylight harvesting to reduce energy usage, and when coupled with Helvar Insights, the system provides intelligent insight reports to highlight where spaces can be further optimised.



INTELLIGENCE

Easily integrate with other systems at a building or cloud level to gain ultimate control of your spaces - both on-site and remotely. With intelligent features such as PIR timeout reports, learn how spaces are used and make changes based on both efficiency and people's wellbeing.



SCALABLE

The router is the heart of the Helvar Imagine system. It provides the features of a total lighting management system all in a single product, greatly reducing complexity and cost whilst giving the flexibility to adapt and expand to client needs - from a single room to an entire building.

Helvar Imagine

From energy-efficient offices to world-famous architectural sites, our router systems are made for scale and flex.

The Helvar 905, 910, 920, 945 and 950 allow a modular approach to system design. Built on industry standard communications, implementation stays as easy as can be.

The 950 can provide 4 x powered DALI-2 Multi-master subnets supporting up to 512 devices.

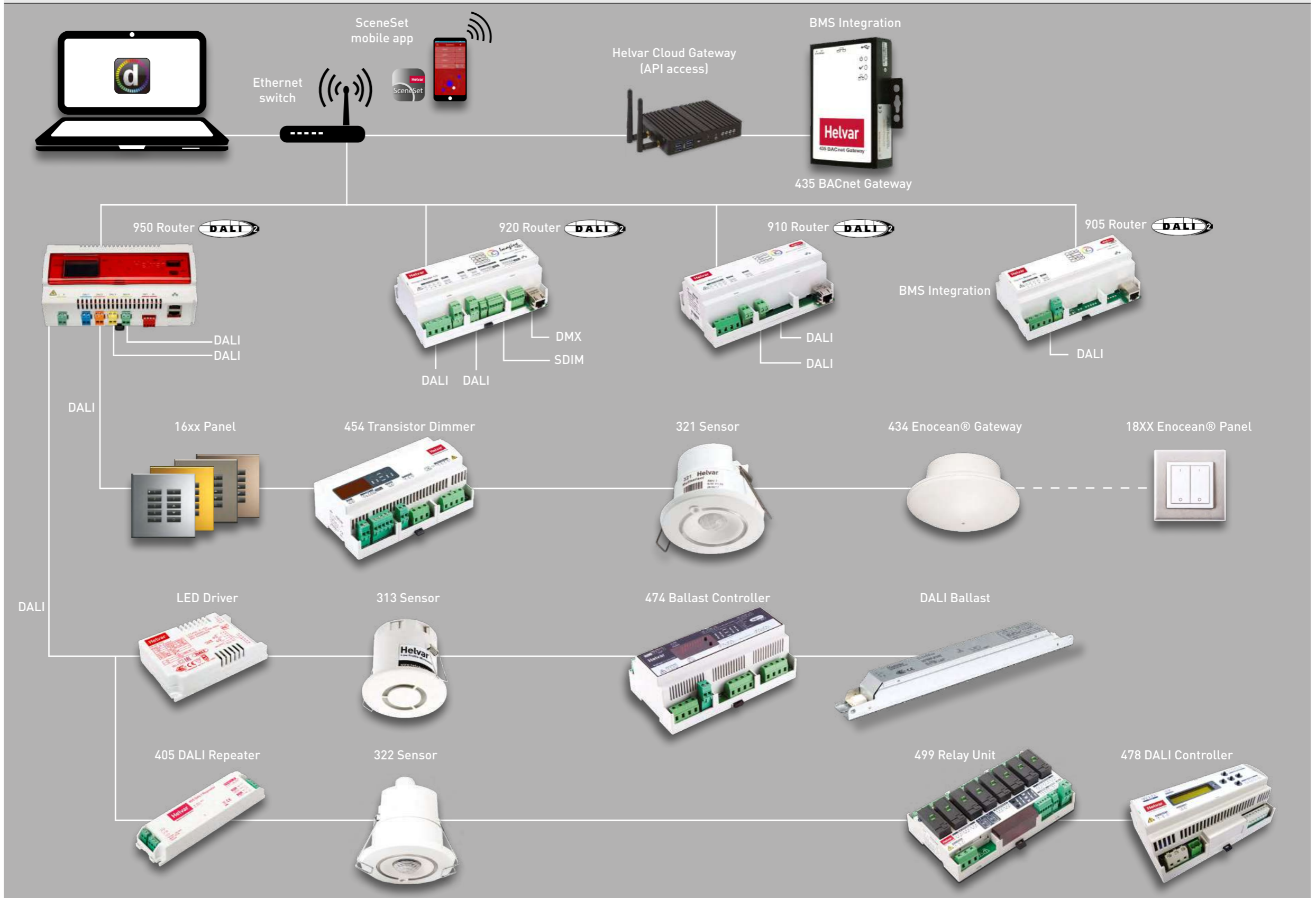
The 905, 910 and 920 can provide 2 x powered DALI-2 Single-master subnets support up to 128 devices. The 920 then adds 252 S-DIM channels and 512 DMX in or out channels.

And you can network multiple routers using Ethernet switches to accommodate your grandest designs.

The best choice for lighting design:

- From one room to multiple sites
- Live energy monitoring
- A range of user interface options
- Lighting transitions and scenes
- Automated control
- Colour temperature control
- Integrates with building automation systems

Example configuration - Note, the Helvar Imagine system is compatible with a wider selection of components

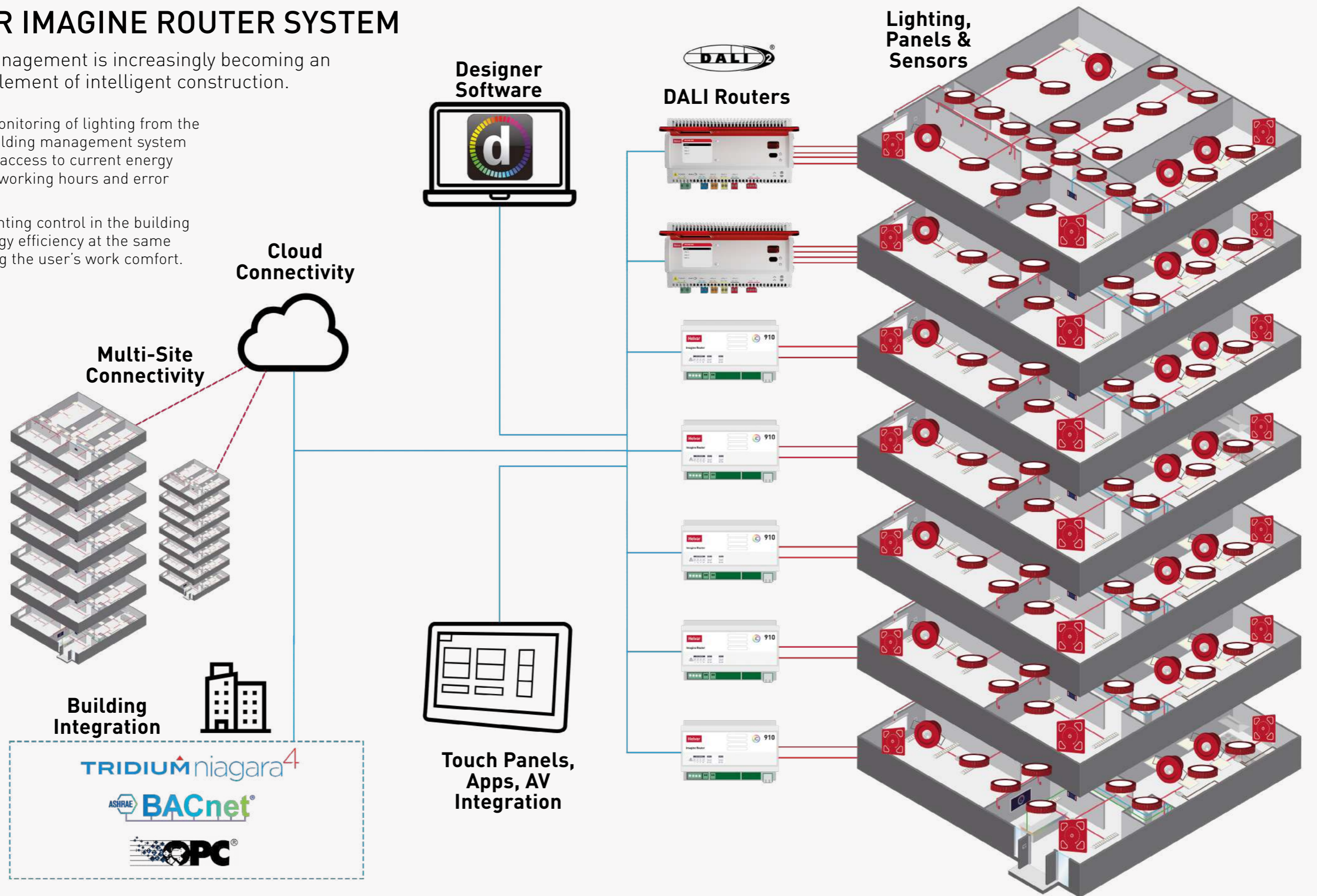


HELVAR IMAGINE ROUTER SYSTEM

Lighting management is increasingly becoming an important element of intelligent construction.

Service and monitoring of lighting from the level of the building management system enables quick access to current energy consumption, working hours and error messages.

Automated lighting control in the building improves energy efficiency at the same time increasing the user's work comfort.



DYNAMIC LIGHTING

With Tunable White

People feel better in the right kind of light. Changes to colour and intensity work in harmony with natural rhythms.

Dynamic Tunable White helps us energise at the start of the day. And wind down with warmer tones towards dusk.

Improve comfort and wellbeing. Enhance concentration and productivity. And restore patients' health more quickly.

Our Intelligent Colour lighting system works with DALI type 8 - letting you control multiple LED output channels from one DALI address.



Offices



Education

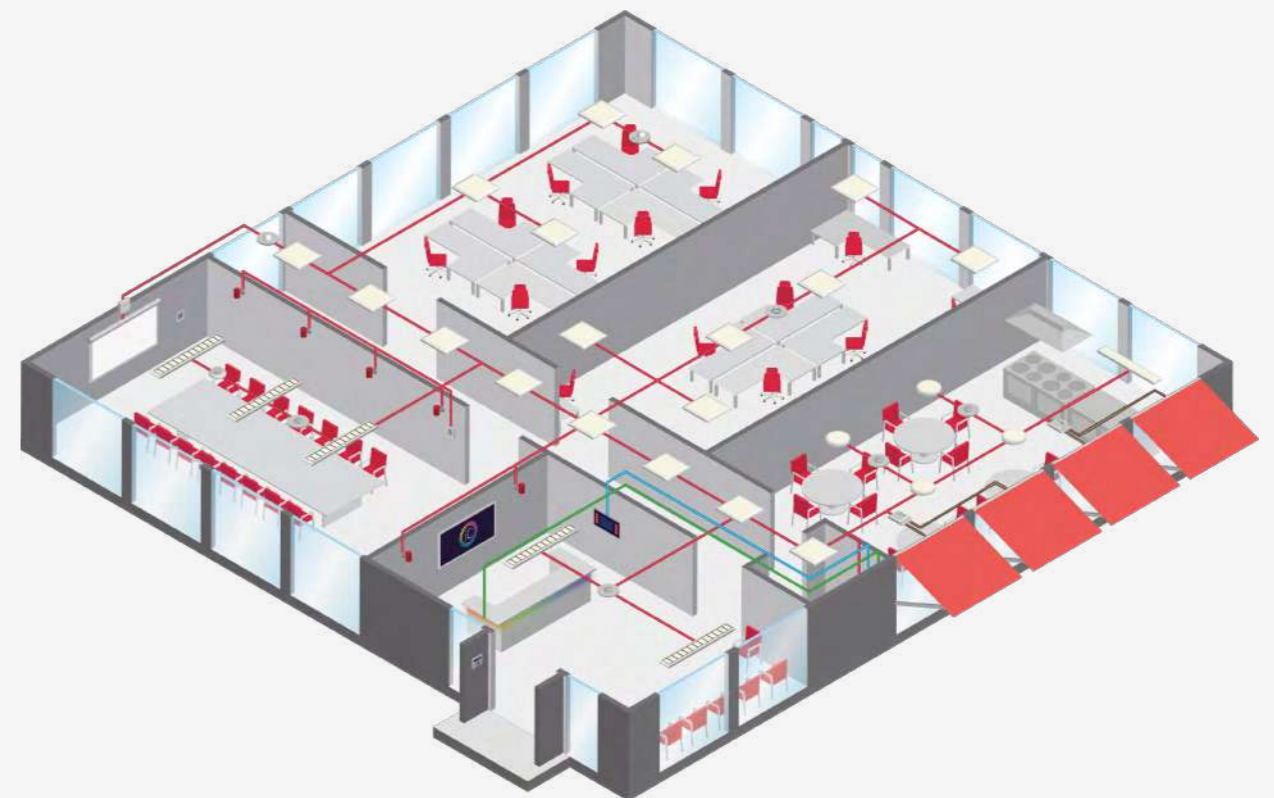


Healthcare

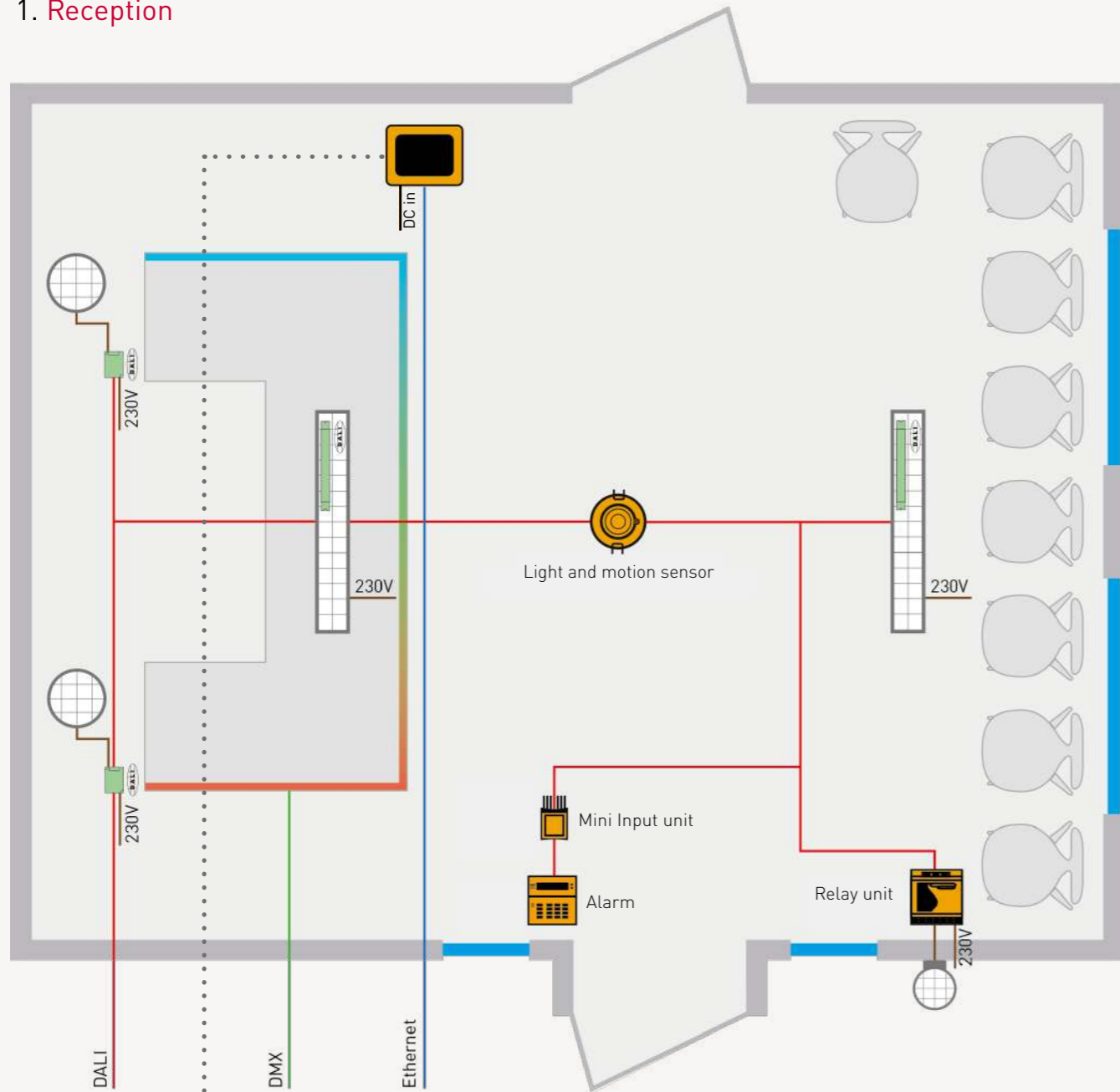
TYPICAL APPLICATIONS

Building spaces

How do our DALI lighting control systems work?
Here are six popular set-ups.

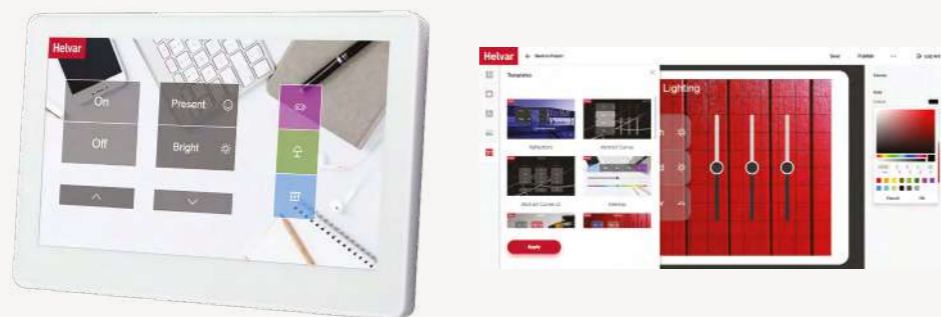


1. Reception

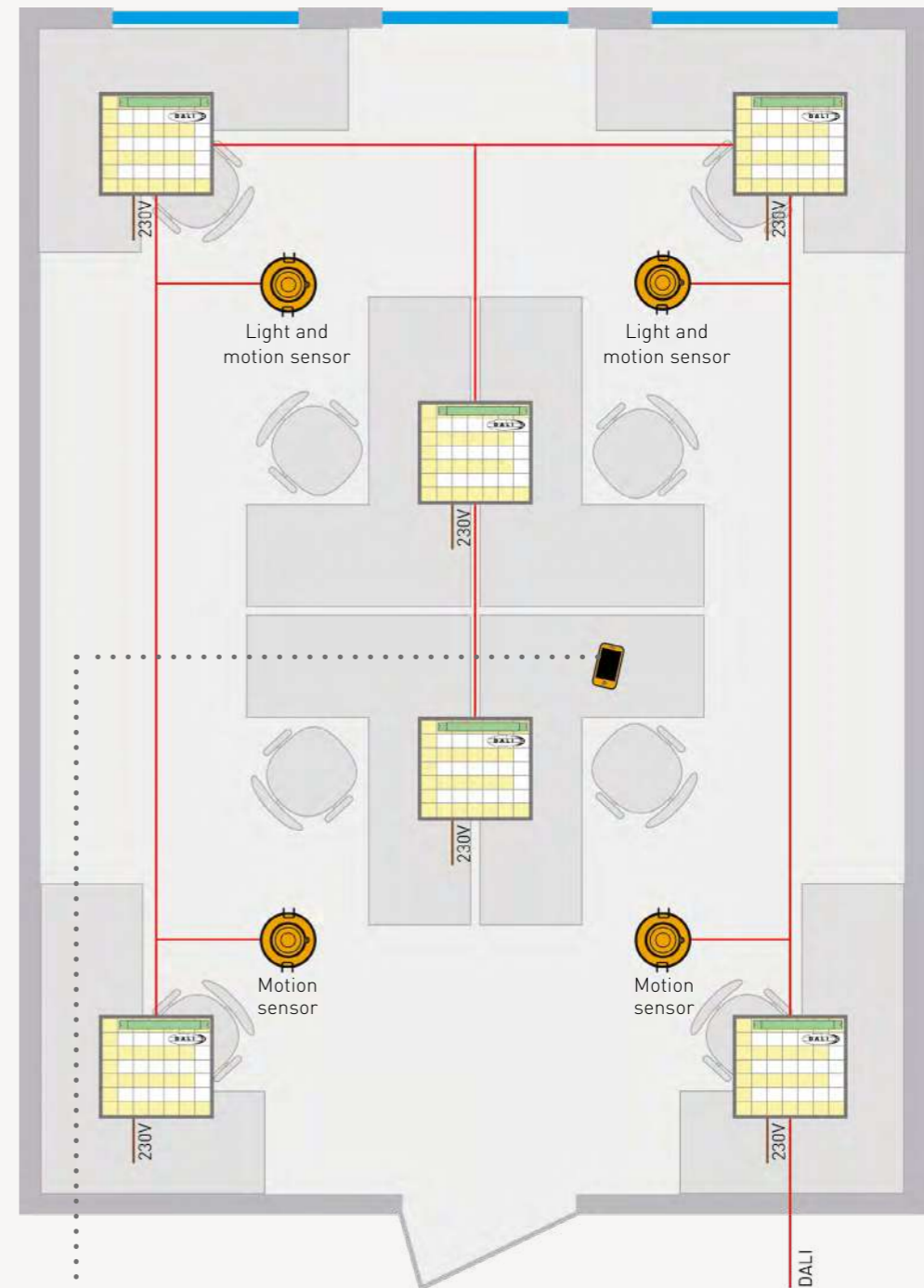


Visualisation

Personalise your user interface, to have a unique look and feel that fits your needs.

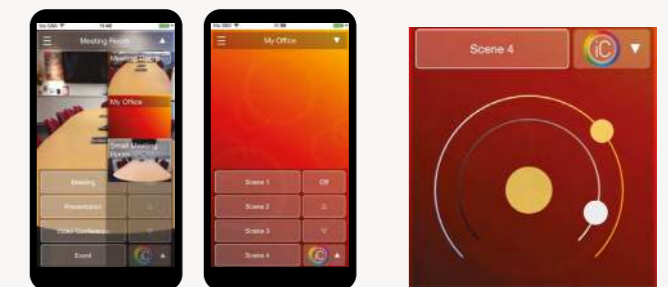


2. Office

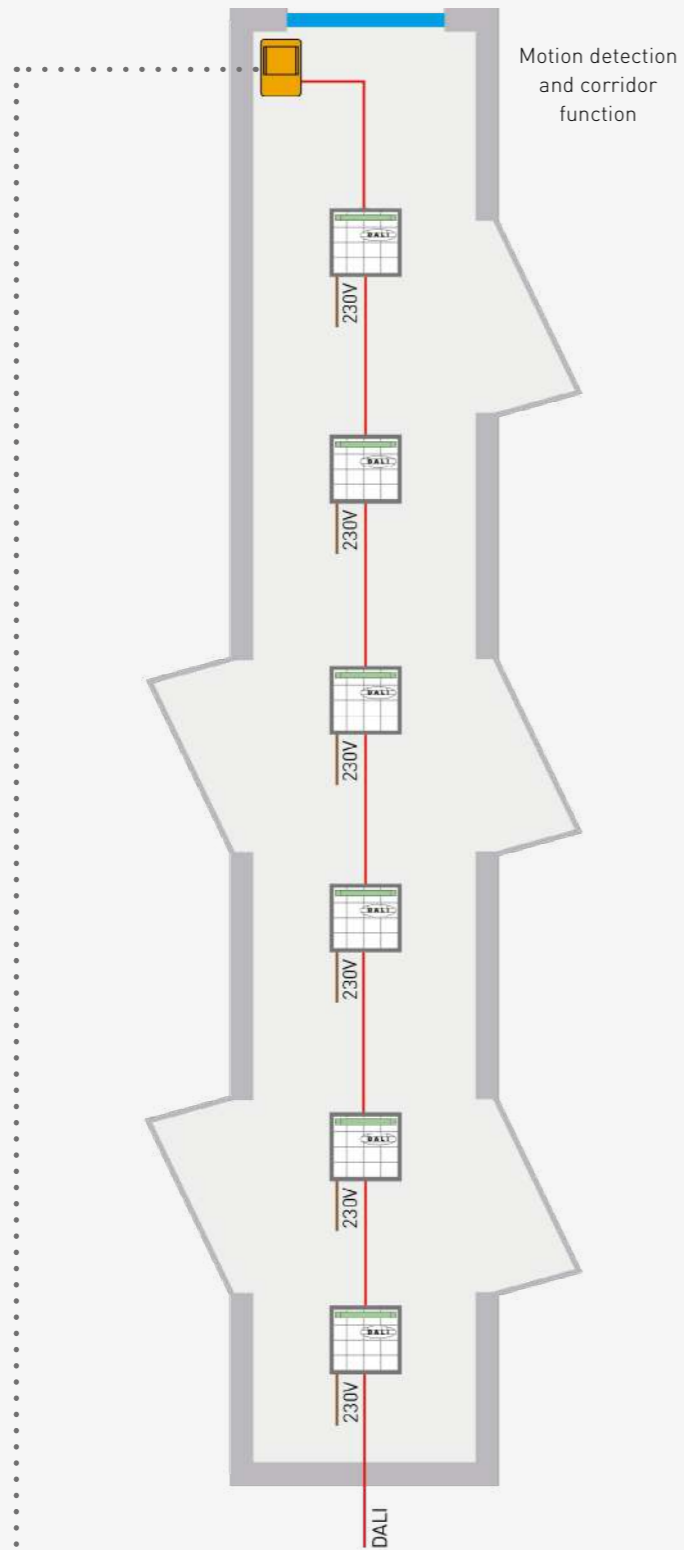


Sceneset

SceneSet lets you give anyone on your network the power to control lighting through an Apple or Android device. It's compatible with RGB luminaires and tunable white.



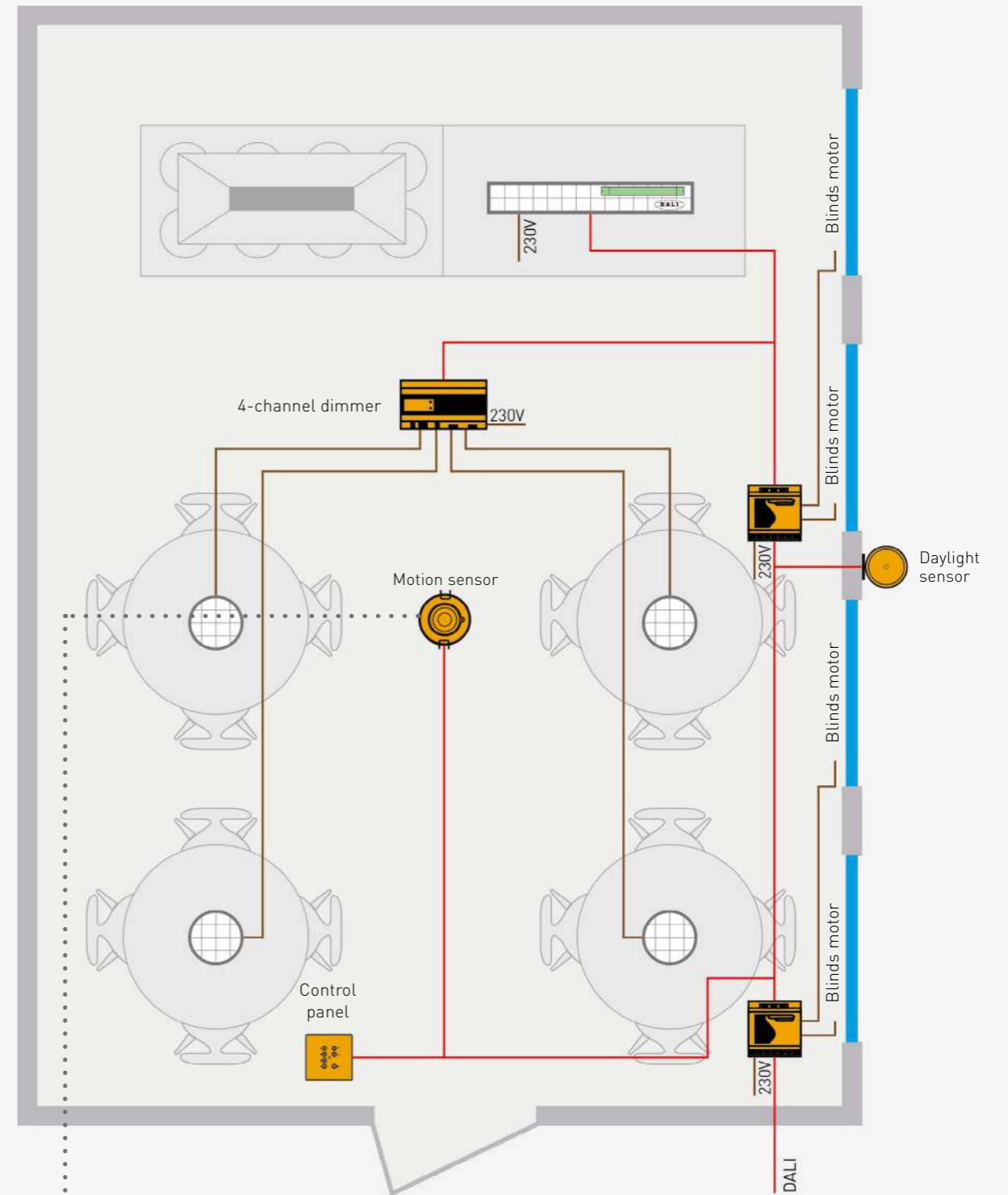
3. Corridor



Corridor function

A special mode allowing offices with corridors to connect to each other with software. Corridor lighting turns on or off depending on how you use the space. It's completely automatic, saving energy and improving safety.

4. Canteen

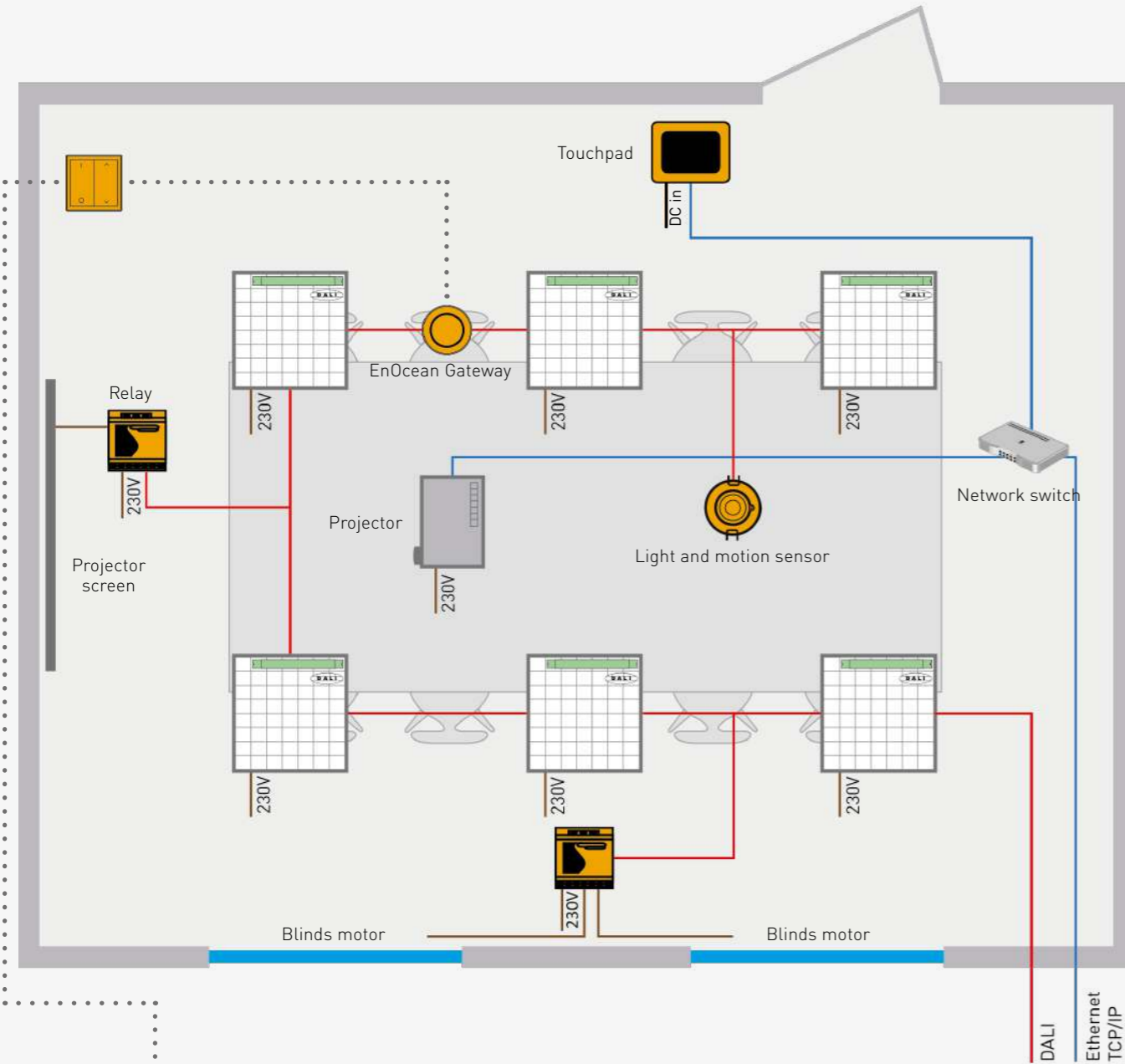


Timer control

Use maximum energy with our intelligent timer control. Program lights to switch on or off and adjust automatically and in response to the in-built astronomical clock in Router deployments.

Status	Description	Trigger	Action	Condition	State
1	Weekend	At 03:00:00	Disables Daylight Saving	Weekend	At 03:00:00
1	Weekend	At 02:00:00	Enables Daylight Saving	Weekend	At 02:00:00
	Adms bespørhus 1	At Sunset	Call Group 7 Scene 1.6	Always	Less than 12 hours remaining
	Adms bespørhus 2	At Sunset	Call Group 8 Scene 1.5	Always	At Sunset
	Adms ut	At Sunset	Call Group 9 Scene 1.2	Always	Less than 12 hours remaining
	Adms ut	At Sunset	Call Group 7 Scene 1.15	Always	At Sunset

5. Conference room



ENOCEAN
Wireless connector
EnOcean gateway lets you control lighting wirelessly using simple fuss-free panels.

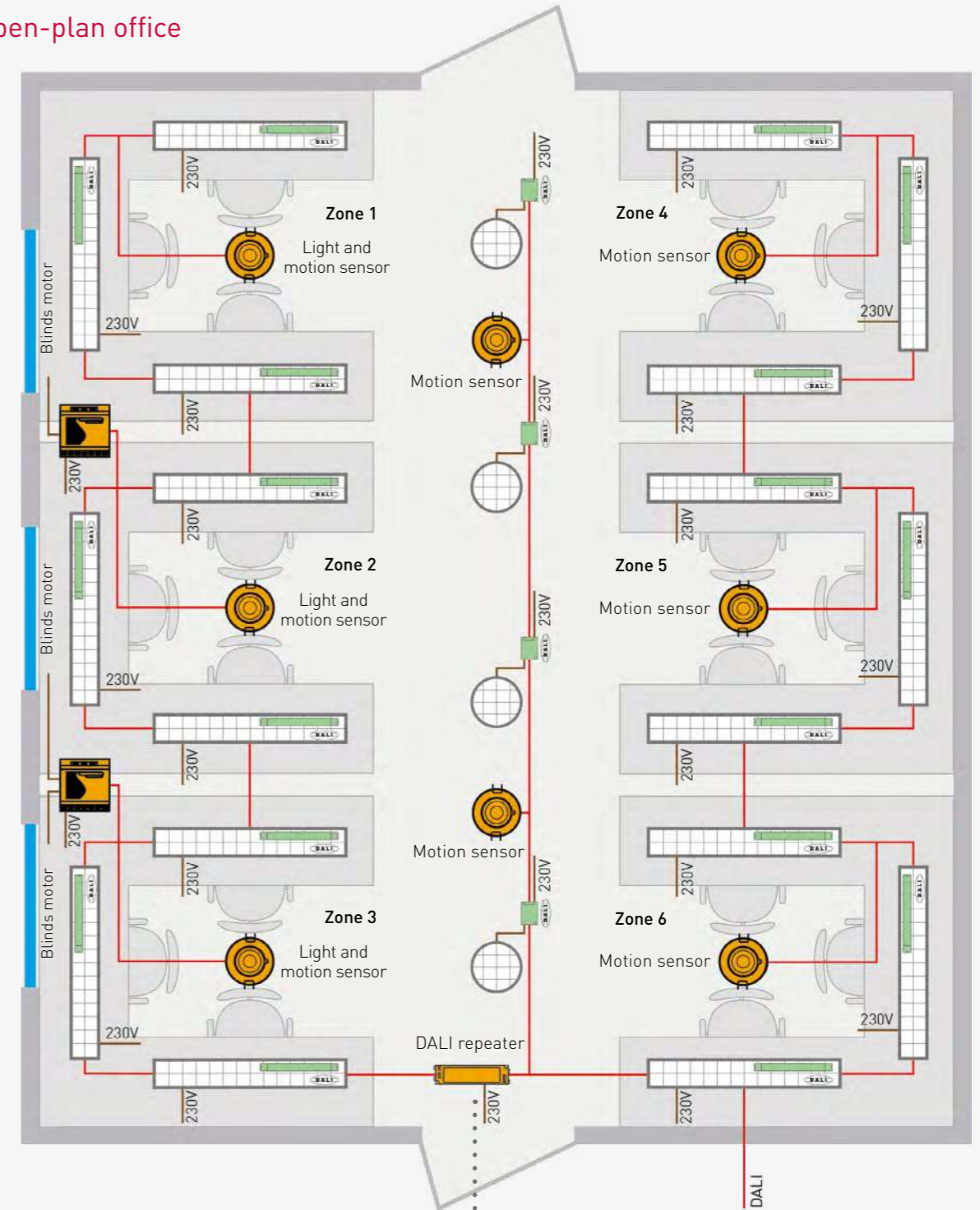


EnOcean Gateway



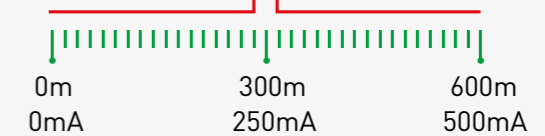
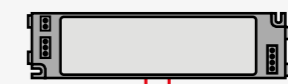
Wall panels

6. Open-plan office



DALI repeater

Our DALI repeater lets us extend the bus from 300m to 600m. Increasing the power of DALI by a further 250 mA.



402 Power Supply Unit

A fully DALI-compatible power supply, designed to give a DALI system the 250 mA it needs. DIN rail mounted.

Key features

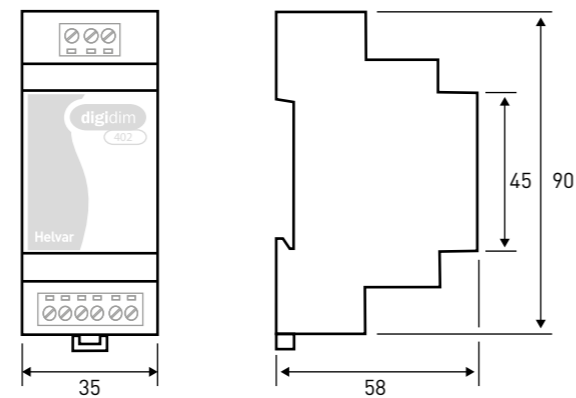
- Supplies power to a DIGIDIM / Helvar Imagine system up to a maximum of 250 mA
- DALI short circuit protected
- DALI status LED
- Universal voltage supply



Technical data

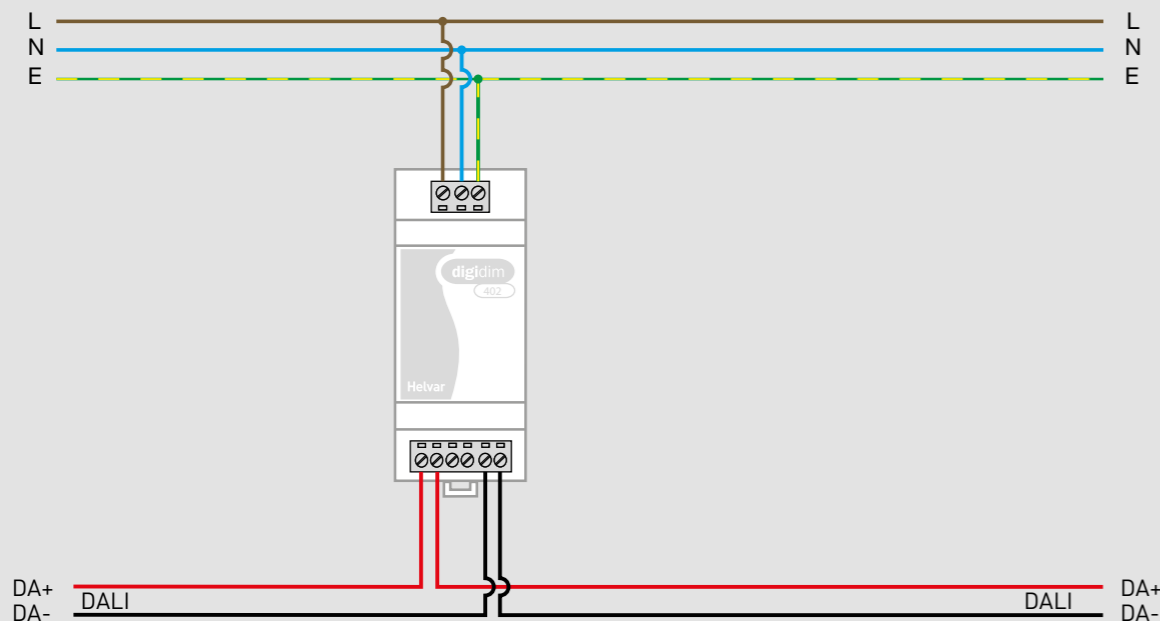
Mains supply.....	100 VAC – 240 VAC (nominal) 45 Hz – 65 Hz
Power consumption.....	1.6 W
DALI supply.....	20 VDC (nominal), 250 mA
Ambient temperature.....	0 °C to +40 °C
Degree of protection.....	IP30
Number of DALI addresses.....	0

Dimensions (mm)



DIN rail housing; Width of 2 modules. Weight 80 g

Wiring diagram

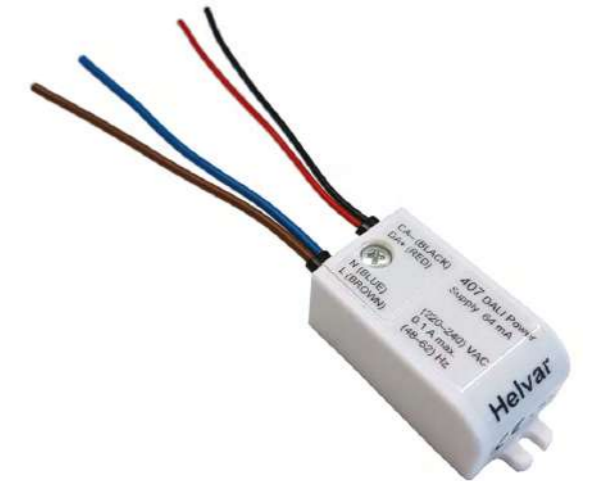


407 Compact DA Power Supply

A super-compact power supply with 64 mA DALI output. Perfect for placing in a flush-mounted box.

Key features

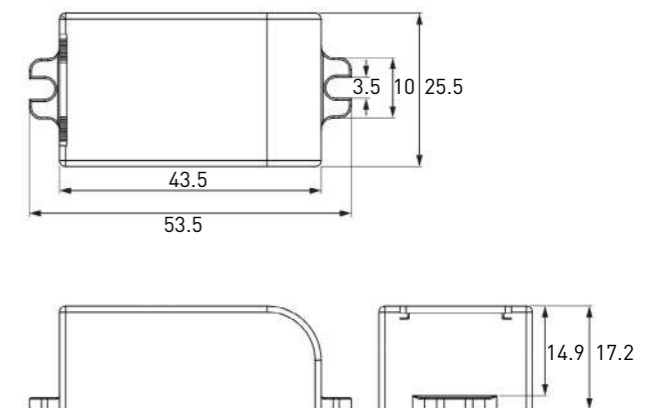
- Super-compact footprint
- 64 mA DALI supply
- DALI short circuit protected
- Flying leads for easy and flexible connection



Technical data

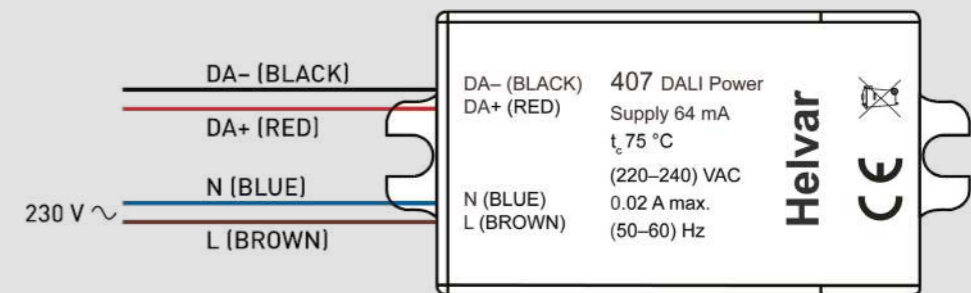
Mains supply.....	220 VAC – 240 VAC, 50 Hz – 60 Hz
DALI supply output.....	64 mA
Ambient temperature.....	0 °C to +50 °C
Degree of protection.....	IP30
Number of DALI addresses.....	0

Dimensions (mm)



Weight 20 g

Wiring diagram



905 Router

Handles up to 64 DALI devices from just one DALI interface. Create advanced lighting systems by connecting routers through standard Ethernet TCP and IP links.

Key features

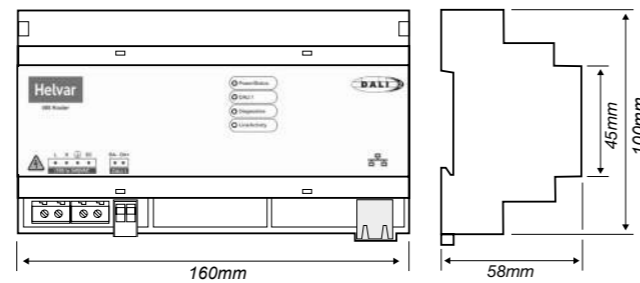
- Support for 64 DALI devices.
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (910/920/950).
- Integration with other building systems.
- Universal supply input.
- LightOverTime Bio-Rhythm control
- No central database required for system operation
- DALI-2 Certified single-master application controller

Technical data

Power supply..... 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption..... 13 W (DALI subnet fully loaded)
 Ambient temperature..... 0 °C to +40 °C
 Degree of protection..... IP30 (except connectors)

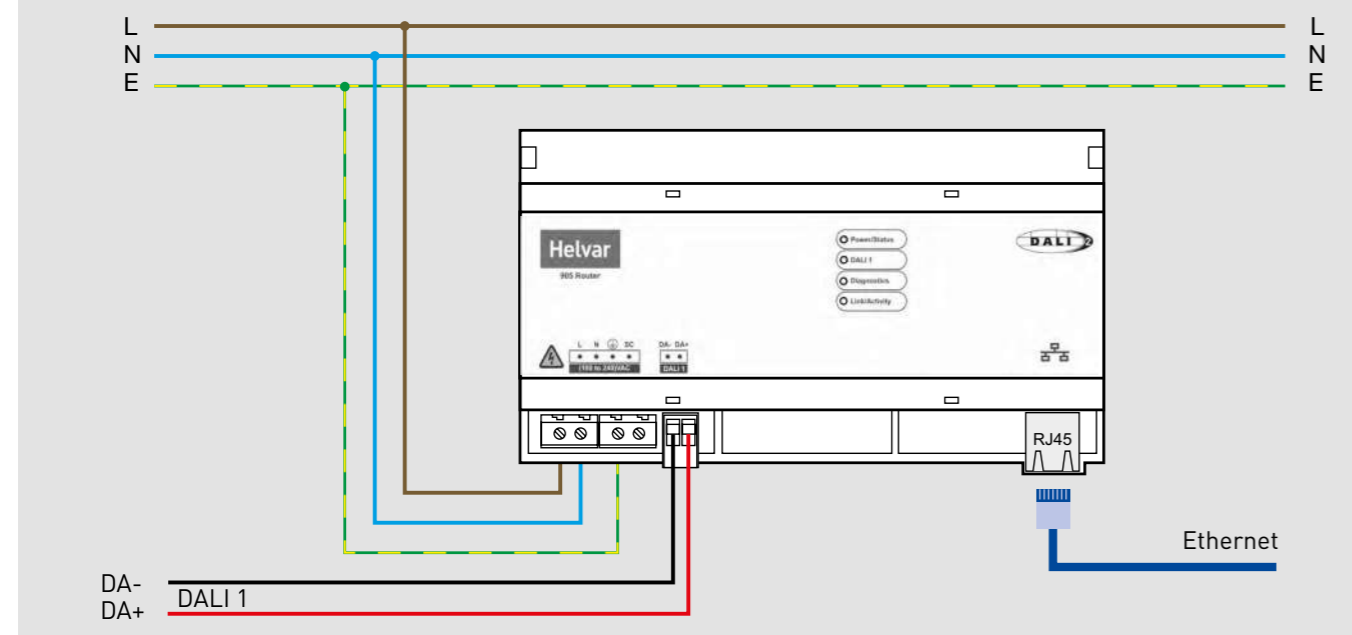


Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 250 g

Wiring diagram



910 Router

The 910 router has two DALI interfaces that can handle up to 128 DALI devices. You can join routers using standard Ethernet TCP and IP links. Giving you the ability to create large and complex lighting control systems.

Key features

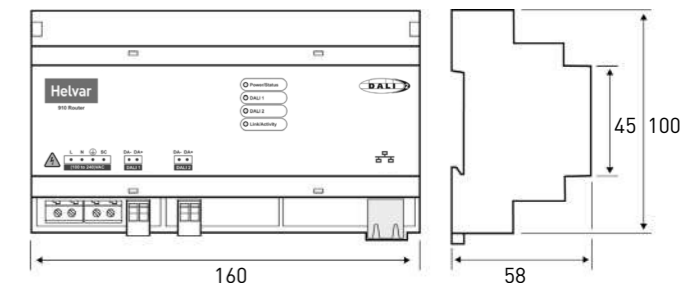
- Support for 128 DALI devices (64 DALI devices on each subnet).
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (905/920/950).
- Integration with other building systems.
- Universal supply input.
- LightOverTime Bio-Rhythm control
- No central database required for system operation
- DALI-2 Certified single-master application controller

Technical data

Power supply..... 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption..... 23 W (DALI subnet fully loaded)
 Ambient temperature..... 0 °C to 40 °C
 Degree of protection..... IP30 (except connectors)

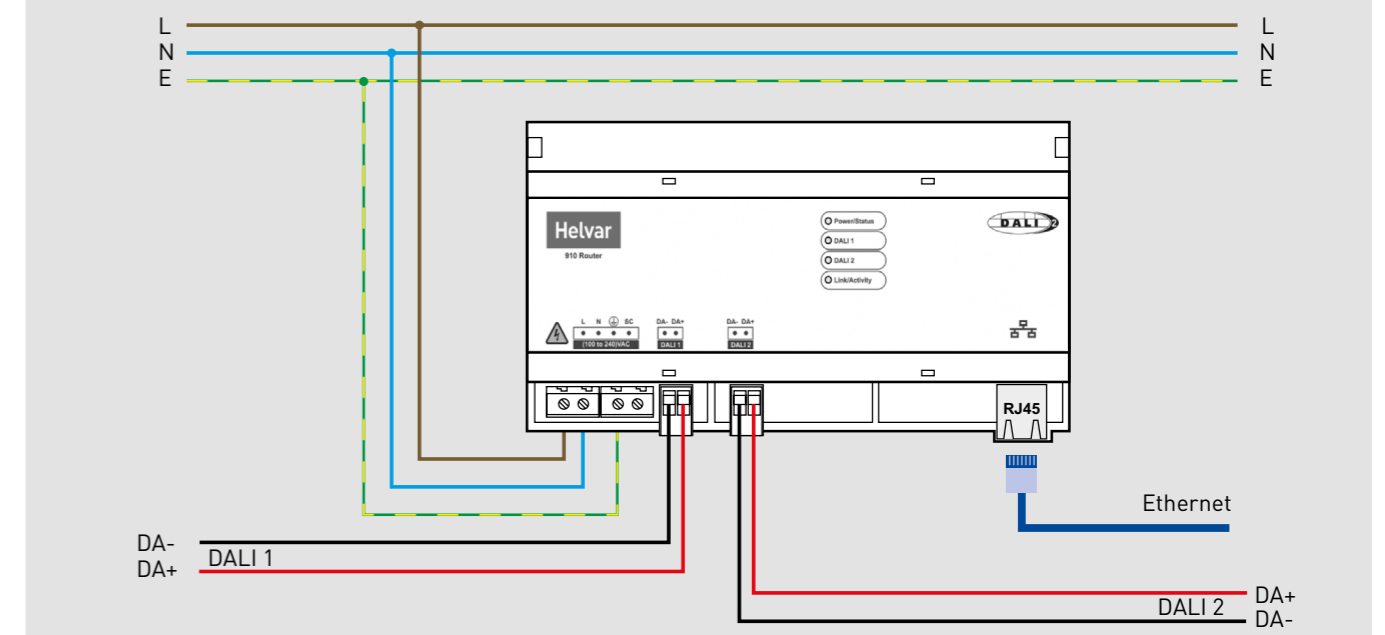


Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 260 g

Wiring diagram

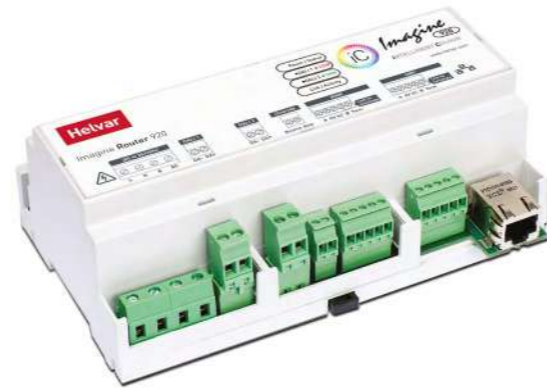


920 Router

Our 920 Router has two DALI interfaces that can handle up to 128 DALI, DMX and S-DIM devices. Making it easy to create extensive lighting control systems by connecting routers through Ethernet TCP and IP links.

Key features

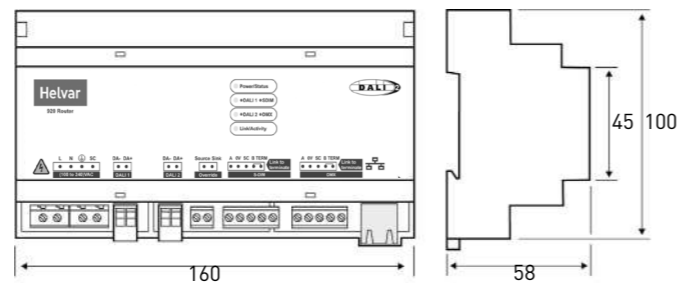
- Support for 128 DALI devices (64 DALI devices on each DALI subnet).
- 512 Channels of DMX In or Out
- 252 Channels of SDIM
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (905/910/950).
- Integration with other building systems.
- Universal supply input.
- The function of recovering settings after a power failure
- LightOverTime Bio-Rhythm control
- No central database required for system operation
- DALI-2 Certified single-master application controller



Technical data

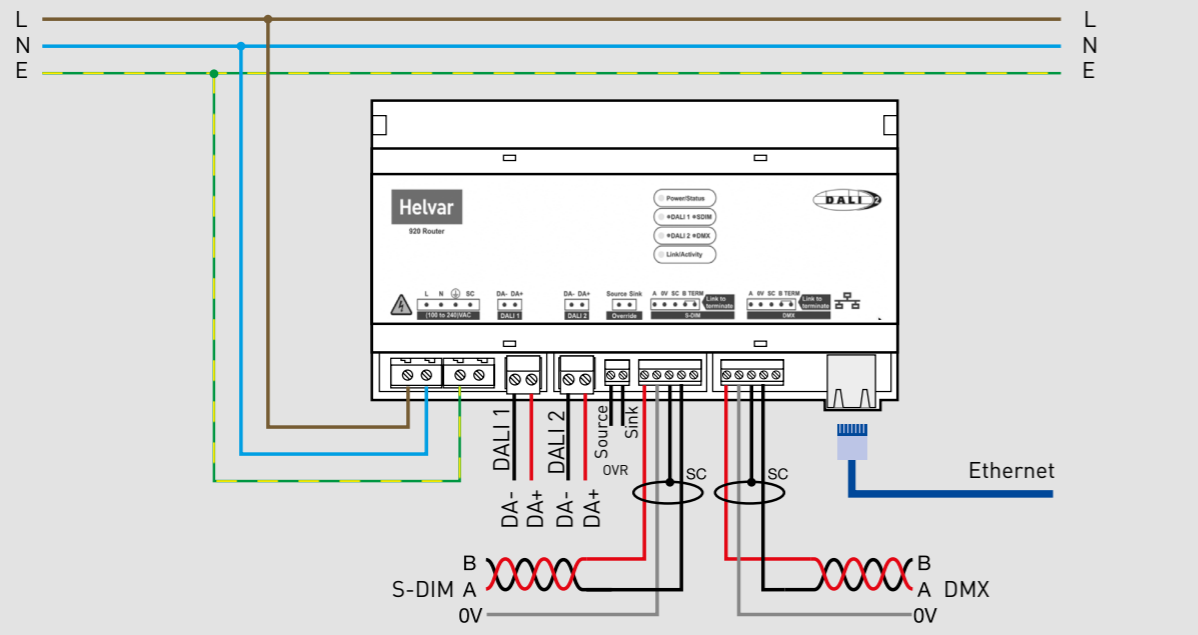
Power supply..... 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption..... 23 W (DALI subnet fully loaded)
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)

Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 260 g

Wiring diagram



950 Router / 945 Router

The 950 Router has four DALI interfaces that can handle up to 512 DALI devices. Join routers using standard Ethernet TCP and IP links to create large and complex lighting control systems.

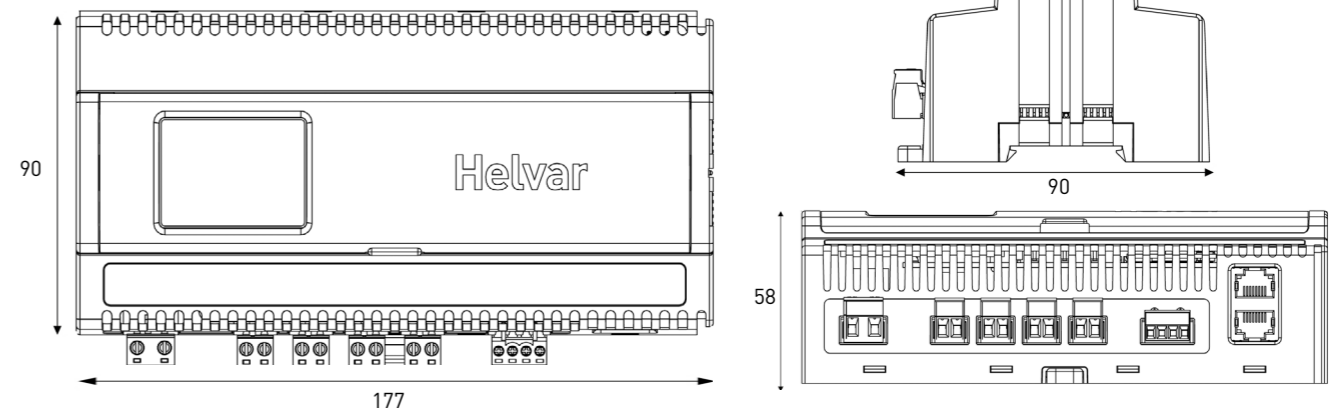
Key features

- Support for 512 DALI devices (128 DALI devices on each subnet).
- Built in LCD for DALI network testing and alerts display.
- Built in real-time clock.
- Can be networked together to make large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (905/910/920).
- Integration with other building systems.
- LightOverTime Bio-Rhythm control.
- No central database required for system operation.
- DALI-2 Certified Multi-master application controller.

Key 945-specific features

- 2 DALI Networks (subnets) as default
- Upgradeable to 3 or 4 DALI Networks in the field via software license

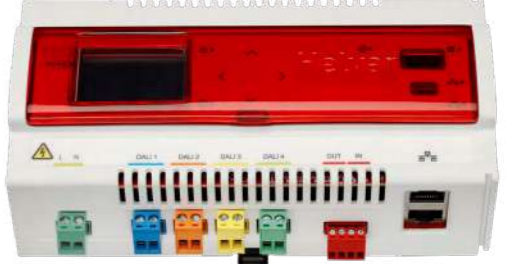
Dimensions (mm)



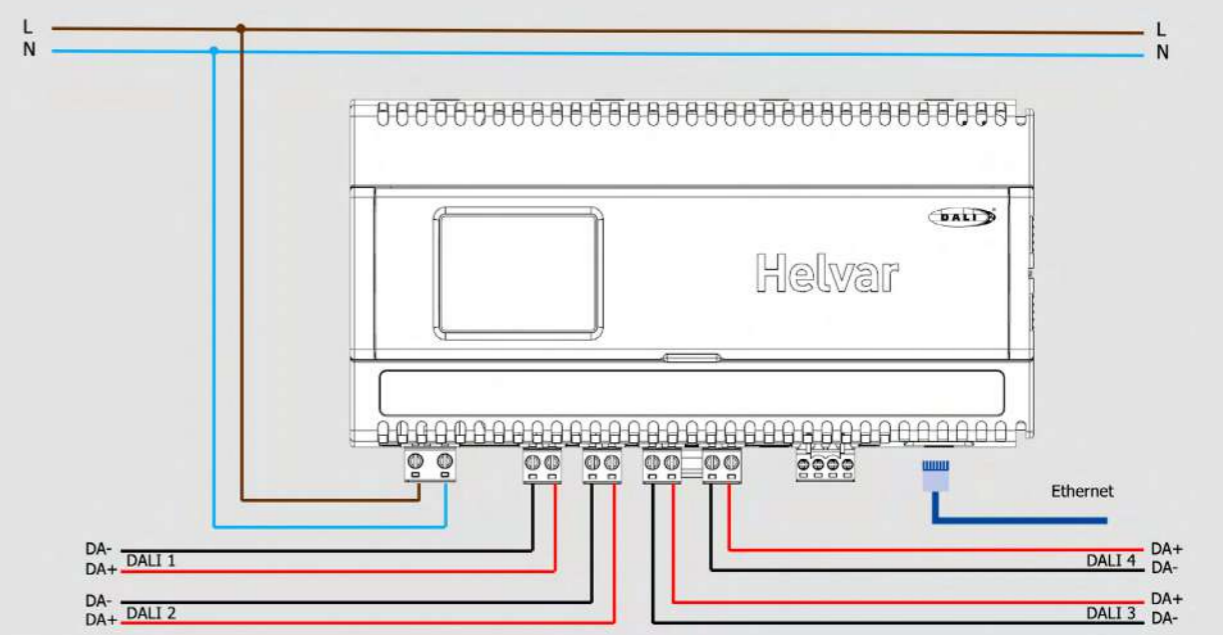
950 Router



945 Router (Release Date TBC)



Wiring diagram



405 DALI Repeater

This DALI repeater increases the maximum bus length from 300m to 600m and provides an additional 250 mA. But it doesn't add extra DALI addresses — the 64-address limit stays the same.

You can also use this as a standalone power supply for your DALI system, and connect DALI repeaters in parallel through the DALI-IN input.

Key features

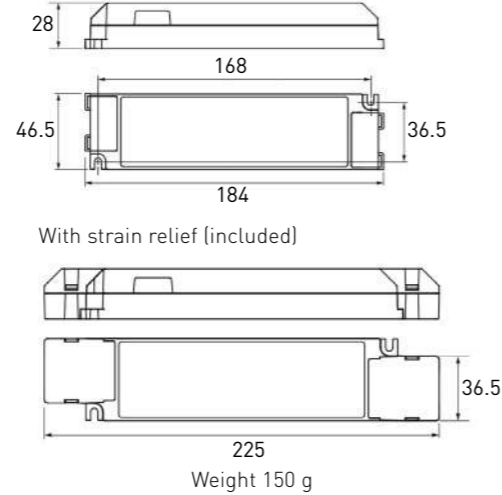
- Extends the maximum DALI line length from 300 m to 600 m.
- Provides 250 mA current at the DALI-OUT side.
- Messages are unfiltered.
- No isolation between DALI IN and DALI OUT. Both are isolated from the mains input.
- Click-on strain relief for standalone installation (included).



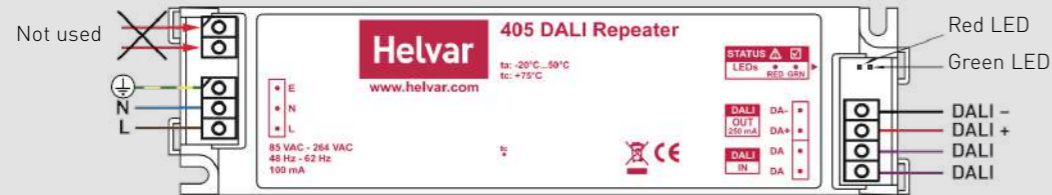
Technical data

Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Power consumption in standby mode	0.6 W
Power consumption.....	1.6 W
Power consumption from the DALI bus.....	2 mA
Ambient temperature.....	-20 ° C to 50 ° C
Degree of protection	IP20
Number of DALI addresses.....	0

Dimensions (mm)



Wiring diagram



406 DALI Repeater

This DIN-rail mounted DALI repeater increases the maximum bus length from 300m to 600m and provides an additional 250 mA. But it doesn't add extra DALI addresses — the 64-address limit stays the same.

You can also use this as a standalone power supply for your DALI system, and connect DALI repeaters in parallel through the DALI-IN input.

Key features

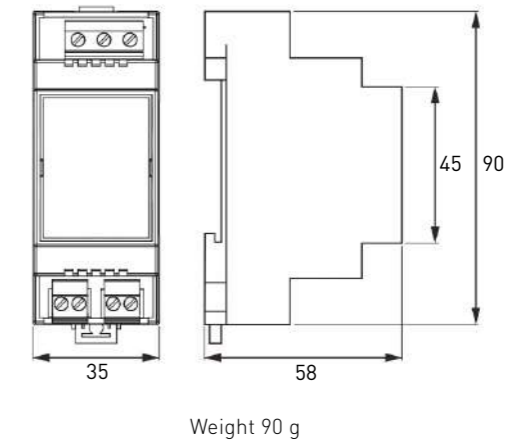
- Extends the maximum DALI line length from 300 m to 600 m.
- Provides 250 mA current at the DALI-OUT side.
- Messages are unfiltered.
- No isolation between DALI IN and DALI OUT. Both are isolated from the mains input.



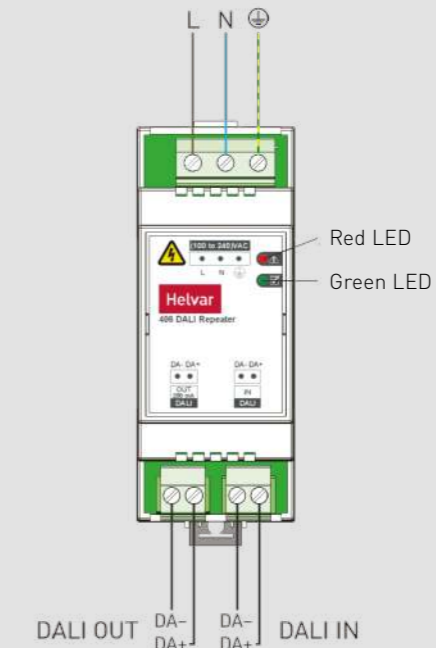
Technical data

Power consumption from the DALI bus.....	2 mA
Power supply.....	85-264 VAC, 48-62 Hz
Power consumption in ready state.....	0.6 W
Power consumption.....	1.6 W
Ambient temperature.....	-20 ° C to 50 ° C
Degree of protection	IP20
Number of DALI addresses.....	0

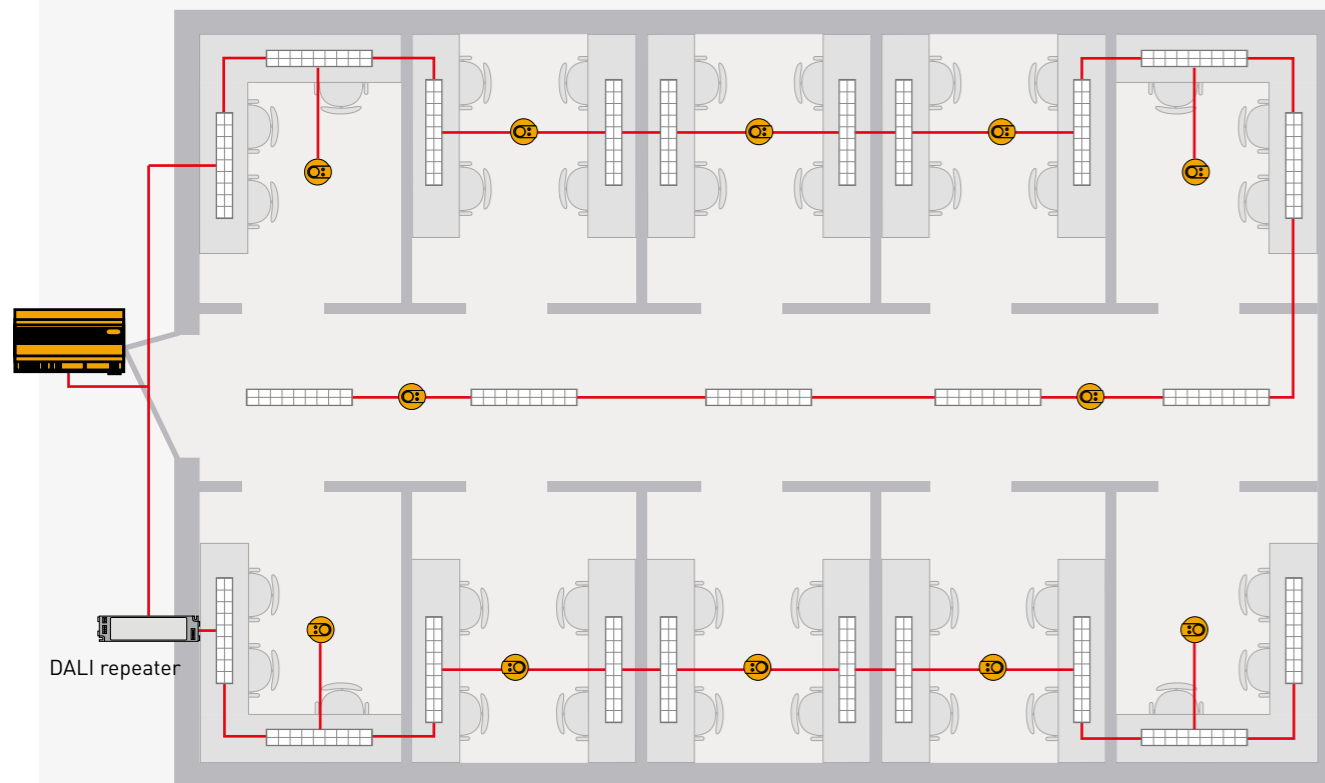
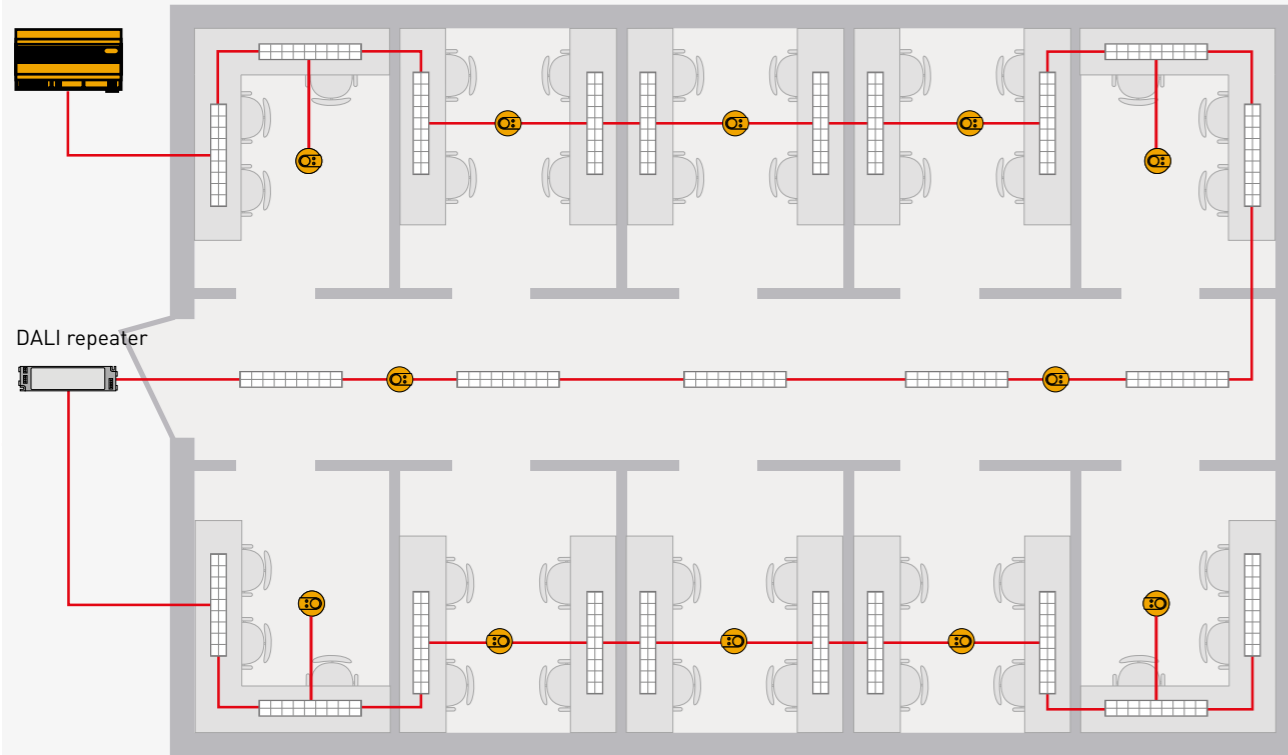
Dimensions (mm)



Wiring diagram



Example Using our DALI Repeater



ST7-X SCENETOUCH

The SceneTouch7 Panel is a 7" capacitive touch, full-colour, high-resolution lighting control panel designed to work seamlessly with Helvar's router system. An easy-to-use, gesture-controllable and intuitive interface that is customisable to different applications via the SceneStudio online design tool. The product can be installed in solid or plasterboard walls using the supplied metal back box.

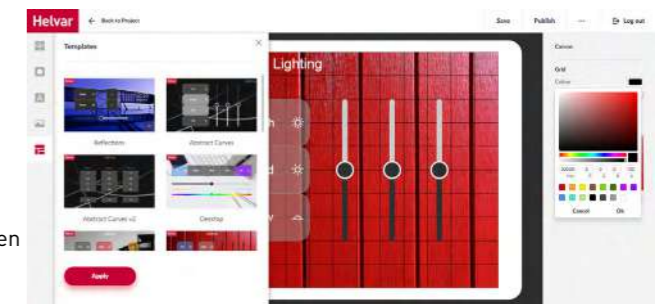
Key features

- Updates via the cloud
- Standard layouts are available but the layout can also be fully personalized
- Ethernet and WiFi
- Available in white and black

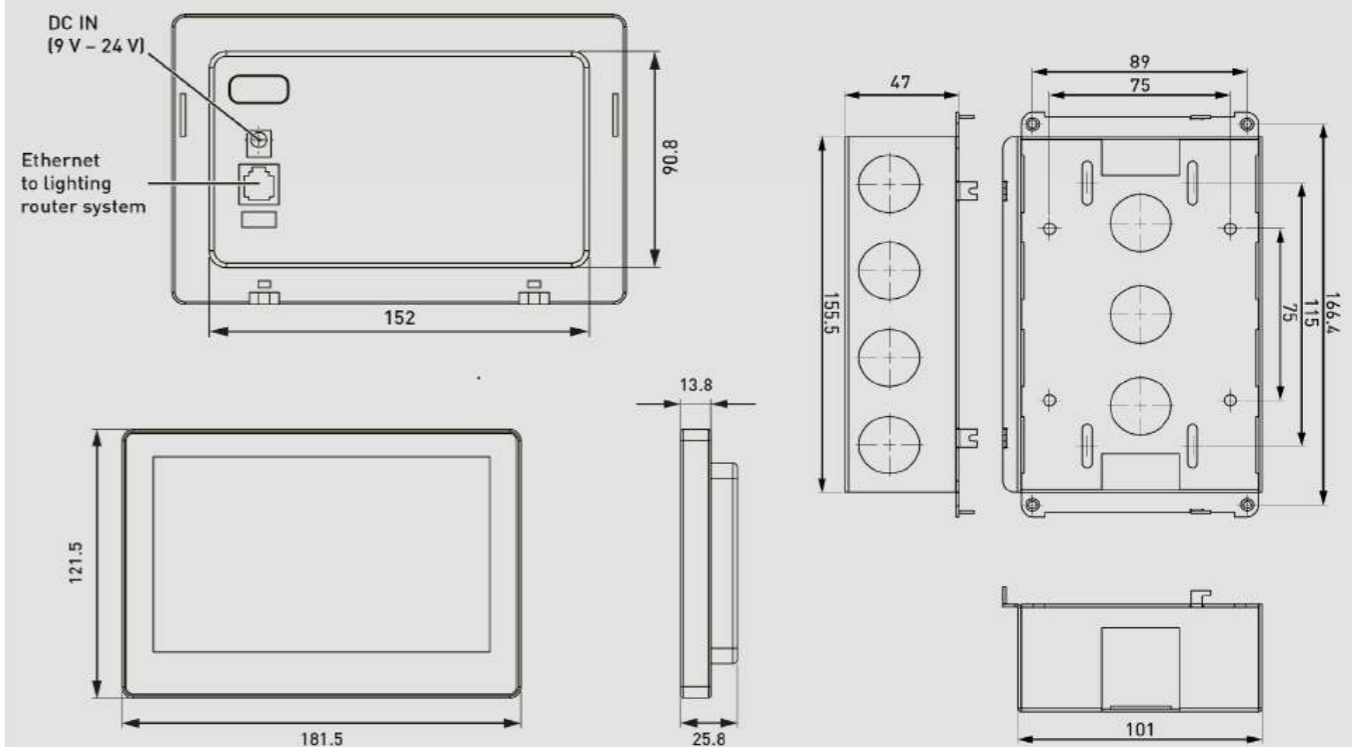


Technical data

Input supply.....	9 VDC - 24 VDC
Typical Power Consumption	6 W
Resolution	1024 x 600
Ambient Temperature	0 °C to +40 °C
Dimensions.....	181.5 x 121.5 x 25.8 mm
Weight.....	350g
Degree of protection.....	IP40 (accessible front parts when installed)



Dimensions and Connections



435 BACnet Gateway

Manage BACnet and building management system lighting data with this dependable interface for router systems.

Key features

- Operates as BACnet server
- Helvar workgroup discovery tool
- Helvar router selector
- Automatic Helvar point identification
- BACnet/IP compatible
- Automatic BACnet instance labelling
- COV (change of value) BACnet feature
- Power supply included
- Browser programming interface
- Group Scene
- Group Power Consumption
- Group Direct Level
- Router fail
- Device missing
- Lamp fail



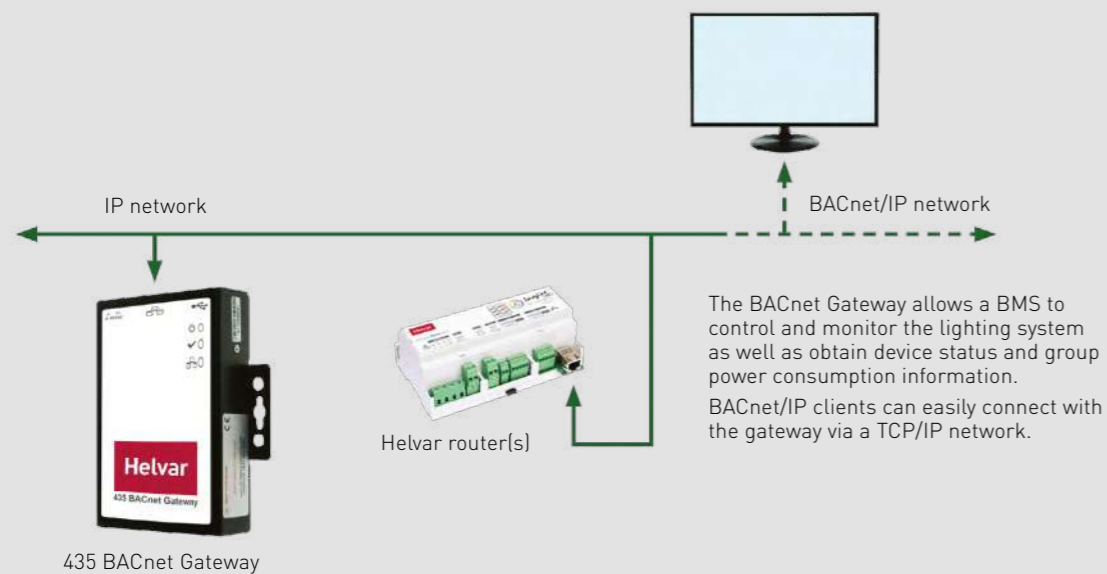
Technical data

Power supply..... 9 VDC - 40 VDC
 Power consumption..... 300 mA, 12 VDC 150 mA, 24 VDC
 Operation in ambient temperature..... 0 ° C to + 70 ° C
 Degree of protection..... IP20

Device limits

- Single workgroup
- 20 routers
- 300 groups
- 2000 BACnet / IP points

Wiring diagram



436 BACnet Gateway

Provides a simple interface to a Helvar router system and allows lighting system data to appear in a BACnet Building energy Management System (BeMS).

Key features

- Operates as BACnet server
- Helvar workgroup discovery tool
- Helvar router selector
- Automatic Helvar point identification
- BACnet/IP compatible
- Automatic BACnet instance labelling
- COV (change of value) BACnet feature
- Power supply included
- Browser programming interface
- Auto Import of Group and Device Names from Routers
- Individual Luminaire control and output level data
- Individual PIR state and Light level data
- Emergency Testing and Results Data
- Group Scene
- Group Power Consumption
- Group Direct Level
- Router fail
- Device missing
- Lamp fail



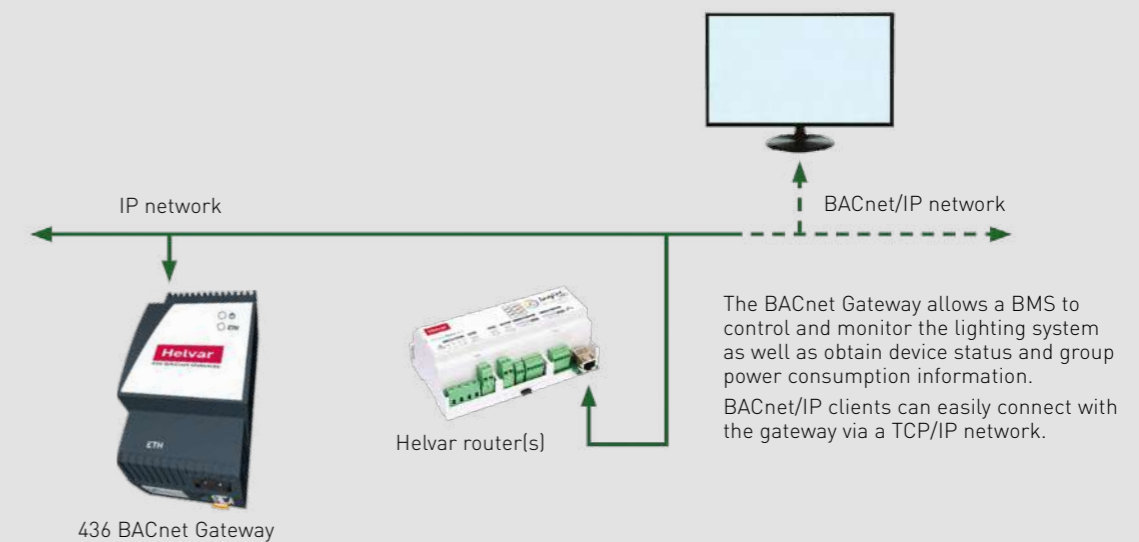
Technical data

Power supply..... 9 VDC - 40 VDC
 Power consumption..... 300 mA, 12 VDC 150 mA, 24 VDC
 Operation in ambient temperature..... 0 ° C to + 70 ° C
 Degree of protection..... IP20

Device limits

- Single workgroup
- 20 routers
- 300 groups
- 2000 BACnet / IP points

Wiring diagram



HCG Helvar Cloud Gateway

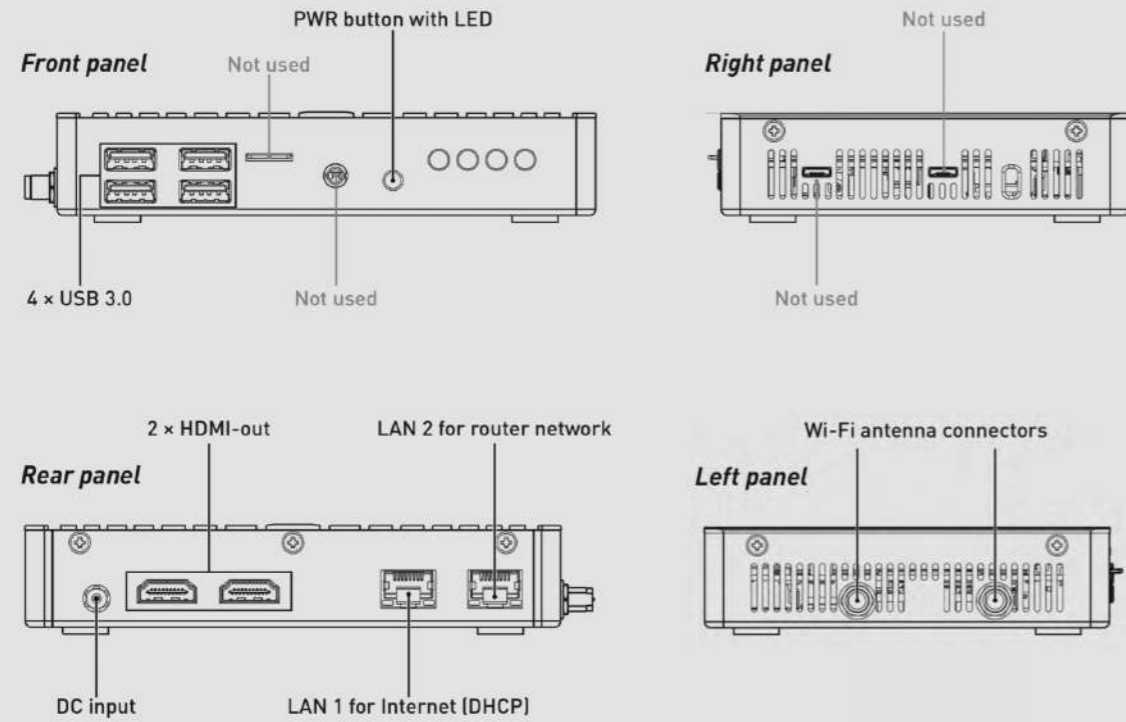
The Helvar Cloud Gateway (HCG) is a small-form-factor computer with leading performance and security. This is the device that uploads the data from the lighting system to Helvar's Cloud Platform via Ethernet or Wi-Fi. Authorised users can access the lighting system data via a browser-based web interface or a REST API.

Key features

- Connectivity to Helvar Cloud Platform
- Easy setup and configuration
- Secure connection
- DIN-rail mounting option
- 12 VDC, 30 W AC/DC DIN-rail power supply included
- Screw connectors for desired cable length between HCG and PSU
- Power supply included



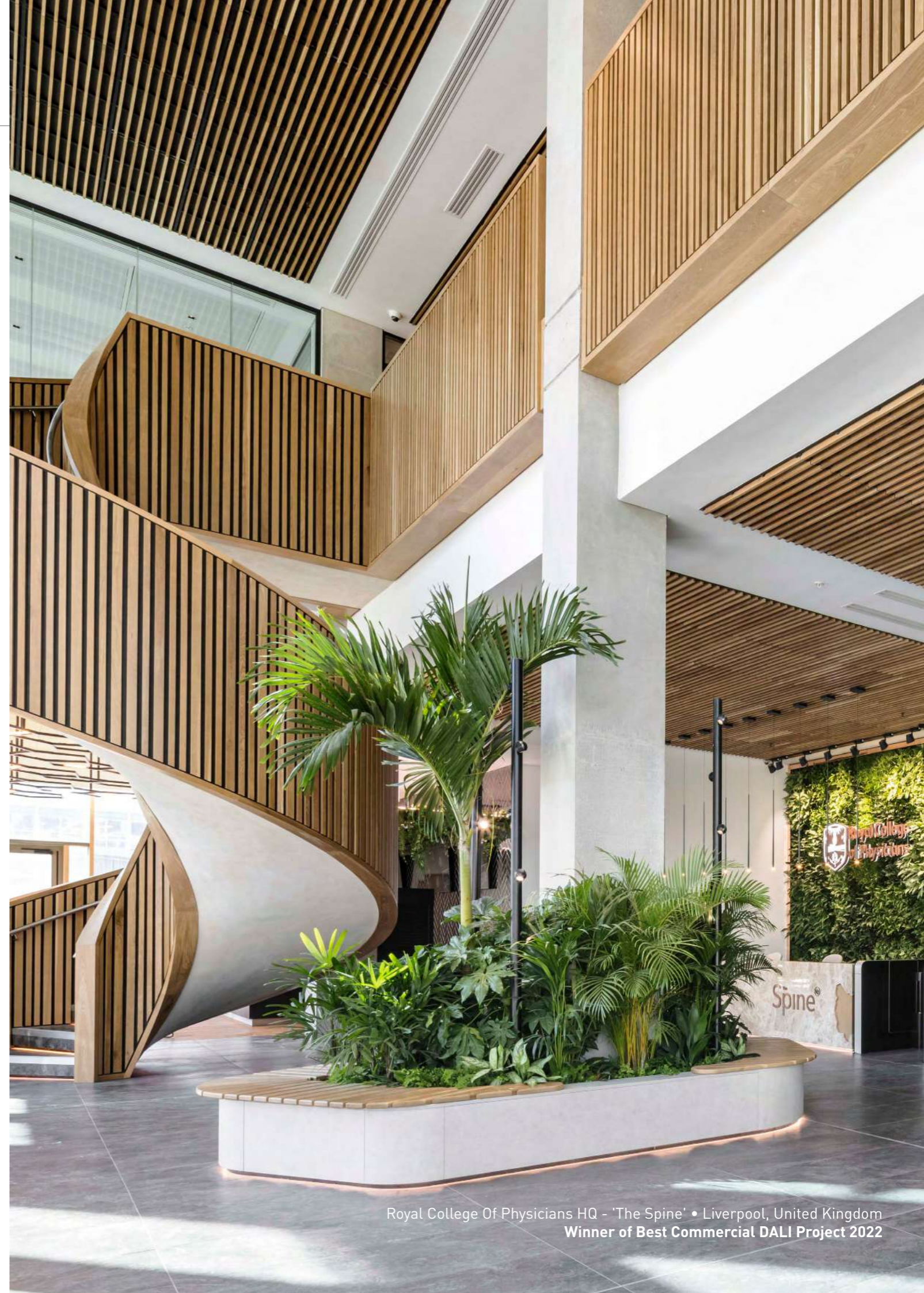
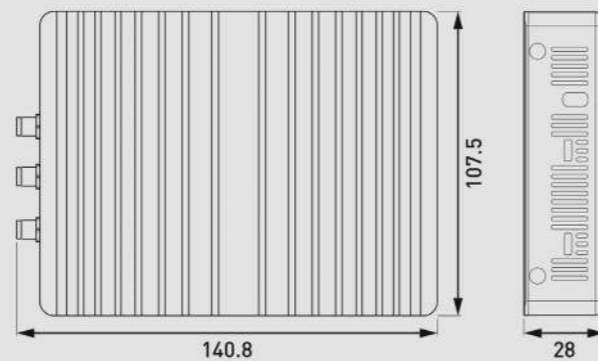
Connections



Technical Details

Input Voltage.....	12 VDC - 19 VDC
LAN 1.....	10/100/1000 Mbps Intel I210 GbE for router network.
LAN 2.....	10/100/1000 Mbps Intel I210 GbE.
Wi-Fi.....	2 x Wi-Fi antenna
Dimensions.....	140.8 mm x 107.5 mm x 28 mm
Ambient Temperature.....	0°C to 40°C
Weight.....	0.56kg
Degree of protection.....	IP20

Dimensions (mm)



Royal College Of Physicians HQ - 'The Spine' • Liverpool, United Kingdom
Winner of Best Commercial DALI Project 2022

DALI SENSORS

Light and movement sensors are the best way to make energy savings.
Our DALI range includes standalone sensors and sensors that fit inside your light fittings.

DALI system sensors				
DALI sensors	Functionality		Motion detection area	Comments/ Constant light reception area
	Motion detector	Constant light		
Low Profile Microwave Detector (313)	Microwave	-		-
Tilting Microwave Detector (314)	Microwave	-		-
Wall-mounted PIR Presence/Absence Detector (318)	PIR	-		Versions available: White Black
PIR Sensor (320) Also available in DALI-2 (320D2)	PIR	-		Versions available: White Black
Ceiling PIR Presence/Absence Detector (321) Also available in DALI-2 (321D2)	PIR	•		Versions available: White Black
High Bay Multisensor (322) Also available in DALI-2 (322D2)	PIR	Bright-out		Versions available: White Black

DALI system sensors				
DALI sensors	Functionality		Motion detection area	Comments/ Constant light reception area
	Motion detector	Constant light		
DALI External Light Sensor (329)	-	•		When mounted vertically: 85° from vertical; Horizontal plane: 360°
Multisensor for RoomSet (331)	PIR	•		
Corridor PIR Sensor (341)	PIR	-		
Acoustic Sensor (342)	Acoustic	-		



STEINEL DALI-2 SENSORS FOR HELVAR



IR QUATTRO HD Open plan large area

- Sensor Technology: Passive Infrared
- Optimum mounting height: 2.8 m
- Small movement detection: 8 x 8 m
- Large movement detection: 20 x 20 m
- DALI Current Consumption: 8mA max
- DALI-2 input device

DUAL HF Corridors

- Sensor Technology: High Frequency, 5.8 Ghz
- Optimum mounting height: 2.8 m
- Small movement detection: 20 x 3 m
- Large movement detection: 20 x 3 m
- DALI Current Consumption: 14mA max
- DALI-2 input device

HF 360 Open plan areas with separators | Stairwells | WCs

- Sensor Technology: High Frequency, 5.8 Ghz
- Optimum mounting height: 2.5 m
- Small movement detection: 12 m Diameter
- Large movement detection: 12 m Diameter
- DALI Current Consumption: 10mA max
- DALI-2 input device

IS 3360 MX High bay open plan

- Sensor Technology: Passive Infrared
- Optimum mounting height: 12 m
- Small movement detection: 14 m Diameter
- Large movement detection: 36 m Diameter
- DALI Current Consumption: 6mA max
- DALI-2 input device

IS 345 MX High bay aisle

- Sensor Technology: Passive Infrared
- Optimum mounting height: 12 m
- Small movement detection: 30 x 4 m Diameter
- Large movement detection: 30 x 4 m Diameter
- DALI Current Consumption: 6mA max
- DALI-2 input device

313 Low-Profile Microwave Detector

Microwave technology means our 313 sensor reacts immediately to any motion, helping to maximize energy savings. It's got an infrared receiver for remote control too. You can mount it in suspended ceilings or in a case on wall surfaces using mounting box SBB-A.

Key features

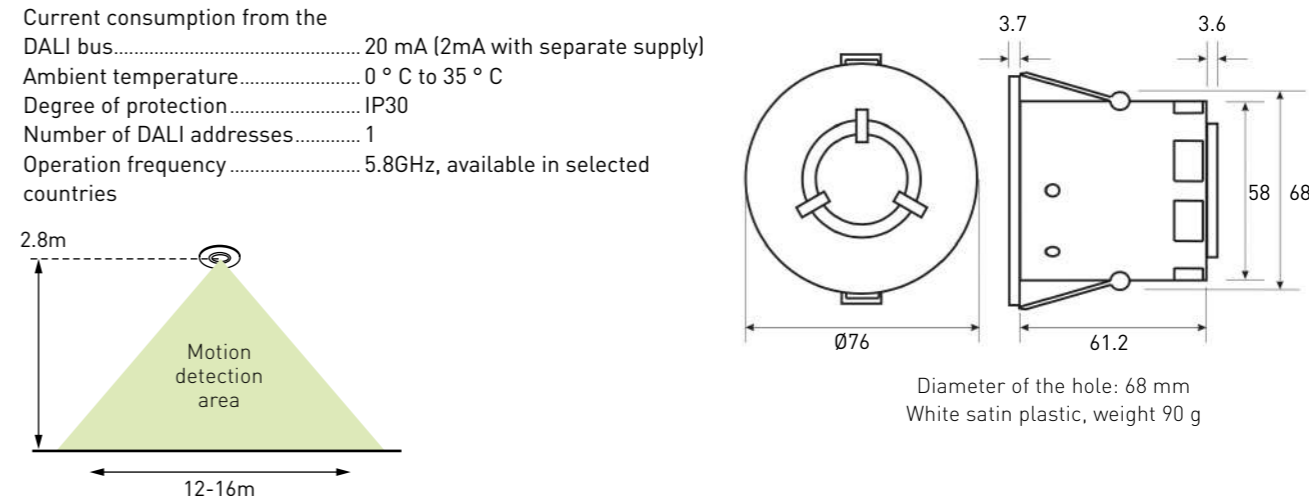
- The microwave sensor detects movement within the detection range allowing load control in response to changes in room occupancy.
- The IR receiver receives control and programming commands from a 303 IR (infrared) handset (available separately).



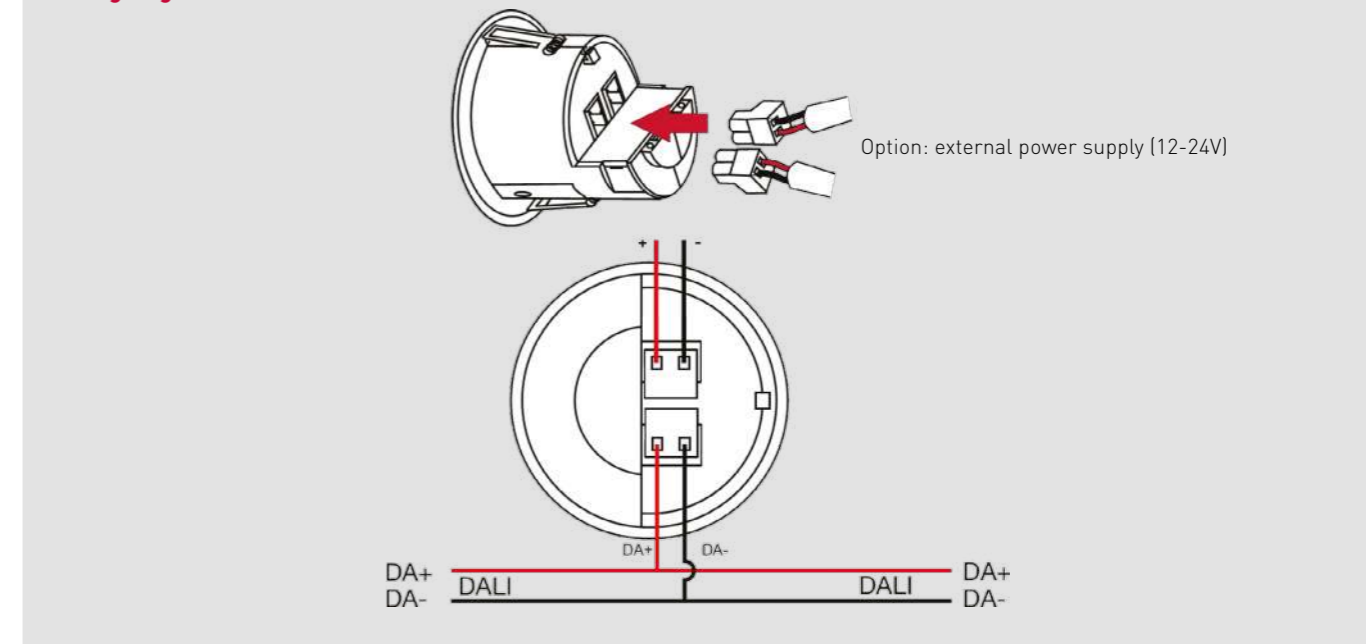
Technical data

Current consumption from the DALI bus..... 20 mA (2mA with separate supply)
 Ambient temperature..... 0 ° C to 35 ° C
 Degree of protection IP30
 Number of DALI addresses..... 1
 Operation frequency 5.8GHz, available in selected countries

Dimensions (mm)



Wiring diagram



314 Tilting Microwave Detector

Its tilting head means our 314 sensor can be optimized for the detection area you need. Microwave technology means it reacts to any motion, helping boost energy savings. You can mount it in suspended ceilings or in a case on wall surfaces using mounting box SBB-B. There's an infrared receiver for remote control too.

Key features

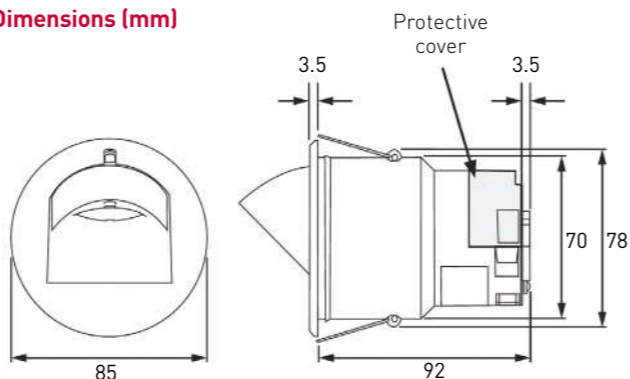
- The microwave sensor detects movement within the detection range allowing load control in response to changes in room occupancy.
- The IR receiver receives control and programming commands from a 303 Infrared Remote Control (available separately).



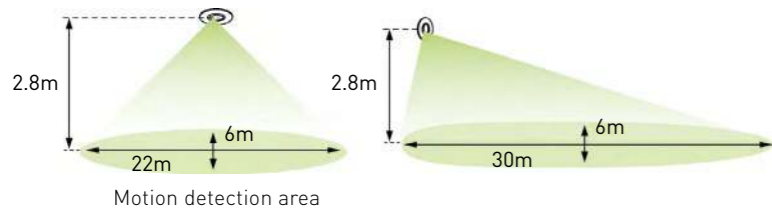
Technical data

Power consumption from the DALI bus..... 40 mA (2mA with separate supply)
 Ambient temperature..... 0 ° C to 35 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1
 Operation frequency..... 5.8GHz, available in selected countries

Dimensions (mm)



Diameter of the mounting hole: 78 mm
 White satin plastic, weight 124 g



318 Wall-Mounted PIR Presence/Absence Detector

Perfect where ceiling installation just isn't possible, and in corridors or small rooms.

With a built in control button, you can also dim the lighting or turn it on or off straight from the sensor just like our standard wall panel.

Key features

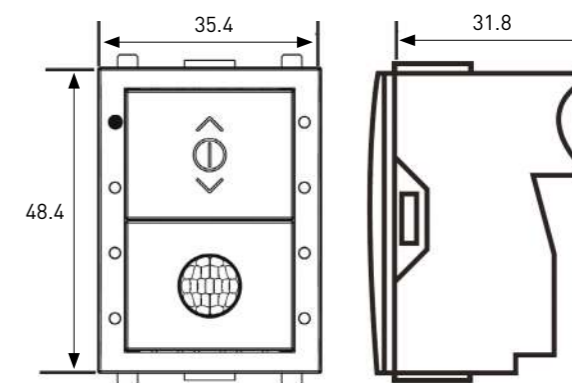
- Controls lighting loads based on presence/absence detection
- 5 m detection range
- Manual Override/Dimming button built in
- For wall mounting using Helvar panel surrounds
- Available in **White or Black** (318B) to match the Helvar button panel range
- Simple connection and integration into a Helvar DALI control network
- Programmable in Designer™ and DIGIDIM Toolbox™



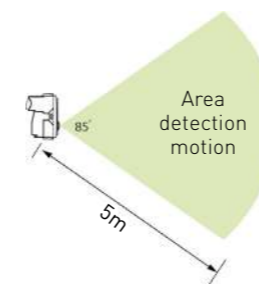
Technical data

Power consumption from the DALI bus..... 10 mA
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1

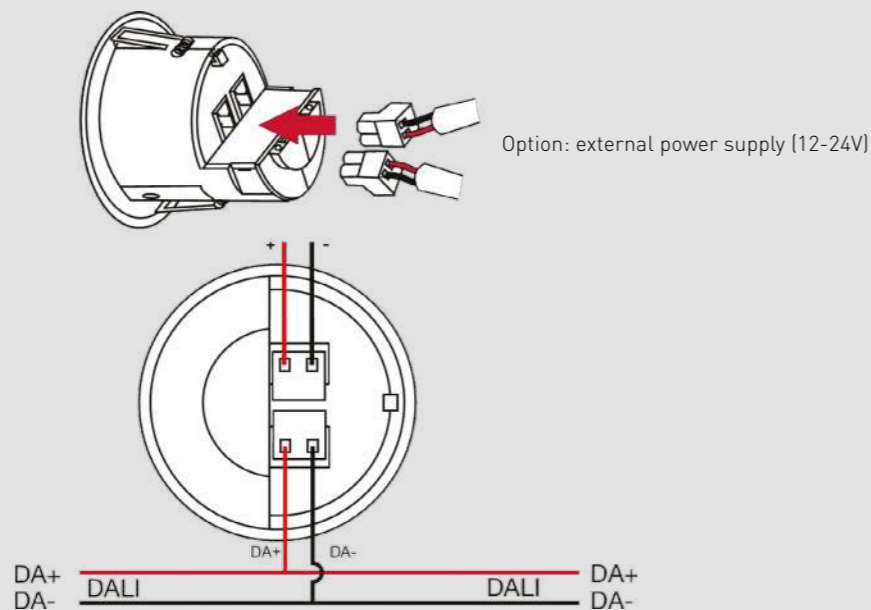
Dimensions (mm)



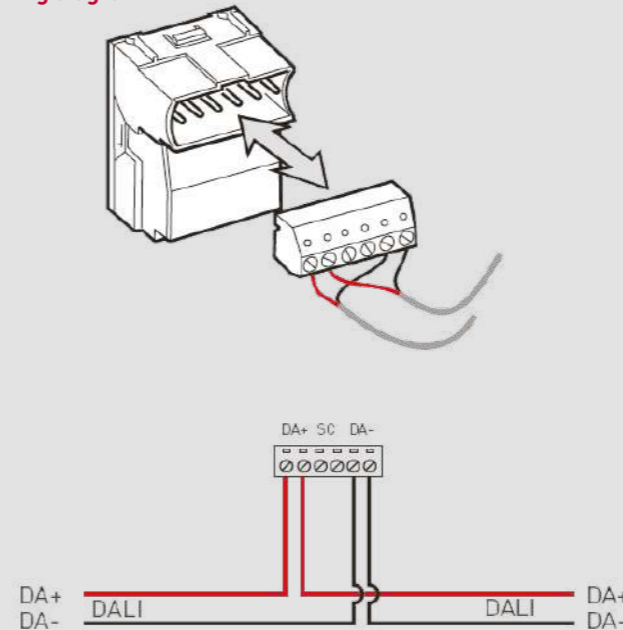
Weight 35 g



Wiring diagram



Wiring diagram



Finish



White (318W)



Black (318B)

320 PIR Sensor

This easy-to-install PIR sensor has enhanced sensitivity in standard room heights. DALI-compatible, it's perfect for uses where movements can be subtle — such as classrooms during exams, or in quiet office environments - and because it's less reliant on movement detection than most compact sensors, you can cover a bigger target area using less units.

The 320 mounts into a ceiling void or can be surface-mounted with our SBB boxes (see page 70). The 320P is also available, with degree of protection IP65. Available in **White or Black** (320B). The 320D2 is also available as the DALI-2 certified PIR for connection to DALI-2 Multi-master application controllers.

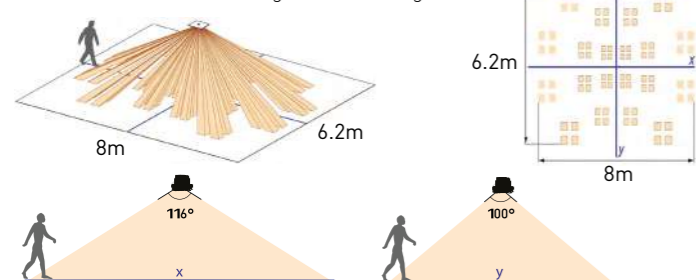
Key features

- Excellent detection through high sensitivity and multidirectional coverage
- 10mA DALI current consumption
- Compact and functional design
- Programmable in Designer and Toolbox

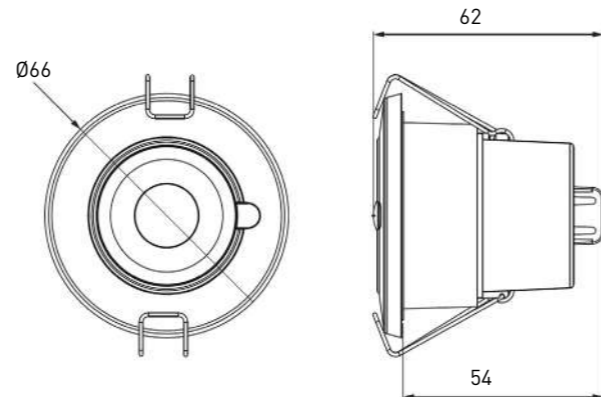
Technical data

Power consumption from DALI bus	10 mA
Ambient temperature	0 ° C to 50 ° C
Degree of protection	IP30 [IP20 cable cover] / IP65
	for 320P
Number of DALI addresses	1

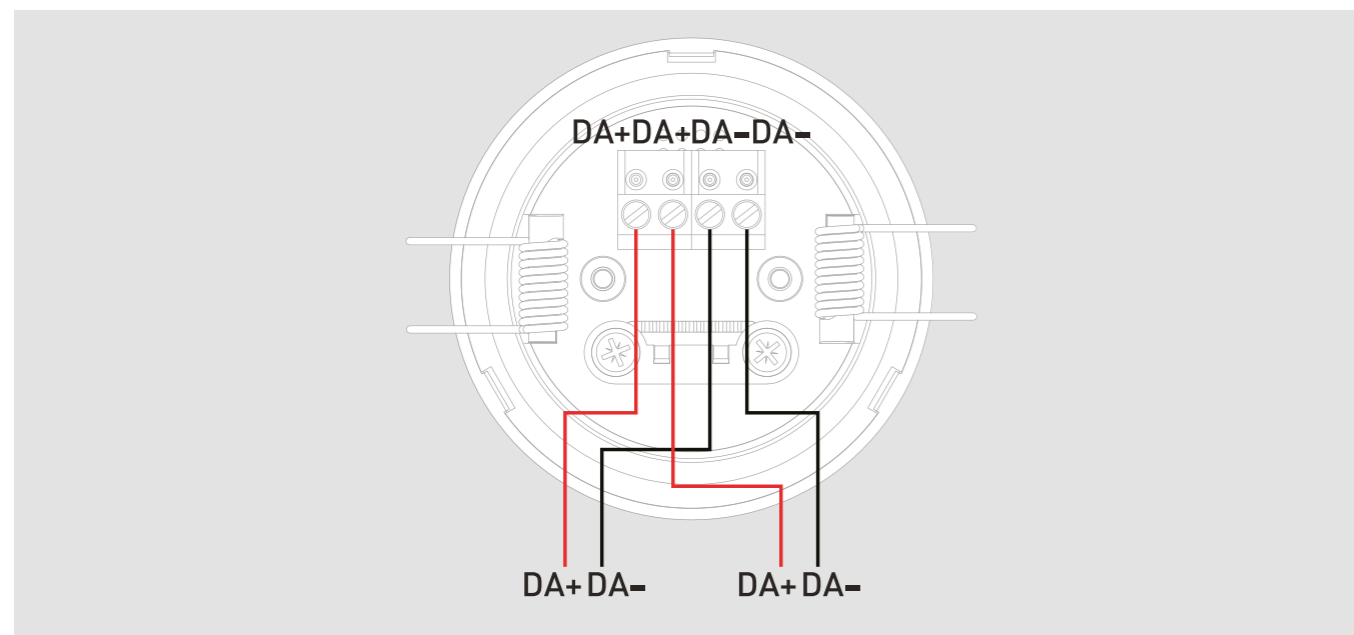
Presence Detection Coverage at 2.5 m height



Dimensions (mm)



Diameter of the mounting hole: 52 mm - 55 mm
White satin plastic. Weight 66.3 g



321 Multisensor

This compact sensor combines a photocell for constant light control with passive infrared detection, saving energy in all DALI systems. Its excellent detection ability makes it ideal where movements might be only gradual, such as in classrooms or offices. For wall mounting, refer to page 70 for SBB boxes.

The 321P is also available, with degree of protection IP65.

The 321D2 is also available as the DALI-2 certified PIR for connection to DALI-2 Multi-master application controllers.

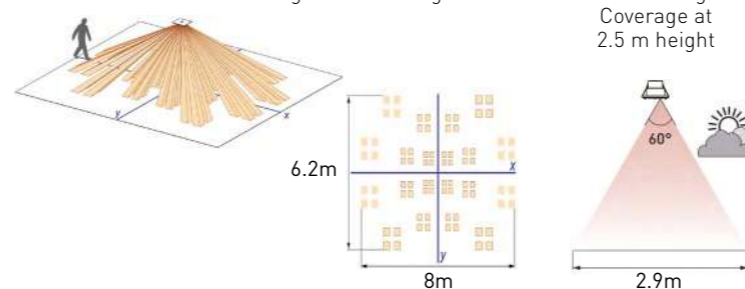
Key features

- Excellent detection performance through high sensitivity and multidirectional coverage.
- Programmable constant light control for energy efficiency.
- 10mA DALI current consumption.
- Compact and stylish design.
- Available in either **White or Black** (321B).

Technical data

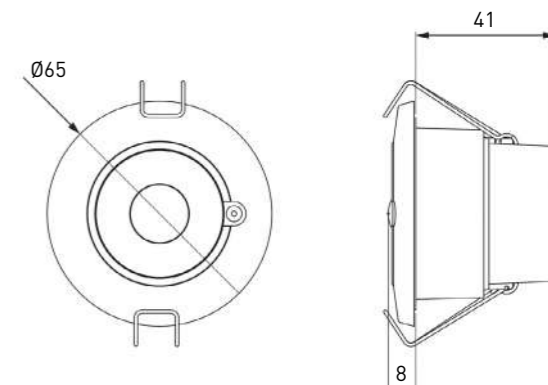
Power consumption from the DALI bus	10 mA
Ambient temperature	0 ° C to 50 ° C
Degree of protection	IP30 / IP65 for
	321P
Number of DALI addresses	1

Presence Detection Coverage at 2.5 m height



Constant Light Coverage at 2.5 m height

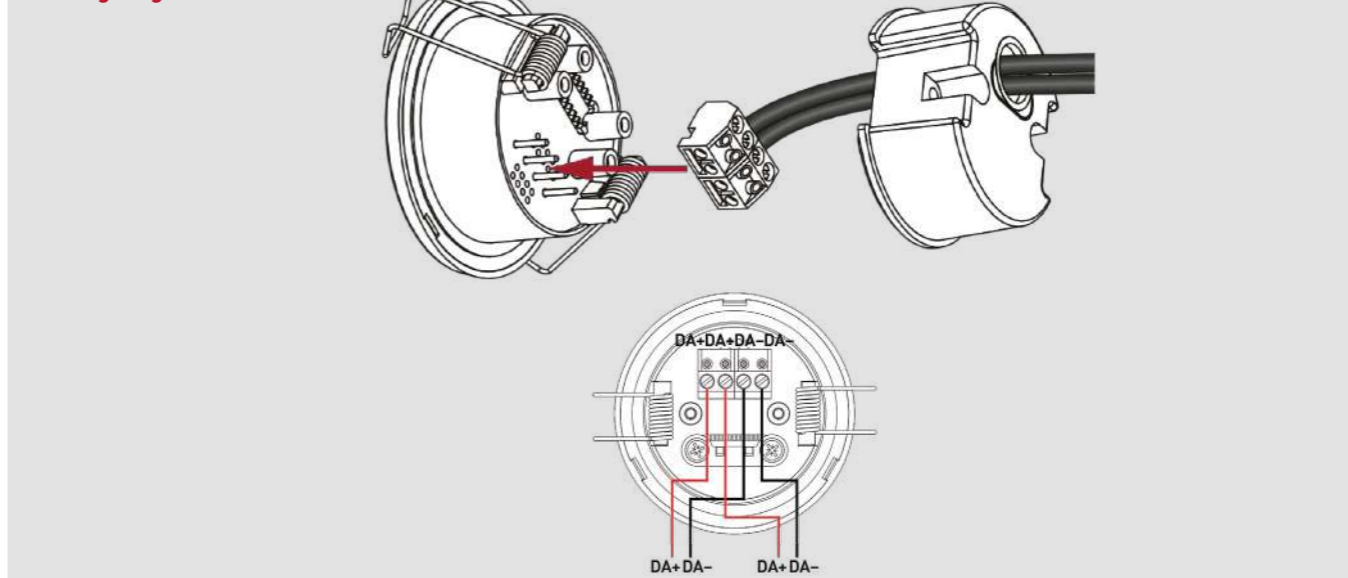
Dimensions (mm)



Diameter of the mounting hole: 52 - 55 mm
White satin plastic, weight 66.3 g



Wiring diagram



322 High Bay Multisensor

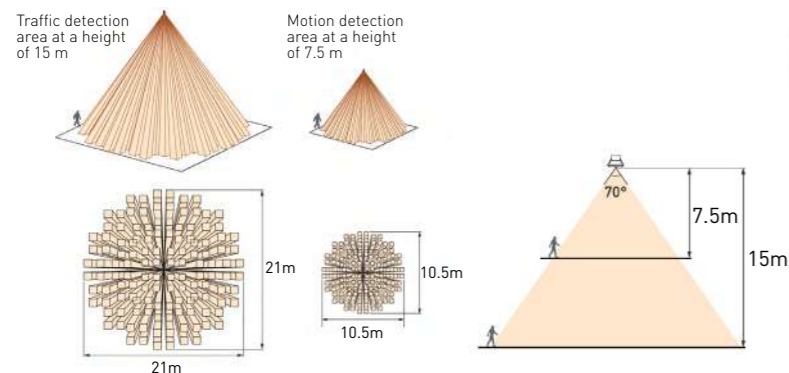
Automatically control lighting loads in spaces too high for most sensors. The 322 is sealed against water and dust, making it perfect for storage areas or factories. And because it's less dependent on motion detection than other compact sensors, you can cover large areas with fewer units. With a brightness control function, you can also set lights to come on as soon as natural light falls below a set threshold. The 322D2 is also available as the DALI-2 certified PIR for connection to DALI-2 Multi-master application controllers.

Key features

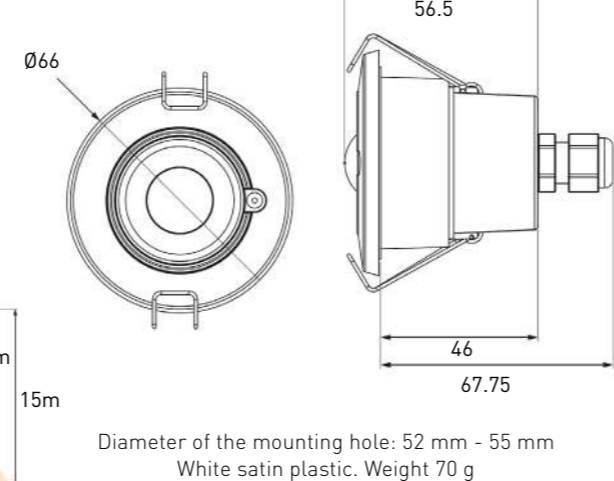
- Excellent detection performance through high sensitivity and multidirectional coverage
- Suitable for applications with very high ceilings
- Protected against dust and water (IP65)
- Programmable bright-out control for energy efficiency
- Simple connection and integration into a Helvar DALI control network.
- Programmable in Designer and Toolbox.
- Available in either **White** or **Black** (322B).

Technical data

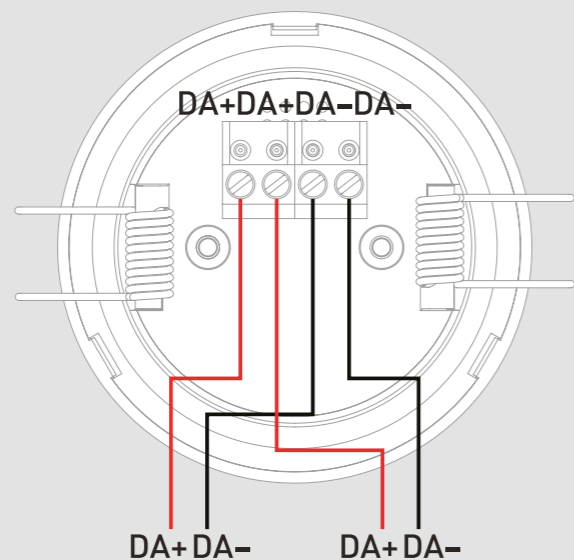
Power consumption from the DALI bus..... 10 mA
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP65



Dimensions (mm)



Wiring diagram



329 DALI External Light Sensor

Our 329 sensor works exclusively in Helvar network systems. It adjusts the power of the lights in relation to available daylight. And with its sealed head, it gives you IP65 protection and can withstand a wide temperature range. Saving energy and working reliably in some of the toughest outdoor conditions.

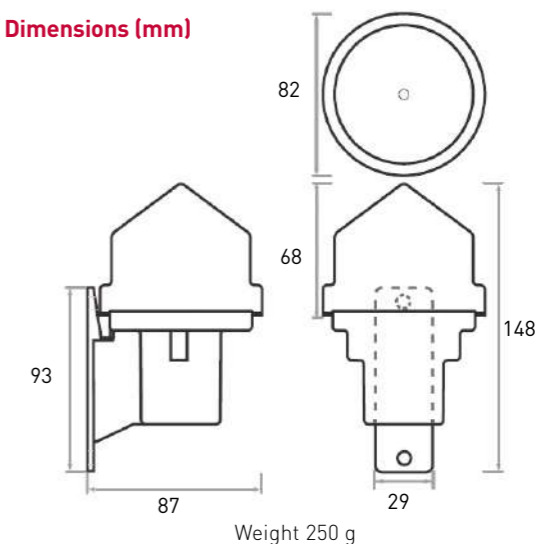
Key features

- Open loop light control
- Light range of 1 lx - 100 000 lx
- Simple mounting
- Easy connection to Helvar router system

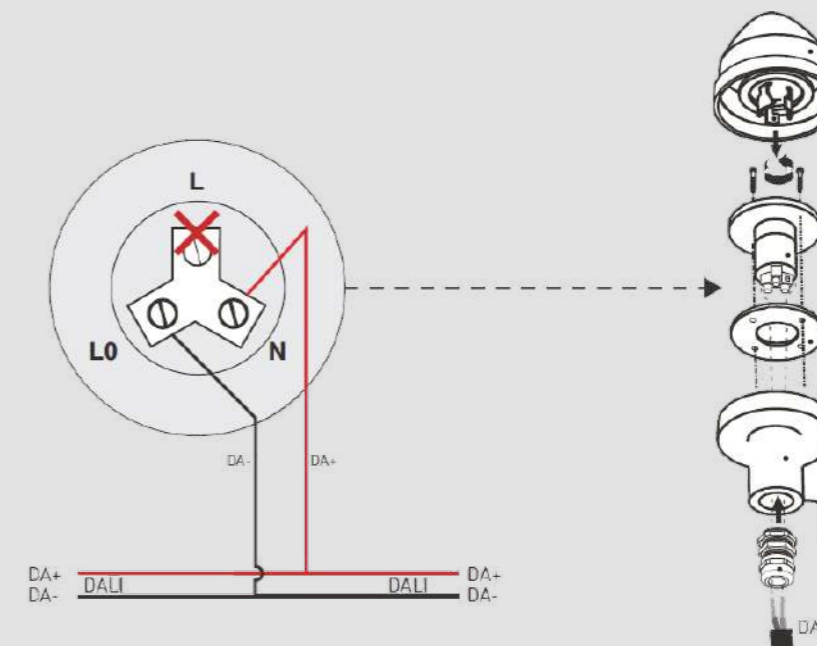
Technical data

Power consumption from the DALI bus..... 10 mA
 Measurement range after mounting vertically..... 85 ° from the vertical;
 Horizontal plane..... 360 °
 Measuring range..... 1-100 000 lux
 Ambient temperature..... -35 ° C to 75 ° C
 Degree of protection..... IP65
 Number of DALI addresses..... 1

Dimensions (mm)



Wiring diagram



331 MultiSensor for RoomSet

The 331 Multisensor for RoomSet is a compact unit that combines a light sensor for constant light control, a passive infrared (PIR) presence detector provides energy-saving functions in a DALI system and Bluetooth low energy connectivity. It acts as the central control unit for Helvar's RoomSet solution.

Key features

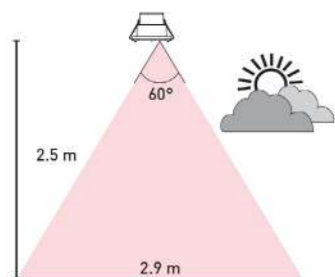
- Excellent detection performance through high sensitivity and multidirectional coverage
- Programmable constant light control for energy efficiency
- Easily incorporated into RoomSet system/app.
- Simple "Over the Air" system upgrades with RoomSet
- Modern, compact and functional design



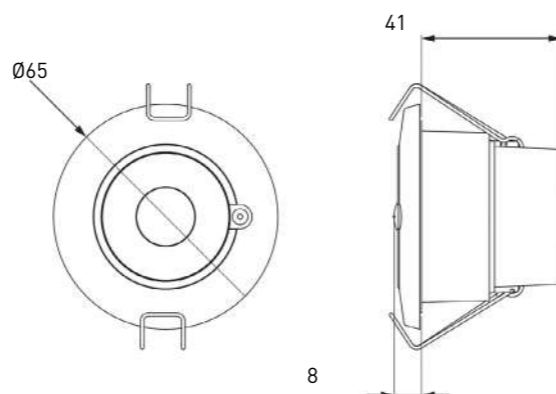
Technical data

Power consumption from the DALI bus..... 40mA
 Ambient temperature..... 0 ° C to 50° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1

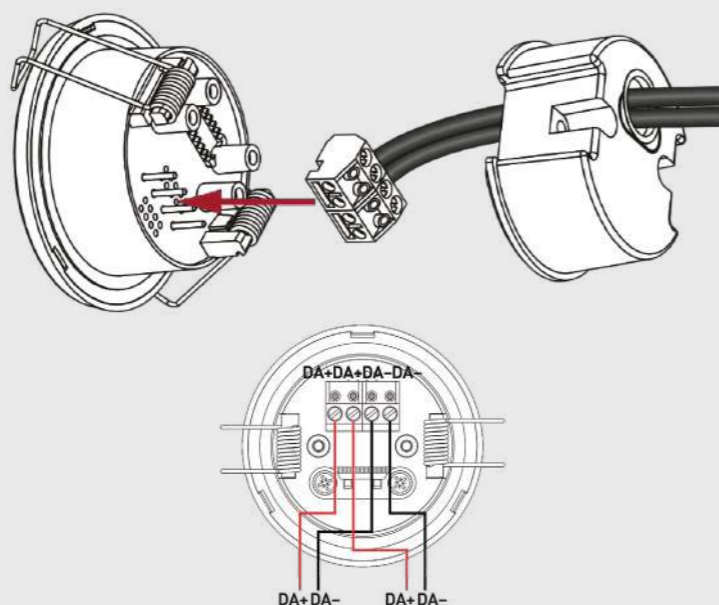
Constant Light Coverage at 2.5 m height



Dimensions (mm)



Wiring diagram



341 Corridor Sensor

Specially designed for mounting in corridors, the 341 sensor has a wide angle of 100 degrees and a long detection area of up to 41 metres. You can choose from two motion detection modes: one for spaces with frequent activity such as corridors in hospitals, offices and busy warehouses. And one for those with less frequent movement, such as corridors in schools or outside hotel bedrooms.

The 341's sensitivity, detection mode and LED indicators can be set straight from the circuit board.

Key features

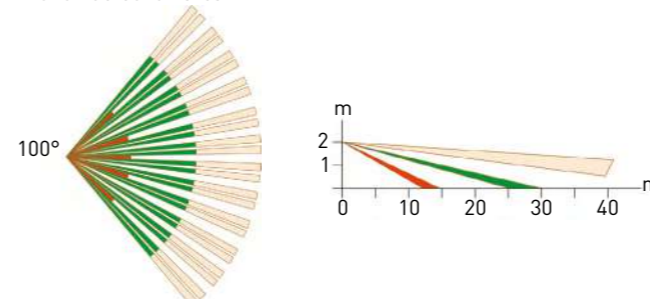
- Control of long corridors (up to 41 metres) with one sensor
- 20 mA DALI current consumption
- Two presence detection modes for different environments
- Configurable presence delay and time-out
- Programmable in Designer and Toolbox
- Accessory lenses available for special applications



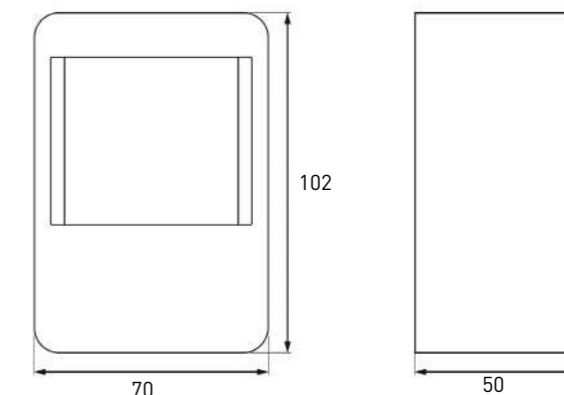
Technical data

Power consumption from the DALI bus..... 20 mA
 Ambient temperature..... 0 ° C to 40° C
 Degree of protection..... IP42
 Number of DALI addresses..... 1

Motion detection area

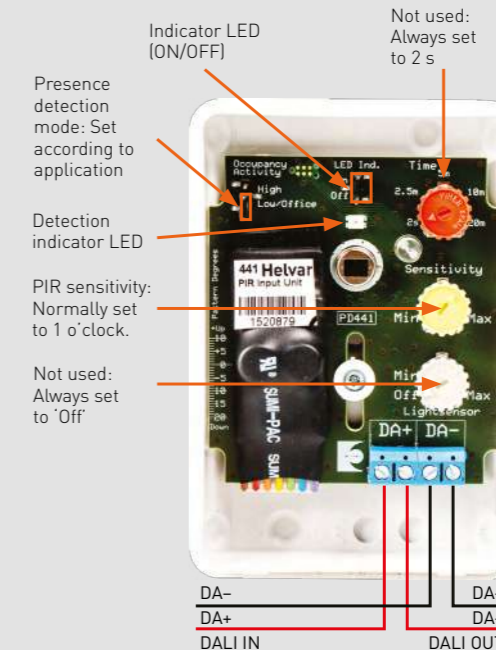


Dimensions (mm)



White satin plastic. Weight 93 g

Wiring diagram



342 Acoustic Sensor

The Extronic AD342 Acoustic sensor combines audible and infrasound detectors in one single component as an active part in lighting control and is compatible with a DALI system. This audible sound sensor is used for near field presence/movement detection and the infrasound detector is for recognizing e.g. the opening of a door, within the allocated range. A built-in sensor responds to low frequency (LF) pressure changes such as door openings and high frequency (HF) sounds such as speech and walking. The sensor is ideal for enclosed spaces such as corridors, stairwells and single floor parking garage. Using sound detection means the relating luminaire circuit will switch on prior to anyone entering the area.



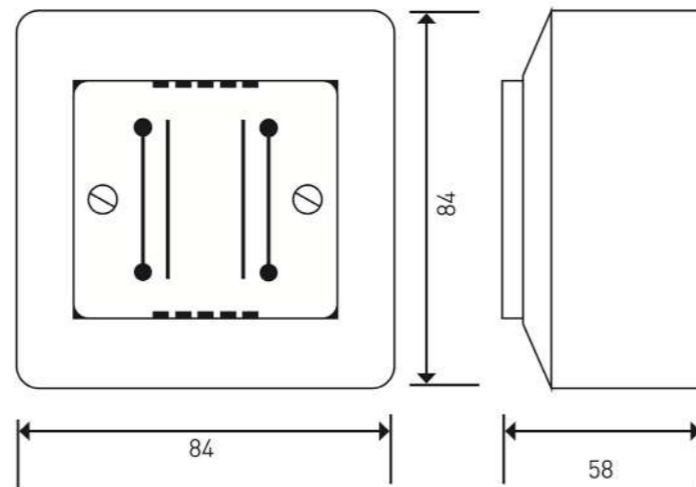
Key features

- Combines audio and infrasound detectors.
- DALI compatible.
- Frequency Range: HF - 2-20 kHz
LF - 1-3 Hz
- Area of coverage: HF - 25m radius
LF - Approximately 2000 m2
- Detection outside line of sight.
- Separate LF and HF settings.
- Early detection.
- Ideal for corridors, stairwells and garage areas.
- Programmable in Designer and Toolbox.
- Accessory lenses available for special applications.

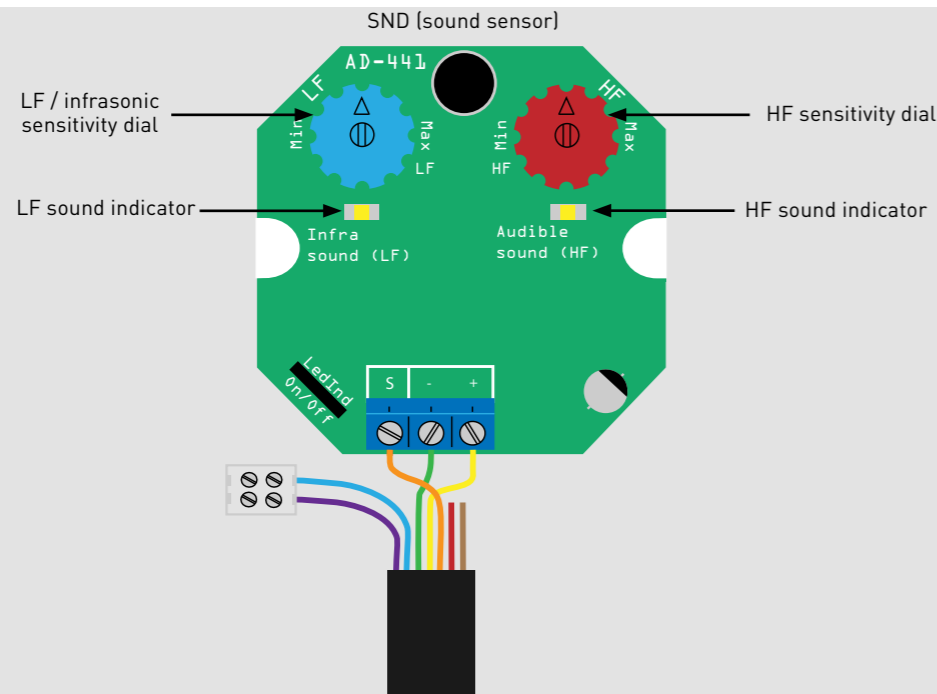
Technical data

Power consumption from the DALI bus..... 15 mA (max)
Ambient temperature..... 0 °C to 50 °C
Degree of protection..... IP20
Number of DALI addresses..... 1

Dimensions (mm)



Wiring diagram



Surface mounting boxes SBB-A, SBB-B, SBB-C, SBB-D

These are surface mounting boxes for use with the following sensors:

- 311 PIR Detector
- 312 Multisensor
- 313 Low-Profile Microwave Detector
- 314 Tilting Microwave Detector
- 320 PIR sensor
- 321 Multisensor
- 322 High-Bay



SBB-A (white) / SBB-AB (black): 311, 313

SBB-B: 314

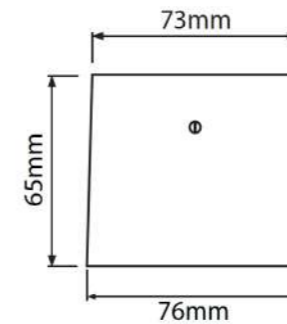
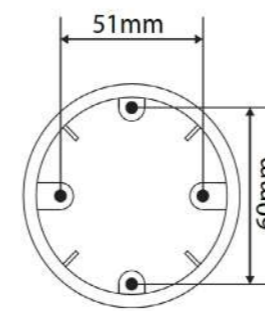
SBB-C (white) / SBB-CB (black): 312, 320, 321, 331

SBB-D (white) / SBB-DB (black): 320P, 321, 321P, 322, 331

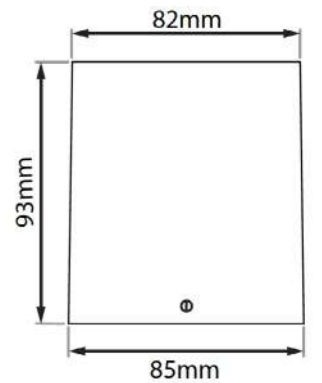
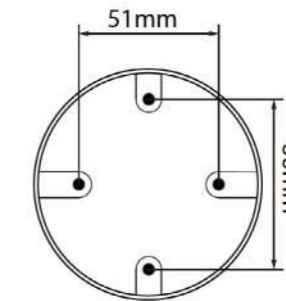
For full installation/fitting details, please refer to the relevant datasheet, available on helvar.com

Dimensions (mm)

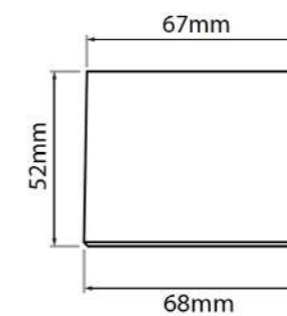
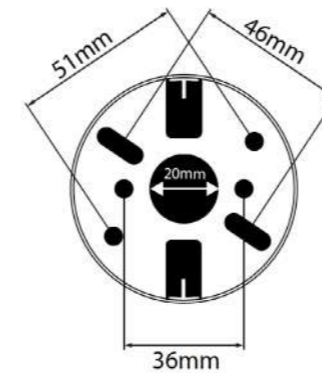
SBB-A / SBB-AB



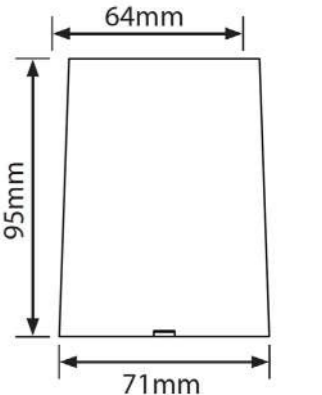
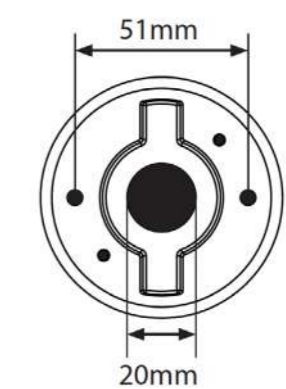
SBB-B



SBB-C / SBB-CB



SBB-D / SBB-DB



ENOCEAN

EnOcean systems use innovative radio technology that works without any batteries. Electricity self-generates through tiny converters — often powered by the press of a switch. EnOcean in Europe runs on the 868 MHz band and supports bidirectional communication.

Features

- Easy integration with DALI
- Up to 20 EnOcean connectors per gate
- Multiple gateways in the DALI system
- 30 metre range
- 868 MHz ISM band (Europe)
- International standard 14543



EnOcean. For smarter, greener spaces.



No wires



No batteries



No limits

434 EnOcean Gateway

Our 434 EnOceanGateway lets you connect wireless and battery-free EnOcean controls to a Helvar DALI lighting network. It can be mounted on ceilings or walls, and only needs one electrical connection to a DALI network.

Key features

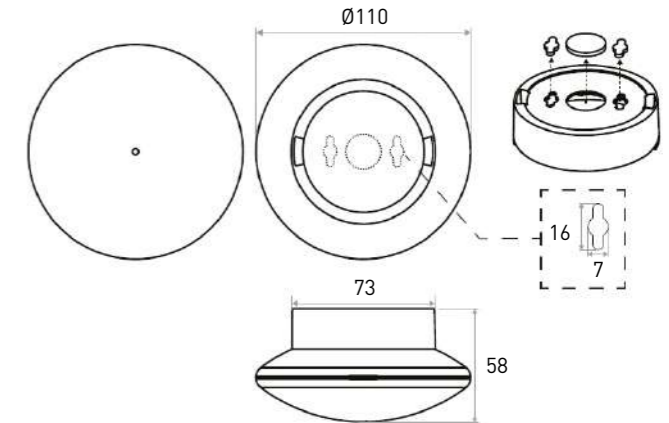
- Integrate wireless, battery-free connectors to the DALI network.
- Easy to install
- Powered by the DALI network
- Up to 20 connectors (18xx) can work with one Gateway.



Technical data

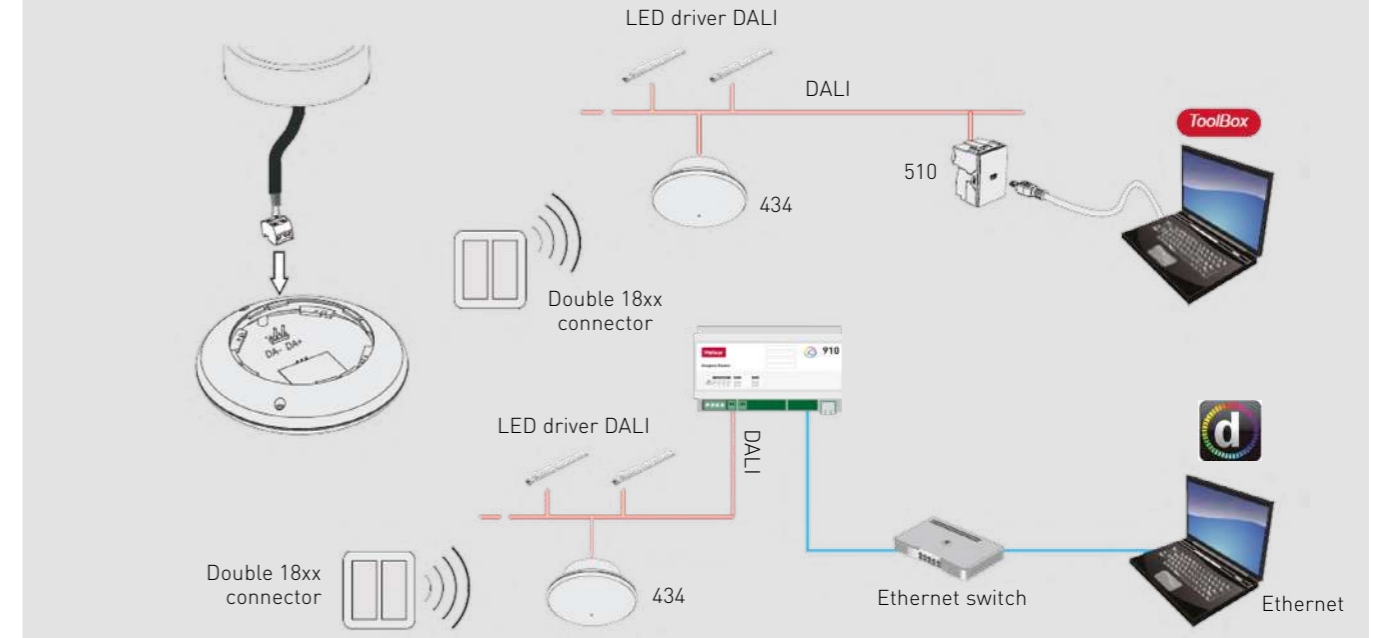
Power consumption from the DALI bus.....	20 mA
Frequency.....	868 MHz ISM (Europe)
Wireless range.....	30 meters (free space)
Number of connectors.....	a maximum of 20
Ambient temperature.....	0 ° C to 50 ° C
Degree of protection.....	IP30
Number of DALI addresses.....	1+ 1-20

Dimensions (mm)



Weight 75 g

Wiring diagram



18xx EnOcean switches

Our 18xx switches are designed to work with our 434 EnOcean Gateway, which can support up to 20 switch panels. Each one is fully programmable through our Designer or Toolbox software.

Key features

- Available single and double connector in white (W) and black (B)
- Wireless communication, no battery required
- EnOcean RF technology
- Simple installation: double-sided tape (included) or with screws



181W 182B
[181, 182: Models have visually changed for 2022 onwards]



183B 183WX 184W 184WX

Technical data

Frequency..... ISM band 868 MHz (Europe)
 Operating range..... 30 m (free space)
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1 per connector

Order number

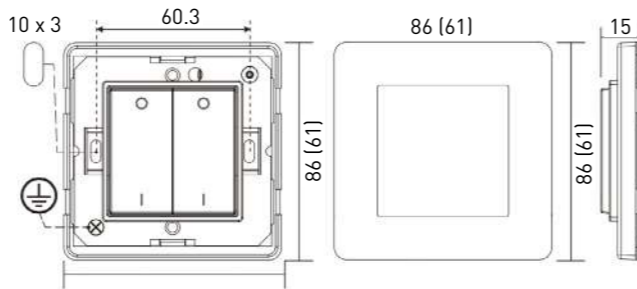
Stainless steel frame

- Single connector: 181B (black) / 181W (white)
- Double connector: 182B (black) / 182W (white)

Plastic frame

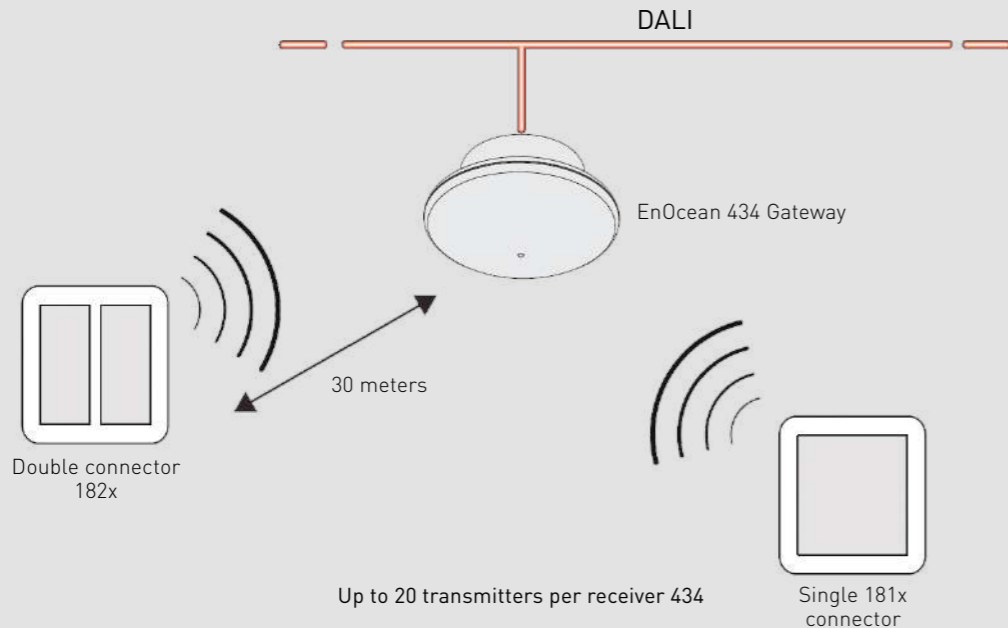
- Single connector: 183B (black) / 183W (white)
- Double connector: 184B (black) / 184W (white)
- Single connector: 183WX (white)
- Double connector: 184WX (white)

Dimensions (mm)



() = dimensions for 183x and 184x
 Weight 150 g

Wiring diagram

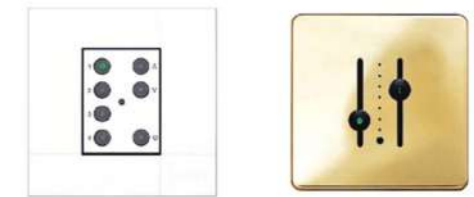


12x Modular Panels

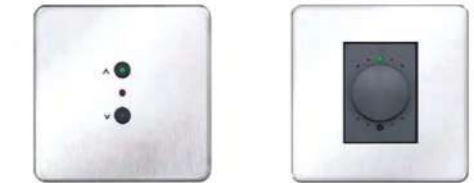
The 12x panels let you make basic adjustments to DALI lighting systems. Each one has a status light and infrared receiver, allowing you to use our infrared remote control. The range includes pushbuttons, dials and sliders in a choice of finishes.

Key features

- Out-of-box operation, supplied preprogrammed
- Easily reconfigured and fully programmable
- Designed to fit both DIN and UK standard back boxes
- Double-gang version can take three independent modules



[200] White satin plastic [201] Polished brass

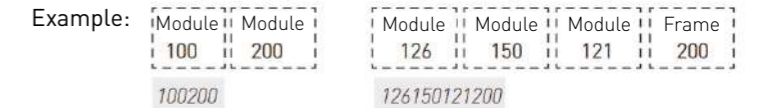
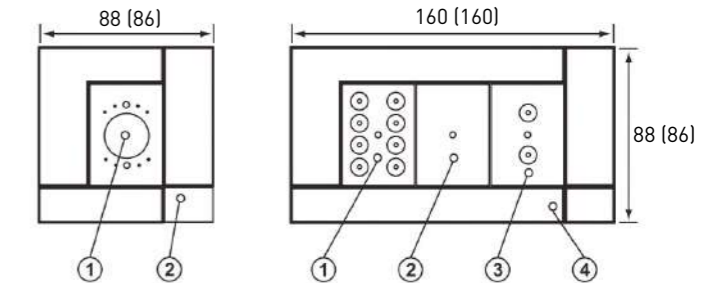


[202] Brushed stainless steel [203] Stainless steel with a grey insert

Technical data

Power consumption from the DALI bus..... 10 mA
 Ambient temperature..... 10 ° C to 35 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1 per module

Dimensions (mm)

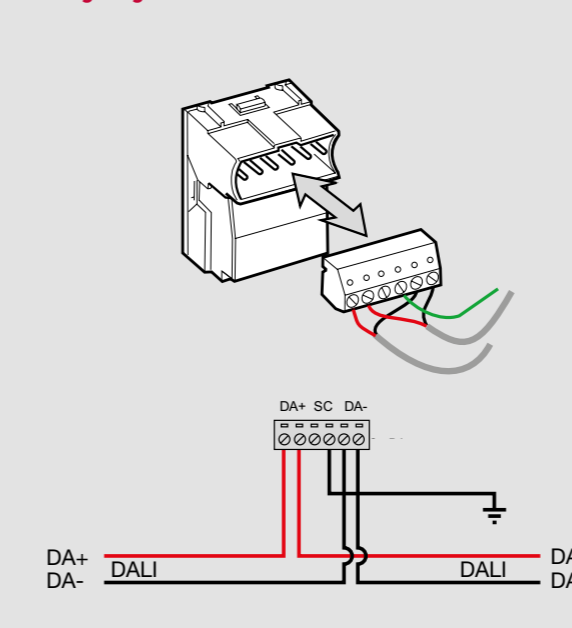


() = Dimensions when using a metal frame

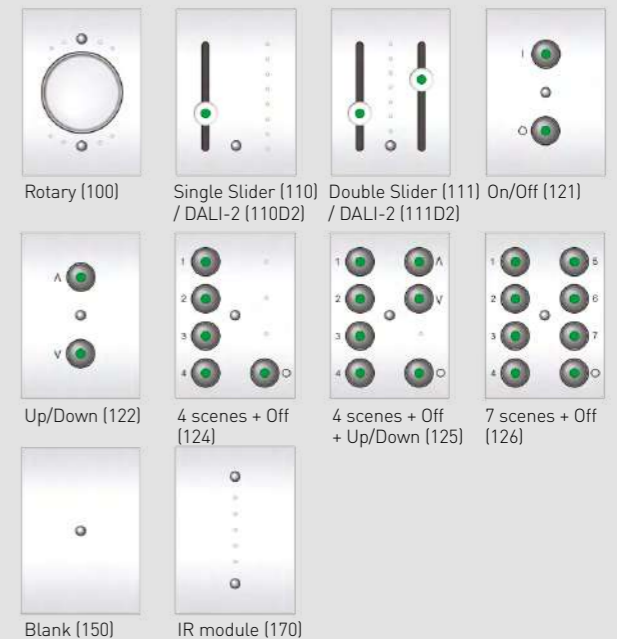
Order number: see photos

Complete control panel = 1xx + 2xx

Wiring diagram



Control modules



13xx Modular Panels

Designed for DALI, our 13xx panels are built to be easily customisable. They'll work with our DIGIDIM remote controls, so it's simple to take charge of most functions and carry out routine programming.

Key features

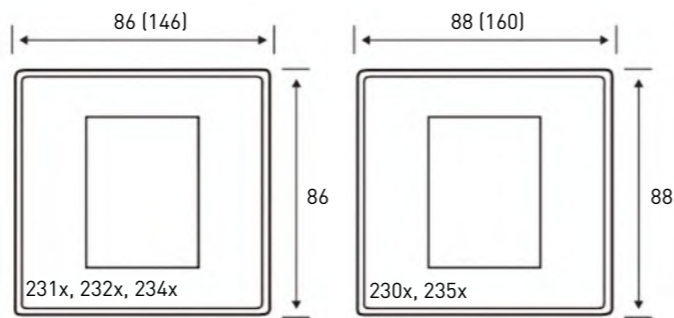
- Choice of black (B) or white (W) modules.
- 13xxD2 is also available as DALI-2 certified button panel for connection to DALI-2 Multi-master application controllers.
- Simple connection: out-of-box operation.
- Easily reconfigured and programmable using Helvar Designer and Toolbox.
- Designed to fit DIN and UK standard back boxes.
- Double-gang version can take three independent modules.
- Customisable versions available upon request. Both the button layout of the panels and the images or labels that are printed on each button can be customised. Contact your local Helvar representative for further information.

Technical data

Power consumption from the DALI bus..... 10 mA
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1 per module

In the case of a double frame, use a double 60mm concealed box.

Dimensions (mm)



() = dimensions of the double frame
 Frame weight: 100 g (144 g)
 Panel weight: 41 g

Order number: see photos

Complete control panel = 13xx + 23xx

Wiring diagram

Modules

Frames

14xxD2 Panels

The 14xxD2 panels are a DALI-2 certified range of user interfaces for Helvar's Imagine solution. The range offers four different button configurations, LED indicators and the ability to insert custom labels locally. The button module is detachable from its supplied frame and is also compatible with a number of frames from other manufacturers.

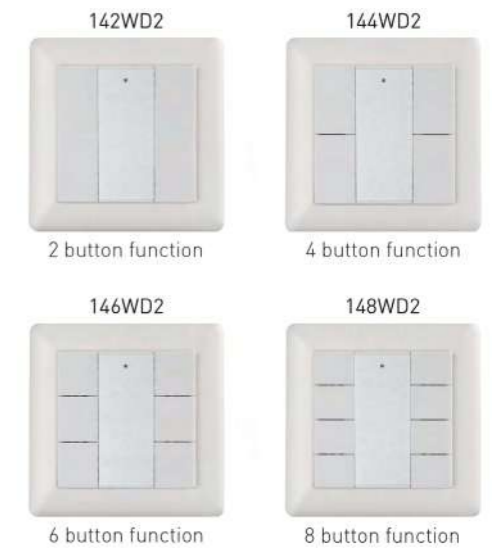
Key features

- Available button configurations: 2, 4, 6, 8.
- Available colour: White.
- Removable middle insert for local custom labelling options.
- Individual button LED indicators.
- Middle LED for power indicator and identify function.
- Compatible with alternative manufacturer's frames.
- DALI-2 input device.

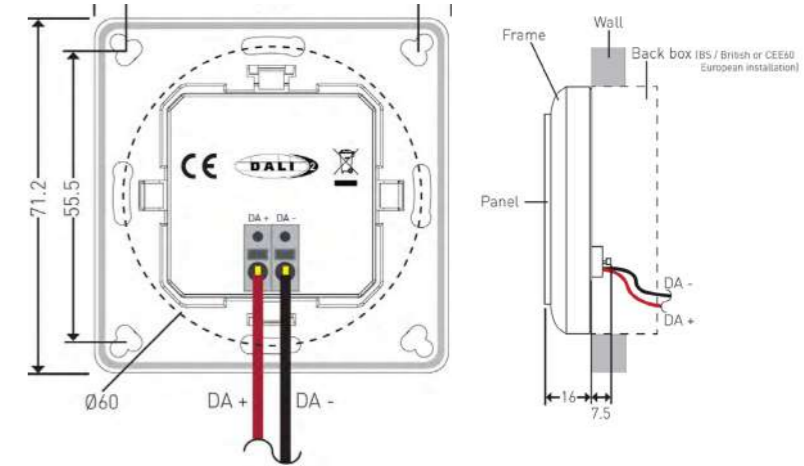
Technical data

Power consumption from the DALI bus..... 10 mA max
 Ambient temperature..... 0 ° C to 35 ° C
 Degree of protection..... IP20
 DALI Terminal..... 2 x push-in spring loaded terminals. Wire size: 0.5 mm² – 1.5 mm² solid.
 All cables must be mains rated.
 Compatibility..... 950 Router

Dimensions (without frame):
 71.2 mm x 71.2 mm x 22mm
 Weight: with packaging:
 200g / pc



Dimensions (mm)



Compatible Frame Examples:

Panel Inserts

Three centre inserts are provided per panel, these allow the following options:

- All button and power LED windows.
- Power LED window only.
- Transparent for local custom labelling to be inserted and displayed.

Panels inserts, shown below, are to scale (55 mm x 22 mm)

185W Control Panel

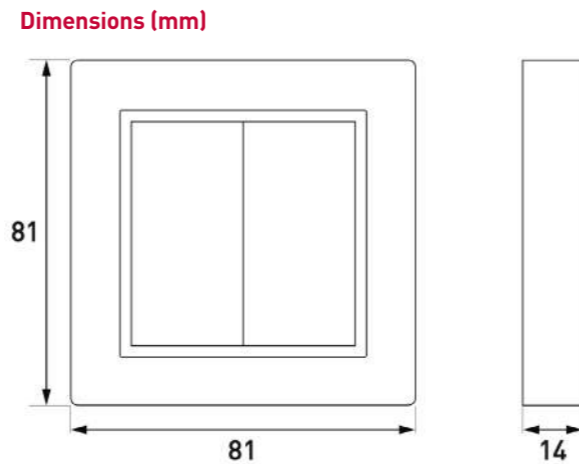
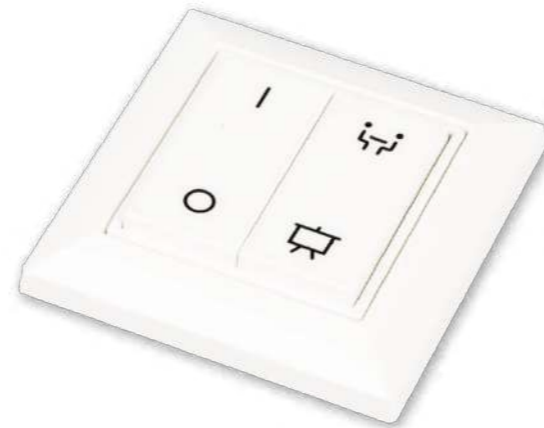
The Wireless Control Panel is an energy-harvesting user interface that allows recall of four configurable lighting scenes. These scenes are configured via the RoomSet app or the ActiveAhead mobile app. The panel communicates using the 2.4 GHz Bluetooth® Low Energy radio standard, and is self-powered and cable-free. The Wireless Control Panel is delivered with a selection of labels that can be placed on the panel buttons to easily identify which scene is accessible from each of the buttons.

Key features

- Provides lighting scenes to both the Helvar's ActiveAhead and RoomSet solutions.
- No wiring required.
- Clean, functional design - White (RAL 9016)
- Fast and easy installation with adhesive double-sided mounting pad (enclosed) or screwing onto flat surface using 3 mm countersunk screws (not included)

Technical data

Operating temperature..... -25° - +65°
 Antenna..... Integrated
 Wiring..... None required
 Lifetime..... Over 50,000 actuations



Module



185W: 4 Scenes
 (Up Left / Bottom Left / Up Right / Bottom Right)



16xxx Control Panels

The 16xxx panels are DALI-compatible and give you control of a lighting system. Lights on the buttons make it easy to choose any scene. The range is fully programmable through our Designer or Toolbox software, and is compatible with our DIGIDIM handheld remote control.

Key features

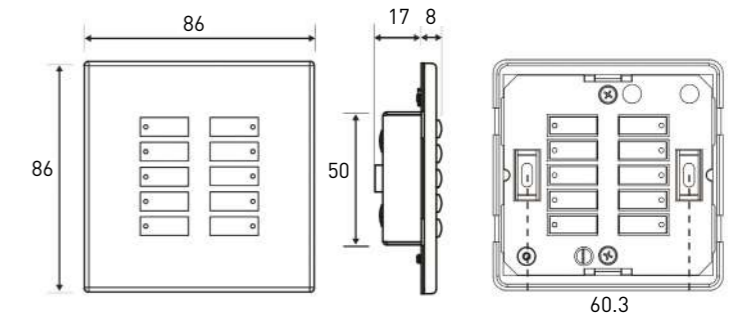
- Range of switch combinations, including customisable versions
- LED brightness programmable
- DIGIDIM / Helvar Imagine DALI compatible
- Suited for UK back box only



Technical data

Power consumption from the DALI bus..... 10 mA
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1 per panel

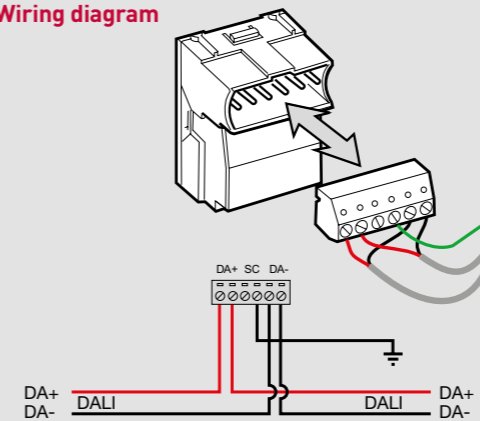
Dimensions (mm)



Weight 150 g

Order number: see photos

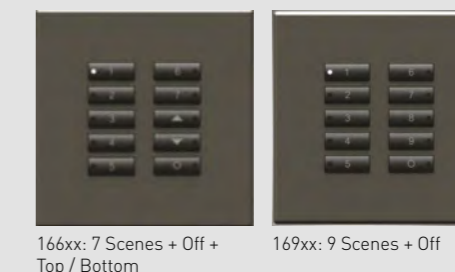
Wiring diagram



Frames

- 16xAB: Antique bronze
- 16xBN: Black nickel
- 16xMS: Stainless steel mirror
- 16xPB: Polished brass
- 16xPN: Polished nickel
- 16xSS: Stainless steel
- 16xWH: Steel painted white

Modules



19xxx & 290x ILLUSTRIS Panels

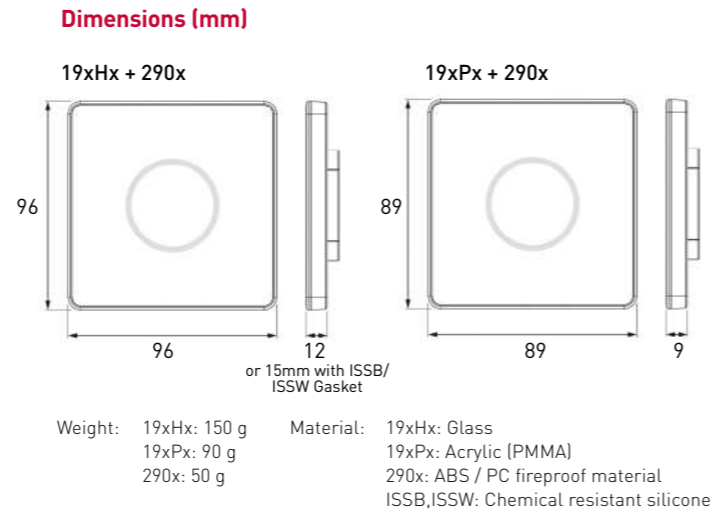
These touch-sensitive wall panels make it easy to control lighting systems and DALI Type 8 colour devices. You can change, store and recall light intensity, colour temperature and scene settings straight from the box. And they'll connect to mobiles and tablets through Bluetooth, making remote control simple through our SceneSet app. Each panel has two parts: a 290x DALI interface and a 19xxx fascia.

Key features

- Standalone controller and user interface.
- Networkable on Helvar Imagine router systems.
- Minimal setup / Out-of-box operation.
- Capable of creating, storing and recalling four lighting scenes.
- Intuitive touch selection of operation mode, intensity, colour temperature and colour (depending on the model).
- Fully DALI-compatible.
- Supports DALI Type 8 colour temperature and x-y colour presentation.
- Hidden 'cleaning' button.
- Available in a variety of front fascias for different controls.
- Glass and plastic front fascia finishes.
- App control via SceneSet mobile app (iOS and Android).
- Designed to fit UK, DIN and similar back boxes.

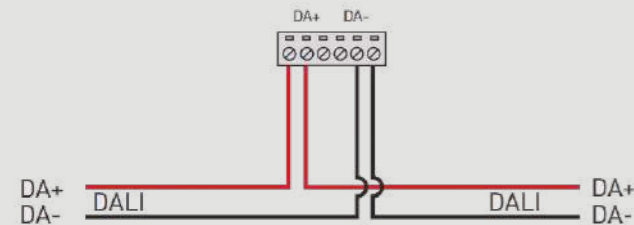
Technical Data

Power consumption from the DALI bus..... Typical: 22 mA, 16 V
 Maximum..... 40 mA, 9.5V
 Wireless communication..... Bluetooth® Smart™
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP30 (19xHx on degree of protection: IP30 / IP44 with ISSB or ISSW silicone gasket)
 Number of DALI addresses..... 1 per panel



Order numbers: see below

Wiring diagram



Models and finishing

Description	Material	Colour	Order No.
Front: scenes + dimming	Glass	Black	191HB
Front: scenes + dimming	Glass	White	191HW
Front: scenes + dimming	Plastic	Black	191PB
Front: scenes + dimming	Plastic	White	191PW
Front: scenes + dimming + TW	Glass	Black	192HB
Front: scenes + dimming + TW	Glass	White	192HW
Front: scenes + dimming + TW	Plastic	Black	192PB
Front: scenes + dimming + TW	Plastic	White	192PW
Front: scenes + dimming + RGB	Glass	Black	193HB
Front: scenes + dimming + RGB	Glass	White	193HW
Front: scenes + dimming + RGB	Plastic	Black	193PB
Front: scenes + dimming + RGB	Plastic	White	193PW
Basics with DALI interface	Plastic	Black	290B
Basics with DALI interface	Plastic	White	290W

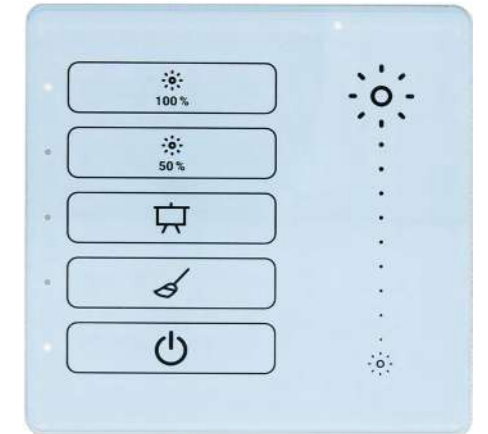
TW: Tunable White

2XXPL,2XXHL ILLUSTRIS Custom Front Fascia

Much like the 19xxx & 290x ILLUSTRIS Panels, the Custom Front Fascia versions are ideal for simple operation of DALI Type 8 luminaires. The touch panels can be connected wirelessly using Bluetooth® Smart™ and can also be operated via the Helvar SceneSet app. The panels consist of two parts, the front and the back. The 2XXPL and 2XXHL come in 23 different colours with 18 varieties of fascia layouts in either plastic or glass, so you can customise each of your panels to your individual requirements and preference.

Key features

- Light management system that works straight out of the box.
- Intuitive touch control
- Complete personalisation of panels using the online ILLUSTRIS tool.
- Custom scenes, intensity, hue, saturation & colour-temperature control
- Fully DALI-compatible.
- Networkable on Helvar Imagine router systems only.



Fascia layouts examples

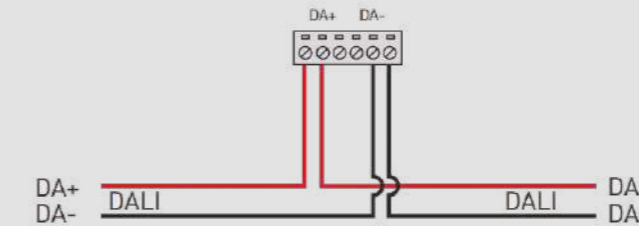


Colour palette



Order numbers: see below

Wiring diagram



Models and finishing

Description	Material	Colour	Order No.
Custom front fascia from palette of layout designs	Glass	Custom	2XXHL
Custom front fascia from palette of layout designs	Plastic	Custom	2XXPL

Materials: 2XXHL Glass
 2XXPL Plastic

Colours: 23 RAL colours available
 Please enquire for RAL details

Layouts: 18 different layouts available

942 Input Unit

This interface makes it easy to include customer-specified switches, sensors, time clocks and other on-off control devices in a DIGIDIM or Helvar Imagine control system. It has eight volt-free switch inputs that can be momentary or latching, and accepts inputs from 0–10 V analogue devices. You can program it through Designer and Toolbox.

Key features

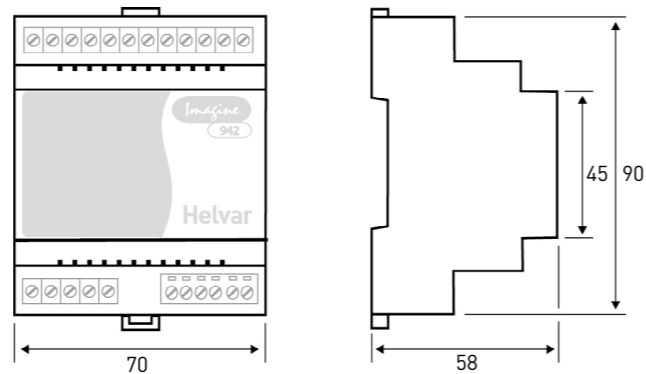
- Status LED gives visual indication of the unit's current operational mode: normal operation, initialisation, physical selection, or input activation.
- Physical selection switch.
- Can be used with momentary or latching switches, 0–10 V analogue devices and time clocks.



Technical data

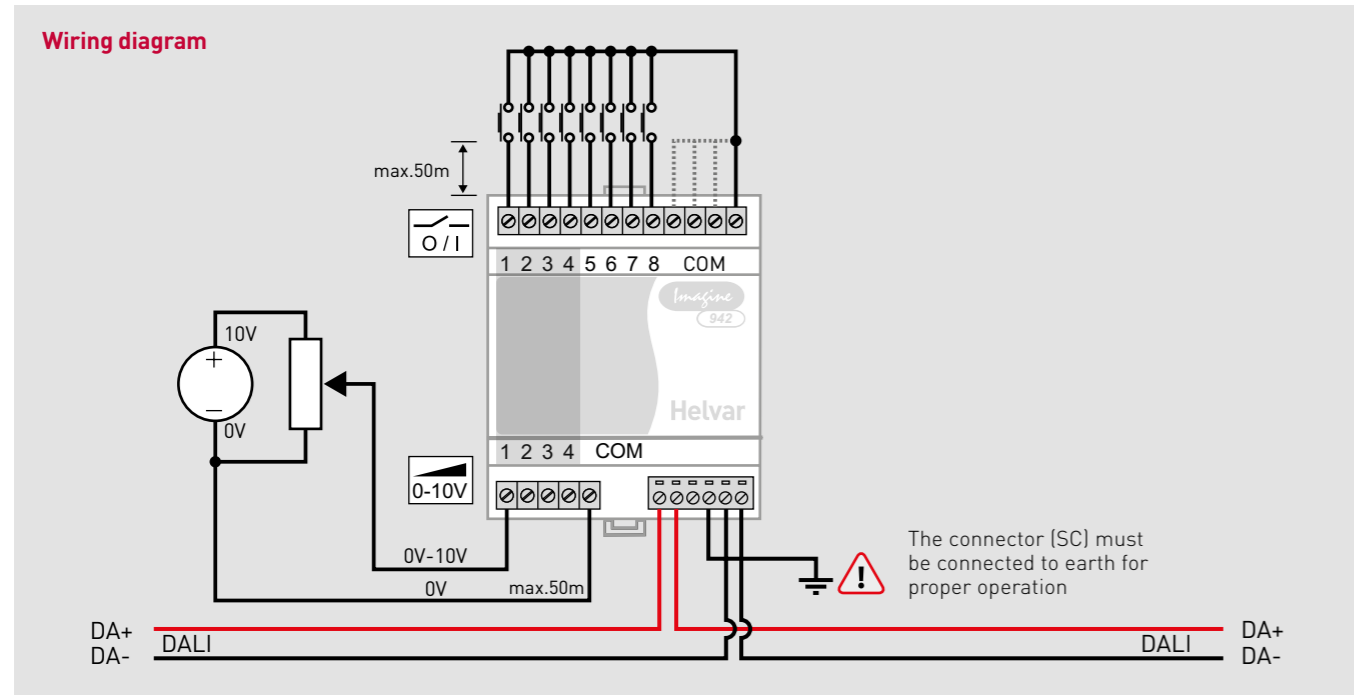
Power consumption from the
 DALI bus..... 10 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Input voltage..... 0 - 10 V
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1
 Inputs 8 inputs of which 4 are configurable as 0-10V analogue inputs

Dimensions (mm)



DIN rail housing; The width of 4 modules, Weight 110g

Wiring diagram

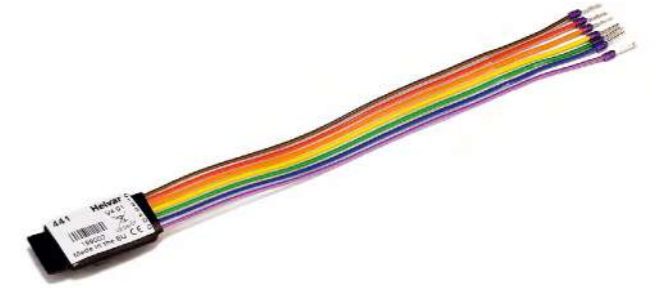


441 Occupancy Detector Interface

This lets you connect customer-specified occupancy sensors to a DIGIDIM or Helvar Imagine DALI system. The input accepts a volt-free, normally closed contact. And the prewired sealed circuit board mounts inside the sensor housing. It includes a 12 V DC supply.

Key features

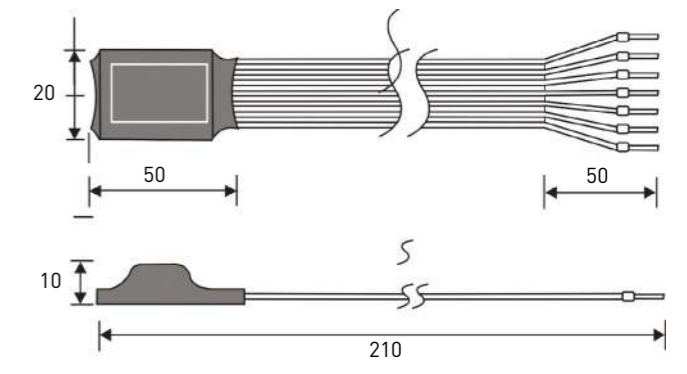
- Fits into the wiring space inside the sensor.
- Input for normally closed (NC) volt-free switch compatible with security sensors.
- Fully programmable using Toolbox and Designer software.



Technical data

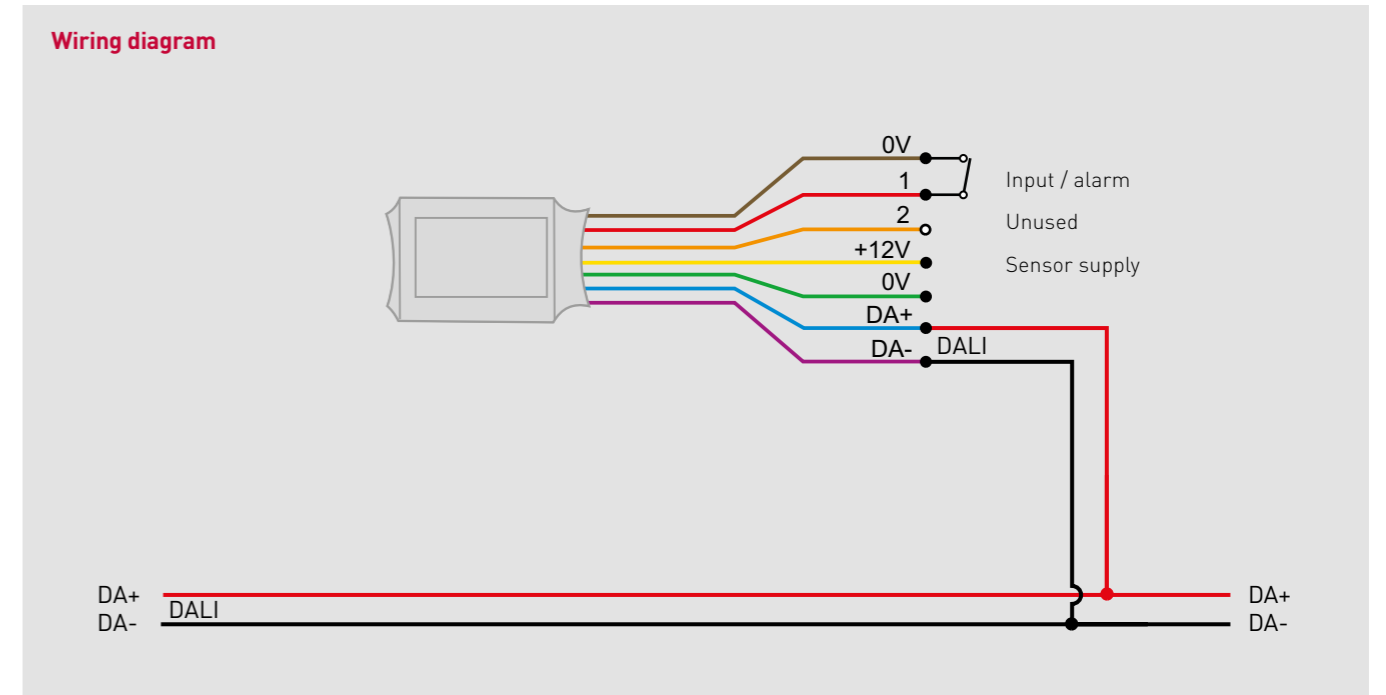
Current consumption from
 DALI bus..... 10 mA + sensor supply <max. 25 mA
 Sensor supply..... 12 V, 15 mA (non-insulated)
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP20
 Number of DALI addresses..... 1

Dimensions (mm)



Integrated circuit, weight 12g

Wiring diagram



444 Mini Input Unit

This prewired DALI-compatible interface is small enough to fit inside standard back boxes along with a mains-rated switch. It makes it easy to connect customer specified switches, sensors, time clocks and other on-off control devices to your DIGIDIM or Helvar Imagine lighting control system.

Also available in DALI-2 (444D2)

Key features

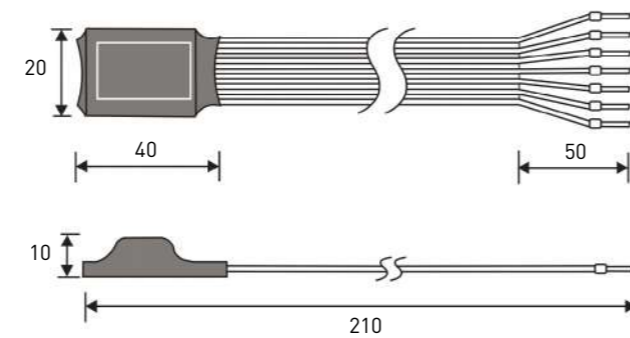
- Preconfigured with touch dimmer inputs for two groups.
- Fits into all standard size back boxes and architrave style back boxes.
- Touch dimming with a momentary push switch.
- Can be used with momentary or latching switches.
- Fully programmable using DIGIDIM Toolbox, Designer and RoomSet software.

Technical data

Power consumption from the DALI bus..... 10 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP20
 Number of DALI addresses..... 1
 Isolation No isolation from DALI network - switches must provide user protection

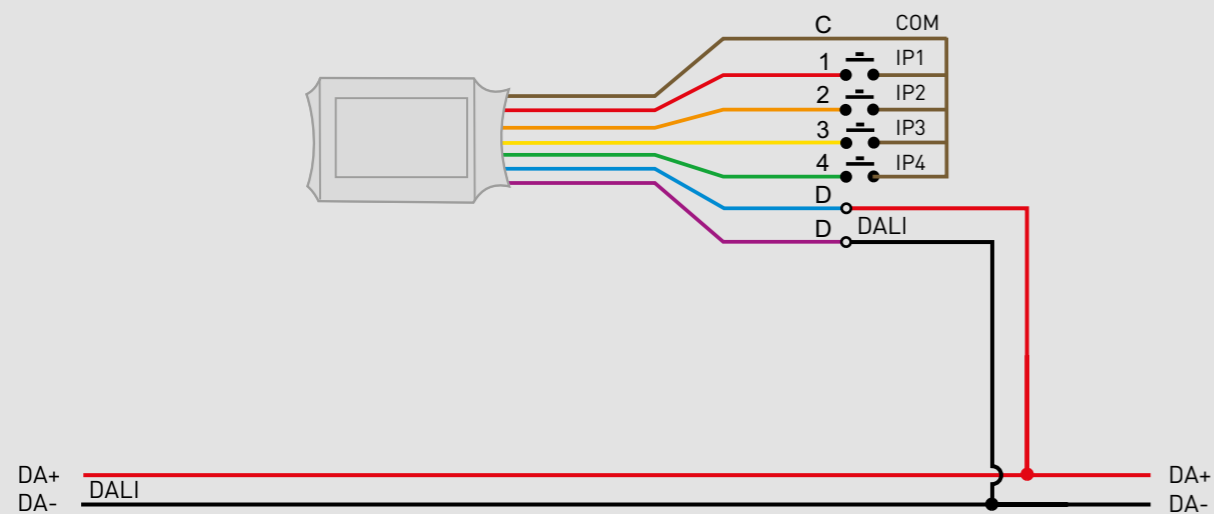


Dimensions (mm)



Integrated circuit, weight 10g

Wiring diagram



445 Switch Interface Unit with LED Tellback

Easily connect third-party switches or button panels to Helvar lighting control systems with this compact interface unit. It's small enough to fit inside switch or button modules or back boxes, and has four switch inputs for volt-free contacts and four outputs for indicator LEDs. DALI-network powered, it can be programmed with Designer and Toolbox.

Key features

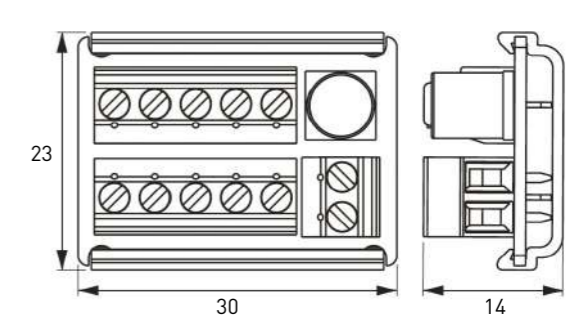
- Compact design
- 4 switch inputs
- 4 LED outputs
- Powered from DALI network



Technical data

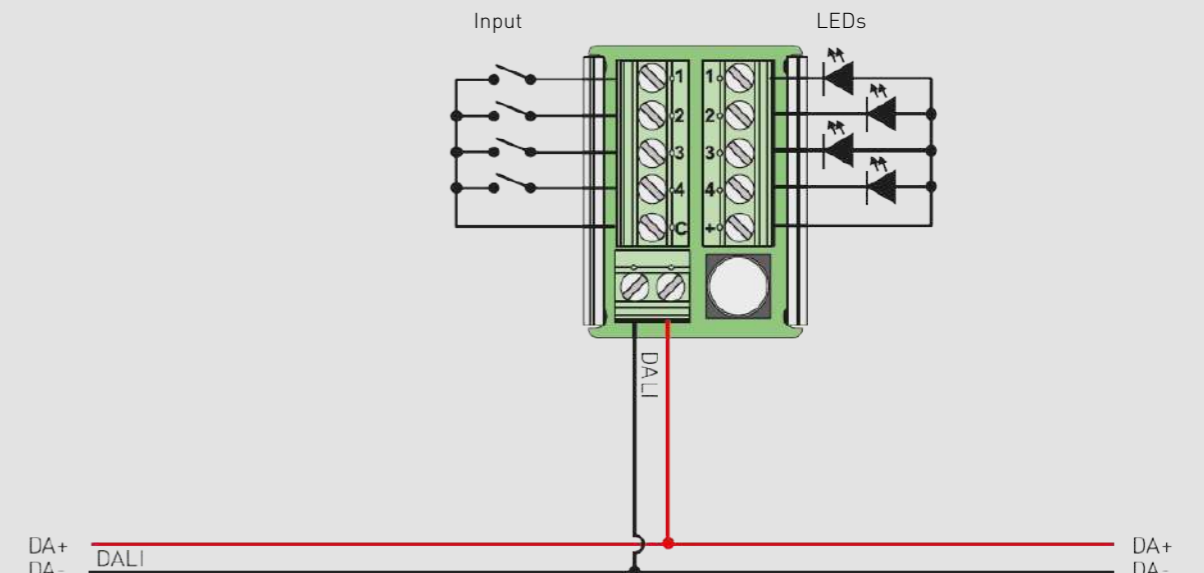
Power consumption from the DALI bus..... 15 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 LED output 5 V, 1 kΩ
 Degree of protection..... IP00
 Number of DALI addresses..... 1
 Isolation No isolation from DALI network - switches must provide user protection

Dimensions (mm)



Integrated circuit, weight 10g

Wiring diagram



490 2-Channel Blinds Controller

A DALI-compatible interface for controlling blinds and curtains in DIGIDIM and Helvar Imagine systems. This DIN-rail mounted unit has two independent control channels, each with two single-pole, volt-free contacts. So it's easy to power motors with up to 550 watts in either direction.

Key features

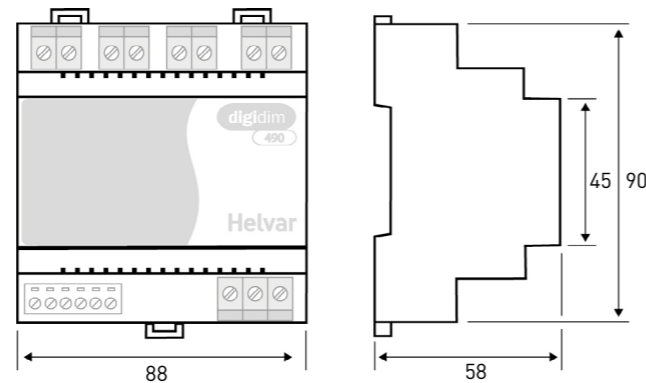
- Up/Down mode operates in a 'Break before Make' manner to prevent motor damage.
- Relays are internally isolated permitting separate mains phases to be used for each control channel.
- All DALI functions are programmed with either DIGIDIM Toolbox or Designer software.
- DIN-rail mounted and only 88 mm wide.



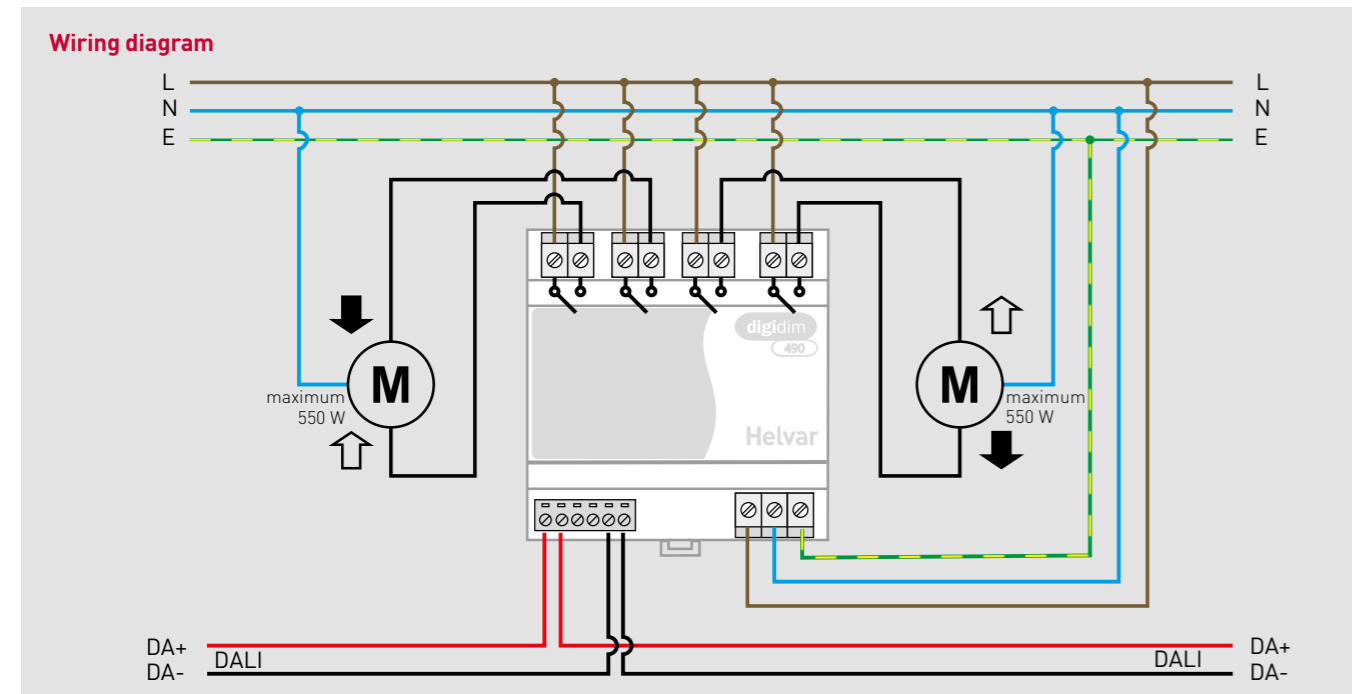
Technical data

Power consumption from the DALI bus..... 2 mA
 Power supply..... 220-240 VAC, 50-60 Hz
 External protection 6 A
 Maximum load 550 W per channel
 Power consumption..... 5.6 W
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 2

Dimensions (mm)



DIN rail housing; The width of 5 modules. Weight 300 g



492 Single-Channel DALI Relay Unit

A latching, volt-free contact, high-inrush control unit for non-DALI, non-dimmable loads. It has a 16 amp contact rating and is sealed in a plastic enclosure that will fit in a luminaire or electrical cabinet or can be used as an in-line unit.

Key features

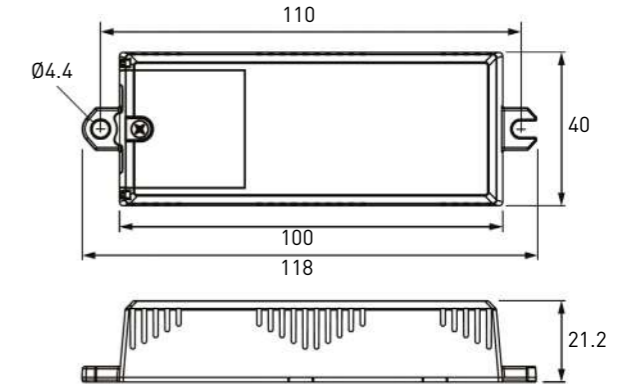
- 16 A high-current relay
- High-inrush specification relay
- Compact size for luminaire, electrical panel or in-line mounting
- Secure wire connection cover



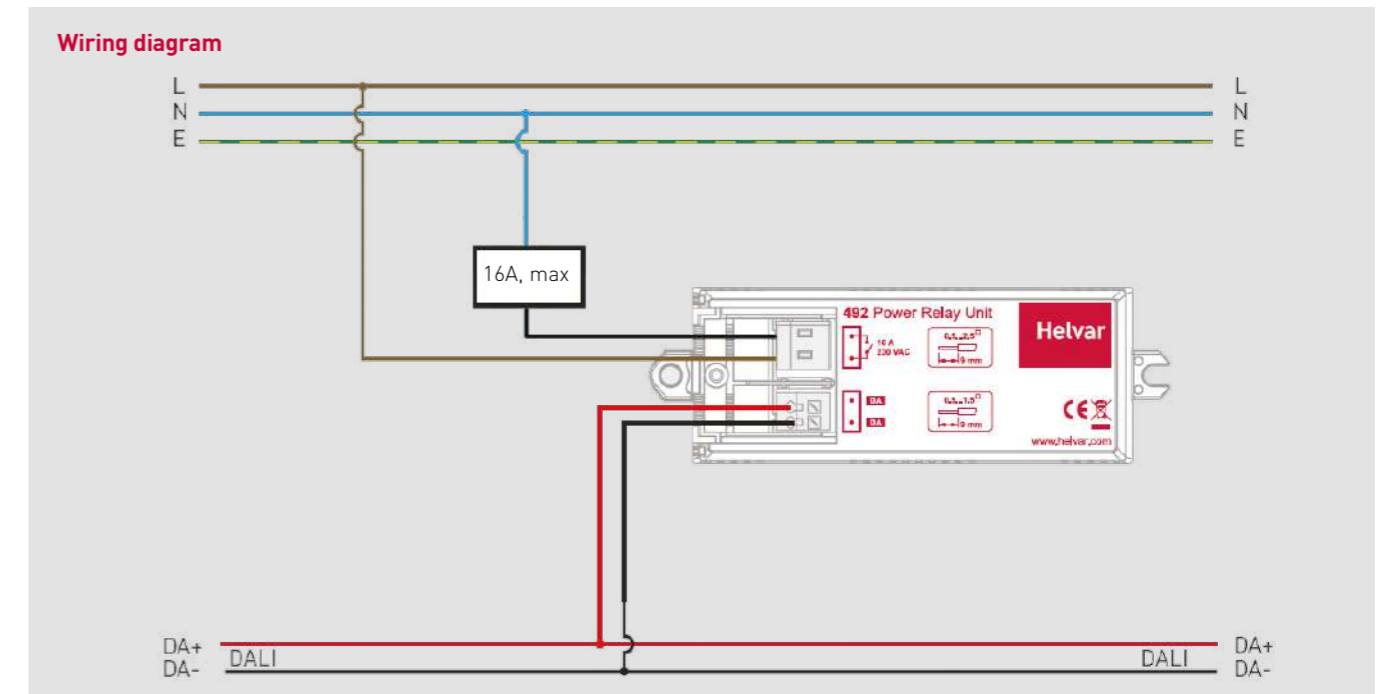
Technical data

Power consumption from the DALI bus..... 2 mA
 Relay load 16 A
 Insulation..... 4 kV
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1

Dimensions (mm)



Weight 52 g



498 8-Channel Relay Unit

This relay unit has high-inrush relays rated at 16 amps per channel. They can handle sudden high-peak inrush currents when loads are switched on without dimming. The 498 can be networked through DALI or SDIM to work with DIGIDIM or Helvar Imagine control systems.

Key features

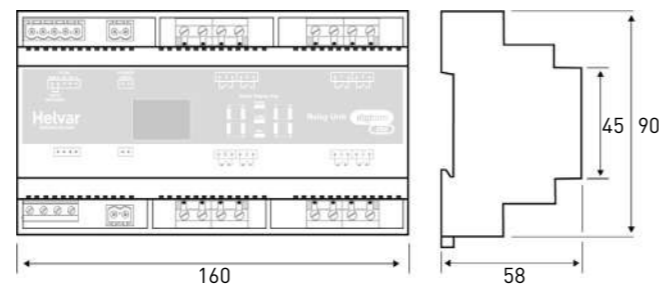
- High-inrush specification relays (single pole, normally open).
- Wired override input to allow for external triggers.
- LED segment display and push buttons.
- Can operate as:
 - 8 individual channels (8 × 1);
 - 4 sets of 2 channels (4 × 2); or
 - 2 sets of 4 channels (2 × 4).



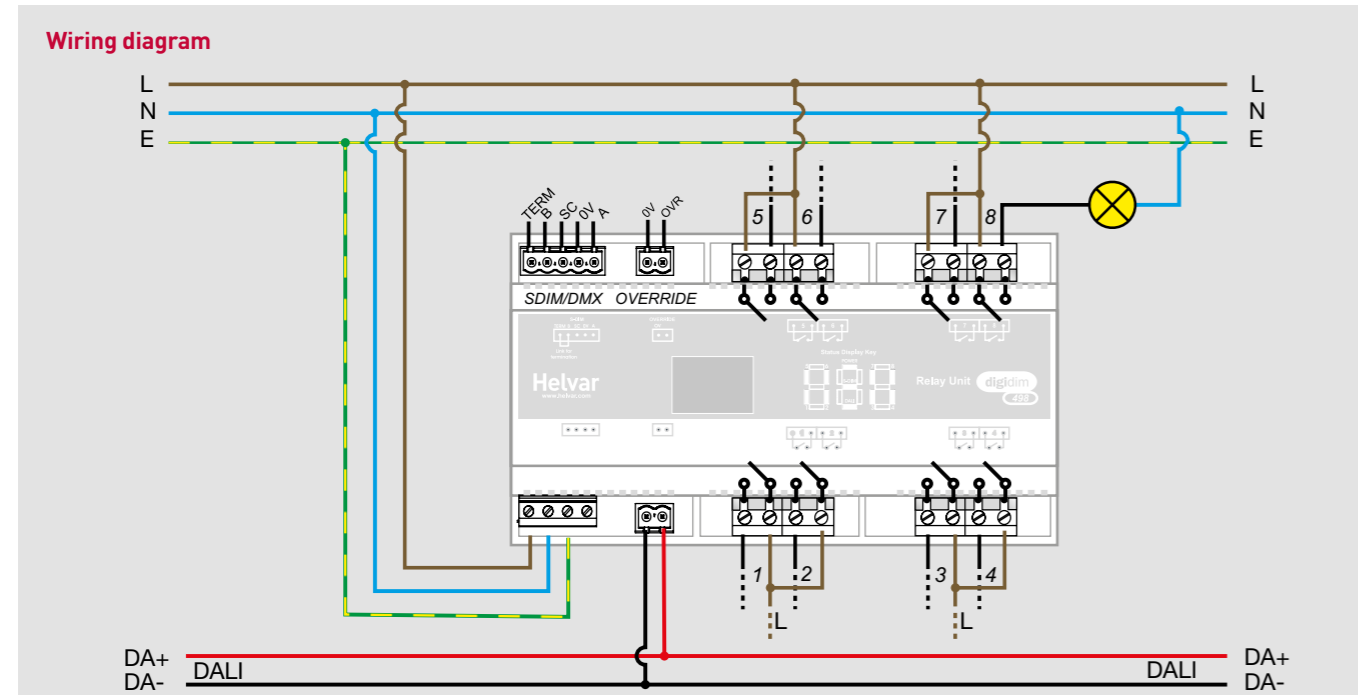
Technical data

Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Relay load.....	16 A
Power consumption.....	7 W
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	8

Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 400 g



499 8-Channel Latching Relay Unit

The 499 is made for installations that use a lot of power, such as high-bay luminaires and HID lamps. It can handle sudden high-peak inrush loads of up to 20 amps per output. Each output is controlled individually, and can connect to any mains-supply phase. DIN-rail mounted, it networks through DALI, SDIM or DMX.

Key features

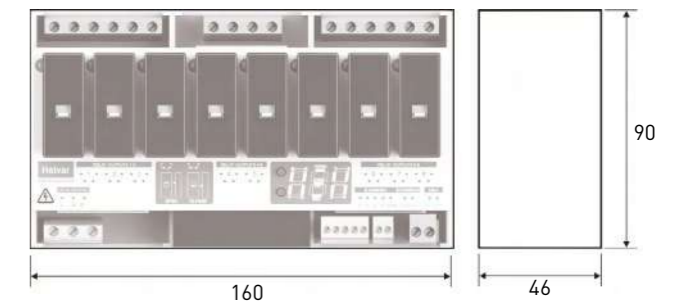
- Latching, single-pole, bistable relays with manual control.
- Wired override input to allow for external triggers.
- Manual control switch per channel.
- LED-segment display and push buttons.
- Can operate as:
 - 8 individual channels (8 × DALI addresses);
 - 4 sets of 2 channels (4 × DALI addresses); or
 - 2 sets of 4 channels (2 × DALI addresses).
- Staggered switch-on with 100 ms delay per relay.
- All functions can be programmed with Helvar's Toolbox and Designer software.



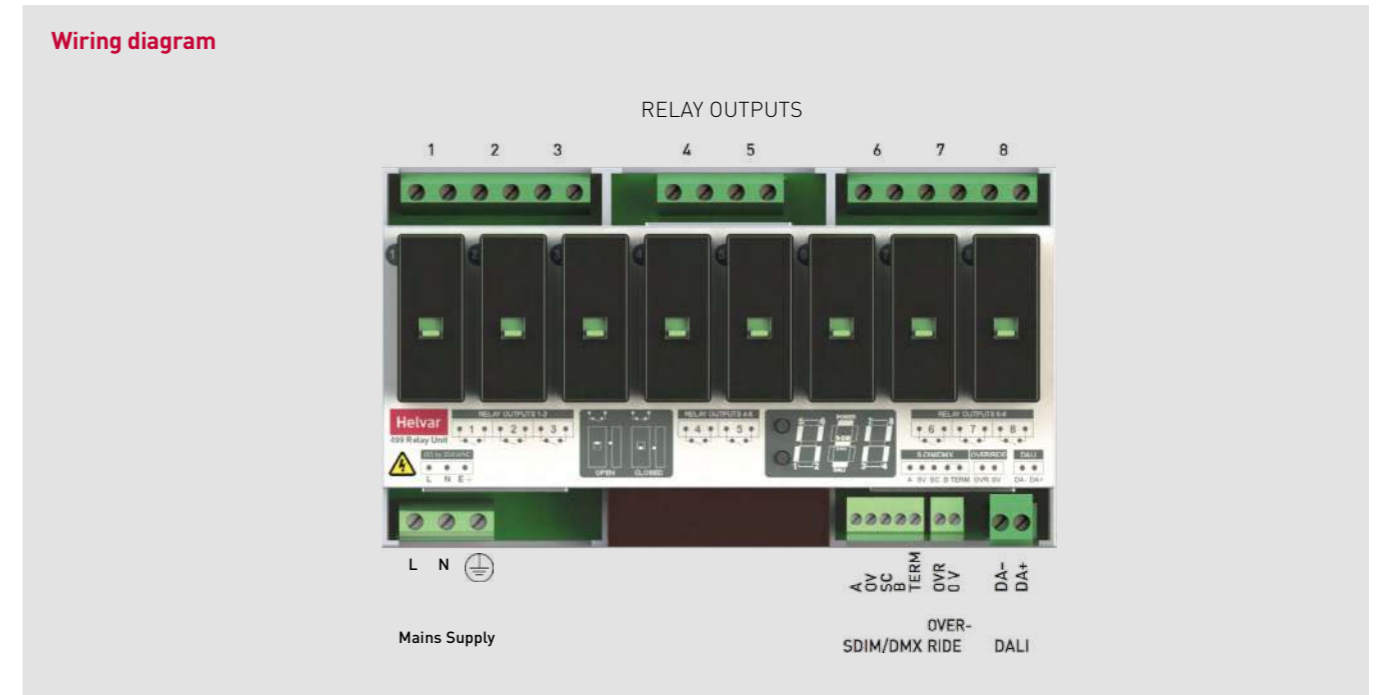
Technical data

Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Relay load.....	20 A
Power consumption.....	0.6 W per channel at 20 A current
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP20 (except connectors)
Number of DALI addresses.....	2, 4 or 8

Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 425 g



452 Universal Dimmer

This DALI-compatible lamp interface for DIGIDIM and Helvar Imagine systems allows trailing-edge or leading-edge dimming. Both modes will work with mains-voltage lights. DIN-rail-mounted, it controls loads up to 1000 W at 230 volts and has a built-in switch for identifying the device during configuration. It also has an optional addressing switch for simple DALI grouping.



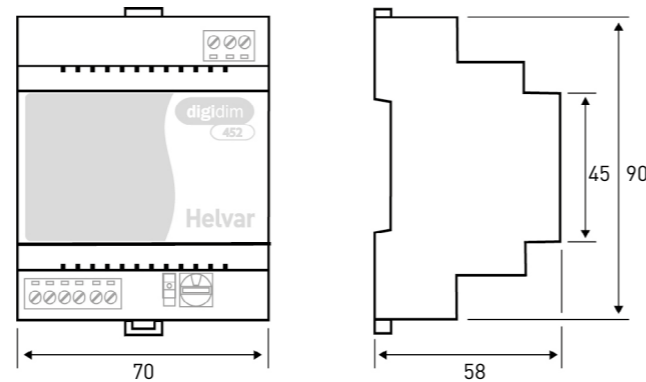
Key features

- Out-of-box operation. No programming required when using slider, rotary, or push-button panels. For scene panels, 'preset download' must be carried out.
- Input voltage fluctuation compensation ensures stable output levels with fluctuating incoming mains levels.
- Group-selection switch for quick and simple programming.
- Operating-mode switch (leading- or trailing-edge dimming).
- Overcurrent, power and temperature protection.
- DIN-rail mounted and only 70 mm wide.

Technical data

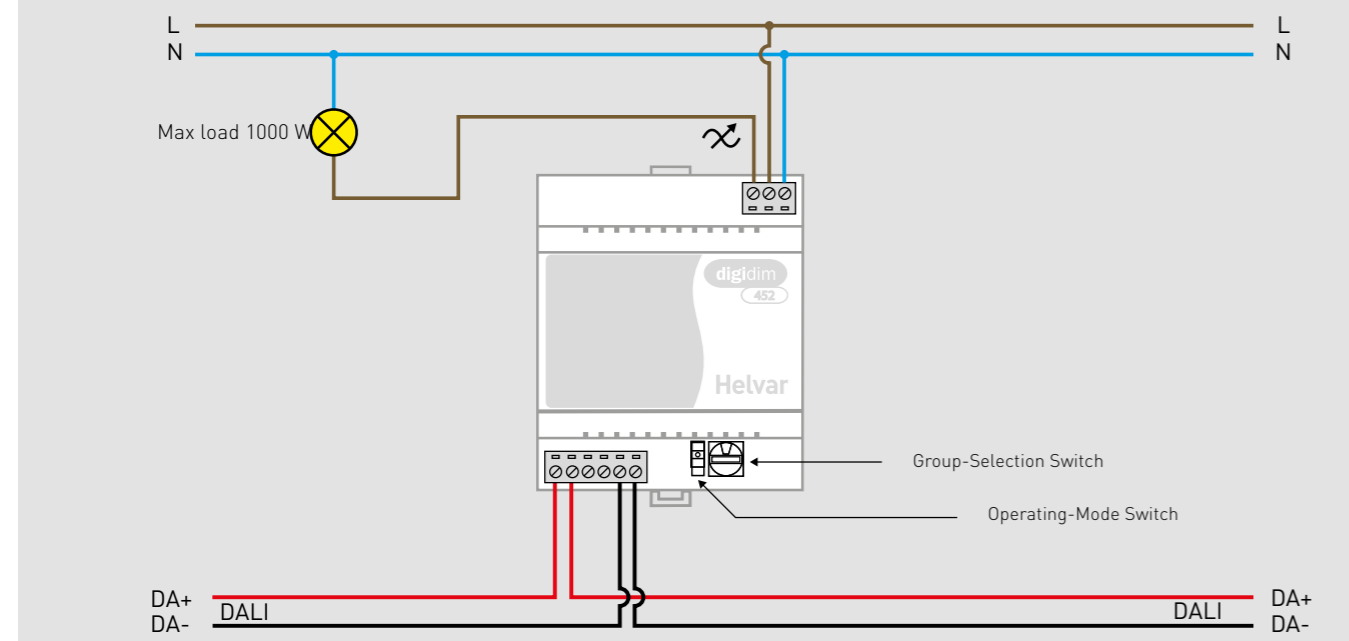
Power consumption from the DALI bus..... 2 mA
 Power supply..... 100 VAC - 240 VAC 45 Hz - 65 Hz
 Minimum load..... 5 W
 Maximum load..... 1000 W
 Power consumption in standby mode 0.8 W
 Power consumption..... 7 W
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1

Dimensions (mm)



DIN rail housing; The width of 4 modules. Weight 180 g

Wiring diagram



458/DIM4 4-Channel Thyristor Dimmer Module

The 458/DIM4 is a four-channel digital thyristor dimmer module, capable of leading-edge dimming of resistive and inductive loads. It has a DALI and an SDIM/DMX interface, and therefore can be fully integrated into a standalone DALI, a DIGIDIM, an Helvar Imagine router or a DMX system.

Key features

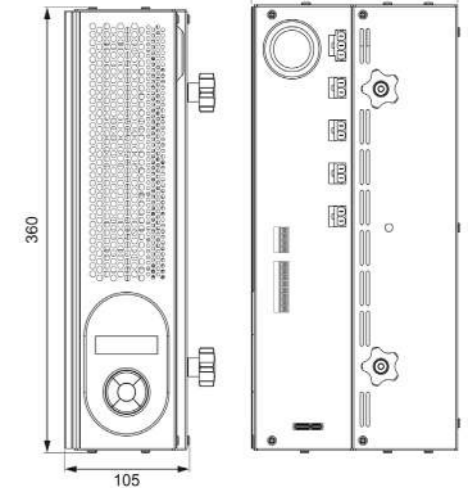
- Easily attached to a 458Mx chassis and connected to the mains supply for quick installation.
- LCD display screen and a five-button keypad for monitoring, configuration and manual control.
- Built-in DIGIDIM power supply, which can be used to power DALI systems if required.



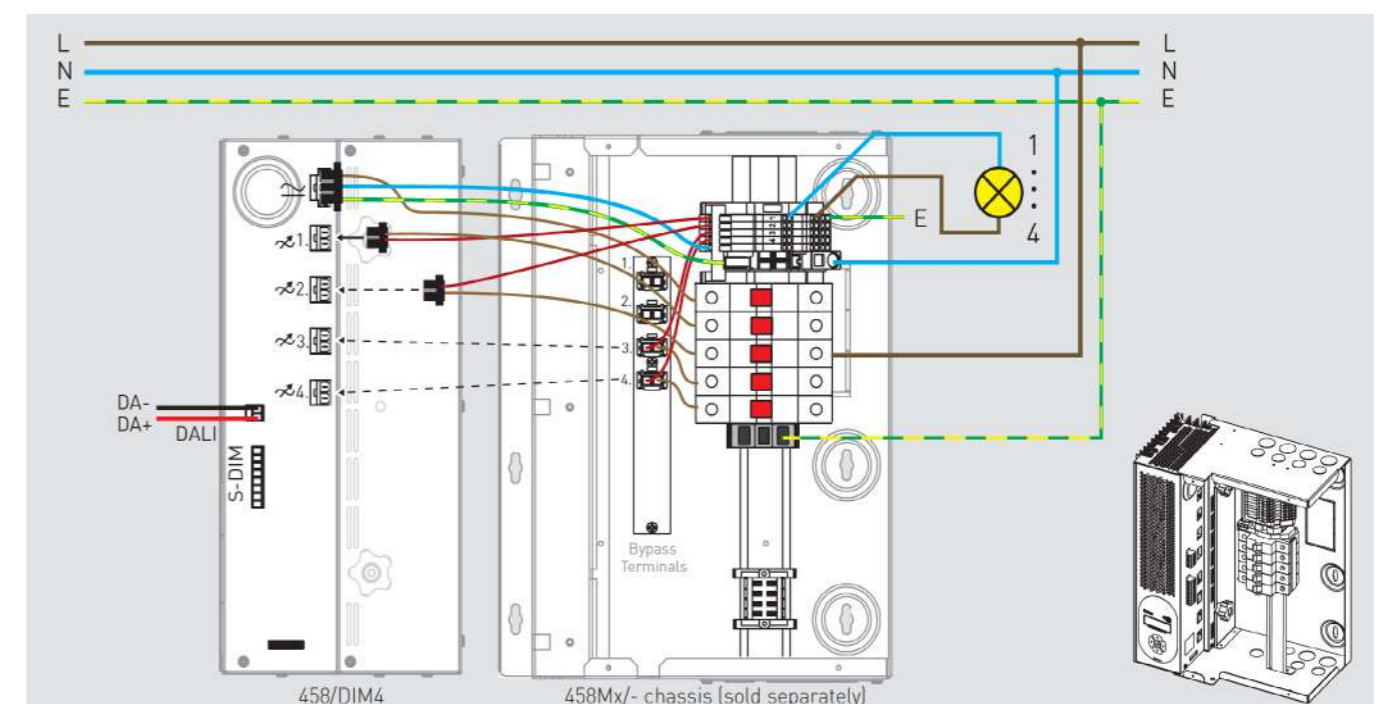
Technical data

Power supply..... 100 VAC - 240 VAC 45 Hz - 65 Hz
 Channels..... 4
 Minimum load..... 25 W / channel
 Max load per channel..... 10 A
 Power consumption in standby..... 1.3 W
 Max total power consumption..... 78 W
 Ambient temperature..... 0 ° C to 40 ° C
 Number of DALI addresses..... 4

Dimensions (mm)



Wiring diagram



458/DIM8 8-Channel Dimmer Module

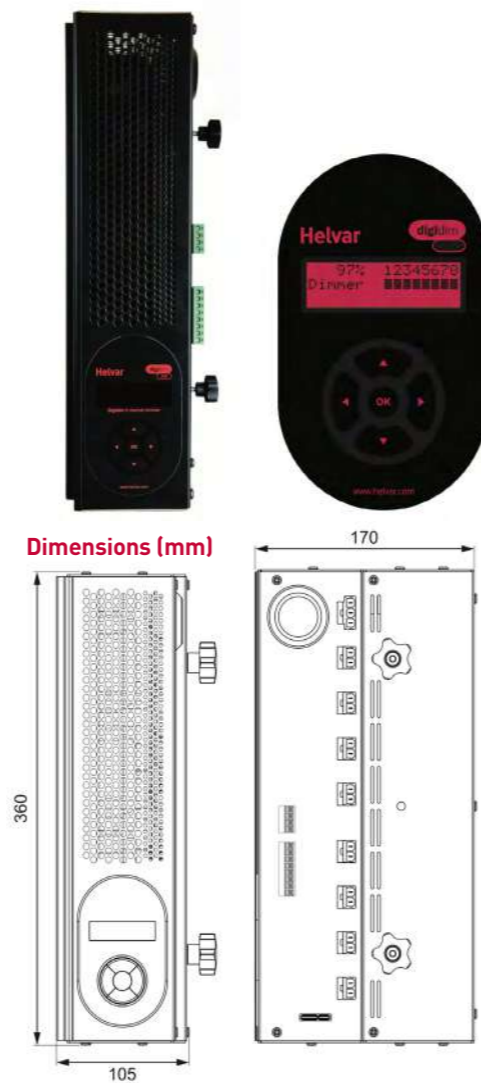
Eight channel thyristor dimmer module, for leading-edge dimming of resistive and inductive loads. The module has 8 channels rated at 10 A each, with a total current capacity of 48 A. The module has DALI, DMX, and S-DIM interfaces for integration into DIGIDIM and Helvar Imagine systems. The module has eight channels rated at 10 A, with a total current capacity of 48 A, which can be configured as 8 A ~ 6 A channels or 4 A ~ 10 A channels.

Key features

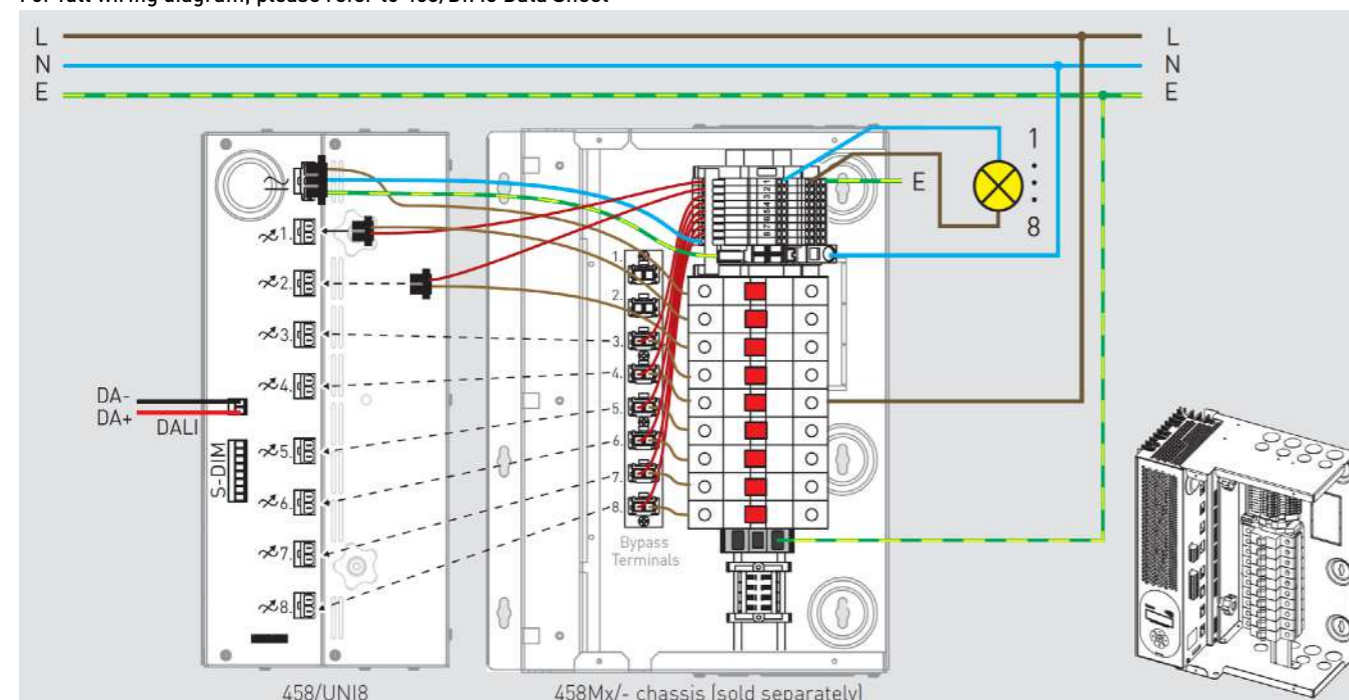
- Module plugs into any 458 mechanical chassis
- LCD display screen with navigation keys
- Built-in power supplies for DIGIDIM
- DALI / S-DIM / DMX control inputs

Technical data

Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Channels.....	8
Minimum load.....	25 W / channel
Max load per channel.....	10 A
Power consumption in standby.....	1.3 W
Max total power consumption.....	78 W
Ambient temperature.....	0 °C to 40 °C
Number of DALI addresses.....	8



For full wiring diagram, please refer to 458/DIM8 Data Sheet



458/UNI8 8-channel Universal Dimmer Module

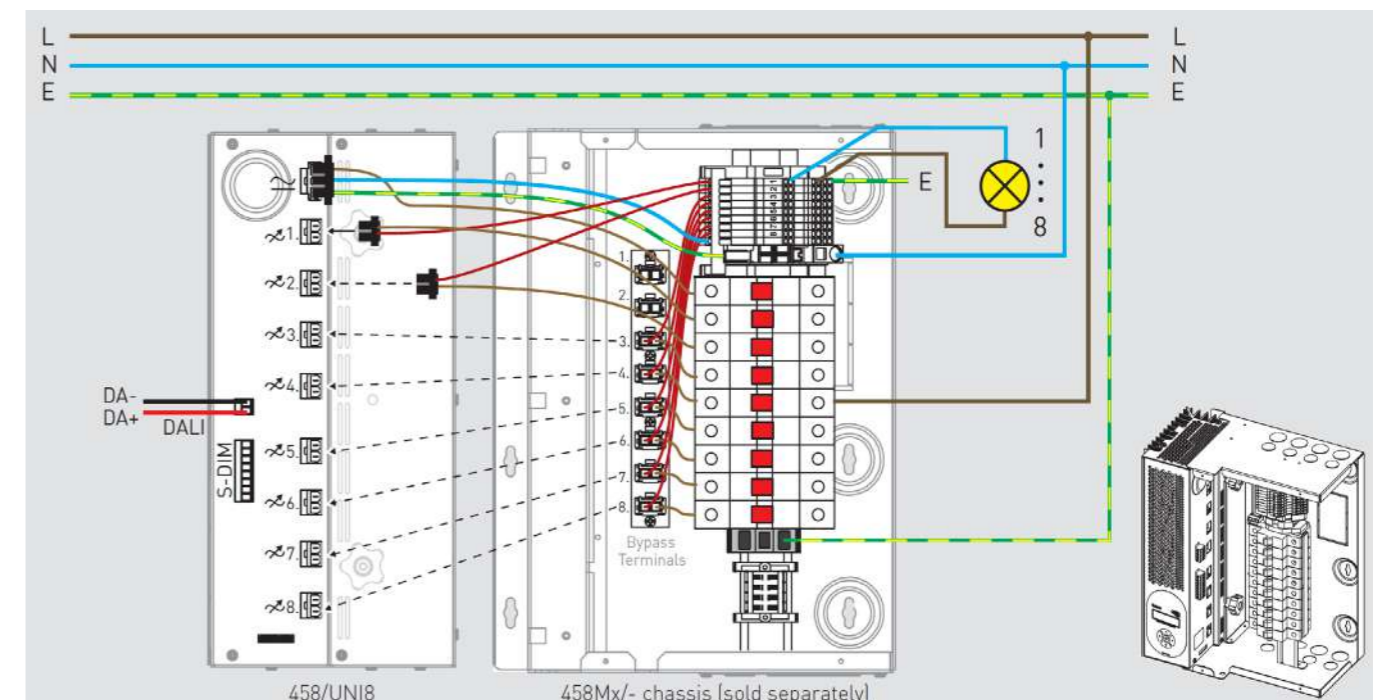
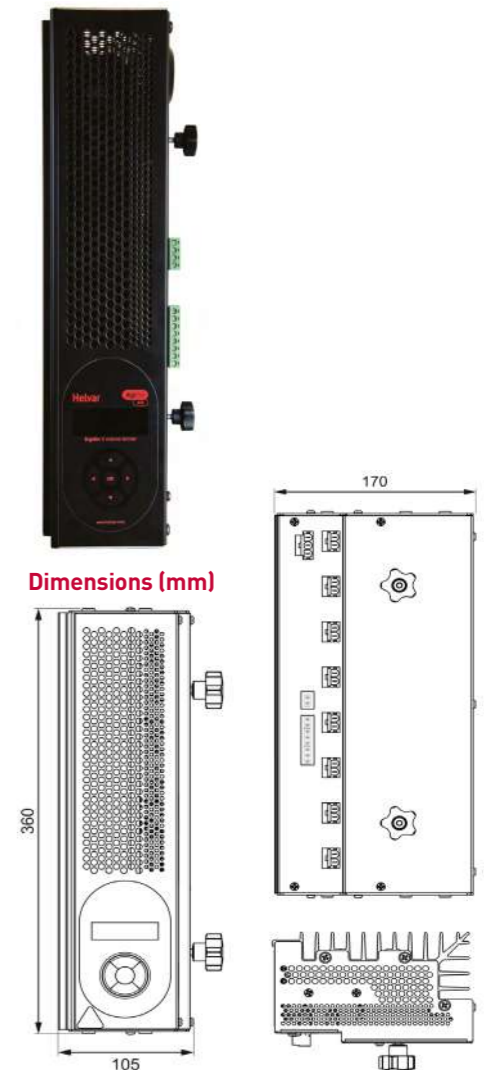
The 458/UNI8 is an eight-channel transistor dimmer module for leading or trailing edge dimming. It is compatible with all common load types: inductive, capacitive and resistive. The unit incorporates a number of novel features that provide 'first-class' performance when dimming modern LED lamps. This includes both mains dimmable retrofit lamps and LED drivers. The module's eight channels can be individually selected as leading or trailing edge, and are rated at 6 A each. The module has a DALI and an SDIM/DMX interface, and therefore can be fully integrated into a standalone DALI, a DIGIDIM, an Helvar Imagine router or a DMX system.

Key features

- Module plugs into any 458 mechanical chassis
- LCD display screen with navigation keys
- DALI / S-DIM / DMX

Technical data

Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Channels.....	8 each Selectable leading or trailing edge
Minimum load.....	No minimum (active load)
Power consumption in standby.....	1.3 W
DALI consumption.....	2 mA
Max total power consumption.....	78 W
Ambient temperature.....	0 °C to 40 °C
Number of DALI addresses.....	8
Max load per channel.....	6 A



458M Dimmer Chassis

The 458Mx is a range of mechanical chassis to which one, two or three 458 series modules can be fitted to provide up to 24 channels of control. Each load channel is protected by an individual MCB.

Each chassis contains one, two or three sections, depending on the chassis size selected, and has either four or eight load circuit MCBs, depending on the variant. Each chassis section has a control circuit MCB, and a set of output terminals for the connection of load wiring.

A 458M1 is for a single module. A combination of up to two modules can be used with the 458M2, and up to three modules with the 458M3 Chassis. Available module types are DIM4, DIM8, CTR8, SW8, and UNI8.

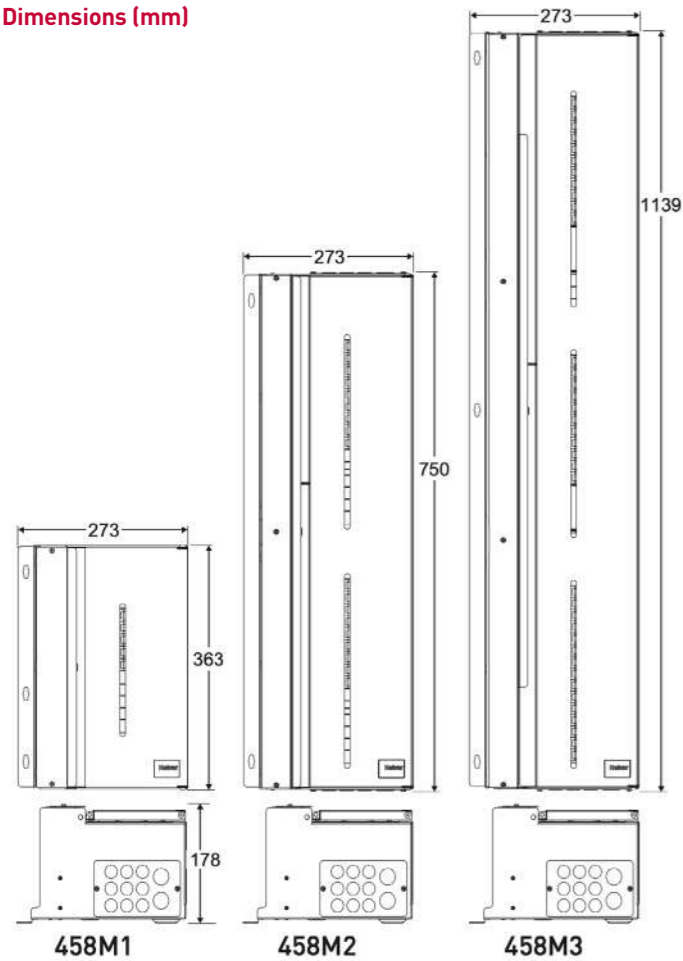
Note: Mx Chassis are supplied without modules. These can be ordered separately to suit the particular load type.

Key features

- Wall-mounted vertically; installer-friendly.
- Modular system
- Lights and wiring can be tested, then control modules fitted – control modules simple to attach and remove.



Dimensions (mm)



458M3 with Dimmers

454 Transistor Dimmer

Four-channel and DIN-rail mounted, the 454 works in leading-edge or trailing-edge mode. Each channel can control up to 2.2 amps. It supports capacitive and resistive loads up to 500 watts per channel, and can connect to mains-voltage lamps and low-voltage lamps with electronic transformers. Not for use with inductive loads.

Key features

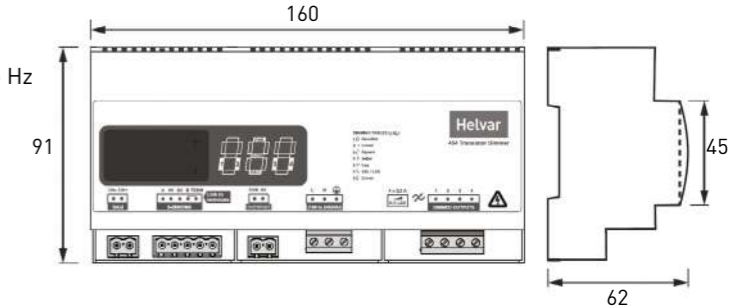
- Trailing-edge or leading-edge dimming
- LED segment and push buttons for manual configuration, including the following output types: linear, square, S-law, DALI logarithmic, LED curve, and DALI linear
- Manual wired override input
- Voltage and frequency compensation
- Overcurrent and temperature protection included
- Power-on to last level or to user-defined level



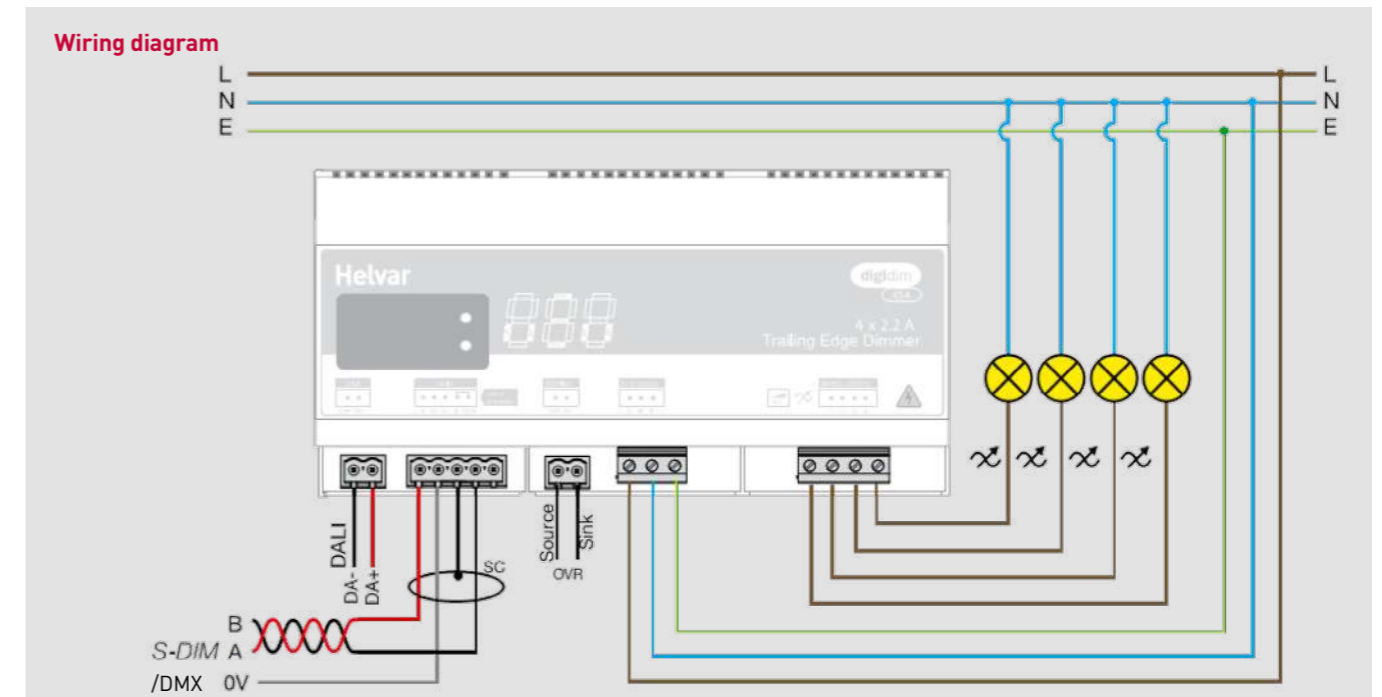
Technical data

Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Minimum load.....	5 W
Maximum load.....	2.2 A per channel (2.2 A x 230 V x 4 = 2 kW)
Power consumption in standby mode.....	2.3 W
Power consumption.....	11 W (maximum load)
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	4

Dimensions (mm)



DIN rail housing; Width of 9 modules. Weight 250 g



455 500 W Thyristor Dimmer

A leading-edge lamp interface for DALI systems. Mounted on a DIN rail, it can control loads up to 500 watts. The 455 connects to mains voltage lamps directly, or to low voltage lamps with a wire-wound transformer. It works straight from the box with a slider, dial or button panel.

Key features

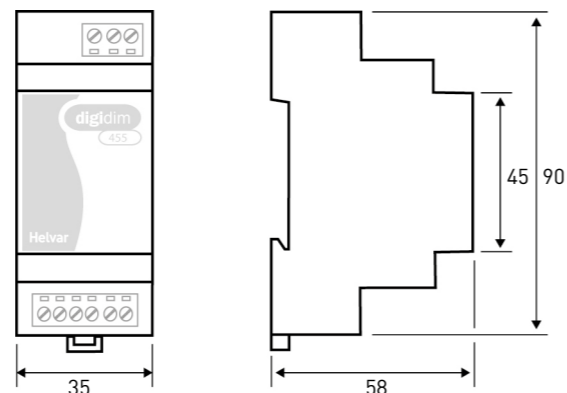
- Out-of-box operation. No programming required when using slider, rotary or push button panels.
- Input voltage and frequency fluctuation compensation ensures stable output levels with fluctuating incoming mains levels.
- Over current and over temperature protection.
- DIN-rail mounted and only 35 mm wide.



Technical data

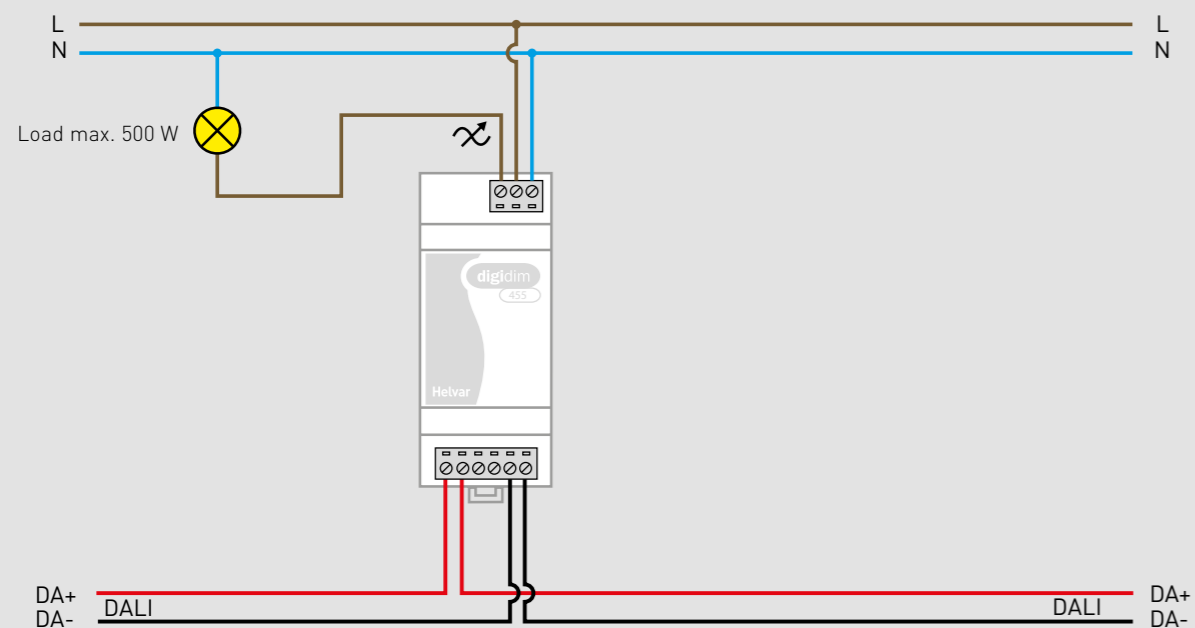
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Minimum load.....	25 W
Maximum load.....	500 W
Power consumption in standby.....	2 W
Power consumption.....	4 W
Ambient temperature.....	0 °C to 40 °C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	1

Dimensions (mm)



DIN rail housing; Width of 2 modules. Weight 110 g

Wiring diagram



472 1-10 V & DSI® Converter

Our 472 converter can switch up to 15 Helvar electronic ballasts or drivers. It has an analogue 1-10 volt signal and digital DSI signal and can control 50 electronic ballasts that meet IEC 60929 — making it easy to integrate with other systems.

Key features

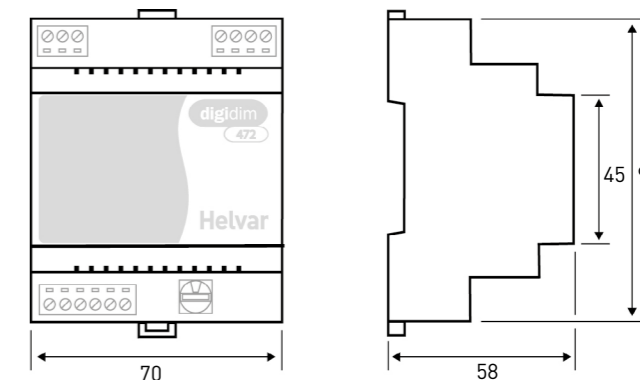
- Out-of-box operation provides control using DALI standard broadcast commands.
- For 1-10 V control, the converter can switch a maximum 15 ballasts/drivers. An external contactor should be used for more ballasts.
- Converter complies with DSI® 1 and DSI® 2 standards.
- Default light output at initial power up is 100 %.
- Operates on a universal supply voltage of 85 VAC - 264 VAC.
- DIN-rail mounted and only 70 mm wide.
- Easy programming by using the group selection switch.



Technical data

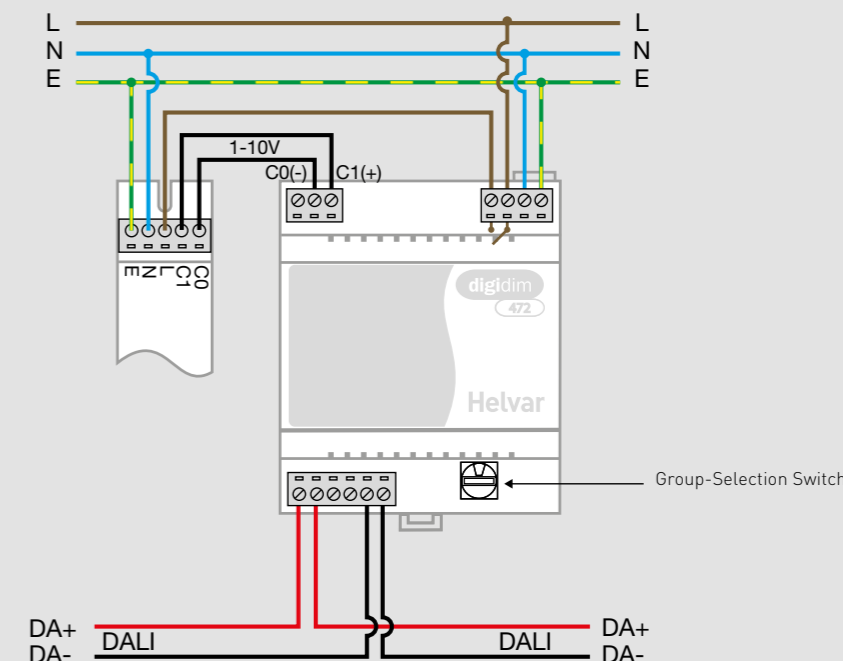
Power consumption from the DALI bus.....	2 mA
Power supply.....	85-264 VAC, 45-65 Hz
External protection.....	10 A
Mains output.....	10 A (resistive)
Load.....	15 x ballast / LED power supply
Power consumption in standby mode.....	1.1 W
Power consumption.....	3 W
Ambient temperature.....	0 °C to 40 °C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	1

Dimensions (mm)



DIN rail housing; The width of 4 modules. Weight 140 g

Wiring diagram



474 4-Channel Ballast Controller

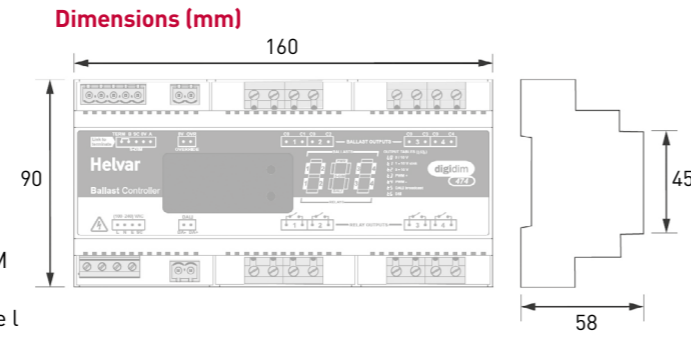
This ballast controller has high-inrush relays rated at 16 amps per channel. They'll cope with high current spikes when loads are switched on or off. You can set the outputs to match common ballast control loads including 0/1-10 volt, DSI, DALI broadcast and PWM. Control outputs can be paired with relay channels or work independently from them. DIN rail mounted.

Key features

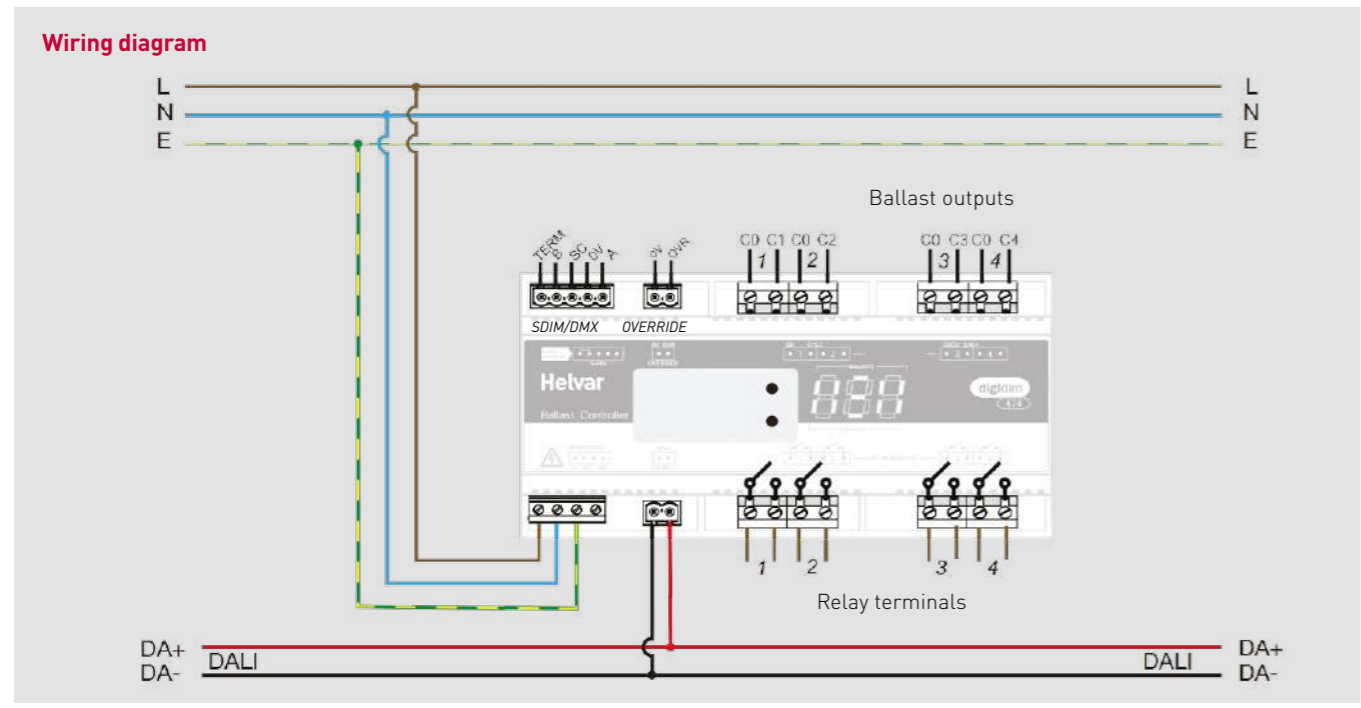
- High inrush specification relays
- Wired override input
- LED segment display and push buttons
- Multiple output configurations of:
 - 0-10 V: source 10 mA
 - 1-10 V: sink 100 mA
 - DALI broadcast: source 100 mA
 - DSI@: source 100 mA
 - PWM: source 100 mA

Technical data

Power consumption from the DALI bus..... 2 mA
 Power supply..... 85-264 VAC, 45-65 Hz
 External protection..... 6 A
 Power consumption in standby mode..... 2.4 W
 Power consumption..... 13 W
 Load per channel..... 50 x 1-10 V / DALI / DSI@ / PWM ballast
 Maximum relay load..... 16A (on the relay) 10A discharge I (cos γ = 0.6)
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 4/8 depending on the configuration of relays



DIN rail housing; The width of 9 modules, Weight 280g



478 8-Subnet DALI Controller

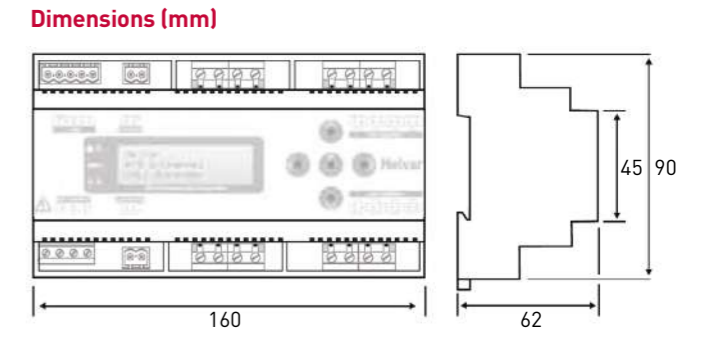
This DALI 8 subnet controller is for LED ballasts and power supplies in lighting control systems that don't use addressing. It reports faulty or damaged luminaires, bringing down installation and maintenance costs.

Key features

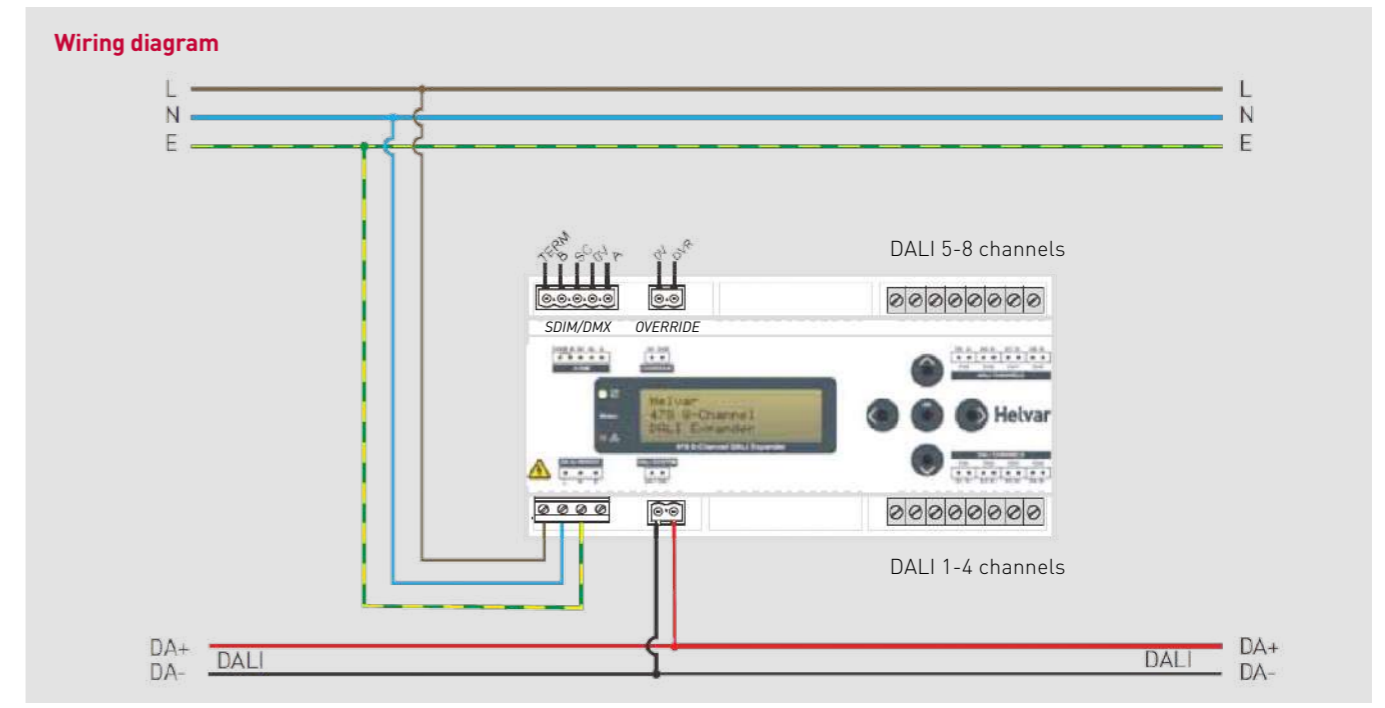
- Control using DALI broadcast messages on each subnet.
- Integral DALI power supply – supports up to 512 DALI devices (8 x 64 devices: 2 mA per driver/ballast).
- Lamp failure reporting per subnet.
- Lower commission costs – device addressing/grouping on subnet not required.
- DALI/SDIM/DMX control inputs.

Technical data

Power consumption from the DALI bus..... 2 mA
 Power supply..... 85-264 VAC, 45-65 Hz
 External protection..... 6 A
 Power consumption..... 8 W
 Control inputs..... 8 DALI / DMX addresses
 DALI power supply..... 128 mA / channel
 Insulation..... 4 kV between each connector
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP00
 Number of DALI addresses..... 8



DIN rail housing; Width of 9 modules, Weight 250 g



503 AV RS232 Interface

This audio-visual interface fits on a DIN rail and lets you connect your lighting control system to a PC or other AV kit through a standard 9-pin serial socket.

There's full optical isolation between the inputs and outputs of the DALI and serial ports.

Key features

- Status LED
- Bi-directional serial interface for basic system monitoring and control
- Terminal blocks for DALI and RS232 wiring



Technical data

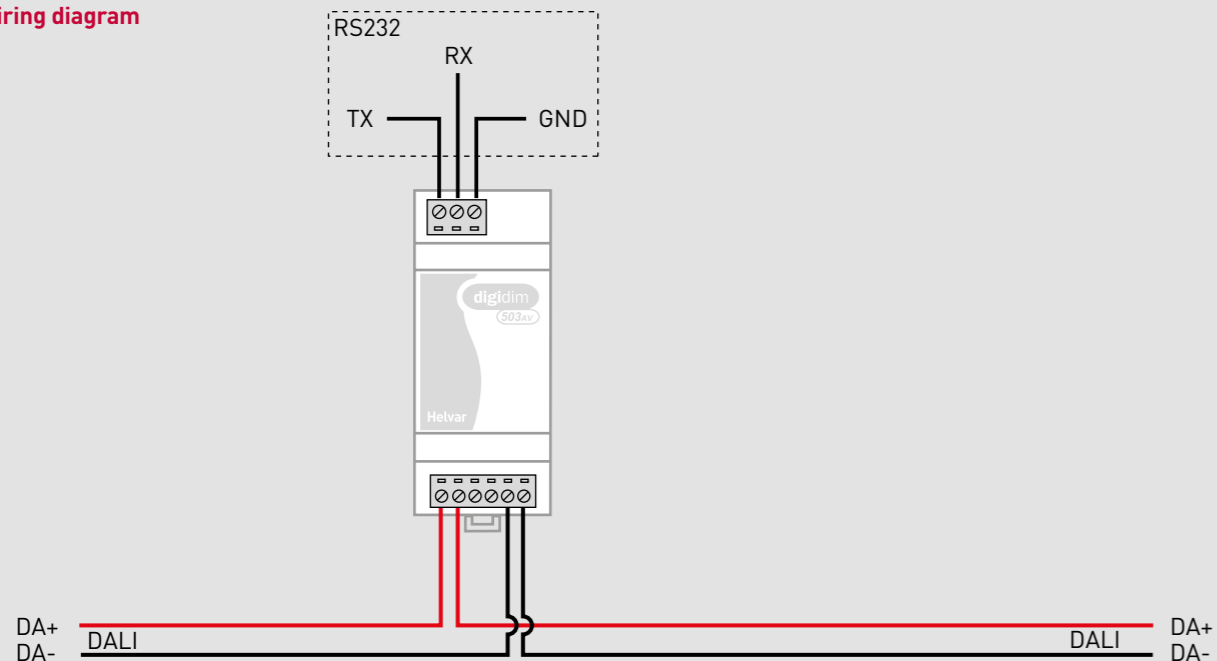
Power consumption from the DALI bus..... 15 mA
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1

Dimensions (mm)



DIN rail housing; Width of 2 modules. Weight 80 g

Wiring diagram



easySwitch

Helvar easySwitch family products offer simple standalone solutions. They are easy to install with out-of-box functionality, making them energy efficient and cost-effective solutions, ideal for basic applications such as corridors, washrooms, and small offices.

Key features

- Simple on/off
- Standalone
- Mains switching
- Easy to install and set-up
- Low cost with fast payback

Easyswitch sensors

Standalone sensors	Control output	Functionality		Time-out	Motion detection area	Comments
		Motion detector	Lux sensor			
SS-PIR-SW-01	Switched	PIR	•	10 secs - 40 mins (9 steps)		Presence or absence detection modes
SF-PIR-SW-01	Switched	PIR	•	10 secs - 40 mins (9 steps)		Presence or absence detection modes



SF-PIR-SW-01 Flush mount PIR switching sensor

- A standalone mains switching sensor
- Presence and absence modes
- Up to 7m diameter coverage
- Set for lux and timeout
- Mounts flush within the ceiling

Note: this sensor isn't DALI compatible.



SS-PIR-SW-01 Surface mount PIR switching sensor

- A standalone mains switching sensor
- Presence and absence modes
- Up to 7m diameter coverage
- Set for lux and timeout
- Just mount to a ceiling or backbox

Note: this sensor isn't DALI compatible.



TK4 1-10V ballast controls

- Offers 1-10V ballast control
- High power mains switch
- Intuitive slider
- Last-level memory
- Works with any TK4 or DIGIDIM/ Helvar Imagine panel

SF-PIR-SW-01 Flush-Mount PIR Switching Sensor

This surface-mounting sensor makes it easy to control your light fittings. Time and light-intensity controls are built in for maximum efficiency and comfort.

Key features

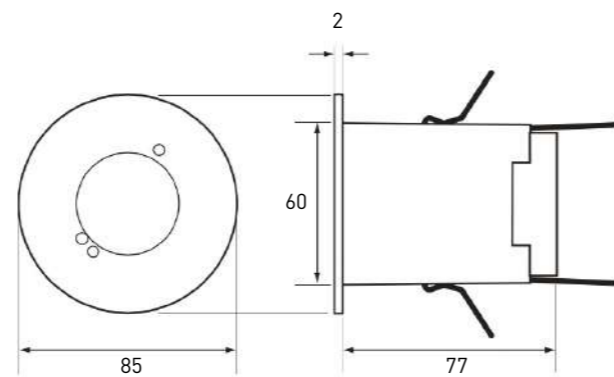
- Easily selectable presence or absence detection.
- Provides load control in response to changes in room occupancy and illuminance.
- Simple out-of-the-box operation.
- Energy saving.



Technical data

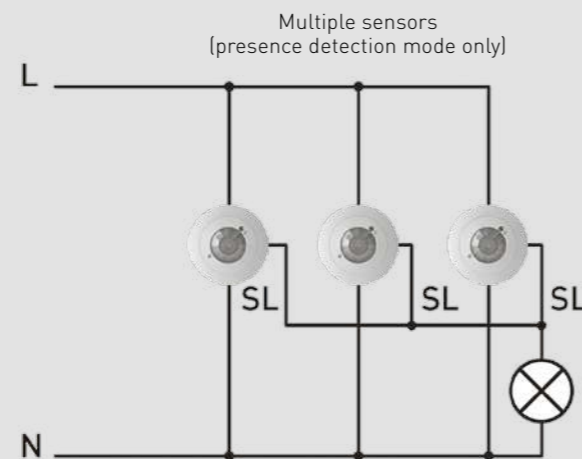
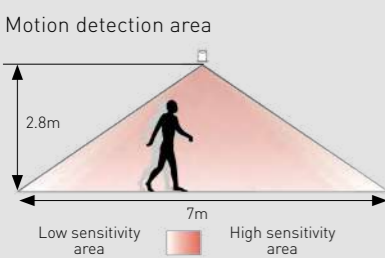
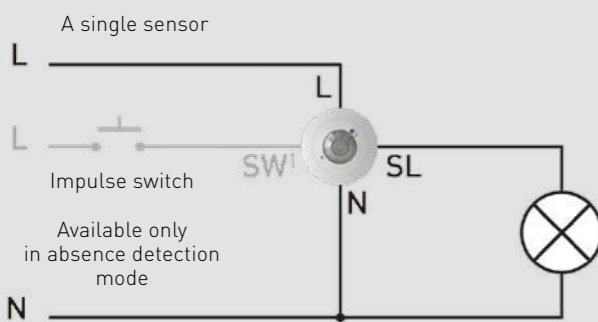
Power supply.....	230 VAC, 50 Hz
Load.....	6 A
External protection	6 A
Measurement range of intensity lighting.....	10-1000 lx
Ambient temperature.....	10 ° C to 35 ° C
Degree of protection IP.....	IP20

Dimensions (mm)



The diameter of the mounting hole: 75 mm
White plastic, weight 100g

Wiring diagram



SS-PIR-SW-01 Surface-Mount PIR Switching Sensor

This surface-mounting sensor makes it easy to control your light fittings. Time and light-intensity controls are built in for maximum efficiency and comfort.

Key features

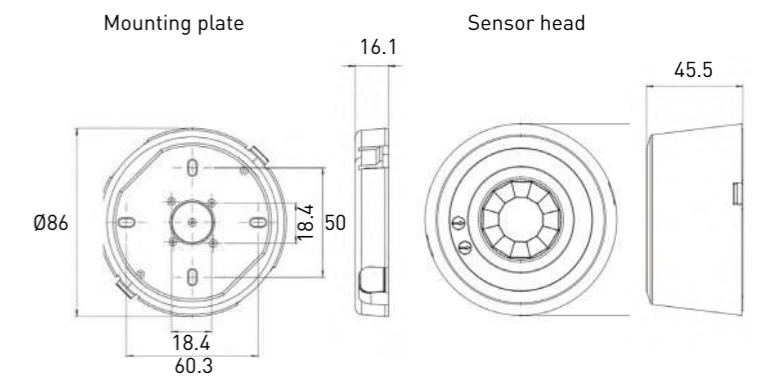
- Presence or absence detection
- Energy saving
- Switching option via bell switch



Technical data

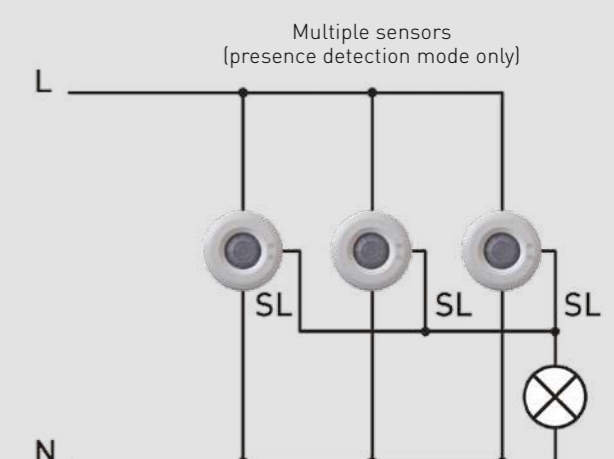
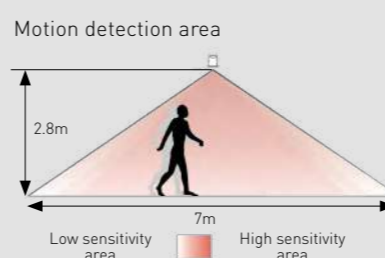
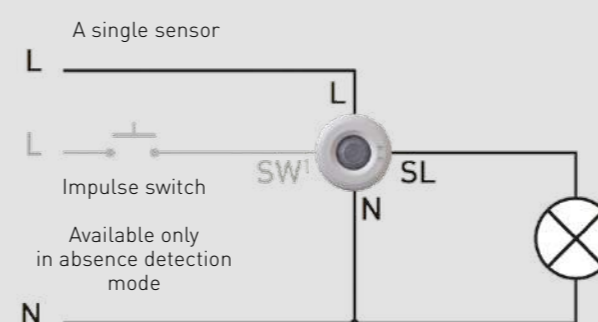
Power supply.....	230 VAC, 50 Hz
Load.....	6 A
External protection	6 A
Measurement range of intensity lighting.....	10-1000 lx
Ambient temperature.....	10 ° C to 35 ° C
Degree of protection.....	IP20

Dimensions (mm)



White plastic, weight 102g

Wiring diagram





Insights

Bringing intelligence and insight into your space

Helvar Insights is a scalable cloud-based suite of digital services that take advantage of data gathered from your existing lighting control devices and sensors.

This platform provides intelligent insights that improve the wellbeing of users, the efficiency of your building and help you to achieve your sustainability targets.

Turning Everyday Places into Brighter Spaces

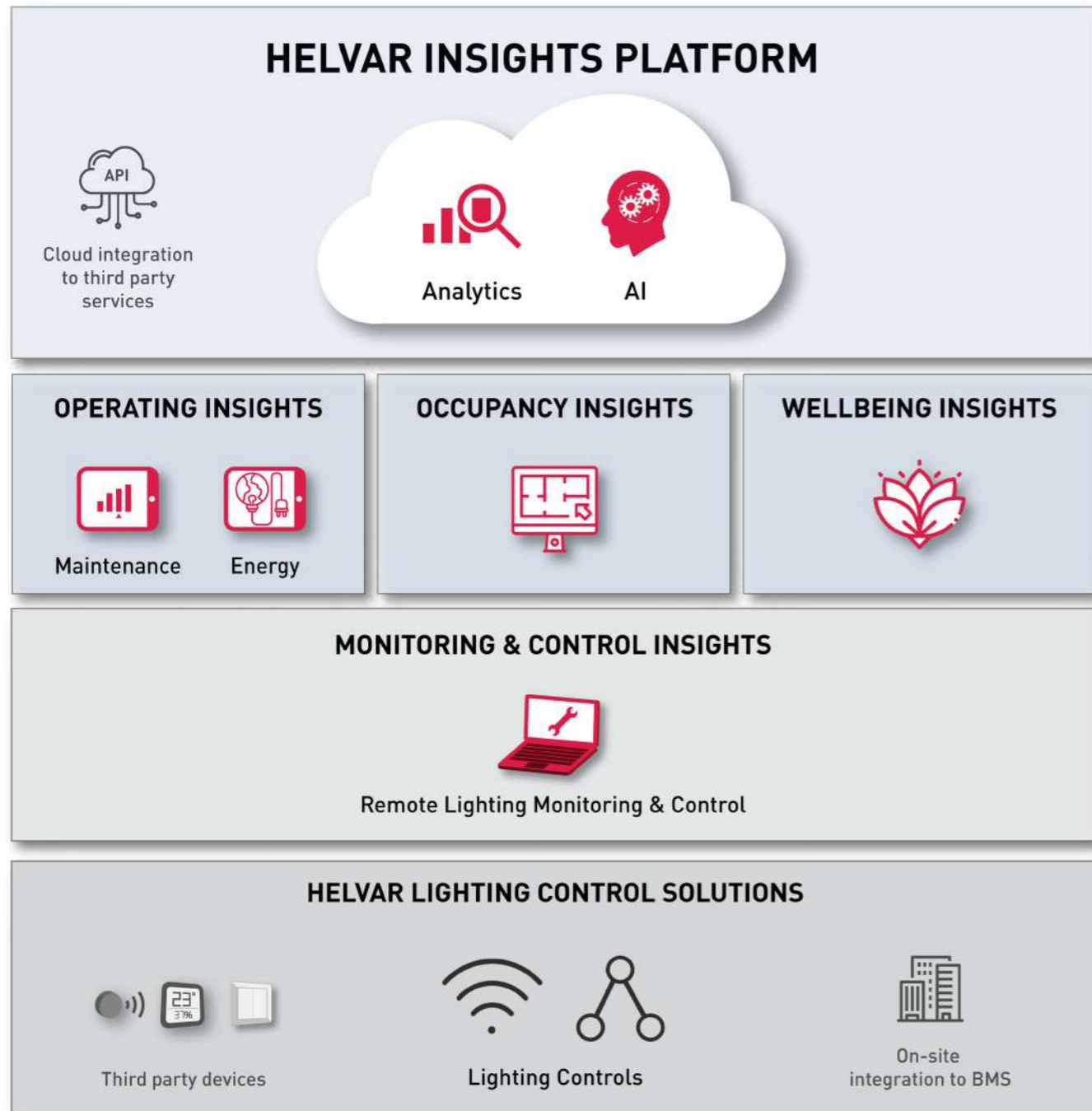
HELVAR INSIGHTS FEATURES

- 24/7 MULTI-SITE MONITORING**
A secure, server-less and modern lighting monitoring system that lets you see how all your connected sites are working. Accessible anywhere, anytime.
- CLOUD LIGHTING CONTROL**
Control all lighting groups remotely using the cloud platform. Select scenes in real time or create easy-to-use online schedules. Digital lighting control, re-imagined.
- PRIORITISED ALERTS**
Receive real-time alerts for any malfunctions and incidents in your lighting control system. Prioritised by how critical they are to help you plan your work.
- EASY RESOLUTION WITH AUTO RECOMMENDATIONS**
Each alert is accompanied by a specific recommendation on how to further diagnose or potentially resolve the issue.
- NOTIFICATIONS WITH SEVERITY LEVEL**
Subscribe to receive notifications via email for each site and each severity level, to help you react fast.
- LOG HISTORIES FOR DEEPER ANALYSIS**
A history of system events lets you dig into issues when needed.
- REMOTE VPN ACCESS**
Access capability for maintenance teams to centralise support over several sites at once.
- EASY INTEGRATION**
Alerts from sites can be integrated into other building system and services through well documented APIs.
- IDENTIFY ISSUES**
Colour coded floorplan view of potential issues, making it simple to identify critical faults or errors.
- SAVE TIME AND MONEY ON EMERGENCY LIGHTING TESTS**
DALI emergency reports save you time and money by completing emergency lighting tests with a click of a button.
- MAXIMISE USE OF EXISTING SENSORS**
Existing lighting control sensors log occupancy data and generate insights that help you optimise space usage.
- ANIMATED OCCUPANCY HEAT MAPS**
Animated heat maps to visualise how your staff and occupants use the building.



The occupancy heatmap will allow Fastems to easily visualise how working areas are being occupied.

HELVAR INSIGHTS EXPLAINED



“ One of the smart building features of the Helvar system is that it enables us to collect occupancy data for all spaces. This helps us understand how our building is used and it’s in line with our smart building ambition. ”

KARI MELANDER - Development Director, Ramboll

HELVAR INSIGHTS PLATFORM

HELVAR **INSIGHTS** is a cloud-based solution utilising the Amazon Web Services (AWS) platform. All data is stored and analysed in AWS. Integration to third-party services is possible through API.

OPTIONAL MODULES

OPERATING INSIGHTS	OCCUPANCY INSIGHTS	WELLBEING INSIGHTS
<ul style="list-style-type: none"> • Lighting energy monitoring to allow energy optimisation • Automated lighting control optimisation for energy savings and improved comfort • Predictive maintenance insights reduce downtime • Occupancy predictions for HVAC optimisation 	<ul style="list-style-type: none"> • Understand how your space or your tenant’s space is used • Optimise your space to increase efficiency and productivity • Occupancy trends and utilisation analysis to make data-based business decisions 	<ul style="list-style-type: none"> • Monitor environmental conditions and recommend insights on how to improve wellbeing <ul style="list-style-type: none"> • Personal lighting preferences to energise and increase productivity • Integrate environmental data and insights with other systems to enhance wellbeing and efficiency

MONITORING & CONTROL INSIGHTS

(Included with all HELVAR **INSIGHTS** contracts)

- Alert functionality gives you peace of mind that your lighting is working
- Remote or local Lighting Control and optimisation save on maintenance hours
 - Emergency lighting tests increase maintenance efficiency
 - Heat maps indicate how the building is used

HELVAR LIGHTING CONTROL SOLUTIONS

HELVAR **INSIGHTS** can be connected to Helvar Lighting Control Solutions and approved third-party devices. In addition to cloud-to-cloud integration, onsite integration to the BMS is fully supported.

KEY BENEFITS OF HELVAR INSIGHTS

Whether you're an installer, a facilities manager, a building owner or a tenant, Helvar Insights is the smart choice for a data-driven space.

ARE YOU AN **INSTALLER?**

- Increase your peace of mind, save time and cut costs during warranty.
- Avoid unnecessary site visits and save valuable time with automated system monitoring and alerts, and act quickly when needed.
- Access any site remotely and securely to modify and improve your installation.

ARE YOU A **BUILDING OWNER / PROPERTY DEVELOPER?**

- Optimise building efficiency, improve maintenance operations and increase your tenants experience of the building by using Helvar Insights.
- Understand better how your tenant is using the building and make business decisions based on Helvar Occupancy Insights. Lower your energy usage and carbon footprint with Helvar Energy Insights.

ARE YOU A **FACILITY MANAGER?**

- Increase your maintenance efficiency and response times. Spend less time on site with automated system monitoring and malfunction alerts and act quickly when really needed.
- Fix faults even before your tenants notice them, increasing their perception of maintenance quality. Eliminate further unnecessary visits by controlling lighting schedules and programming remotely.
- Understand better how your building is used every day and optimise spaces with Helvar Occupancy Insights. Lower your energy usage and carbon footprint with Helvar Energy Insights.

ARE YOU A **TENANT?**

- Optimise building efficiency, increase the quality of your indoor environment and improve the experience of your most valuable asset, your employees, by using Helvar Insights.
- Understand better how your building is used every day and optimise spaces with Helvar Occupancy Insights. Lower your energy usage and carbon footprint with Helvar Energy Insights.



510 Toolbox / programming point / USB cable

Design and program autonomous lighting control systems with Toolbox, our Windows-based software.

You can download the software from helvar.com

The only extra you'll need is your programming point. The 510 interface comes complete with a 5 metre USB-A and mini USB-B cable.

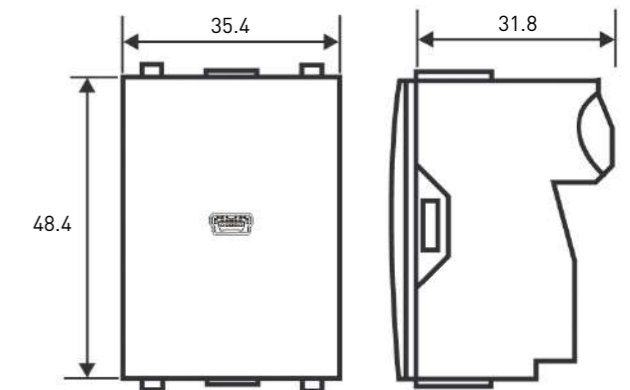


ToolBox

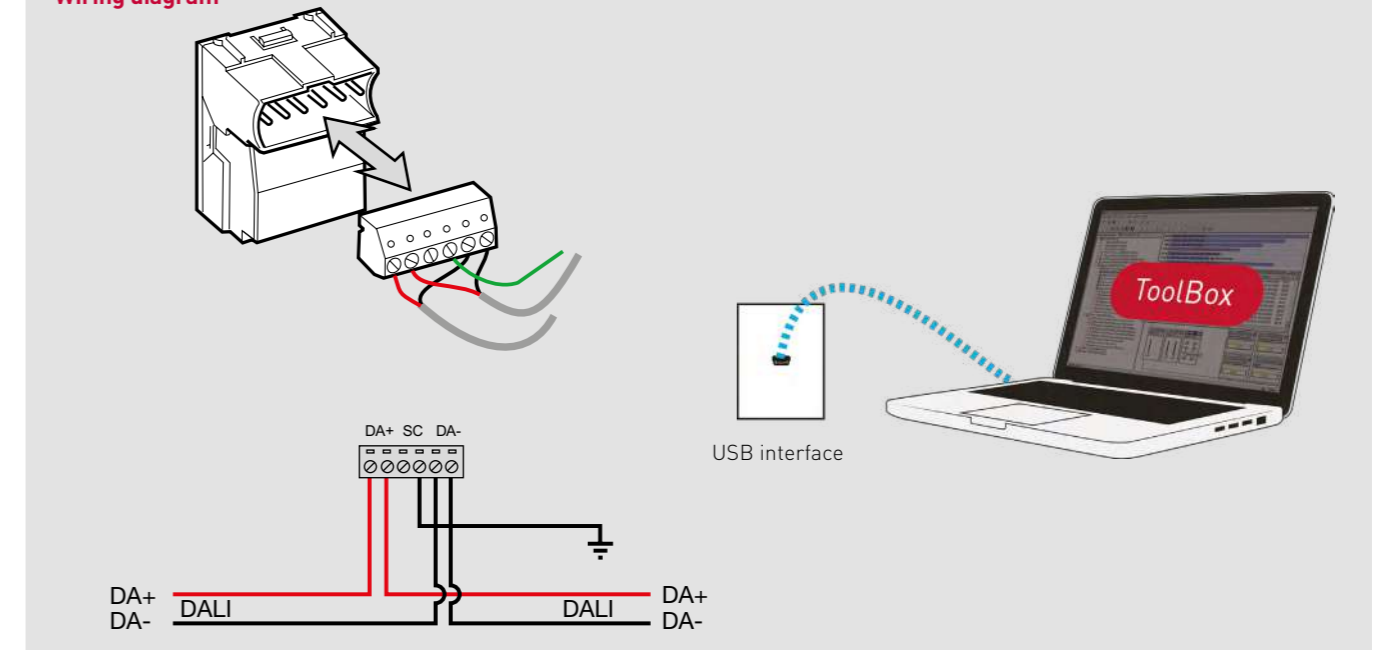
Technical data

Power consumption from the DALI bus.....	4 mA
Insulation.....	3 kV
USB Cable length.....	5 m
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP20
Number of DALI addresses.....	1

Dimensions (mm)



Wiring diagram



SceneSet

Take fingertip control of router systems through Wi-Fi on our free app.

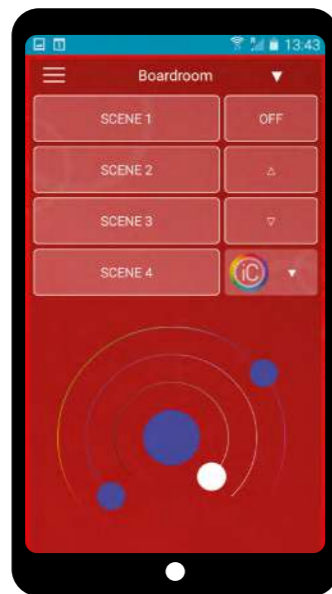
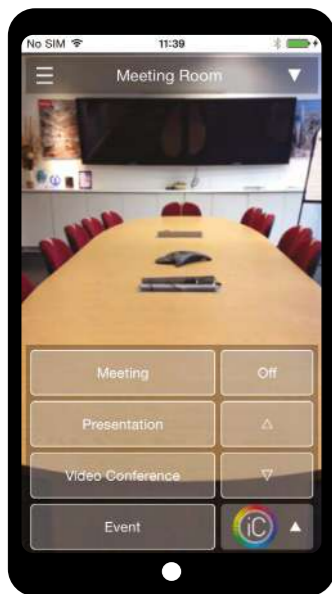
Easily modify lighting scenes. Update multiple lighting groups in one go. Even manage RGB colour and tunable white luminaires — all from this simple, customisable interface.



SceneSet for tablet devices.



SceneSet for iOS and Android.



Got the App?
Download the SceneTouch app to manage your scene controls.



Designer Software

The easy way to set up Helvar Imagine router systems. Access all your DALI lighting through the ethernet port.

Configure ballasts, LED power supplies and sensors — whatever's linked to the DALI bus.

Monitor and record system events. And keeps tabs on how everything's doing, making fault management simple.



Functions

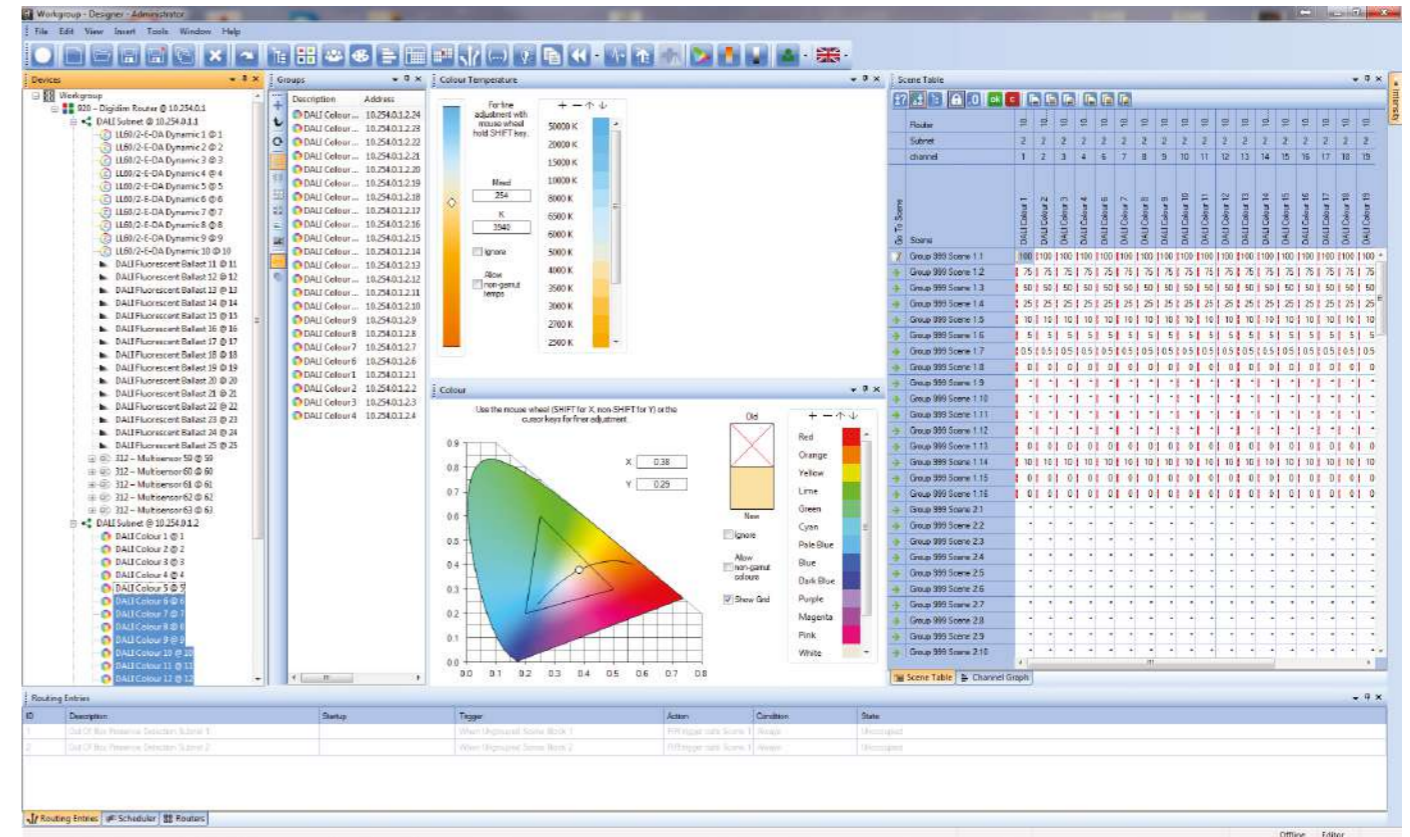
- Scenes, variable extinction times
- Schedule and logic functions
- Intelligent sensors
- Tunable white, RGB

Monitoring

- Live monitoring of scenes and lighting levels
- Error reporting and diagnostics

Integration: Ethernet I / O

- The Ethernet I / O module is a tool that allows direct access to the router's system
- Ethernet (TCP or UDP) commands can be used to control and monitor the DALI system



Niagara Tridium Driver

Our driver lets you dovetail your DALI lighting controls with building management systems. Niagara is the global standard for many installers - and thanks to our IP controller, you can work with BACnet, Modbus, LON or KNX.

Key features

- Niagara4 Framework
- Ports: 2 x Ethernet + 1 x RS232 and 1 x RS485
- Server with the possibility of visualization
- Support for open communication networks: LON, BACnet, KNX-IP, Modbus, M-bus, SNMP, Z-wave and oBIX

Technical data

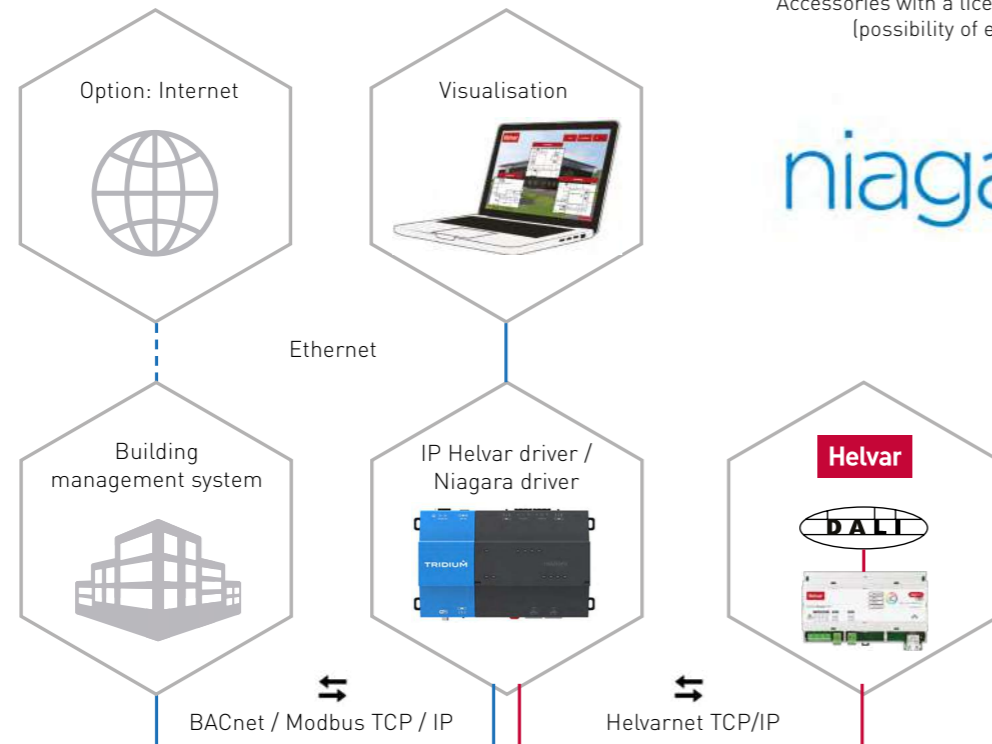
- Power supply: 90-240 VAC, 50-60 Hz
- Ambient temperature: 0°C to 50°C



Software license: 1-80 routers (possibility of extension)



Accessories with a license: 1-10 routers (possibility of extension)



Status / notification view:

- Condition of fittings and devices
- Lamp malfunction
- Ballast / LED driver fault
- No device
- Energy consumption
- Percentage of the luminaire darkening
- Sensor status (active / no movement)

Lighting control commands:

- Calling up the scene
- Percentage darkening
- Adjust / change percentages and scenes

Emergency lighting:

- Start an activity test
- Start the battery life test
- Stop testing
- Reset operating hours

Offices Statoil Headquarters, Norway

Statoil is an international energy company with operations in 36 countries around the world. Having approximately 21,000 employees worldwide and being listed on the New York and Oslo stock exchanges, in 2010 Statoil was ranked by Fortune Magazine as the world's 13th largest oil and gas company, and the largest company in the Nordic region by revenue, profit, and market capitalization.



The building is almost 70,000m² and houses around 2,500 employees across nine floors and five wings. Helvar System Partner in Norway, Vanpee Norge AS, in cooperation with luminaire manufacturer Fagerhult, have provided the lighting control to the

entire building. The new office is one of the largest DALI projects in Norway DALI. Overall the building houses almost 7,000 Helvar DALI components, ranging from the 910 routers to components which are able to control ventilation.



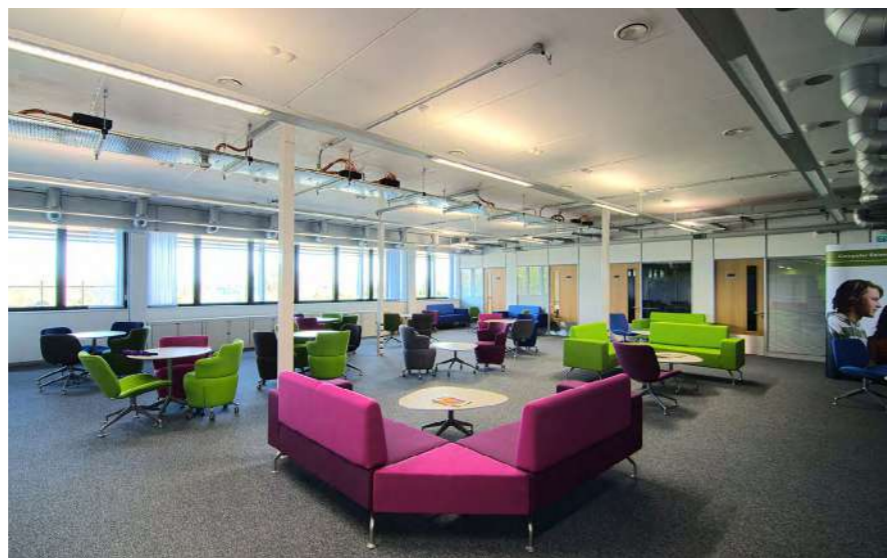
Education University of Bath, United Kingdom



As part of a wider refurbishment scheme, systems integrator FAB Controls installed a Helvar DALI control system at the University of Bath.

The project required an intuitive lighting control system that would link together the infrastructure in each building whilst also reducing the energy spend for the university, all with a single lighting control system, managed from a central location by the on-site facilities team, which covered the entire campus.

“We selected Helvar DALI because its ability to integrate with any luminaire connected to the system. In addition we required integration into the university’s audio visual system for automatic scene setting and we are delighted with the



finished system,” says Richard Hughes, Electrical Service Manager at the University. “The significant savings in energy will help us achieve our wider efficiency targets as well as saving us tens of thousands of pounds over the life of the installation.”



Healthcare Seinäjoki Central Hospital, Finland

When extensive renovation work was undertaken at Seinäjoki Central Hospital (Finland), the focus for the refresh was to promote health and wellbeing. Helvar played a key role in achieving a functional yet calming environment to help patients feel relaxed and comfortable. The lighting design is made with people in mind, to make their work easier and time in the hospital more pleasant. Helvar was able to offer innovative solutions for lighting controls, by focusing on lighting intelligence, human centric lighting and energy efficiency to create what will be the largest installation of its kind in Finland.

Lighting serves the particular needs of different departments of the hospital, such as reflective



surfaces and dim spaces, the lighting can be easily adjusted to serve them.

The new lighting is practical as it adjusts itself to the changes of natural light and is always optimal for working.



Hotels and Hospitality Marina Bay Sands, Singapore

Developed by Las Vegas Sands, it is billed as the world's most expensive standalone casino property at S\$8 billion (US\$5.7 billion). The resort features a 2,560-room hotel, 120,000m2 convention-exhibition centre, six restaurants, an art and science museum, and much more.

Supplied and commissioned by IRC Pte. Ltd, a specialist in dimming systems for more than 20 years, the Helvar system seamlessly integrates the many lighting elements to combine energy efficient lighting design with striking displays of powerful scene-setting capability across the entire resort.



Culture National Library of Finland



The beautiful national library of Finland, located in the heart of Helsinki city centre, was carefully renovated and re-opened its doors in early 2016.

The national library, which is the oldest and largest scholarly library in Finland, was looking for a lighting system that could be individually and flexibly controlled as the need for light changes frequently. Brighter, focused lighting was needed for book sales and fairs, while other areas are lit according to normal daily lighting needs. DALI lighting system was chosen for this job due to its capabilities in fulfilling the varied requirements.

Jukka Riikkula, Helvar Country Manager for Finland comments:

"Having control over this size of a lighting system means that the National Library has complete confidence in its ability to change the lighting scenes. By using Helvar, we estimate that the library has saved 70-80% of its energy used in lighting."



Marine Royal Caribbean Symphony of the Seas

The Royal Caribbean's MS Symphony of the Seas is the largest ever passenger ship to be constructed by gross tonnage (228,081). Measuring 1,188 (362m) feet in length she is about five times the size of the infamous Titanic.

One of Helvar's marine partners won the project to deliver all lighting design and lighting integration. "We have been working with Helvar for 26 years now and delivered multiple large-scale cruise ships. The Symphony of the Seas is the largest cruise ship in the world today and decision to use Helvar lighting controls was an easy one - they are our trusted partner. Large scale projects like these require close collaboration and high



quality, that's where Helvar fits in," says Andreas Köhler from Wärtsilä FUNA.

The ship offers a range of different settings and experiences for guests in its seven neighbourhoods, each designed with unique features to suit different moods and appetites. As such a lighting system had to be able to deliver a sophisticated integrated solution to adapt to the varied lighting needs of a vessel of such vast proportions.

The vast lighting system includes:

- 80 x DIGIDIM dimmers,
- 270 x 4-Ch. Ballast Controllers,
- dimmers for 49 suites,
- 120 x 8-Ch. Relay Unit,
- 36 x Helvar Imagine Routers,
- 40 x 8 Scene Lighting Control Panels,
- 72 x 4 Scene Lighting Control Panels.

Retail Niketown, London

Nike has recently reopened its flagship Niketown store on Oxford Circus in London following an extensive redevelopment. Helvar lighting control has been used across the reportedly largest Nike store in the world to deliver a creative and inspiring shopping environment.

Niketown covers approximately 3,900m2 over four floors, offering a range of services and experiences.

The refurbishment forms part of a series of planned new store openings across the UK, designed to provide a 'premium experience' across the company's key sports categories.

As well as decorative lighting for retail sales areas, the



store incorporates a 'service professionals' zone where one-to-one advice is given to customers whose sporting action can be filmed, in order to match them precisely to the right products.



Industrial Hartmann International, Germany

Logistics company Hartmann International takes its environmental responsibilities seriously. They were looking for optimal lighting with maximum energy efficiency in their warehouses, offices and loading bays across a total area of 40,000 m².

We divided the areas so lighting could all be controlled individually, using nine Helvar routers.

Sensors detected activity and respond using programmed patterns.

The corridors along the high storage shelves can extend up to 60 meters in length and are only lit up when people or vehicles pass by. We used our High-Bay PIR motion detectors, which detect motion at heights of up to 15 meters.

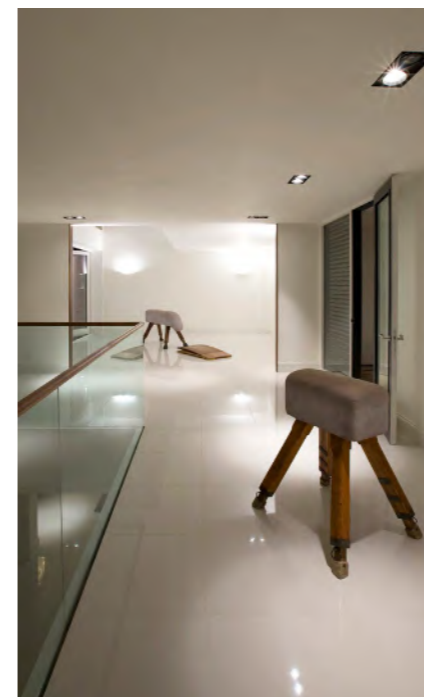
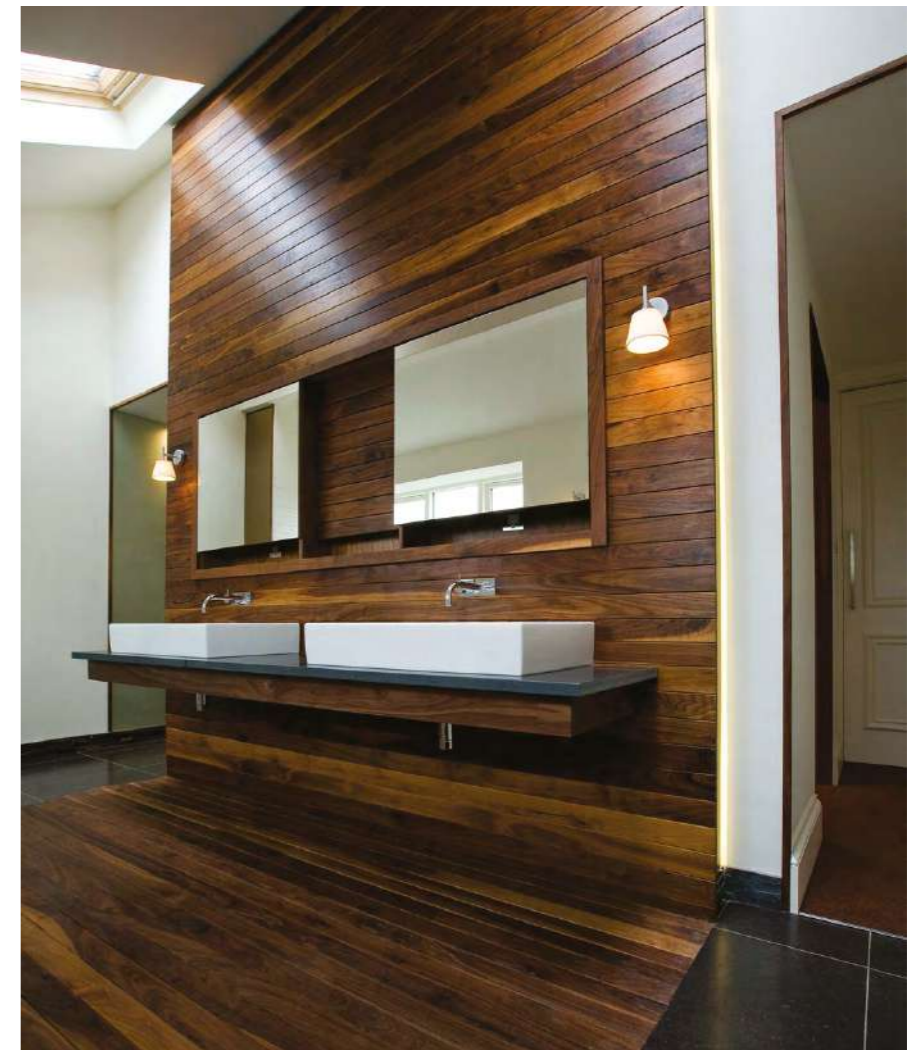
"The lighting project at the Paderborn head office is a complete success", says Andreas Hartmann, managing partner of Hartmann International GmbH & Co. KG. "Energy savings of up to 75% and optimum illumination is a result that has exceeded our expectations."



Residential Zero 4, Harrogate

"There are 31 Helvar multi-sensors in total spanning the substantial five bedroom property. Each one incorporates a constant light and PIR sensor to fulfil two key aspects of the lighting management; our brief outlined a desire for the home to omit no waste and the sensors proactively adjust lighting levels to achieve the architect, Larock's wishes" says Kris Hogg, the Managing Director of Konnectiv Technology.

Konnectiv employed PIR sensors which work on an absence/presence basis, so if a room is vacated and the lights are left on, the multi-sensors will recognise this and automatically generate a command to disengage the light in that room. The constant light aspect of the system also monitors the lux level and automatically adjusts to maintain a set level of light across the property.



Transport Istanbul Airport, Turkey

Istanbul's New Airport has been designed to create a unique, spacious and environmentally friendly environment for its estimated 200 million passing passengers. The design and inspiration of the architecture has been drawn from its surrounding influences of Turkish-Islamic culture and heritage.

Istanbul's new airport is supported with a fully automated DALI lighting control system by Helvar using the DALI standard (EN32386) lighting protocol.

Using Helvar's two standard open protocols such as DALI and TCP/IP, Helvar can communicate with DALI luminaires, sensor and control panels via automation cable, saving a considerable amount of installation and commissioning time. The lighting controls at

the airport are monitored via a BMS system which measures the energy efficiency of Helvar's lighting system, and highlights lighting faults in real time to ensure maximum uptime.

With an area as large as this, it was vital for the team to be able to

monitor and reduce energy usage as much as possible, so additional features such as daylight harvesting are in place to ensure that lights are not in use when the right level of natural light is available.



Notes

Horizontal lines for taking notes.

Helvar Imagine
Helvar ActiveAhead
Helvar RoomSet
Helvar Insights

digidim



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Front cover image: Statoil HQ, Norway

Helvar