

Lighting
Intelligence
Catalogue

Helvar



Hello. We are Helvar.

At Helvar, we create Brighter Spaces.

We believe buildings need to be in tune with the people who use them — they're the ones who really matter.

Think about it. Where you work, learn, or relax, the place you're in makes a difference. Whether enhancing wellbeing, boosting productivity, or just making you feel good.

Helvar solutions create smart environments built for the future, using information, and working seamlessly with other systems. Brighter Spaces that are intelligent, designed to save energy, and optimise the space to fit individual needs.

Well-designed that spaces behave intuitively, discover preferences and adapt over their lifetime. By using artificial intelligence and machine learning we make buildings that think and remember.

So, when someone asks what it is Helvar does, you could say we make lighting controls. That's true, but it's just the start.

Because at Helvar, we turn everyday places into Brighter Spaces.



Contents

4	Company Introduction
6	Our Applications
14	Our Solutions

Helvar Solutions

16	RoomSet
22	ActiveAhead
26	Digidim
30	Imagine
37	Typical Application Examples

Components

44	Power Supply
46	Routers
49	Repeaters
52	SceneTouch
53	BACnet
54	Helvar Cloud Gateway
56	Sensors
70	EnOcean
72	Panels
78	Input Units
81	Switch Interfaces
82	Blinds Controllers
83	Relay Units
88	Dimmers
94	Convertors
97	AV Interfaces
98	Remotes
99	EasySwitch
103	Monitoring & Maintenance
107	Software
110	Niagara Tridium

Case Studies

111	Our Reference Case Studies
-----	----------------------------

A proud history in Lighting

We create intelligent and energy-saving lighting solutions.

That's because light is essential to life. And using light well is essential to the wellbeing of employees, customers, visitors, patients... It's crucial for companies too — saving large amounts of money and helping you to do more.

Today we are one of the most successful lighting systems companies. Our headquarters are in Helsinki, Finland. But through our international offices and a global partner network, we help clients in more than 40 countries.

Our products are regarded as best-in-class for reliability, compatability and versatility. With an extensive selection of advanced lighting components and systems, we're unmatched when it comes to saving energy and enhancing comfort and mood.

As an independent and respected innovator, we have the knowledge and equipment to help luminaire manufacturers and lighting designers make the right choices in this fast-changing market.



98 years of innovations and leadership

Helvar was founded in Helsinki on 28th December 1921 to handle import and export between Finland (Helsinki) and Poland (Warsaw). From the 1920's onwards, we were one of the Finnish radio pioneers, later also TV sets were added to product portfolio. In the 1950's we started producing magnetic ballasts for fluorescent lamps. Since the 1970's we have been concentrating on lighting components and lighting systems.

Today, Helvar is one of Europe's most significant companies in its field being able to combine expertise in ballasts and lighting control in a unique way, due to its ambition to produce innovative sustainable products and solutions.

Its headquarters are located in Finland, as are the company's luminaire component development and own manufacturing operations. The lighting system competence centre is located in London.

Internationality and exports have been the cornerstones of Helvar since the very beginning, and 97% of today's sales are outside Finland.

In spite of impressive growth and technological development, the company still has its original "Helvar spirit" – strong local pride, customer closeness, hardworking attitude and first class industrial know-how.



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

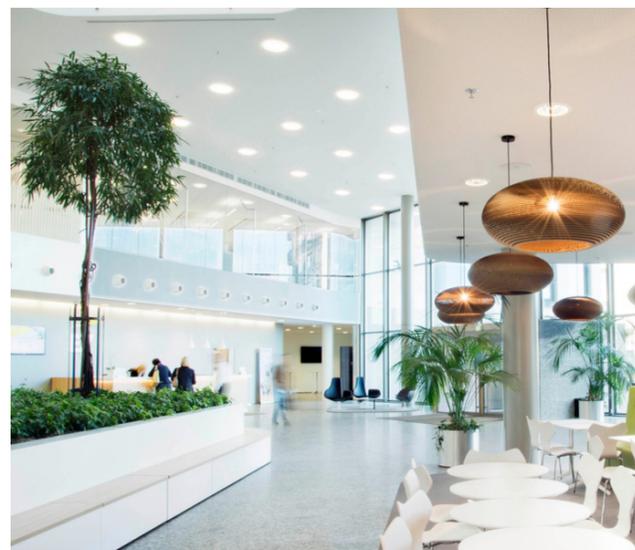
- Colour temperature and intensity change through the day, reflecting natural circadian rhythms.
- Room lights automatically switch on as you enter: useful when carrying files and a laptop.

Key Helvar Solutions

ActiveAhead An adaptable, easy and energy-saving solution for simple office spaces

RoomSet Smart lighting controls for repeatable office rooms

Imagine A lighting management solution with great integration possibilities, which also aids users circadian rhythms via the Light-Over-Time profiles.





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

- ActiveAhead** An adaptable, easy and energy-saving solution ideal for spaces such as corridors and libraries
- RoomSet** Smart lighting controls for repeatable classrooms
- 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 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

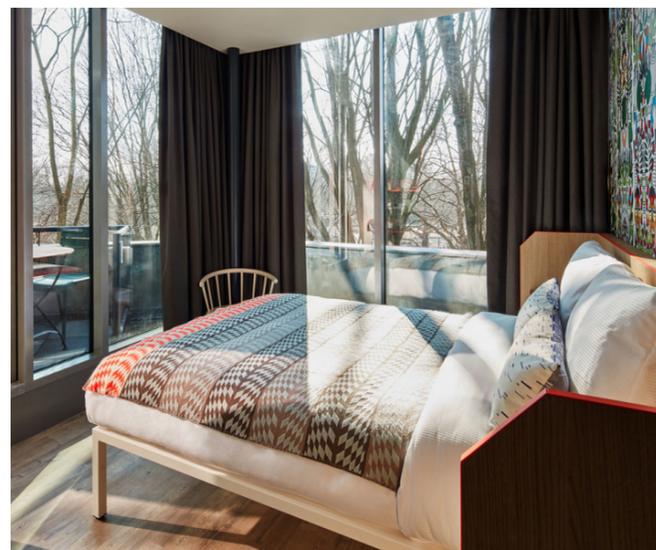
- We can combine vintage luminaires with the latest lighting control technology to create a contemporary and stylish atmosphere.

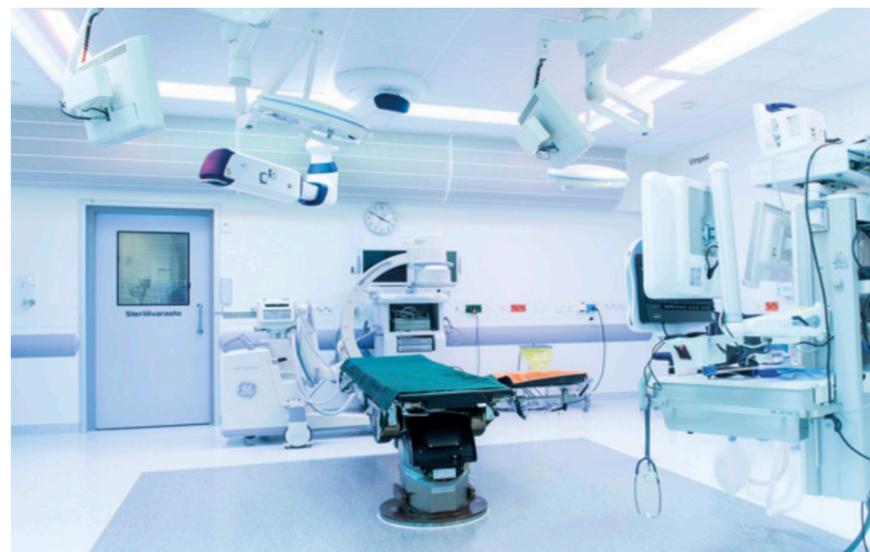
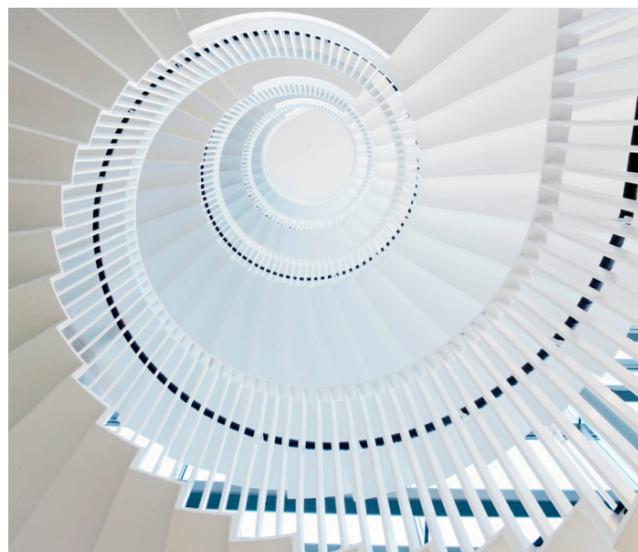
Key Helvar Solutions

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

RoomSet Smart lighting controls for repeatable hotel rooms

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





Helvar in Healthcare

Light helps to heal body and soul. By putting people first, we lead the world in dynamic lighting. Based on people's natural circadian rhythms, Helvar lighting controls respond to the seasons and local environment. For surroundings that simply feel better. When lighting control feels this natural, you'll forget that it's there. Saving energy for your patients and people. And meaning everyone can focus on being well.

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

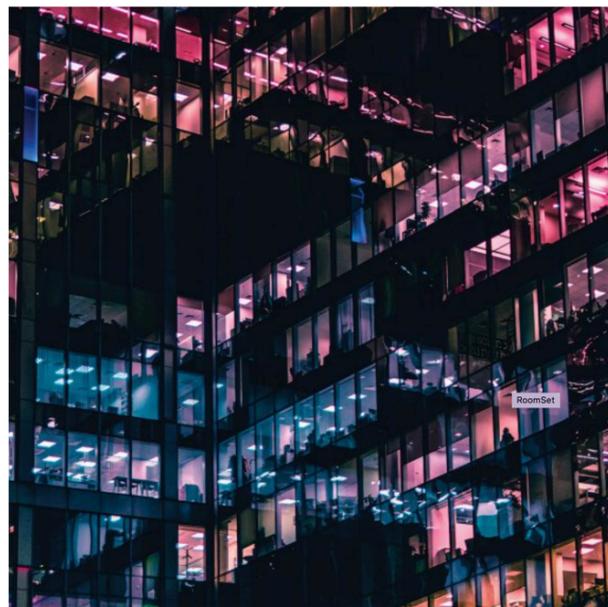
- ActiveAhead** An adaptable, easy and energy-saving solution ideal for spaces such as corridors, wings and entrances
- RoomSet** Smart lighting controls for repeatable wards
- Imagine** This dynamic solution is people-centric, enabling a functioning environment which helps patients feel relaxed and comfortable, aiding wellbeing and also providing the right light levels at the right time

Helvar 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.

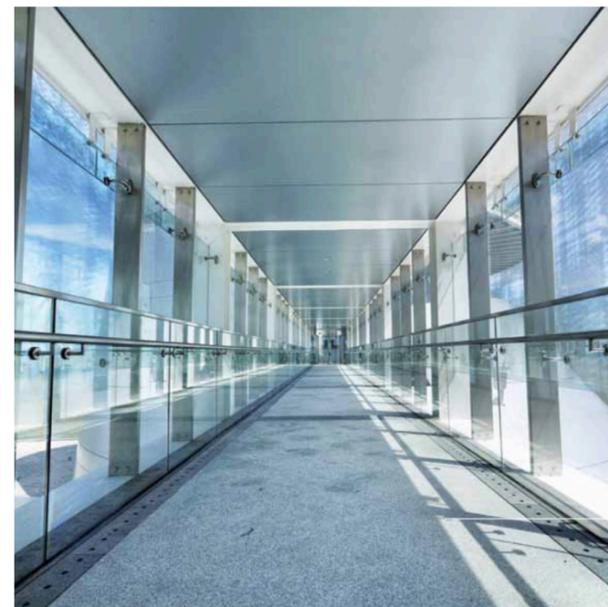
Do you want lighting control for a campus, across an entire building, a whole floor, one room, or even a cruise liner? That's the first question we ask.



Repeatable rooms.

RoomSet

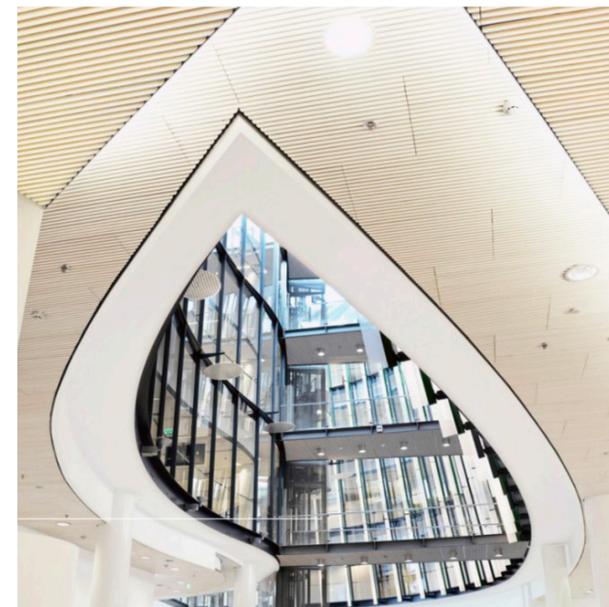
- Drag, drop and repeat without a laptop
- Works straight out of the box
- Super simple set-up
- User friendly Bluetooth app, making even the largest of projects quick



Predictive lighting

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



Complex site lighting controls.

Imagine

- The ultimate brighter space design
- Super-flexible — from single rooms to megastructures
- Realtime energy monitoring and app-based fine-tuning
- Bespoke automation, transitions and scenes



All (or part) of a floor.

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

RoomSet

The lighting solution
for repeatable offices
and classrooms

Operated via an intuitive app and works straight out of the box.

Easy installation, truly scalable and cost effective.

Turning everyday places into Brighter Spaces

THE BENEFITS - RoomSet



EASY INSTALLATION

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



COST EFFECTIVE

For commissioning large numbers of rooms, the RoomSet app allows copying room layouts, thus making the commissioning process faster and consequently more cost-effective.



SCALABLE

With 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 more simple.

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.

Configure quicker with RoomSet

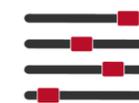
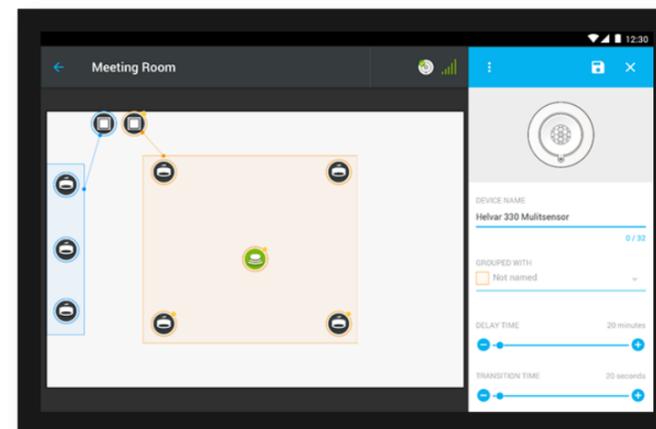
- Bluetooth solution with drag and drop interface
- Fast repeatable room configuration
- Next generation 331 Multisensor
- Works with DALI equipped luminaires
- Future-proof investment with wireless software updates

Turning everyday places
into Brighter Spaces

THE PERFECT ROOM SOLUTION

The installation and configuration of the 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 sensor. The sensor connects wirelessly via Bluetooth to a user-friendly 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



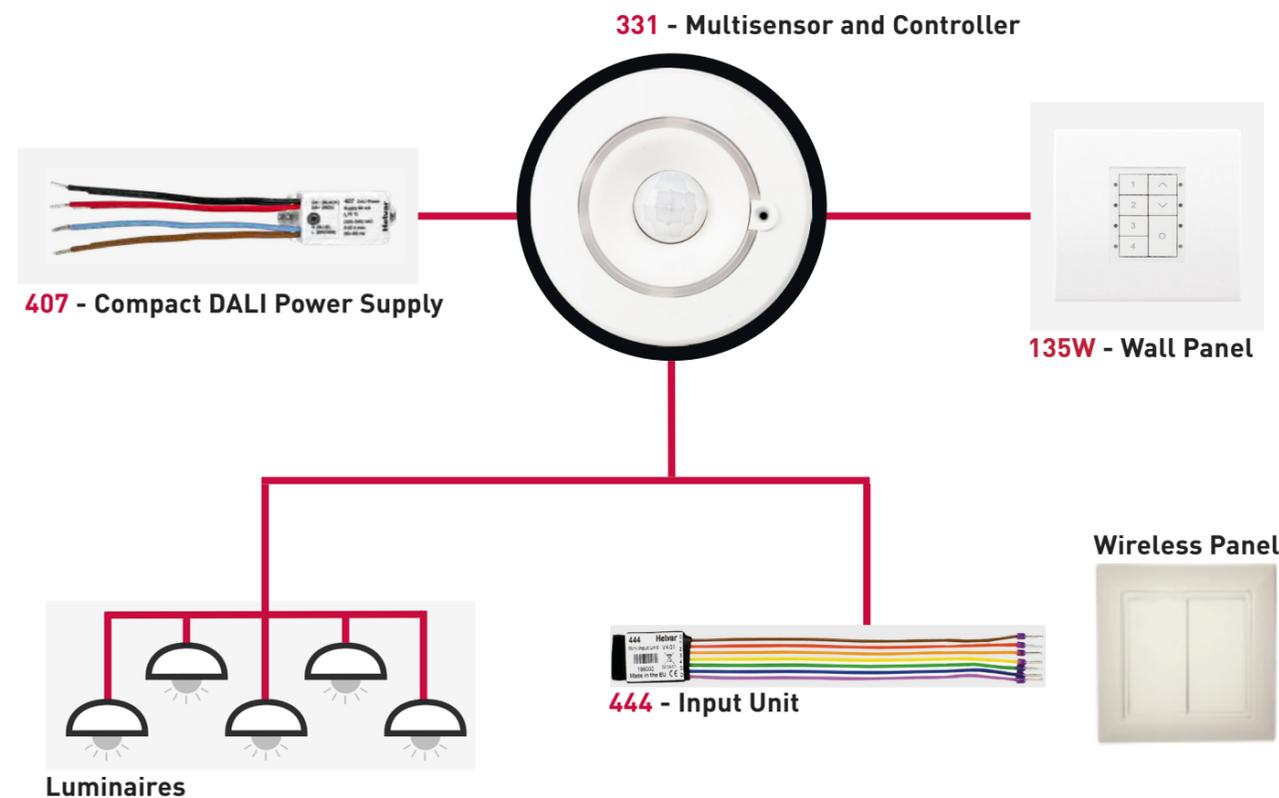
3 IN 1

Easy installation & set-up

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

3-in-1 Package

- 331 Multisensor
- 407 DALI Power Supply
- Wall Panel or 444 Input Unit





RETROFIT

RoomSet Standard

Perfect for retrofit arrangements. Make use of a room's existing wall panel with our DALI compatible power supply and input unit.

- 331** Multisensor for RoomSet
- + **407** Compact DALI power supply
- + **444** Mini Input Unit



NEW INSTALLATION

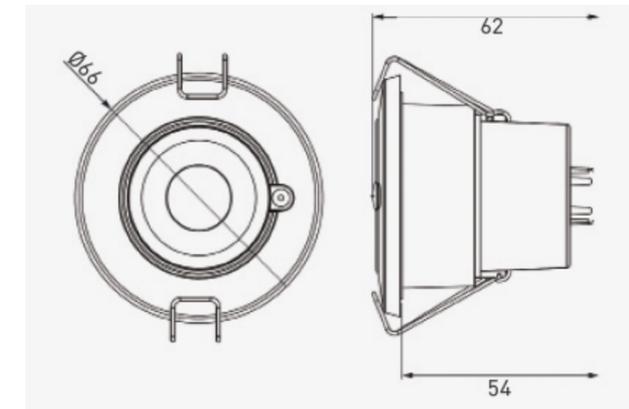
RoomSet with Scenes

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

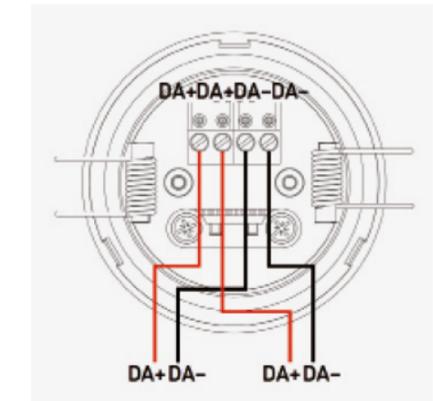
- 331** Multisensor for RoomSet
- + **407** Compact DALI power supply
- + **135W** wall panel
- + **230S** panel frame kit



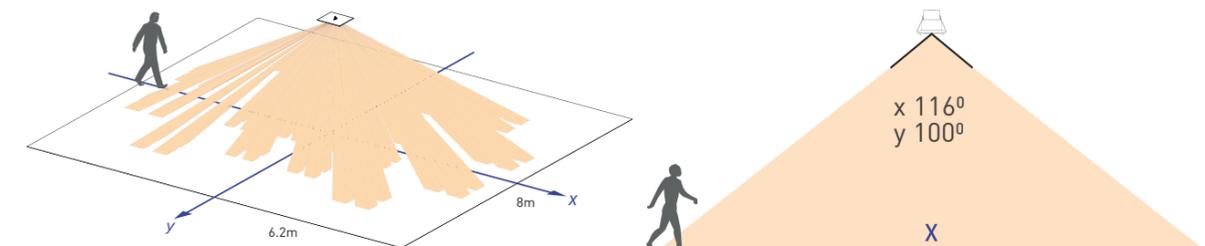
Dimensions (mm)



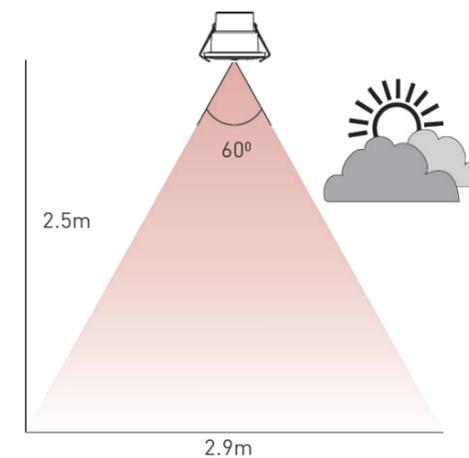
Connections



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
- A typical 15 mA DALI current consumption
- Easily incorporated into RoomSet system/app.
- Simple "Over the Air" system upgrades with RoomSet
- Modern, compact and functional design

With you all the way **ActiveAhead** Predictive Lighting

ActiveAhead is a new kind of lighting solution.

It doesn't need to be programmed. Instead, it learns by itself from day one.

The system communicates and predicts where light is needed next, saving energy, effort and costs.

Now, that's a forward thinking solution.

THE BENEFITS - ActiveAhead



PREDICTIVE LIGHTING

ActiveAhead devices learn the movement patterns in the space they are installed and use those patterns to adjust the luminaire operations to offer an unobtrusive experience. ActiveAhead easily adapts to possible changes, such as, a wall installation or removal. Being one step ahead of you means you will never enter a dark space again.



SIMPLE INSTALLATION

Luminaires fitted with 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 ActiveAhead mobile app.



SMART ENERGY SAVINGS

Compared to a simple switched luminaire, ActiveAhead takes comfort to a totally new level while offering substantial energy savings. In addition to increasing the lights in a predictive manner, it also dims them down in a smart way depending on the actual space usage.



ENHANCED COMFORT

An ActiveAhead device starts learning the moment it is powered up. It is likely that the device will learn the first patterns within a couple of days depending on the actual space usage.

CHOOSING YOUR SETUP

Choosing the right setup for your project is easy. Based on the space and luminaire types, select the Control Unit and the corresponding suitable LED driver. Then simply pick the sensor and a possible holder to 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 ActiveAhead mobile app.

1
↓

Choose your Control Unit: Standard, or DALI

5605 ActiveAhead Control Unit



OR

5606 ActiveAhead Control Unit DALI



Based on your Control Unit choice, choose the corresponding driver: ActiveAhead compliant or DALI

ActiveAhead compatible LED Drivers



Note: The ActiveAhead driver only works with the 5605 standard Control Unit

OR

DALI LED Drivers



Note: The DALI driver only works with the 5606 Control Unit DALI

2
↓

Choose your sensor: Indoor or Outdoor

3020 ActiveAhead Indoor Sensor



- Fits inside the light fitting
- No need for its own power supply

OR

3022 ActiveAhead Outdoor Sensor

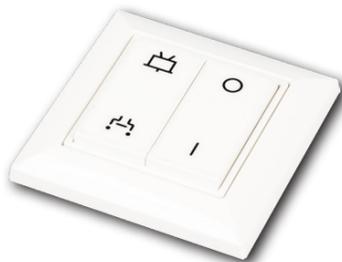


- Batten mounted IP65 sensor
- No need for its own power supply

3
↓

OPTIONAL - Select your Wall Panel

185W Wireless Control Panel



Sensor Holders

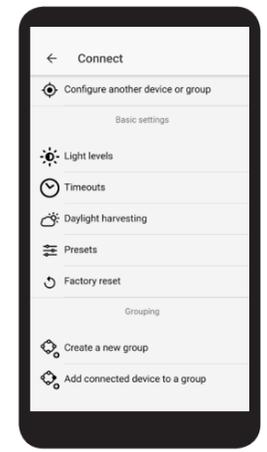
3098 Circular Holder



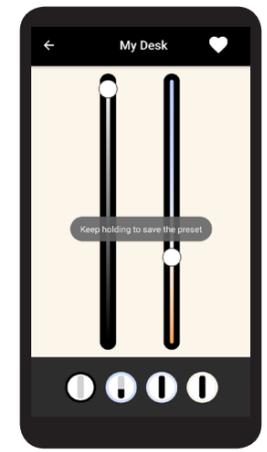
3099 Rectangular Holder



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

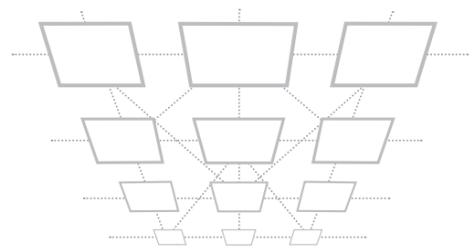


ActiveTune™
With Helvar ActiveTune™ you can tune the light settings at your desk using your mobile phone.



Bluetooth Mesh Network

Control Units connect through a Bluetooth based 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 one another.



Helvar

DIGIDIM. Flexible & programmable lighting solutions

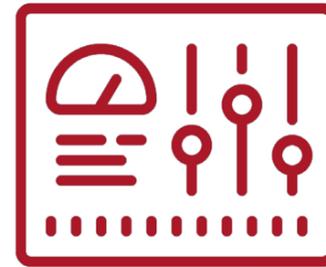
As a programmable DALI lighting system, DIGIDIM offers flexibility in the design of modern lighting solutions.

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

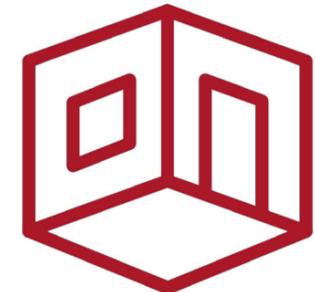
Helvar

THE BENEFITS - 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

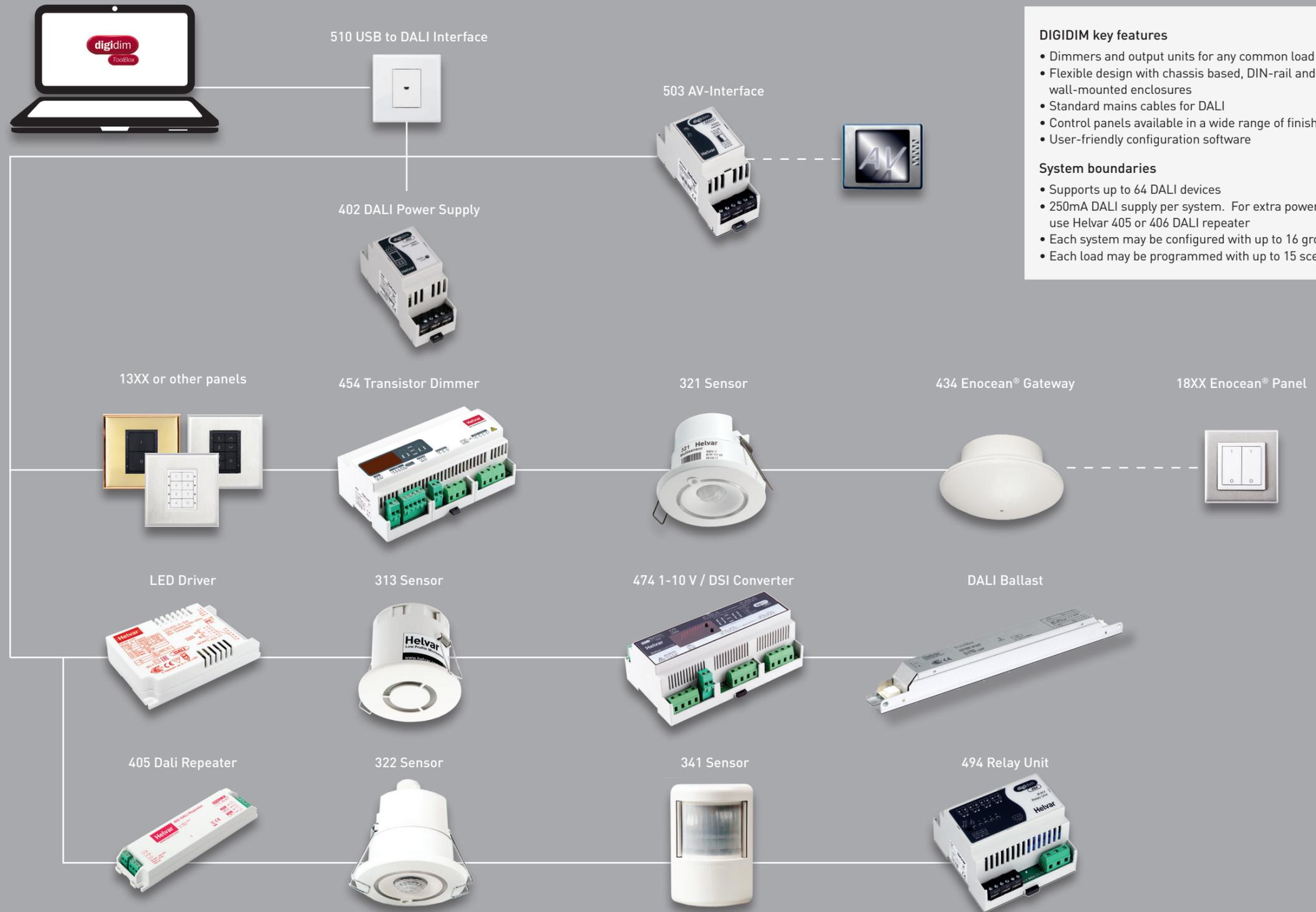
Create smart scenes beyond lighting by incorporating other room systems such as AV and blinds

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

Imagine. The paramount of intelligent lighting controls.

Imagine provides the ultimate flexibility in delivering intelligent lighting control solutions for a wide variety of applications, ranging from energy efficient commercial lighting to state of the art architectural lighting applications.

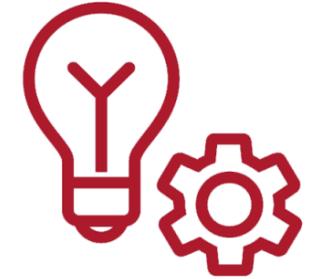
**Turning everyday places
into Brighter Spaces**

THE BENEFITS - Imagine



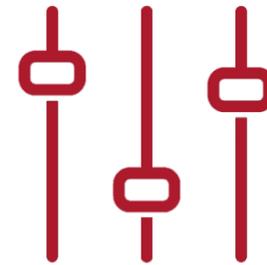
ENERGY EFFICIENCY AND COMFORT

Benefit from smart energy saving features such as presence detection and daylight harvesting whilst also enhancing the Well being of space with tuneable white control and bio dynamic rhythms.



INTEGRATION WITH BMS AND DIGITAL SERVICES

Openness and easy integration are key factors of a modern intelligent building. The imagine system supports most standard protocols in a building as well as open APIs for digital cloud services.



HAVE COMPLETE CONTROL

Whether your requirements are for full automation via sensors and schedules or easy to use interfaces via buttons, apps or web interfaces. Imagines' wide range of control options gives users complete control of their system.



SIMPLE, FLEXIBLE AND SCALABLE

The Router is the heart of the 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. Lighting and system devices, such as sensors and button panels, can be connected on the same DALI network making installation simple, quick and easy.

Imagine

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

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

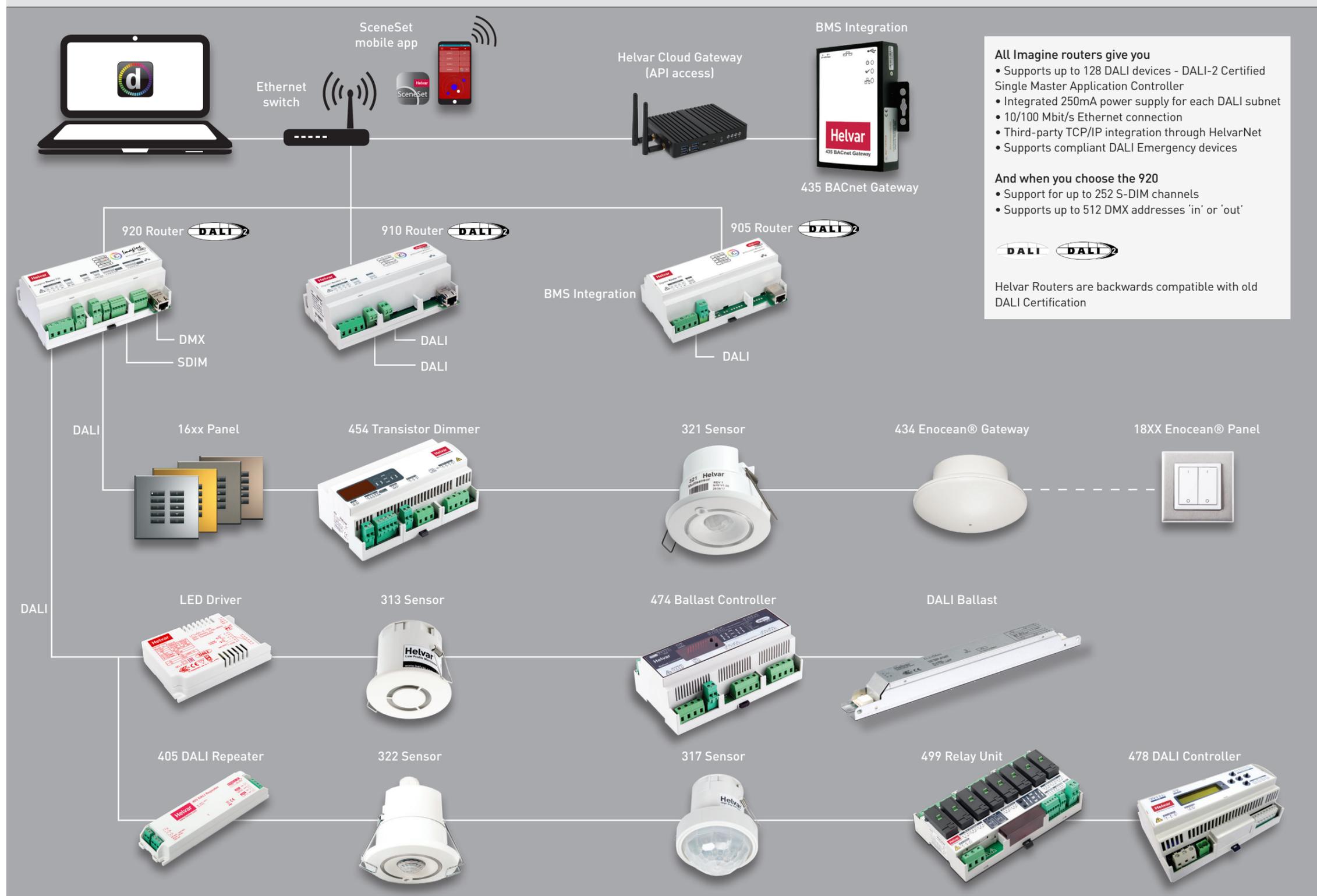
Each individual router can provide a maximum of two powered DALI subnets supporting up to 128 DALI devices.

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 Imagine system is compatible with a wider selection of components



All Imagine routers give you

- Supports up to 128 DALI devices - DALI-2 Certified Single Master Application Controller
- Integrated 250mA power supply for each DALI subnet
- 10/100 Mbit/s Ethernet connection
- Third-party TCP/IP integration through HelvarNet
- Supports compliant DALI Emergency devices

And when you choose the 920

- Support for up to 252 S-DIM channels
- Supports up to 512 DMX addresses 'in' or 'out'

DALI DALI-2

Helvar Routers are backwards compatible with old DALI Certification

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.

However, the correct integration of the lighting control system with the

building management system guarantees the smooth operation of the lighting installation.

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



Building management system



Integration of open protocols such as DALI, DMX, Modbus, BACnet, Ethernet is possible thanks to Helvar's membership in the DiiA Group and cooperation with the Niagara AX Tridium platform. It gives our clients a huge freedom to integrate different systems in an intelligent way.



Helvar IP driver

BMS BACnet Gateway 435



Network switch

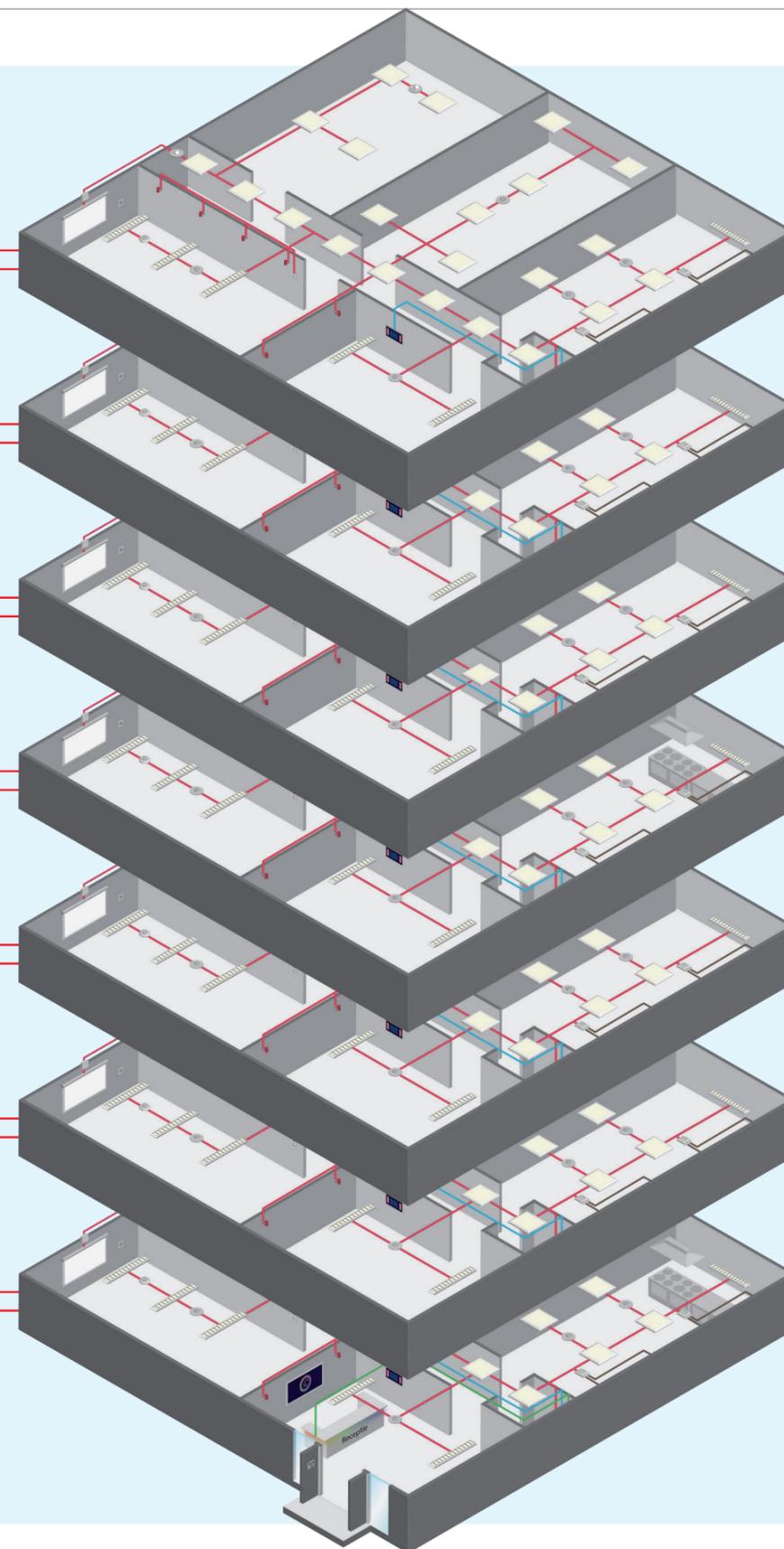


AV Integration



Helvar Cloud Gateway (API access)

DALI routers



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

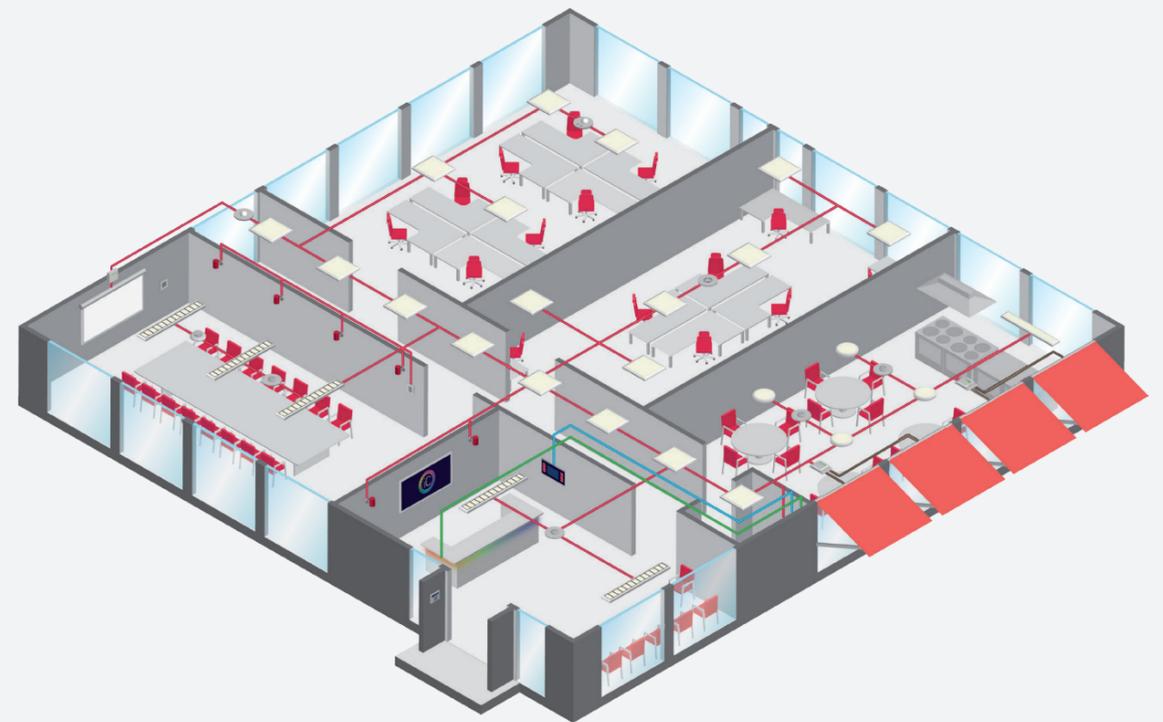


Heathcare

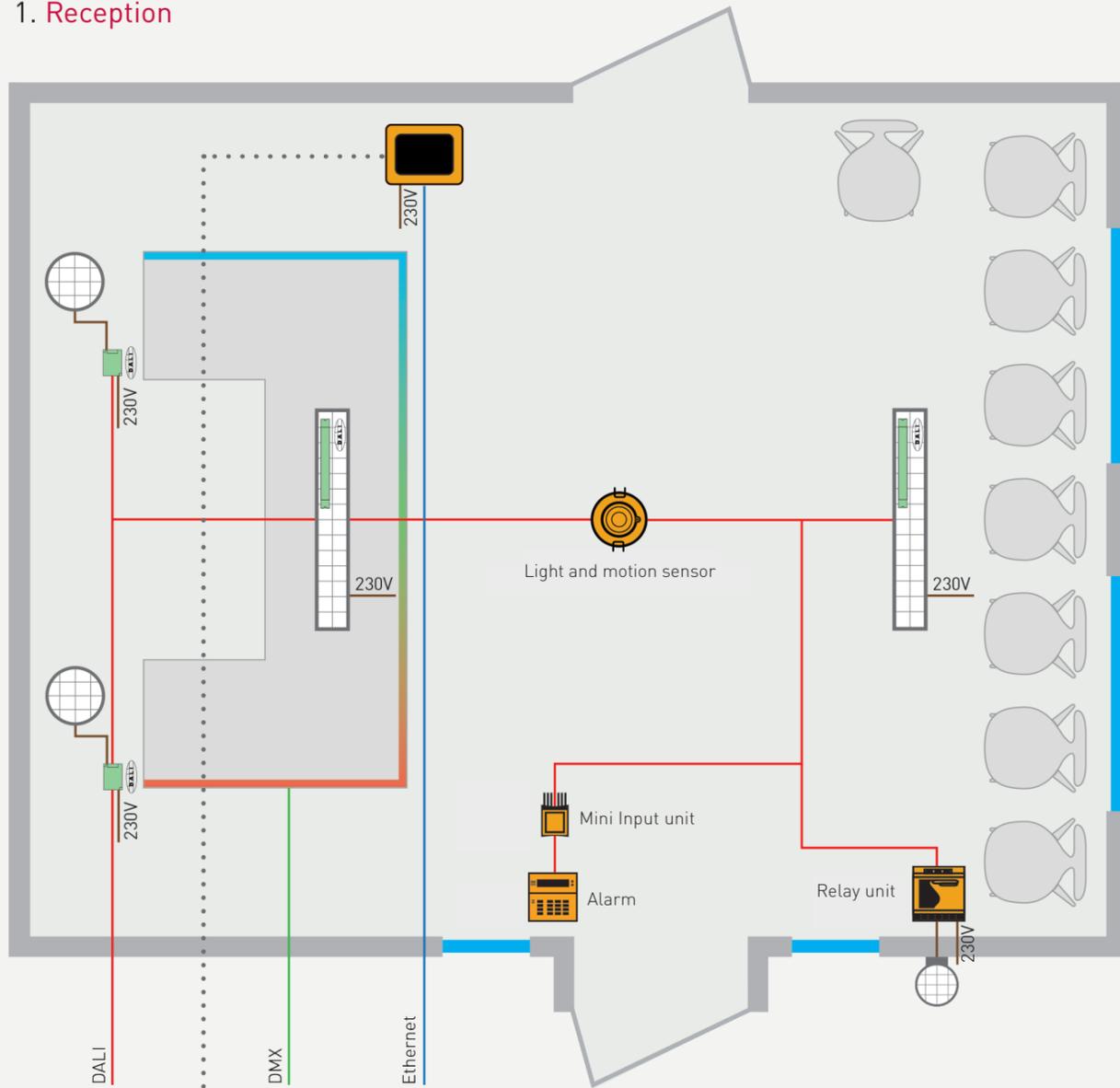
TYPICAL APPLICATIONS

Building spaces

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

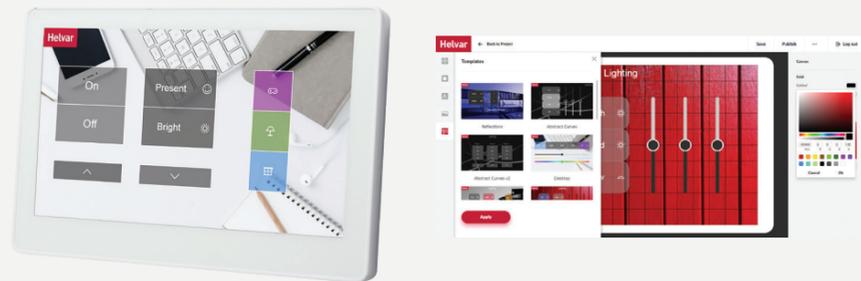


1. Reception

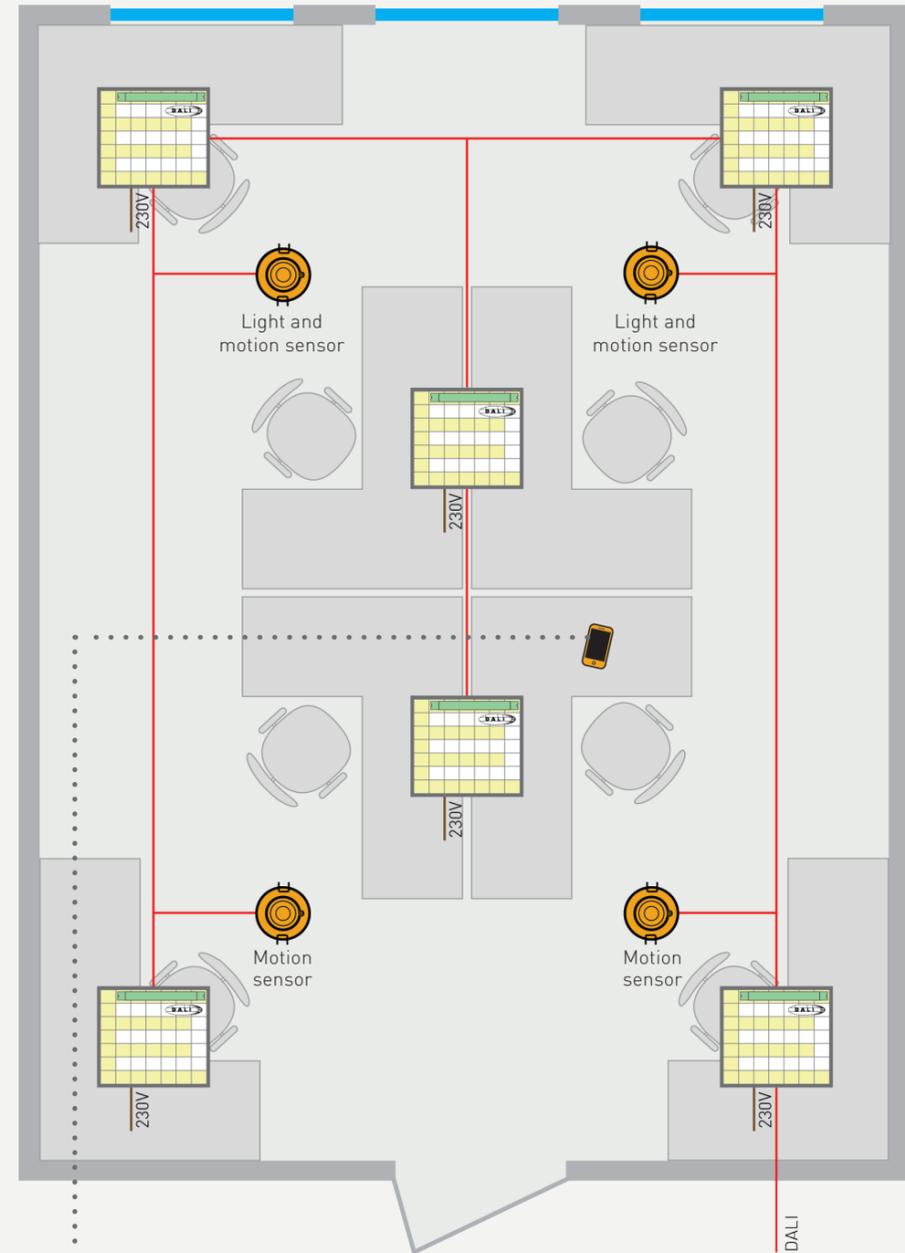


Visualisation

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



2. Office

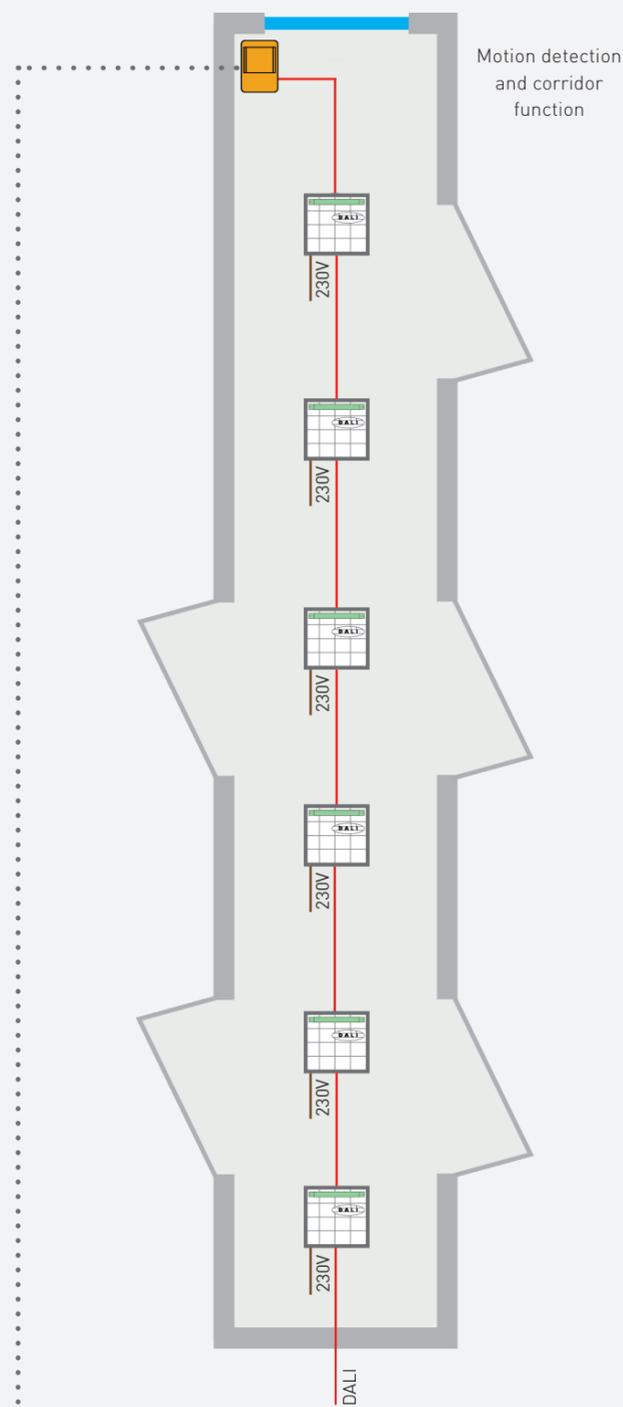


Sceneset

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.



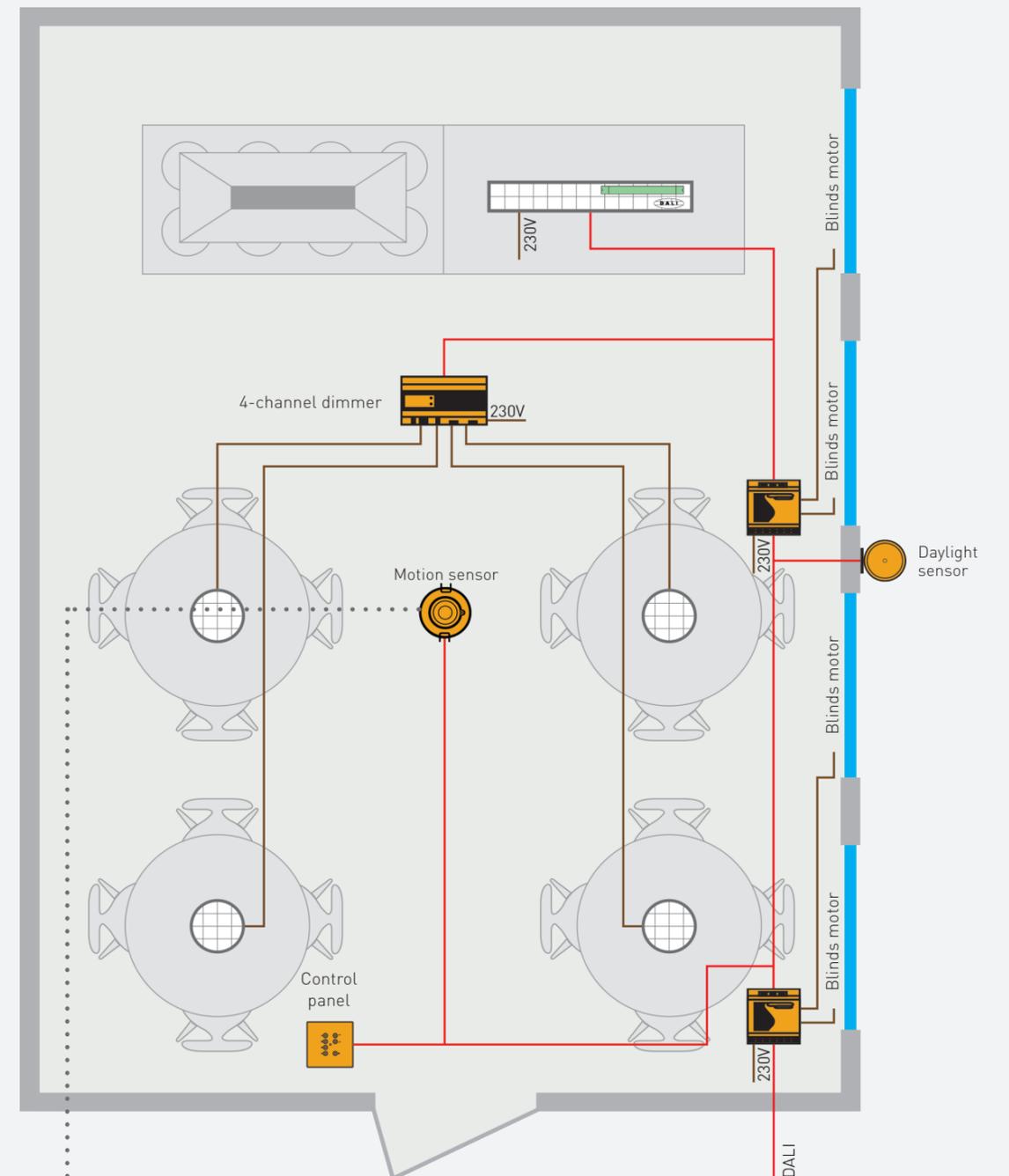
3. Corridor



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

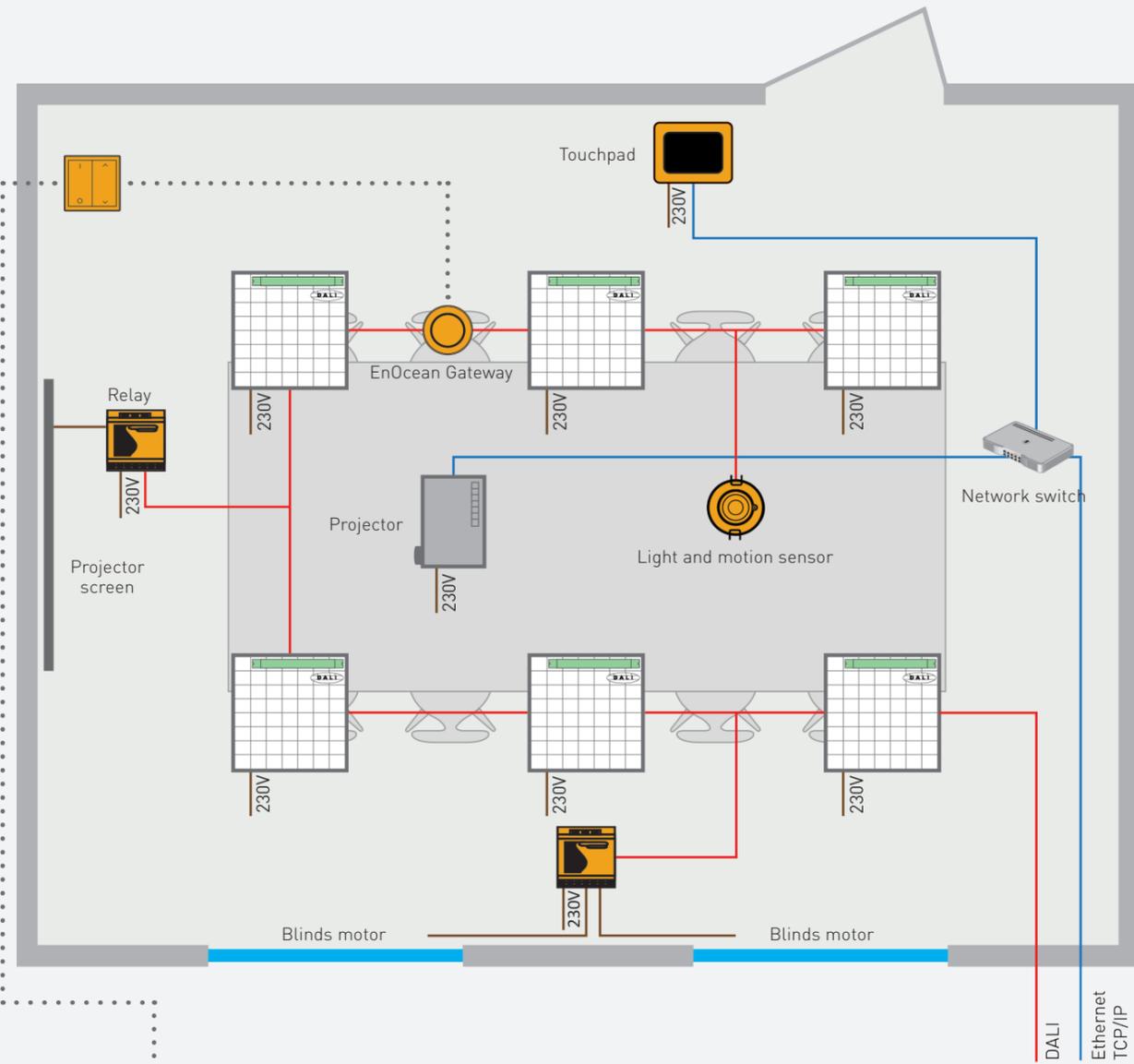


Timer control

Save 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.

Schedule	Description	Trigger	Action	Condition	State
1. Weekend		At 03:00:00	Disables Daylight Saving	Weekend	At 03:00:00
1. Zometijd		At 02:00:00	Enables Daylight Saving	Zometijd	At 02:00:00
Auto aan		At Sunrise	Call Group 7 Scene 1.6	Always	Less than 12 hours remaining
Auto trapenhuis 1		At Sunrise	Call Group 8 Scene 1.5	Always	At Sunrise
Auto trapenhuis 2		At Sunrise	Call Group 8 Scene 1.2	Always	Less than 12 hours remaining
Auto uit		At Sunrise	Call Group 7 Scene 1.15	Always	At Sunrise

5. Conference room



ENOCEAN

Wireless connector

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



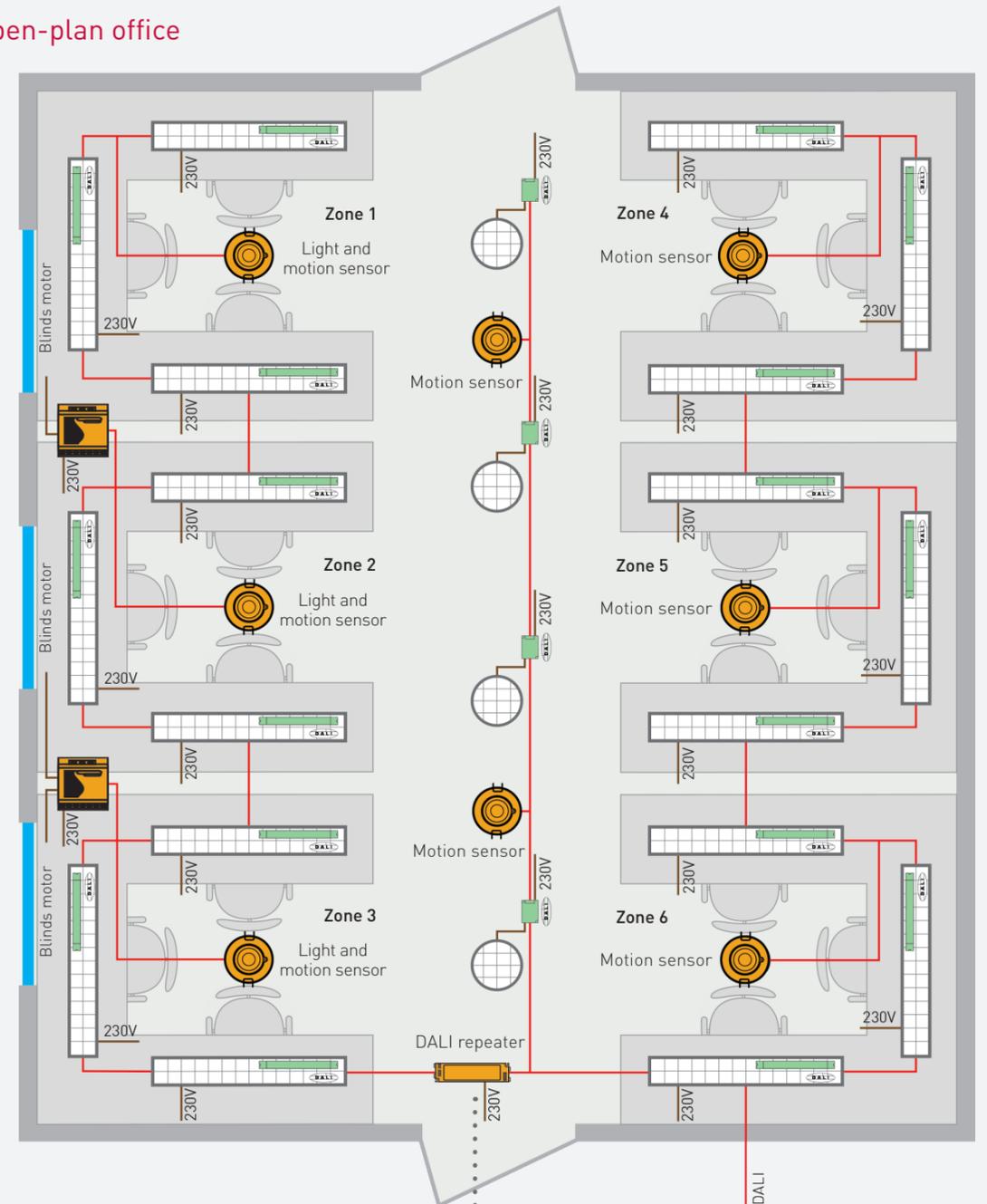
EnOcean Gateway



Wall panels

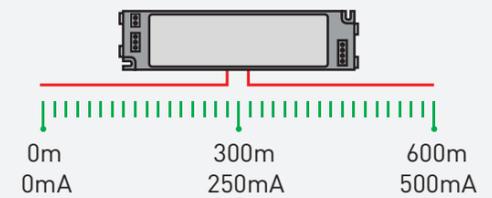


6. Open-plan office



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 DIGIDIM 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

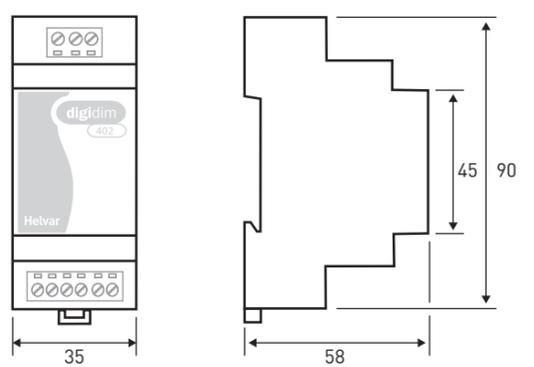
- Supplies power to a DIGIDIM system up to a maximum of 250 mA
- DALI short circuit protected
- DALI status LED
- Universal voltage supply



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.....	30
Number of DALI addresses.....	0

Dimensions (mm)



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

407 Compact DALI Power Supply

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

Key features

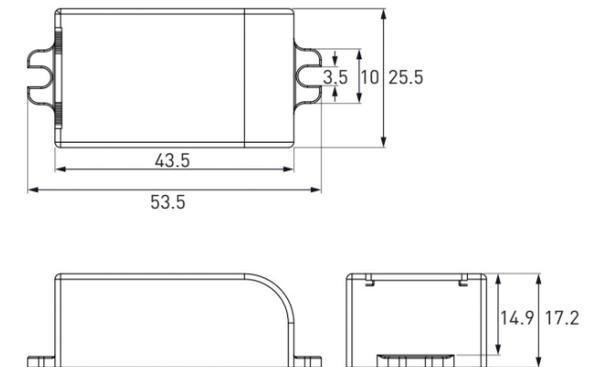
- Super-compact footprint
- 64 mA DALI supply
- DALI short circuit protected
- Flying leads for easy and flexible connection



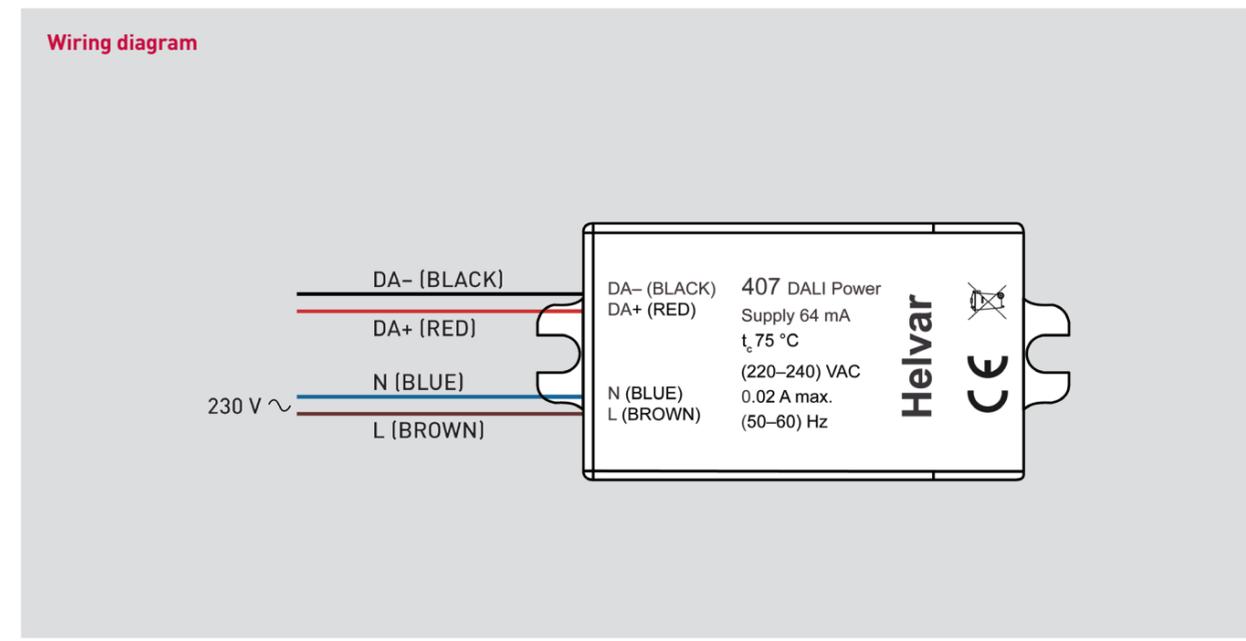
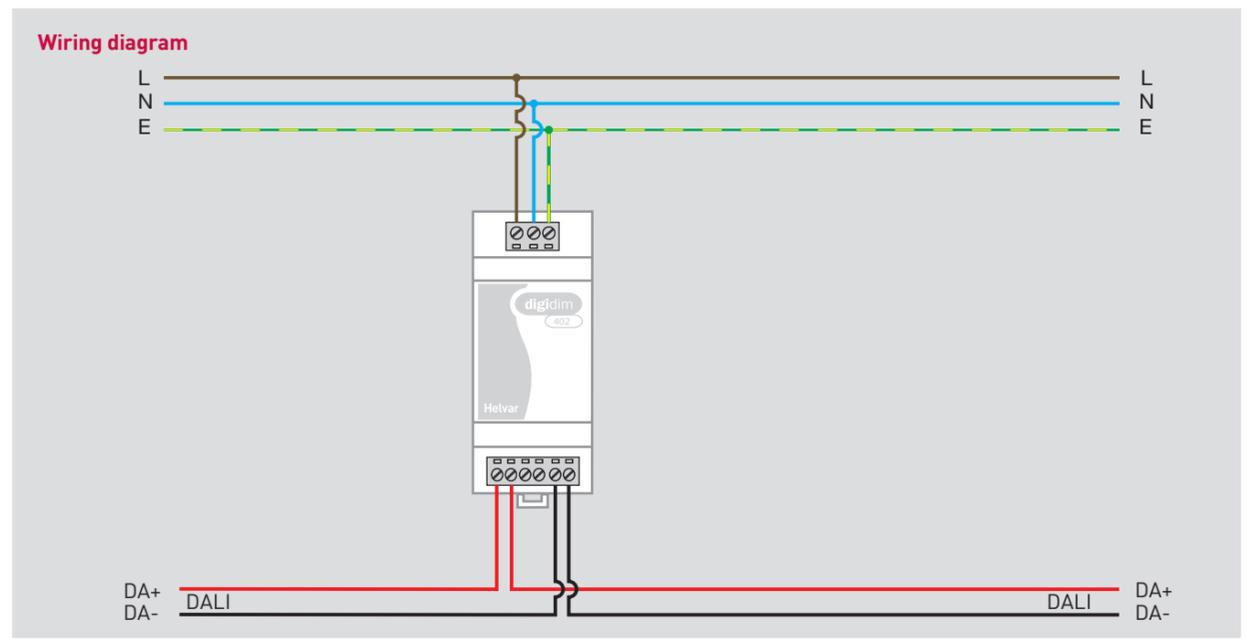
Technical data

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



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

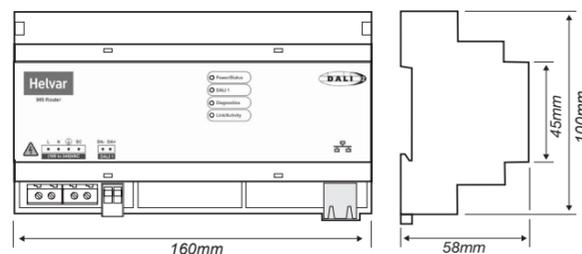
- Support for 64 DALI devices.
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (910/920).
- Integration with other building systems.
- Universal supply input.
- LightOverTime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



Technical data

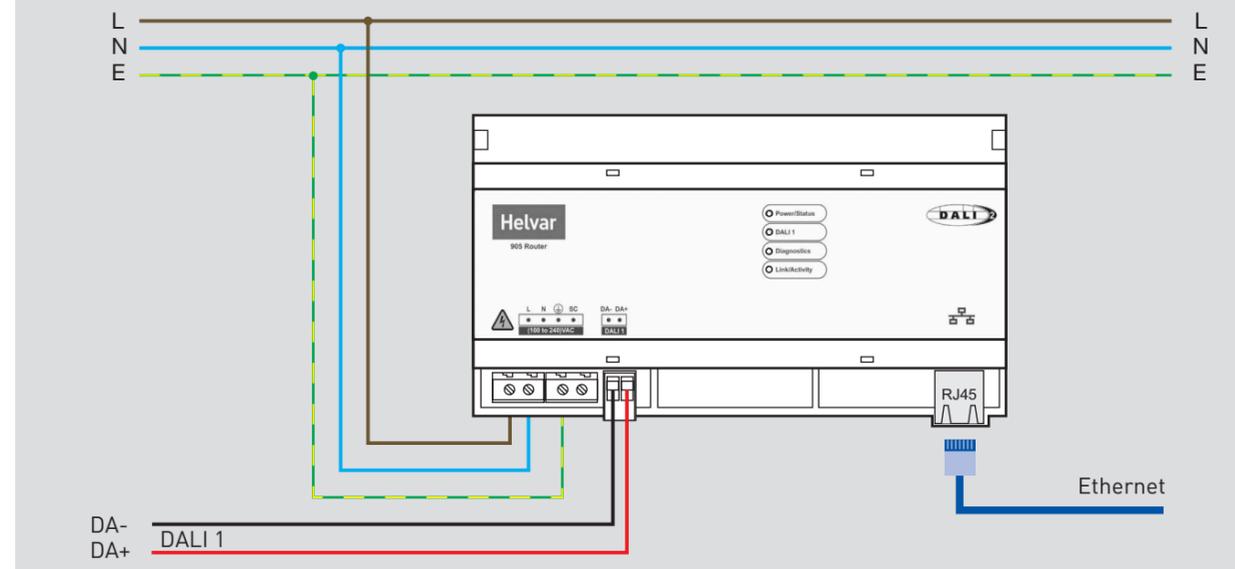
Power supply 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption 13 W (DALI subnet fully loaded)
 Ambient temperature 0 °C to +40 °C
 Degree of protection IP30 (except connectors)
 Number of DALI addresses 0

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

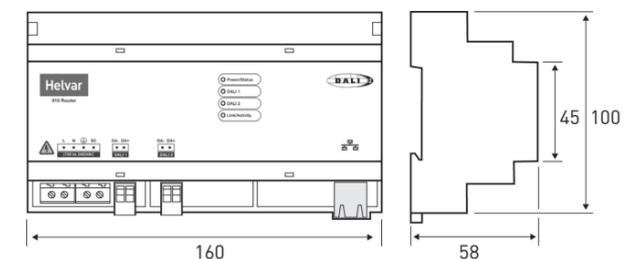
- Support for 128 DALI devices (64 DALI devices on each subnet).
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (905/920).
- Integration with other building systems.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



Technical data

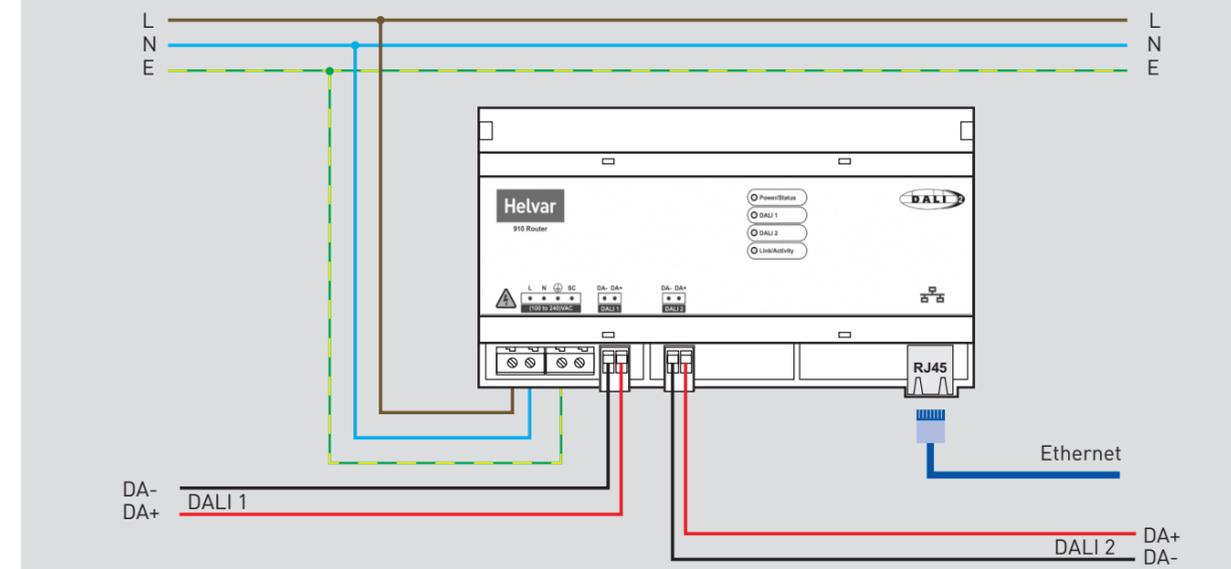
Power supply 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption 23 W (DALI subnet fully loaded)
 Ambient temperature 0 °C to 40 °C
 Degree of protection IP30 (except connectors)
 Number of DALI addresses 0

Dimensions (mm)



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

Wiring diagram

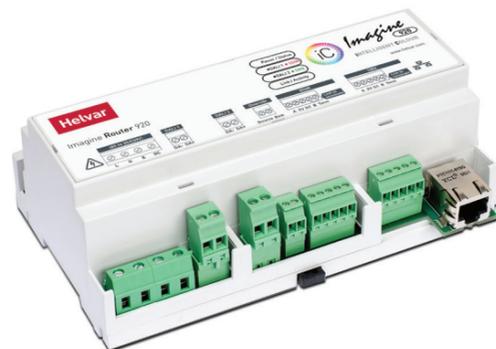


920 Router

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

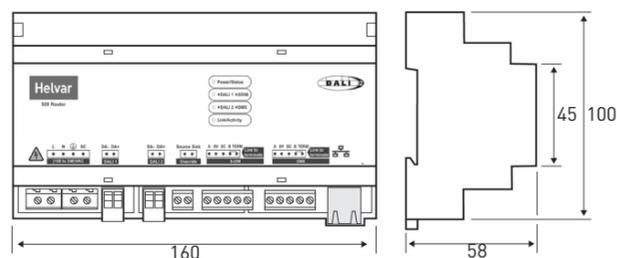
- Support for 128 DALI devices (64 DALI devices on each DALI subnet).
- 512 Channels of DMX In or Out
- 252 Channels of SDIM
- Built-in real-time clock.
- Can be networked together to form large scalable systems.
- Provides local as well as central control if required.
- Compatible with other Helvar routers (905/910).
- 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



Technical data

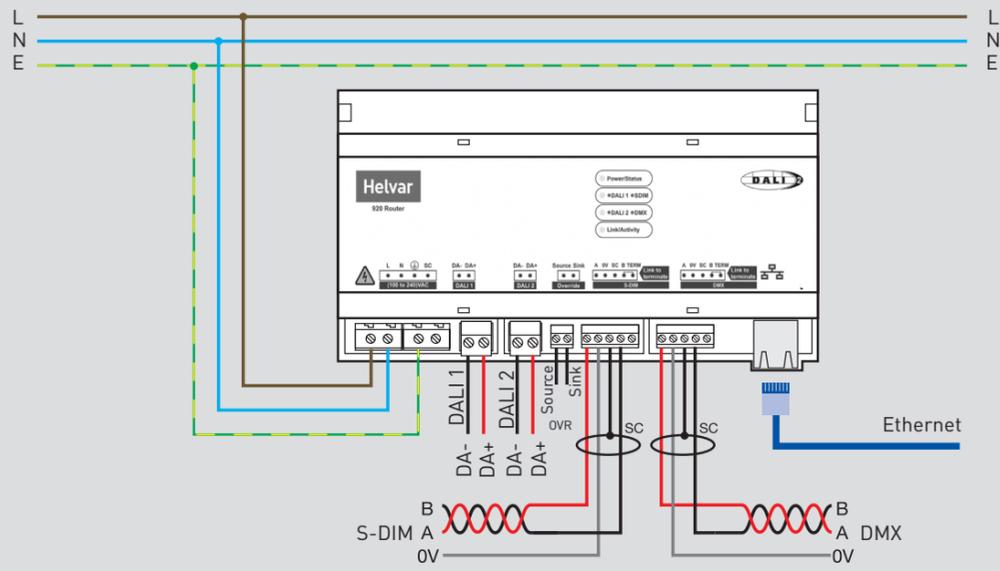
Power supply 100 VAC - 240 VAC 45 Hz - 65 Hz
 Power consumption 23 W (DALI subnet fully loaded)
 Ambient temperature 0 °C to 40 °C
 Degree of protection IP30 (except connectors)
 Number of DALI addresses 0

Dimensions (mm)



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

920 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

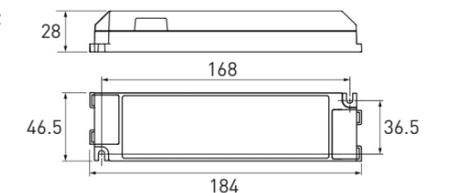
- Extends the maximum DALI line length from 300 m to 600 m.
- Provides 250 mA current at the DALI-OUT side.
- Messages are unfiltered.
- No isolation between DALI IN and DALI OUT. Both are isolated from the mains input.
- Click-on strain relief for standalone installation (included).



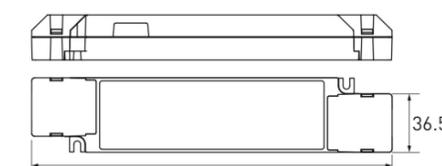
Technical data

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)

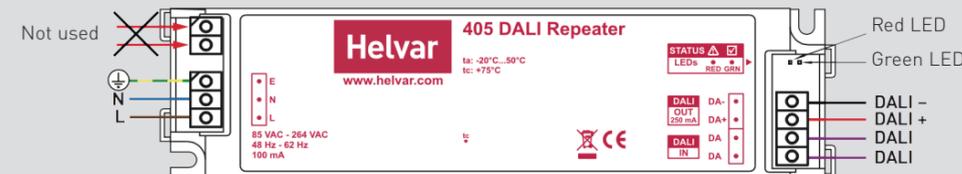


With strain relief (included)



Weight 150 g

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

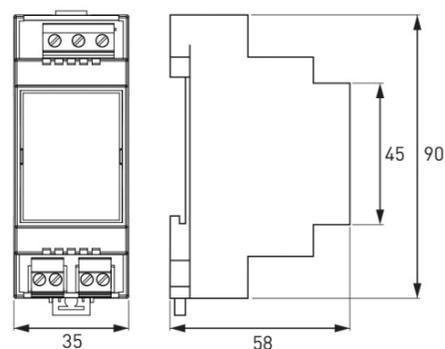
- Extends the maximum DALI line length from 300 m to 600 m.
- Provides 250 mA current at the DALI-OUT side.
- Messages are unfiltered.
- No isolation between DALI IN and DALI OUT. Both are isolated from the mains input.



Technical data

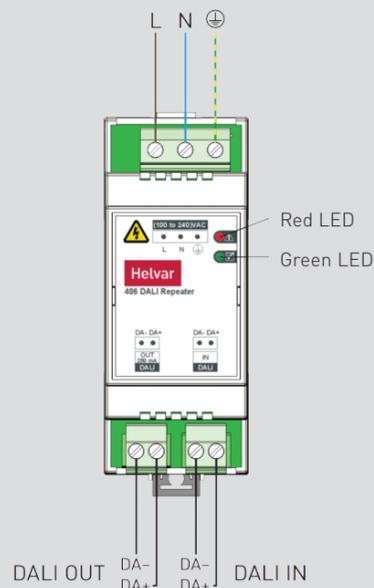
Power consumption from the DALI bus.....	2 mA
Power supply	85-264 VAC, 48-62 Hz
Power consumption in ready state.....	0.6 W
Power consumption.....	1.6 W
Ambient temperature.....	-20 ° C to 50 ° C
Degree of protection.....	IP20
Number of DALI addresses.....	0

Dimensions (mm)

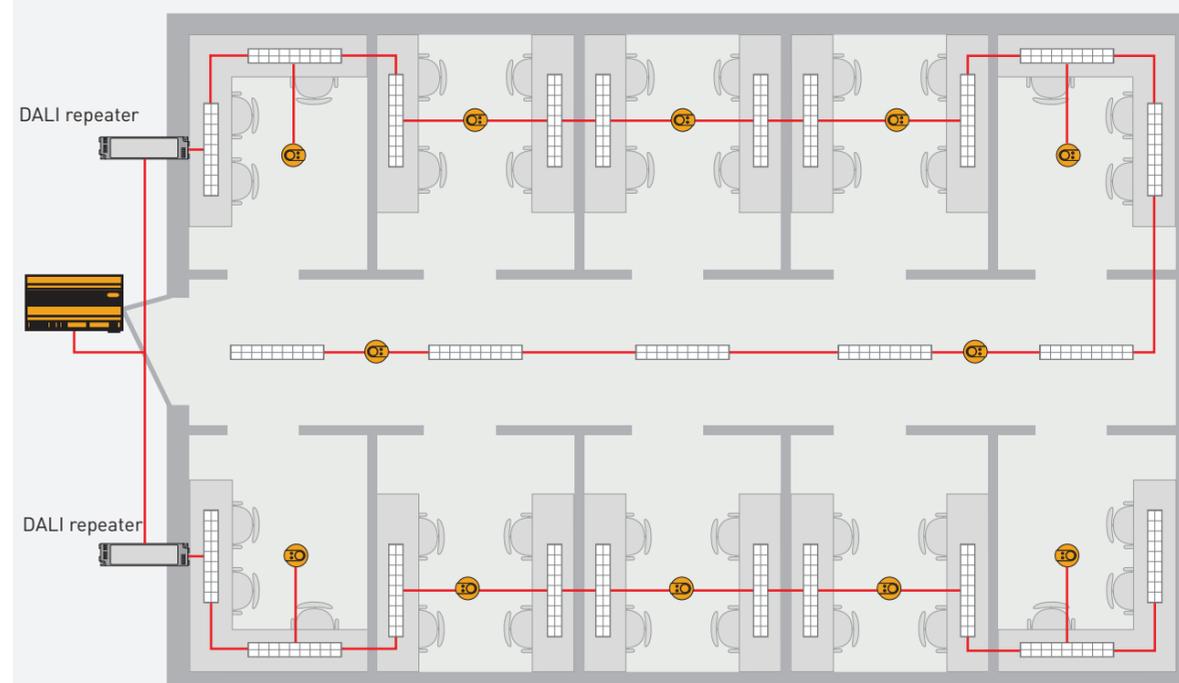
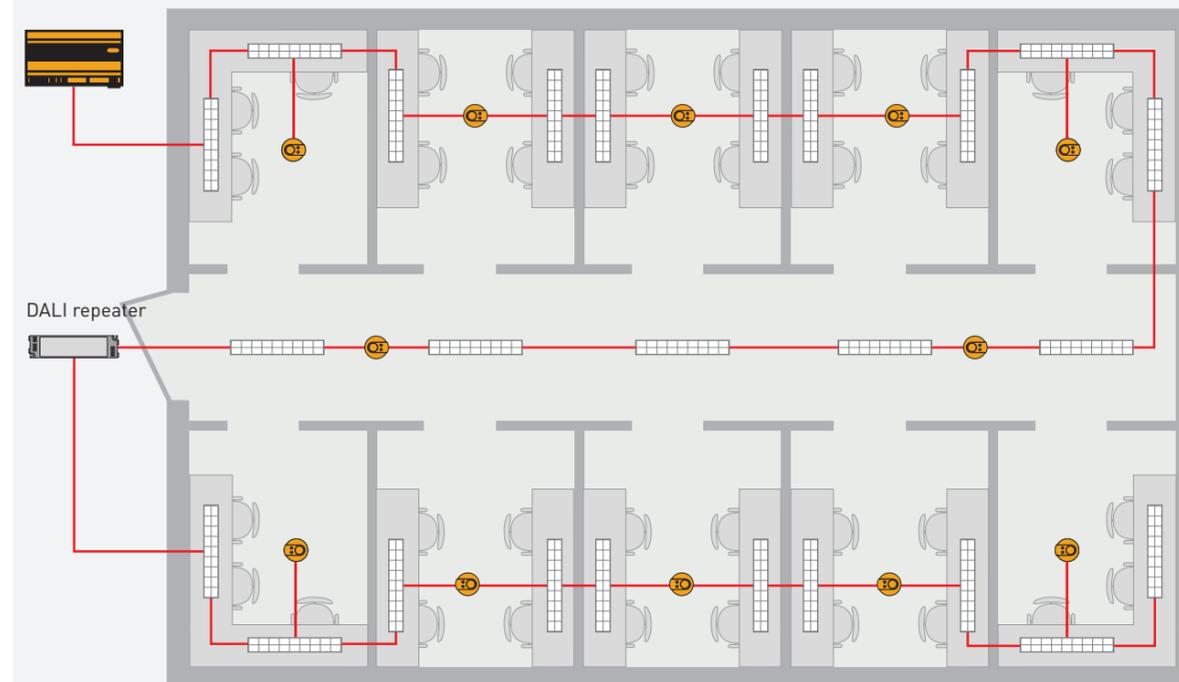


Weight 90 g

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.

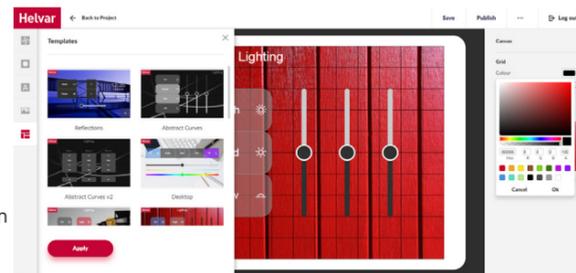
Key features

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

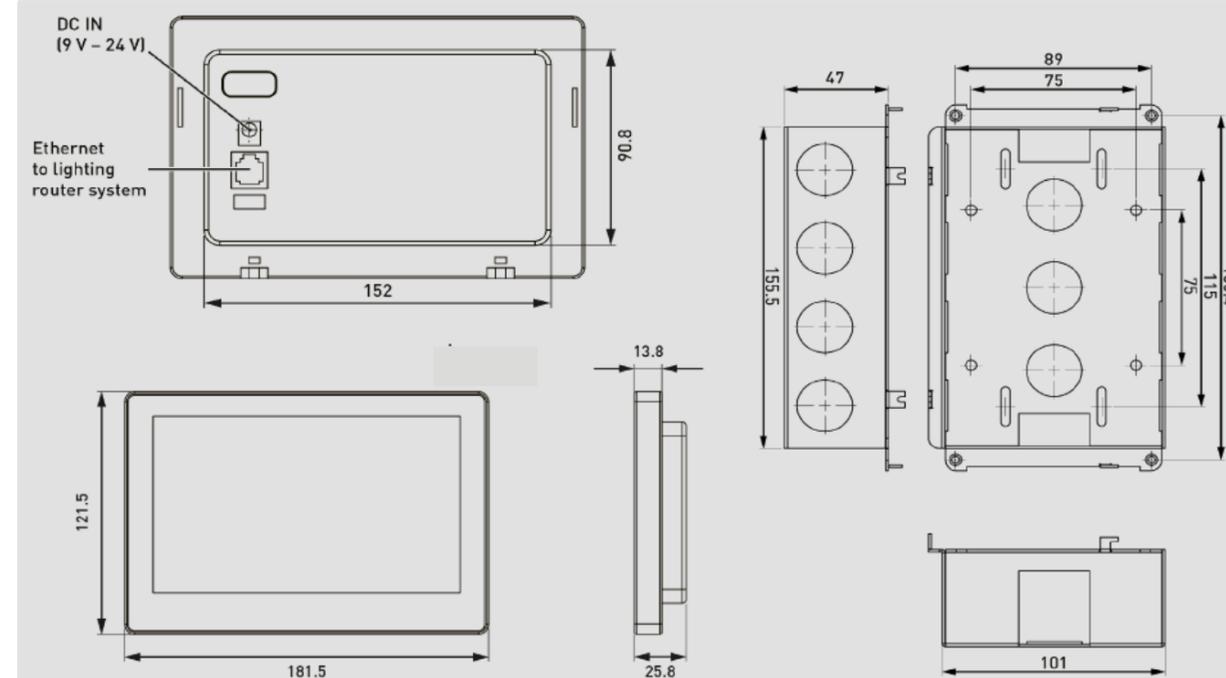


Technical data

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



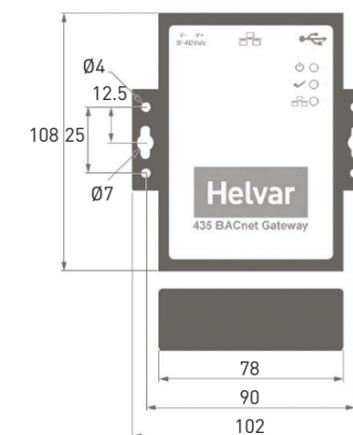
Technical data

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

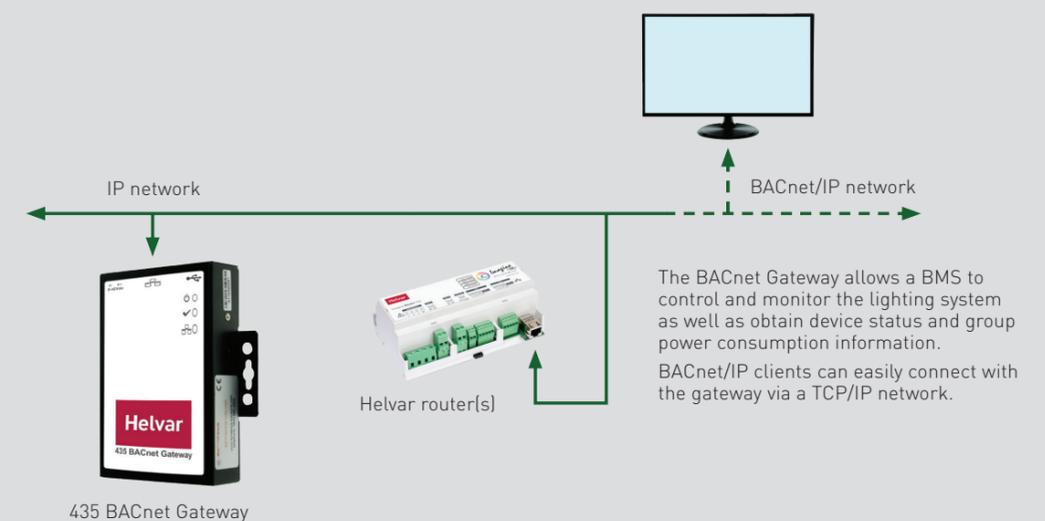
Device limits

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

Dimensions (mm)



Wiring diagram



HCG Helvar Cloud Gateway

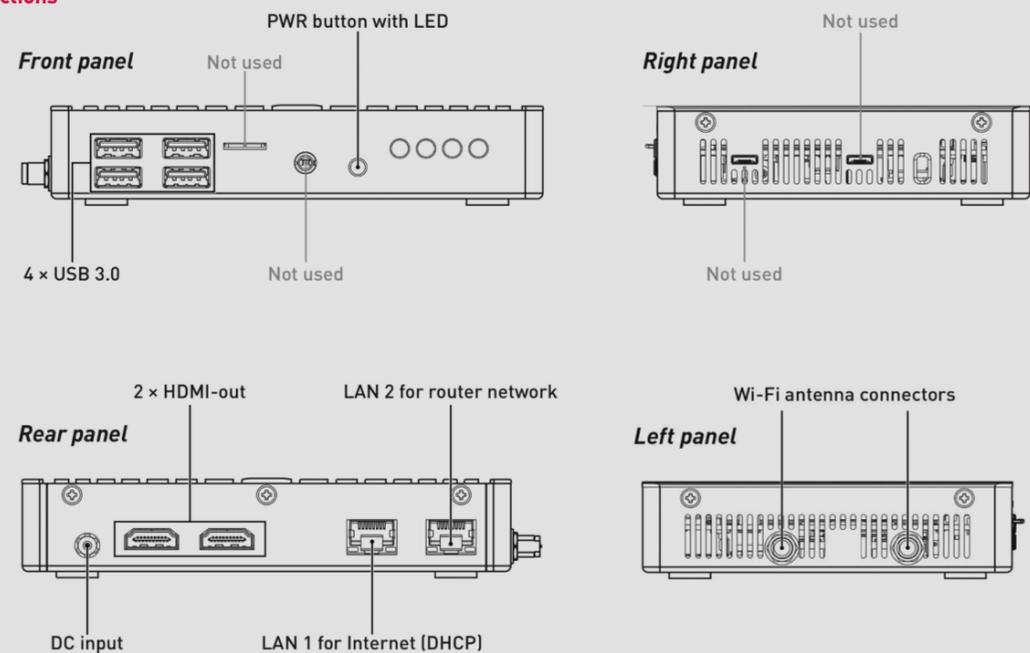
The Helvar Cloud Gateway (HCG) is a small-form-factor computer with leading performance and security. This is the device that uploads the data from the lighting system to Helvar's Cloud Platform via Ethernet or Wi-Fi. Authorised users can access the lighting system data via a browser-based web interface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



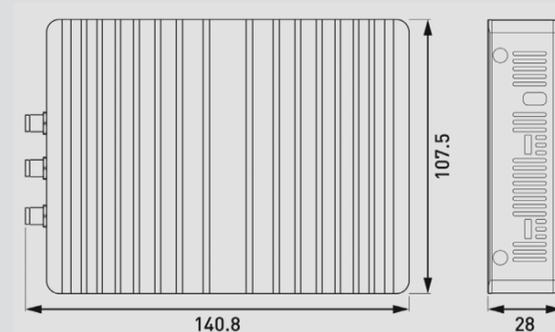
Connections



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)

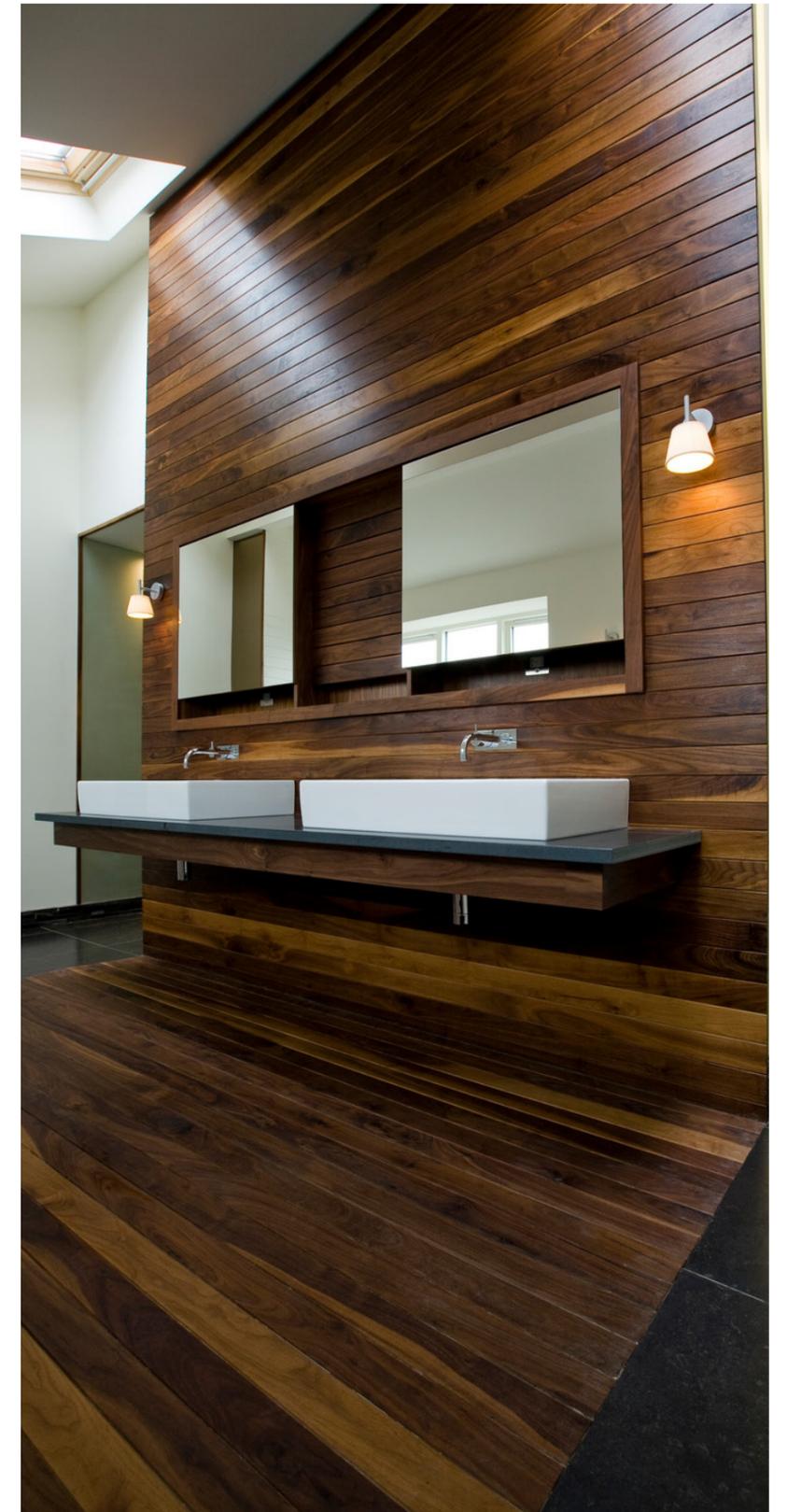
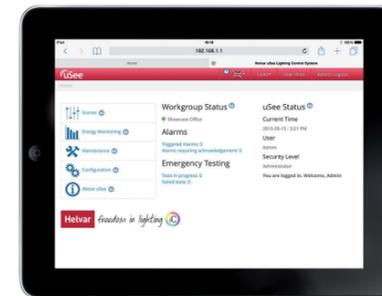


Let the people who see the lights control the lights.

With this PC or tablet-based app.

uSee gives non-experts real power. It lets anyone adjust lighting scenes and create energy use reports through a simple, intuitive interface.

There's no Designer programming involved. The app scans your lighting system's Designer settings and translates them into English at a tap.



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 Compatible with 905/910/920 router systems				
DALI sensors	Functionality		Motion detection area	Comments/ Constant light reception area
	Motion detector	Constant light		
	Microwave	-		-
	Microwave	-		-
	PIR	-		Versions available: 317 - IP65 rated 317M - IP65 / -30°C
	PIR	-		Versions available: White Black
	PIR	-		-
	PIR	-		Versions available: White Black

DALI system sensors Compatible with 905/910/920 router systems				
DALI sensors	Functionality		Motion detection area	Comments/ Constant light reception area
	Motion detector	Constant light		
	PIR	•		Constant light coverage at 2.5m height
	PIR	Bright-out		Versions available: White Black
	-	•		When mounted vertically: 85° from vertical; Horizontal plane: 360°
	PIR	•		Constant light coverage at 2.5m height
	PIR	-		

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.

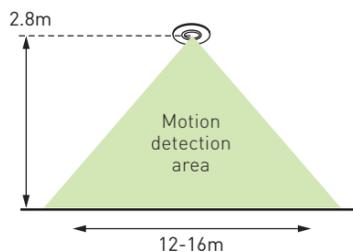
Key features

- 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).
- The Status LEDs flash red to indicate the following:

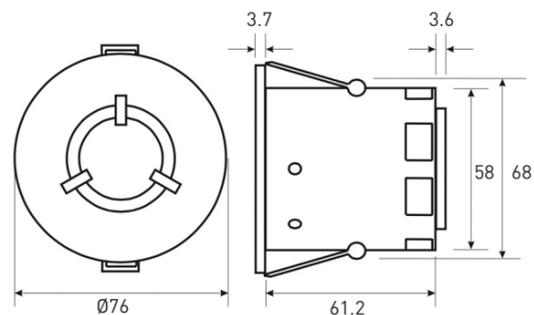


Technical data

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

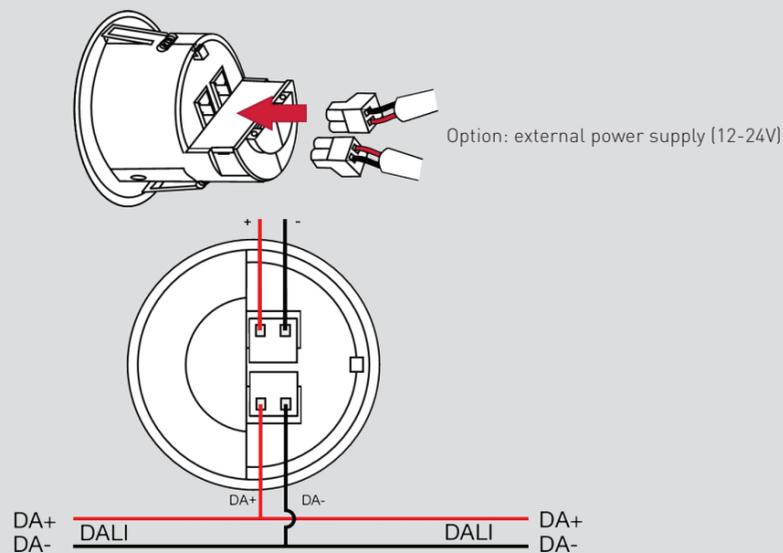


Dimensions (mm)



Diameter of the hole: 68 mm
 White satin plastic, weight 90 g

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.

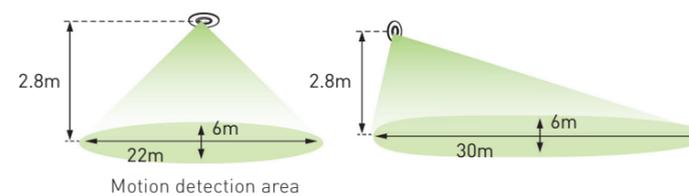
Key features

- 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).
- Status LEDs flash red to indicate the following:

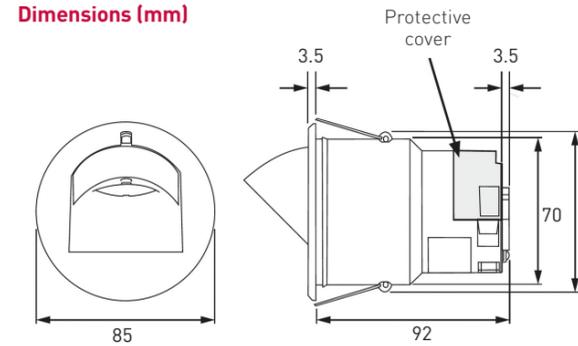


Technical data

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

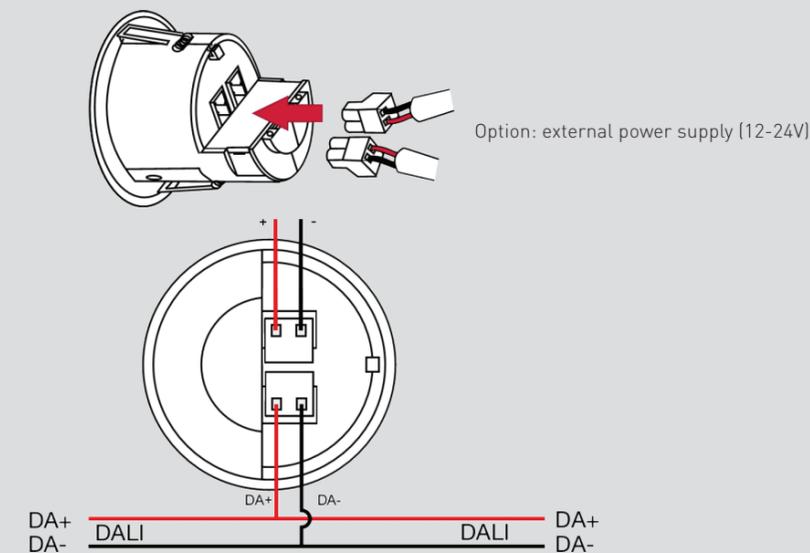


Dimensions (mm)



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

Wiring diagram



317 High-Bay PIR Presence/Absence Detector

Automatically control light fittings up to 15 metres high. And thanks to specialist apertures, you can adjust the detection area of this 317 sensor. For surface mounting, order box SBB-A or SBB-P.

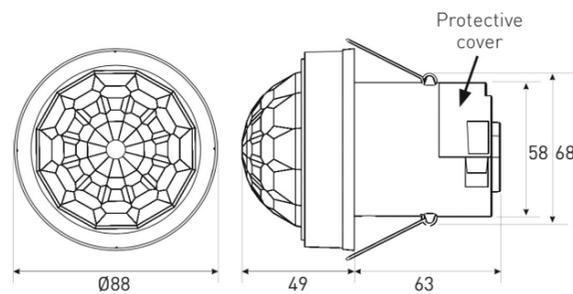
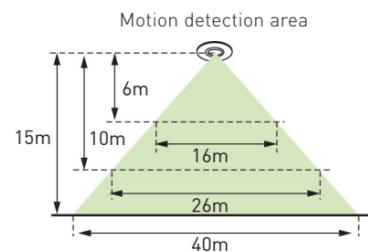
Key features

- Controls lighting loads based on presence/absence detection.
- For mounting on high ceilings.
- Fitted into ceiling tiles (or false ceiling), or surface mounted.
- Clip-on masks to customise the detection area.
- Simple connection and integration into a Helvar DALI control network.
- Programmable in Designer and Toolbox.
- Cold environment (-30 °C) version available. Order code: 317M.



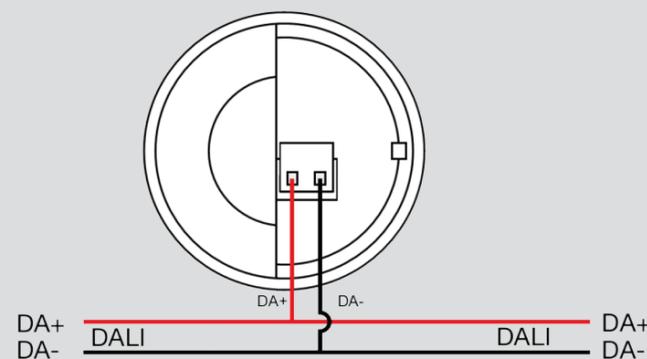
Technical data

Power consumption from the DALI bus..... 20 mA
 Ambient temperature..... 0 ° C to 35 ° C
 Degree of protection..... IP40 (IP65 with SBB-P enclosure)
 Number of DALI addresses..... 1



Diameter of the mounting hole: 68 mm
 ABS and PC fireproof material. Weight 120 g

Wiring diagram



The detection area

The sensor 317 is equipped with an aperture, by means of which the detection range can be specially adapted to the corridors.



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.

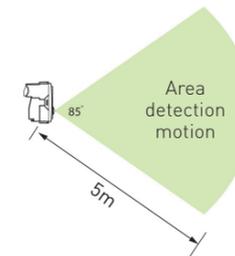
Key features

- 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 black or white finish to match the Helvar button panel range
- Simple connection and integration into a Helvar DALI control network
- Programmable in Designer™ and Digidim Toolbox™

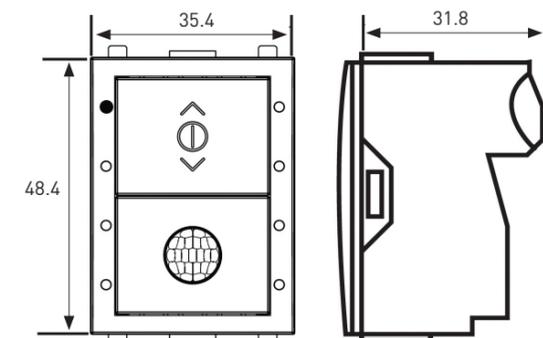


Technical data

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

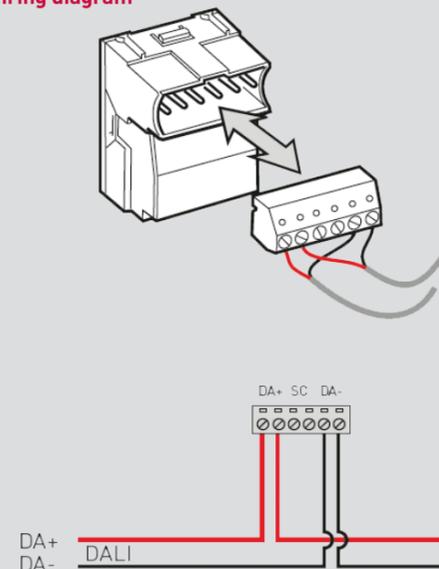


Dimensions (mm)



Weight 35 g

Wiring diagram



Finish



White (318W)



Black (318B)

319 High-Bay PIR Spot Detector

The 319 sensor is designed specially for accurate motion detection from heights of up to 15m. It's ideal for warehouse use where a narrow detection area might be required, such as at the entry to a walkway or intersection.

For surface mounting, use box SBB-A or SBB-P.

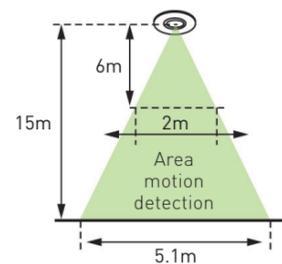
Key features

- The PIR sensor detects movement within detection range, allowing load control in response to changes in room occupancy.

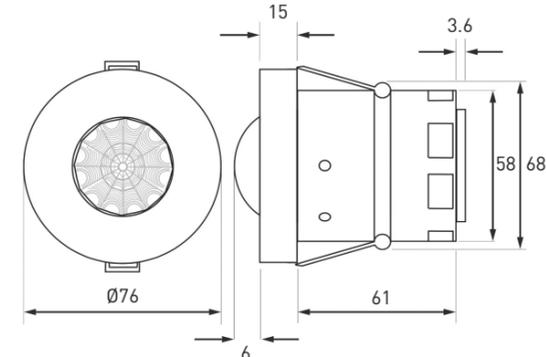


Technical data

Power consumption from the DALI bus..... 15 mA
 Ambient temperature..... 0 ° C to 35 ° C
 Degree of protection..... IP40 (IP65 with SBB-P enclosure)
 Number of DALI addresses..... 1

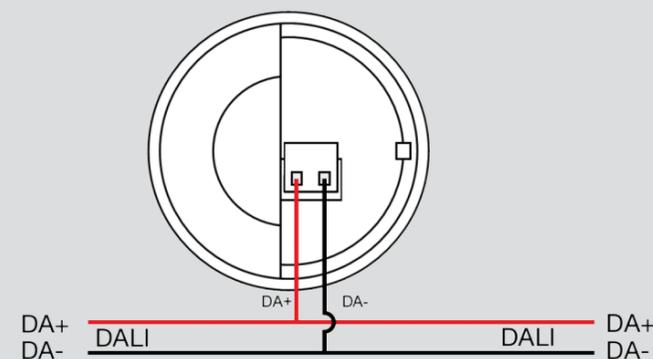


Dimensions (mm)



Diameter of the mounting hole: 68 mm
 ABS fireproof material. Weight 82 g

Wiring diagram



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-C box.

Key features

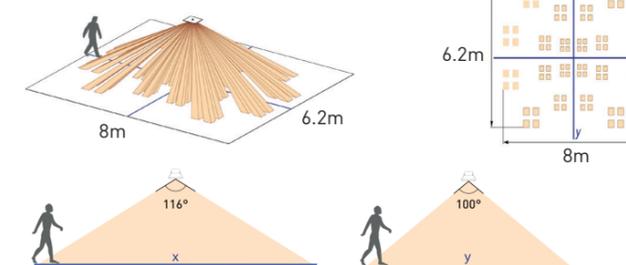
- Excellent detection performance through high sensitivity and multidirectional coverage
- 5mA DALI current consumption
- Compact and functional design
- Programmable in Designer and Toolbox



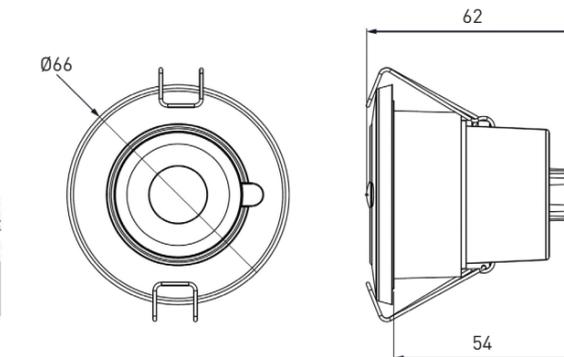
Technical data

Power consumption from the DALI bus..... 5 mA
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP30 [IP20 cable cover]

Presence Detection Coverage at 2.5 m height

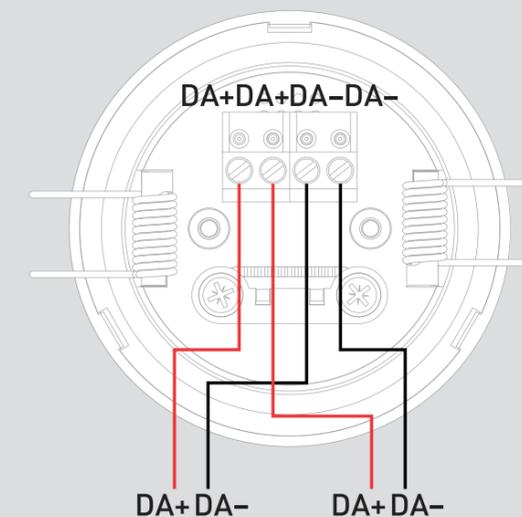


Dimensions (mm)



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

Wiring diagram



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, order box SBB-C.

Key features

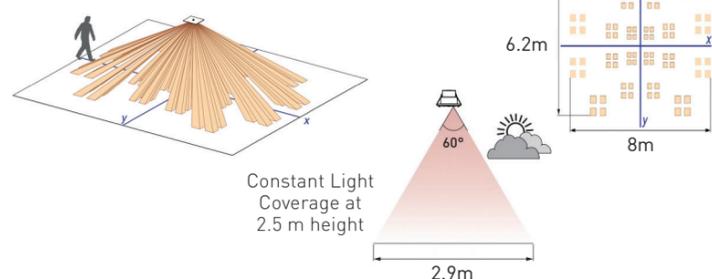
- Excellent detection performance through high sensitivity and multidirectional coverage.
- Programmable constant light control for energy efficiency.
- 5mA DALI current consumption.
- Compact and stylish design.



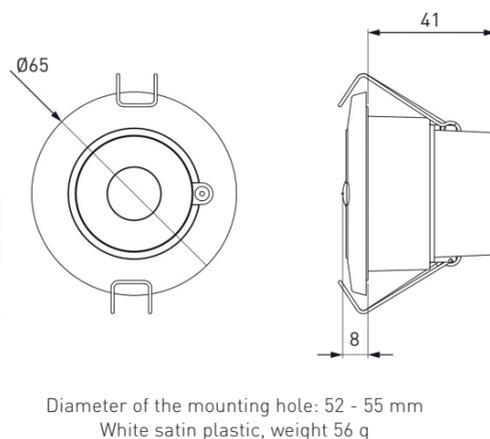
Technical data

Power consumption from the DALI bus..... 5 mA
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1

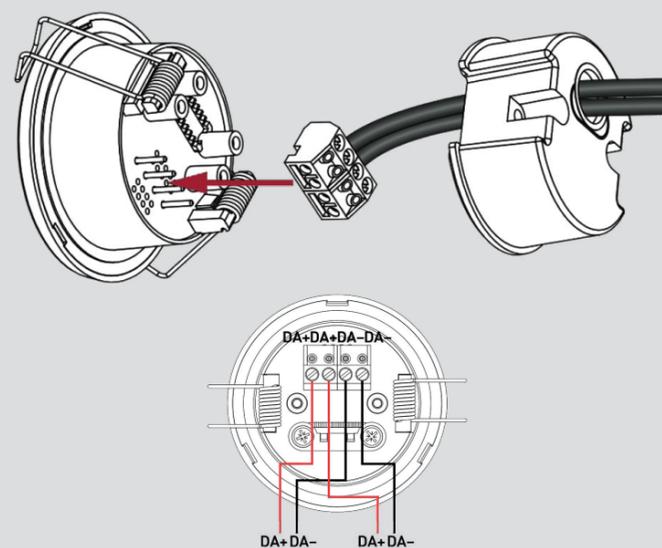
Presence Detection Coverage at 2.5 m height



Dimensions (mm)



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.

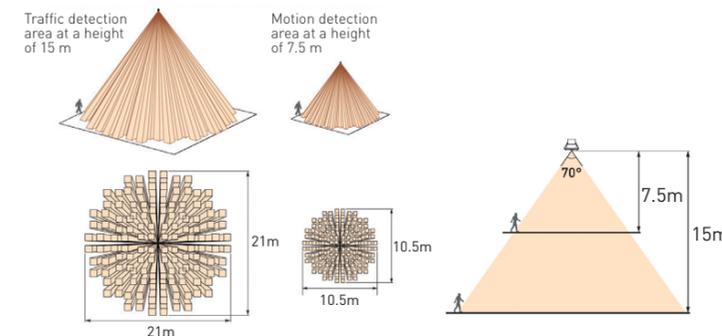
Key features

- 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.

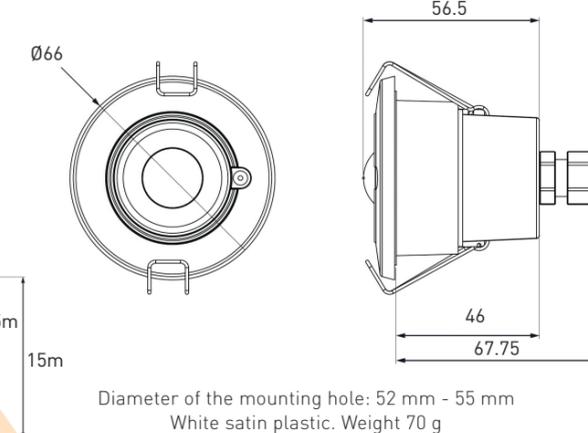


Technical data

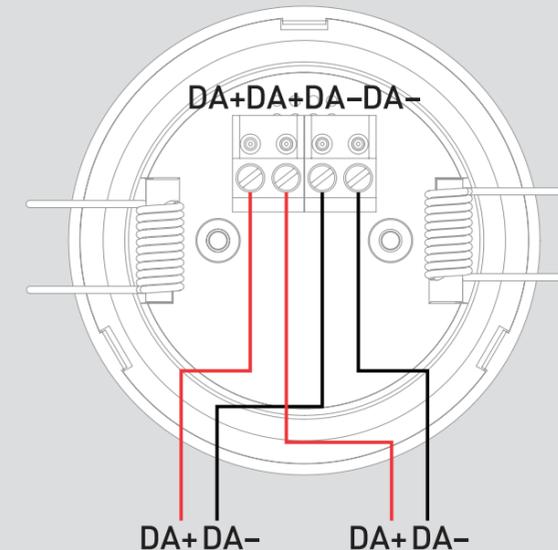
Power consumption from the DALI bus..... 5 mA
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP65



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

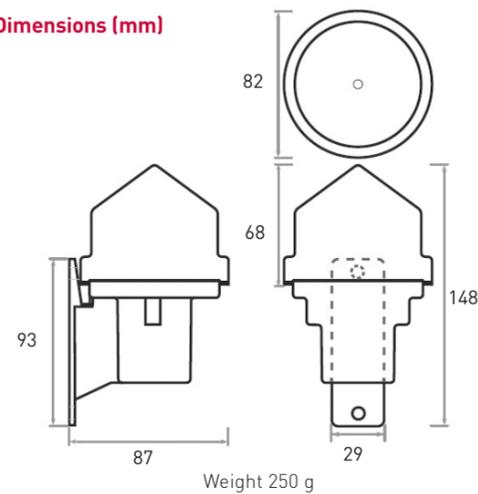
- Open loop light control
- Light range of 1 lx – 100 000 lx
- Simple mounting
- Easy connection to Helvar router system



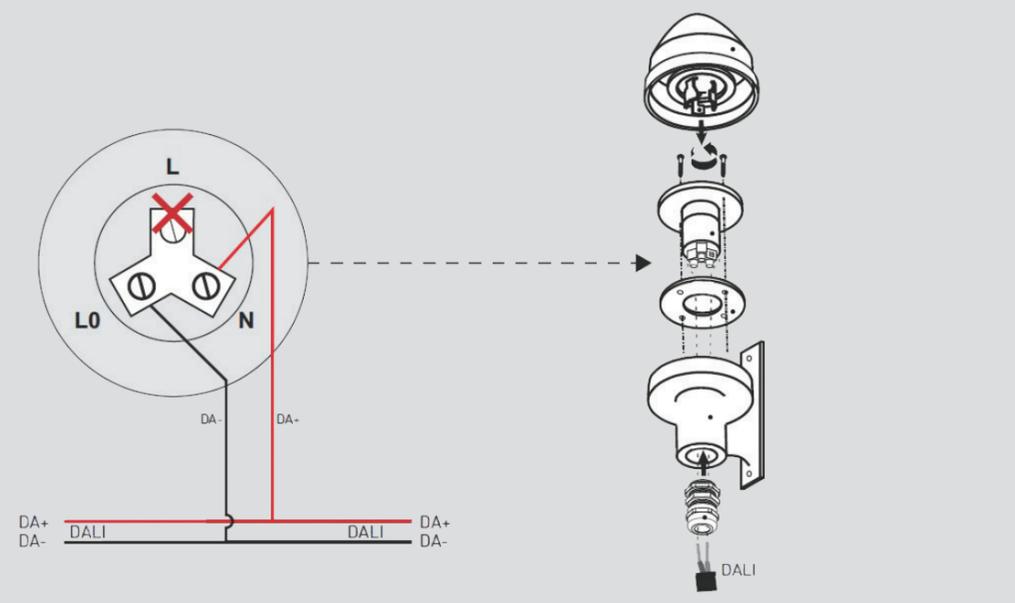
Technical data

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

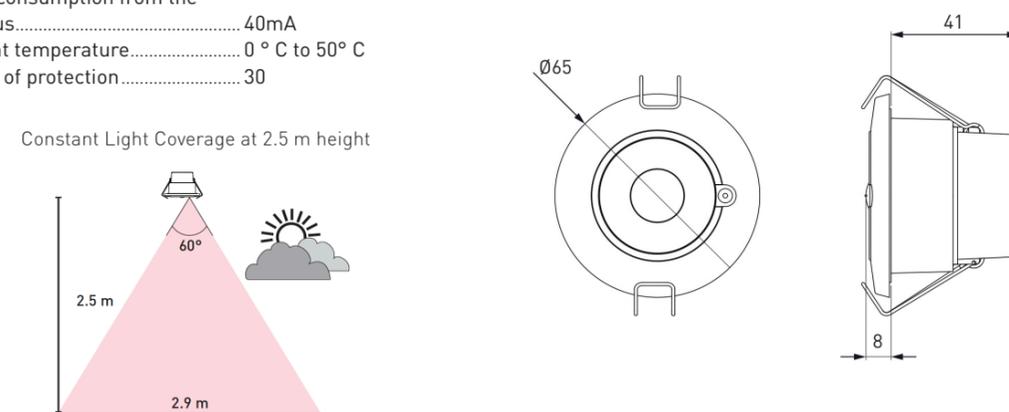
- Excellent detection performance through high sensitivity and multidirectional coverage
- Programmable constant light control for energy efficiency
- Easily incorporated into RoomSet system/app.
- Simple "Over the Air" system upgrades with RoomSet
- Modern, compact and functional design



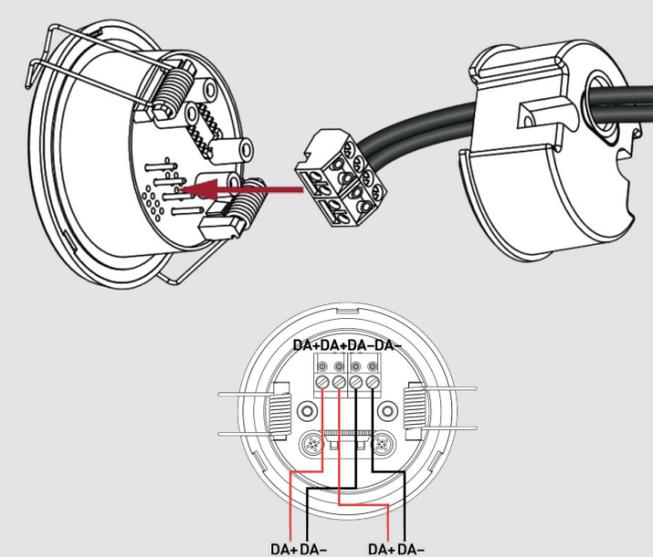
Technical data

Power consumption from the DALI bus..... 40mA
 Ambient temperature..... 0 ° C to 50° C
 Degree of protection..... 30

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

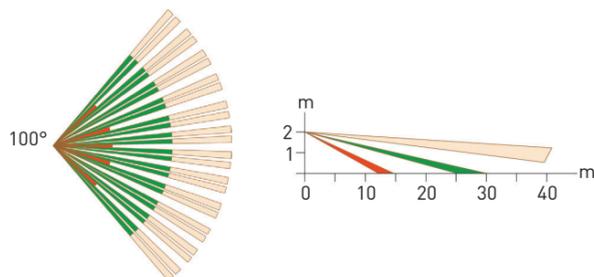
- Control of long corridors (up to 40 metres) with one sensor
- 20 mA DALI current consumption
- Two presence detection modes for different environments
- Configurable presence delay and time-out
- Programmable in Designer and Toolbox
- Accessory lenses available for special applications



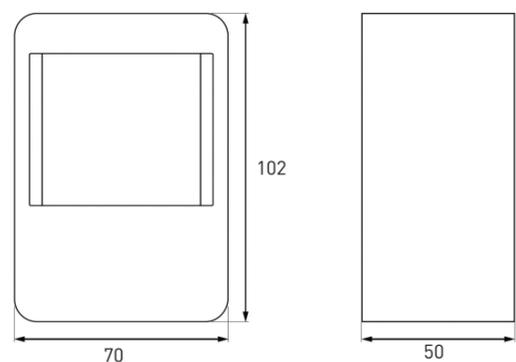
Technical data

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

Motion detection area

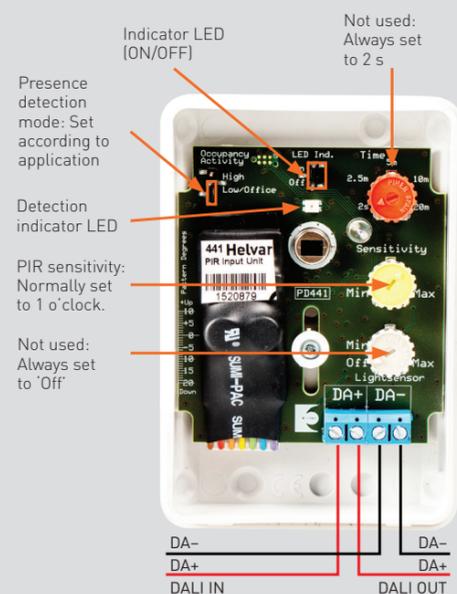


Dimensions (mm)



White satin plastic. Weight 93 g

Wiring diagram



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

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

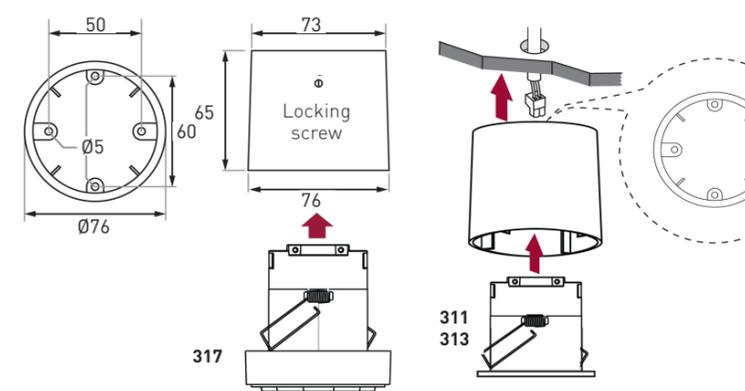
- 311 PIR Detector
- 312 Multisensor
- 313 Low-Profile Microwave Detector
- 314 Tilting Microwave Detector
- 317 High-Bay PIR Presence/Absence
- 320 PIR sensor
- 321 Multisensor
- 322 High-Bay



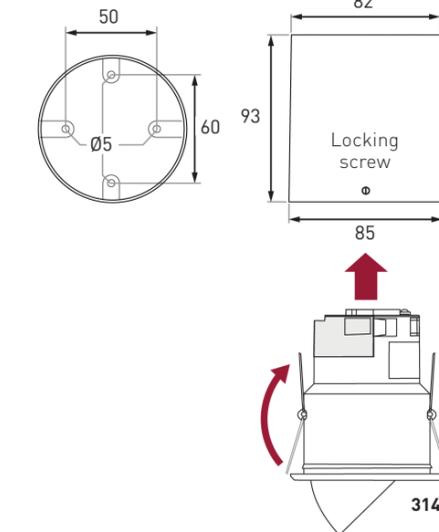
SBB-A: 311, 313, 317
 SBB-B: 314
 SBB-C: 312, 320, 321, 322
 SBB-P

Dimensions (mm)

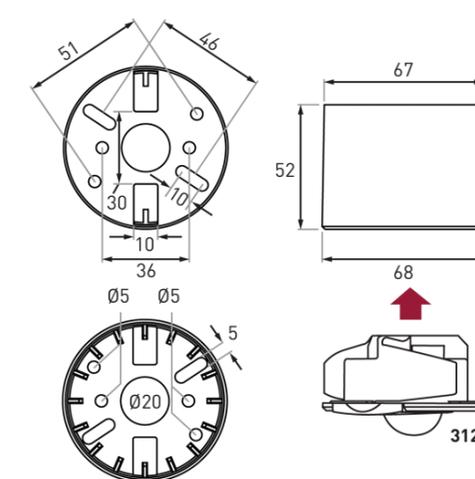
SBB-A box for sensors 311, 313 and 317



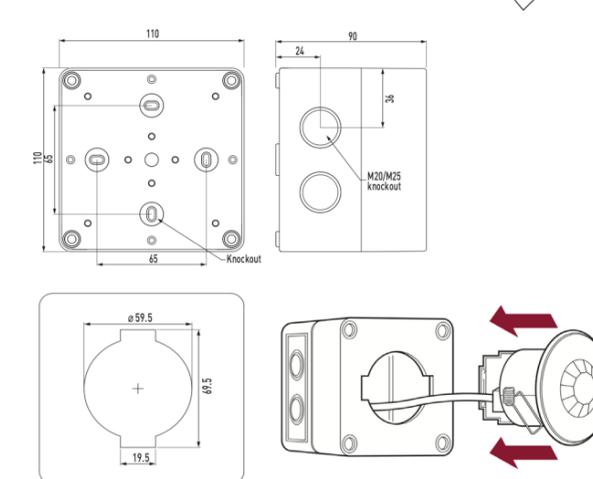
SBB-B box for sensor 314



SBB-C box for sensors 312, 320, 321 and 322



SBB-P



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

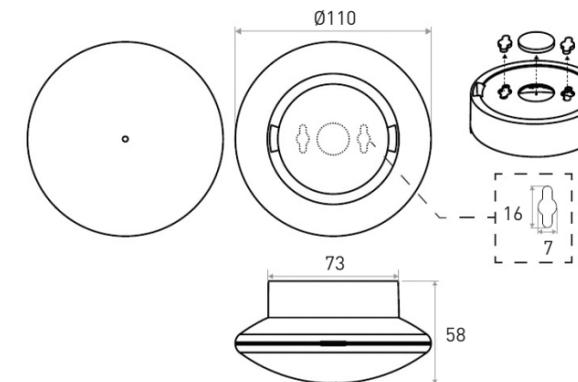
- Integrate wireless, battery-free connectors to the DALI network.
- Easy to install
- Powered by the DALI network
- Up to 20 connectors (18xx) can work with one Gateway.



Technical data

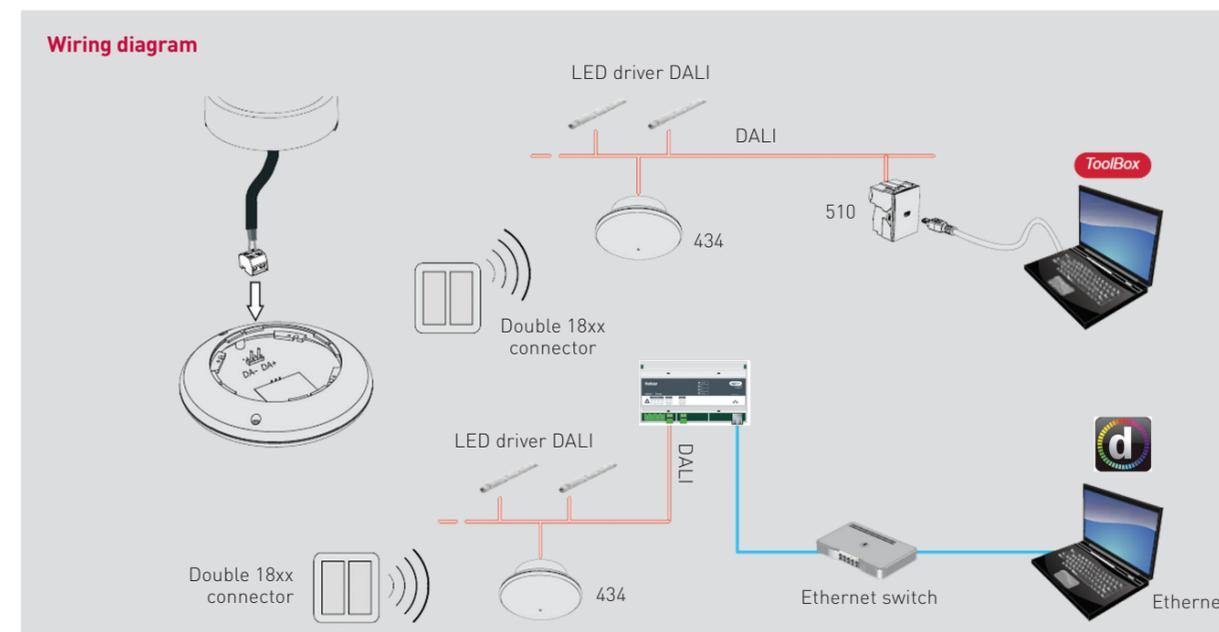
Power consumption from the DALI bus.....	20 mA
Frequency.....	868 MHz ISM (Europe)
Wireless range.....	30 meters (free space)
Number of connectors.....	a maximum of 20
Ambient temperature.....	0 ° C to 50 ° C
Degree of protection.....	IP30
Number of DALI addresses.....	1+ 1-20

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



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

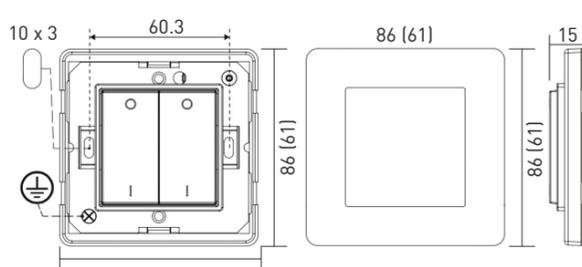
Stainless steel frame

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

Plastic frame

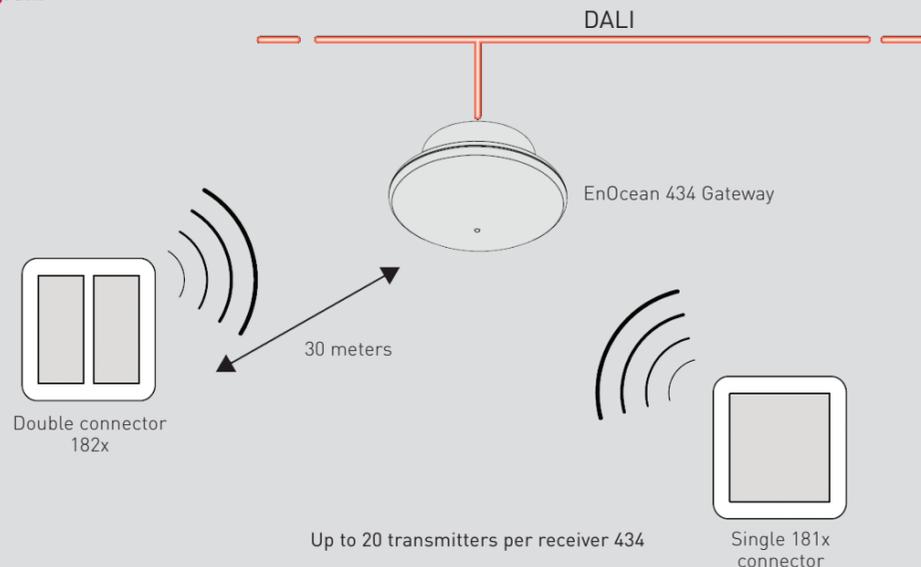
- Single connector: **183B** (black) / **183W** (white)
- Double connector: **184B** (black) / **184W** (white)
- Single connector: **183WX** (white)
- Double connector: **184WX** (white)

Dimensions (mm)



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

Wiring diagram

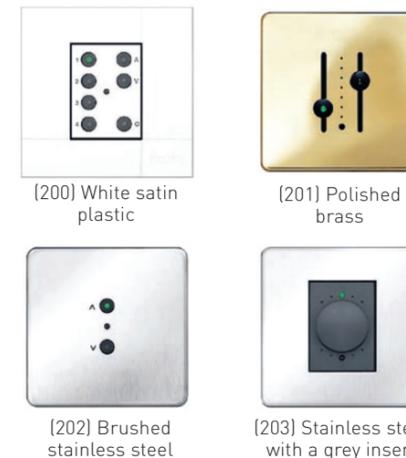


12x Digidim Modular Panels

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

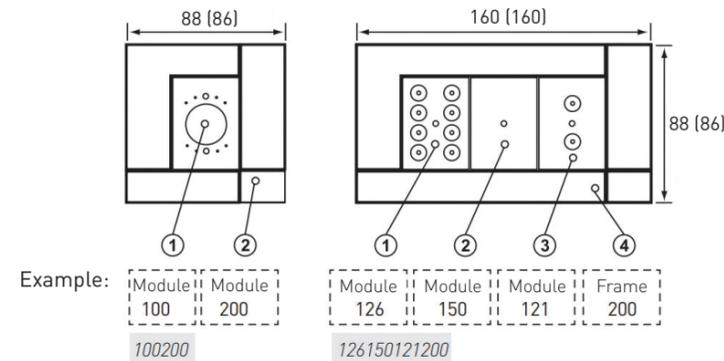
- Out-of-box operation, supplied preprogrammed
- Easily reconfigured and fully programmable
- Designed to fit both DIN and UK standard back boxes
- Double-gang version can take three independent modules



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)

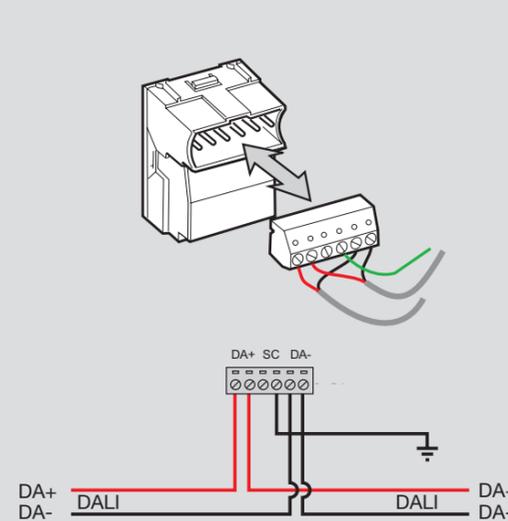


() = Dimensions when using a metal frame

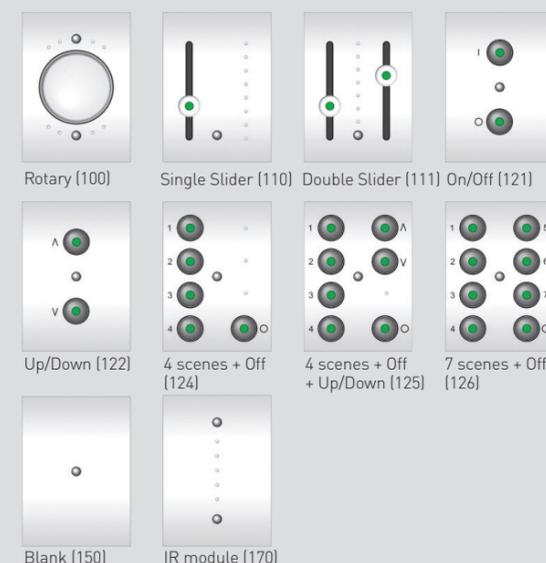
Order number: see photos

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.

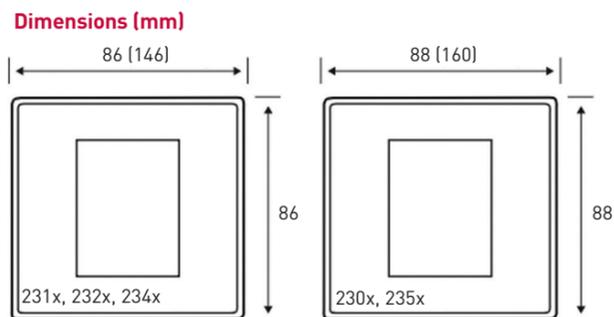
Key features

- Choice of black (B) or white (W) modules.
- 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 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

(100)	131W	132W	134W	135W
(150)	136W	137W	131B	132B

Frames

White plastic 230S / 230D	Stainless steel 232S / 232D	White metal 234S / 234d	Black plastic 235S / 235D
------------------------------	--------------------------------	----------------------------	------------------------------

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.

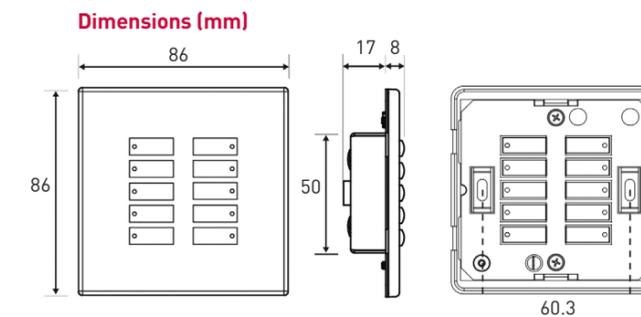
Key features

- Range of switch combinations, including customisable versions
- LED brightness programmable
- DIGIDIM/DALI
- 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



Weight 150 g

Order number: see photos

Wiring diagram

Modules

161xx: On / Off	164xx: 4 Scenes + Off	165xx: 4 Scenes + Off + Top / Bottom
166xx: 7 Scenes + Off + Top / Bottom	169xx: 9 Scenes + Off	

Frames

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

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

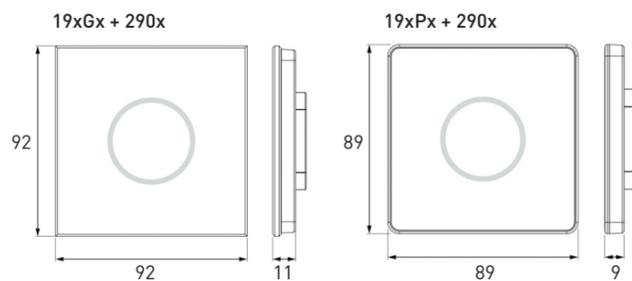
- Standalone controller and user interface.
- Networkable on DIGIDIM or Imagine router systems.
- Minimal setup / Out-of-box operation.
- Capable of creating, storing and recalling four lighting scenes.
- Intuitive touch selection of operation mode, intensity, colour temperature and colour (depending 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..... 44 mA, 9.5V
 Wireless communication..... Bluetooth® Smart™
 Ambient temperature..... 0 ° C to 50 ° C
 Degree of protection..... IP30
 Number of DALI addresses..... 1 per panel



Dimensions (mm)



Weight: 19xGx: 150 g Material: 19xGx: Glass
 19xPx: 90 g 19xPx: Acrylic (PMMA)
 290x: 50 g 290x: ABS / PC fireproof material

Order numbers: see below

Wiring diagram

Models and finishing

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

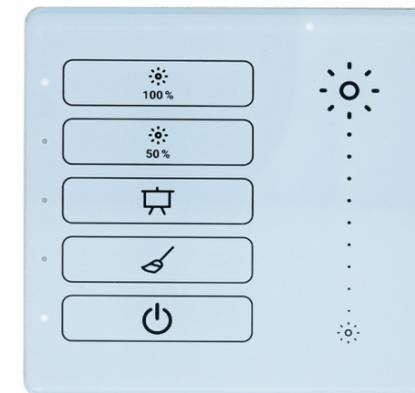
TW: Tunable White

2XXPL,2XXGL ILLUSTRIS Custom Front Fascia

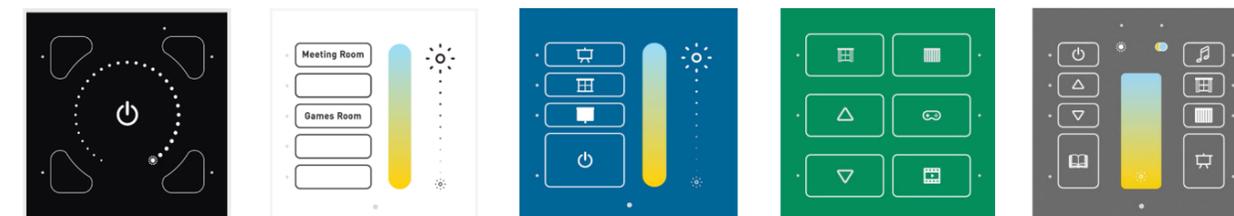
Much like the 19xxx & 290x ILLUSTRIS Panels, the Custom Front Fascia versions are ideal for simple operation of DALI Type 8 luminaires. The touch panels can be connected wirelessly using Bluetooth® Smart™ and can also be operated via the Helvar SceneSet app. The panels consist of two parts, the front and the back. The 2XXPL and 2XXGL 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
- Custom scenes, intensity, hue, saturation & colour-temperature control
- Fully DALI-compatible.
- Networkable on Imagine/DIGIDIM 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	2XXGL
Custom front fascia from palette of layout designs	Plastic	Custom	2XXPL

Materials: 2XXGL 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 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

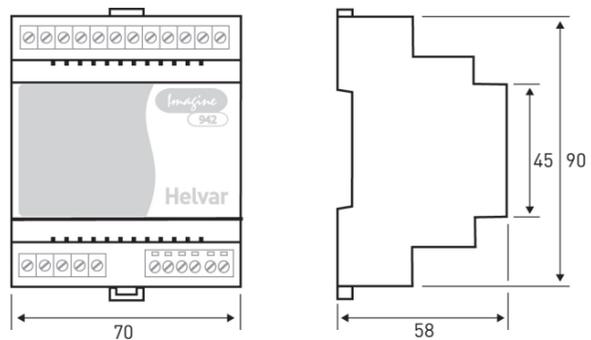
- Status LED gives visual indication of the unit’s current operational mode: normal operation, initialisation, physical selection, or input activation.
- Physical selection switch.
- Can be used with momentary or latching switches, 0–10 V analogue devices and time clocks.



Technical data

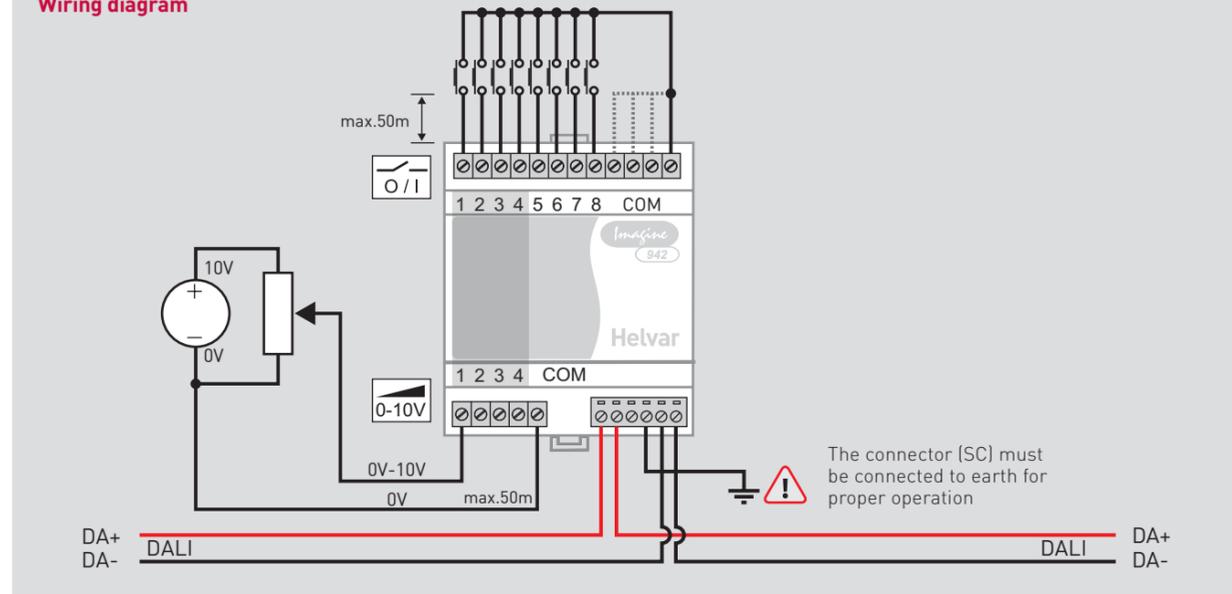
Power consumption from the
 DALI bus..... 10 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Input voltage..... 0 - 10 V
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1
 Inputs 8 inputs of which 4 are configurable as 0-10V analogue inputs

Dimensions (mm)



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

Wiring diagram

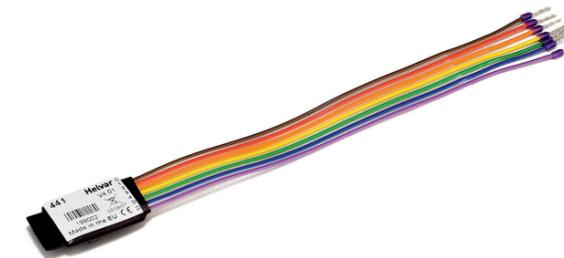


441 Occupancy Detector Interface

This lets you connect customer-specified occupancy sensors to a DIGIDIM- 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

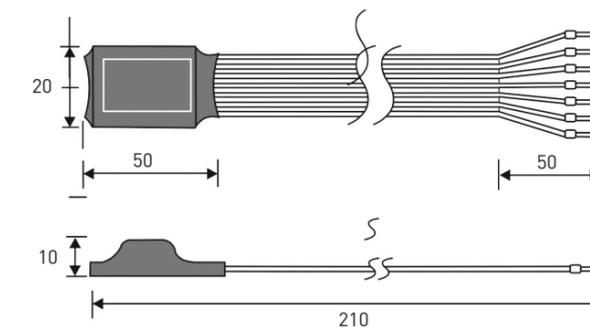
- Fits into the wiring space inside the sensor.
- Input for normally closed (NC) volt-free switch compatible with security sensors.
- Fully programmable using Toolbox and Designer software.
- Compatible with Helvar iDim range, functioning as a PIR extension sensor.



Technical data

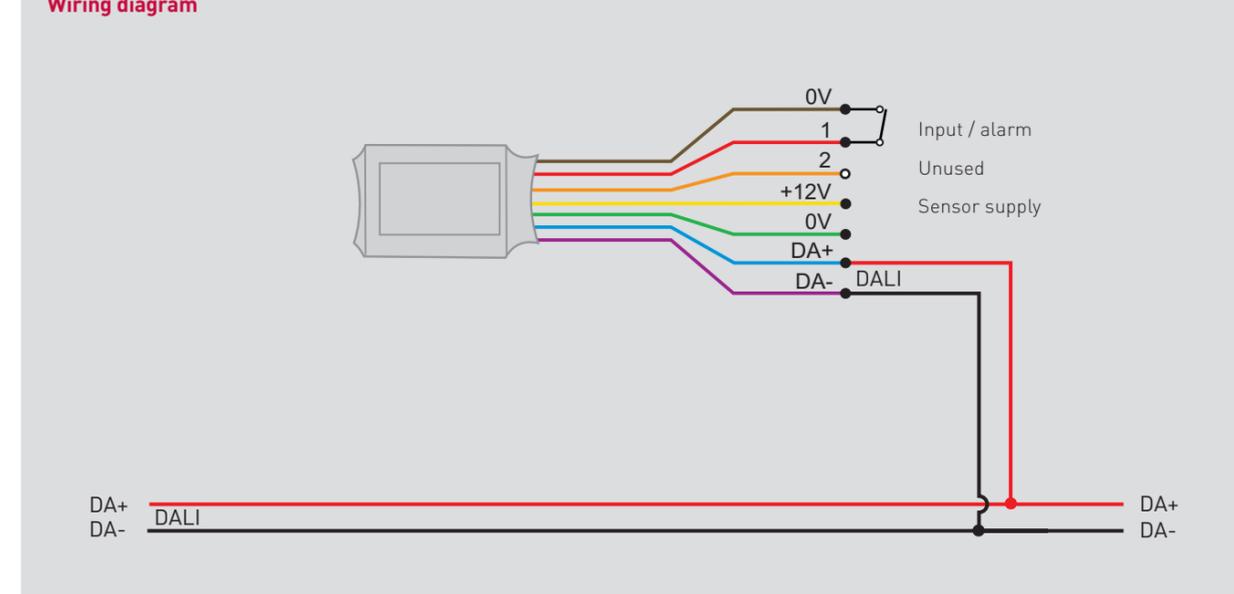
Current consumption from
 DALI bus..... 10 mA + sensor supply <max. 25 mA
 Sensor supply..... 12 V, 15 mA (non-insulated)
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection..... IP20
 Number of DALI addresses..... 1

Dimensions (mm)



Integrated circuit, weight 10g

Wiring diagram

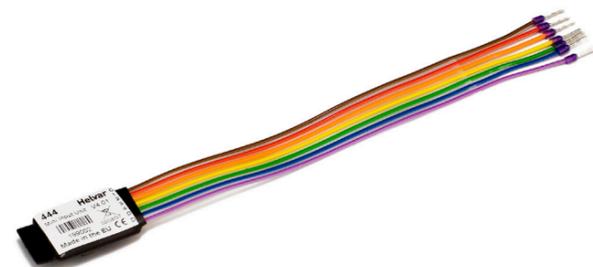


444 DIGIDIM Mini Input Unit

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 lighting control system.

Key features

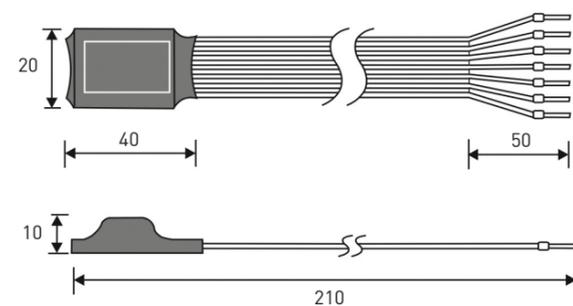
- Preconfigured with touch dimmer inputs for two groups.
- Fits into all standard size back boxes and architrave style back boxes.
- Touch dimming with a momentary push switch.
- Can be used with momentary or latching switches.
- Fully programmable using DIGIDIM Toolbox software.



Technical data

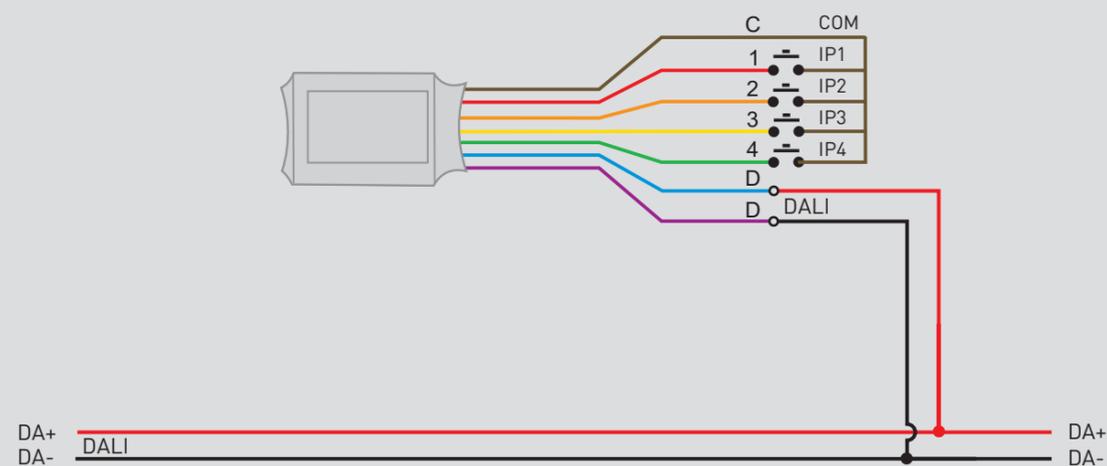
Power consumption from the DALI bus..... 10 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 Degree of protection IP20
 Number of DALI addresses..... 1

Dimensions (mm)



Integrated circuit, weight 10g

Wiring diagram



445 DIGIDIM 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

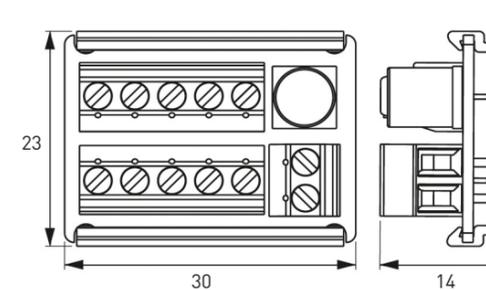
- Compact design
- 4 switch inputs
- 4 LED outputs
- Powered from DALI network



Technical data

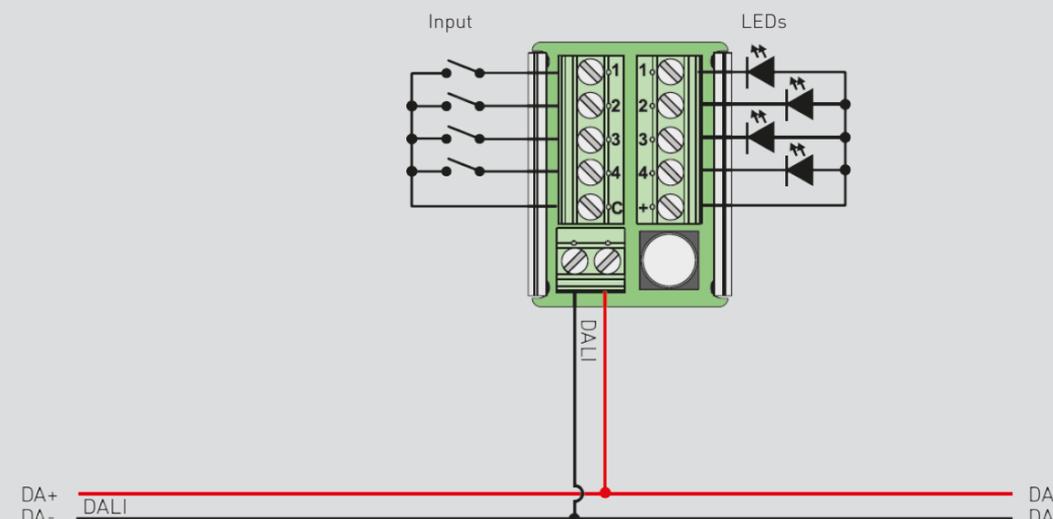
Power consumption from the DALI bus..... 15 mA
 Status change time 50 ms
 Ambient temperature..... 0 ° C to 40 ° C
 LED output 5 V, 1 kΩ
 Degree of protection IP00
 Number of DALI addresses..... 1

Dimensions (mm)



Integrated circuit, weight 10g

Wiring diagram



490 2-Channel Blinds Controller

A DALI-compatible interface for controlling blinds and curtains in DIGIDIM 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

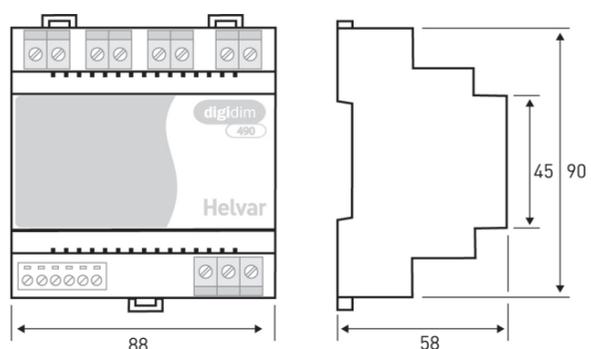
- Up/Down mode operates in a 'Break before Make' manner to prevent motor damage.
- Relays are internally isolated permitting separate mains phases to be used for each control channel.
- All DALI functions are programmed with either DIGIDIM Toolbox or Designer software.
- DIN-rail mounted and only 88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



Technical data

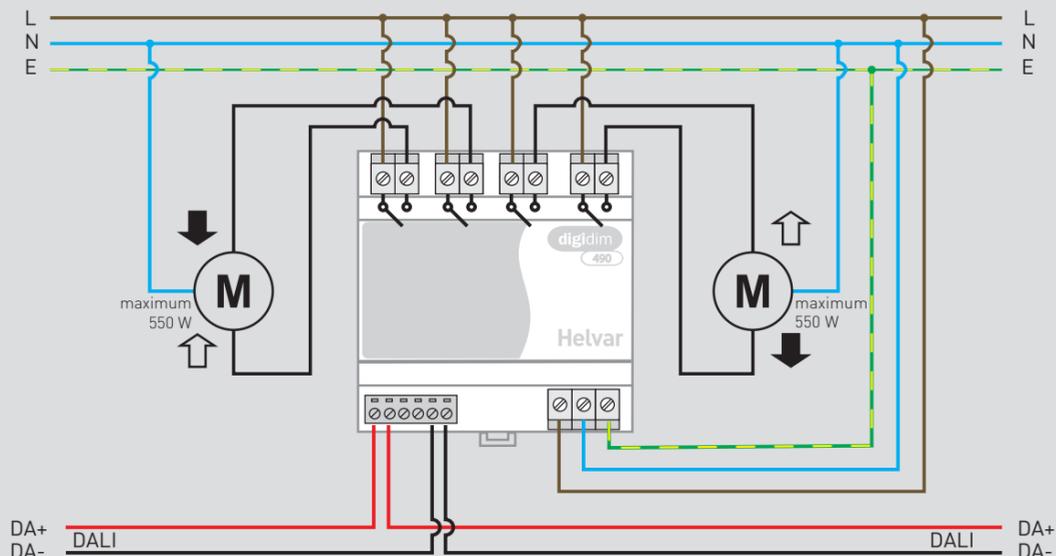
Power consumption from the DALI bus.....	2 mA
Power supply.....	220-240 VAC, 50-60 Hz
External protection.....	6 A
Maximum load.....	550 W per channel
Power consumption.....	5.6 W
Ambient temperature.....	0 °C to 40 °C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	2

Dimensions (mm)



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

Wiring diagram

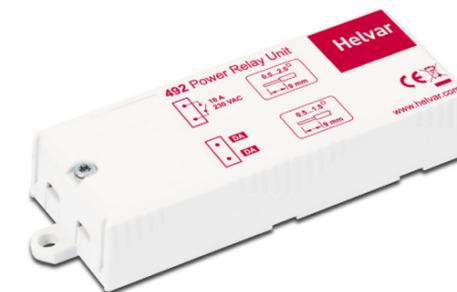


492 Single-Channel DALI Relay Unit

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

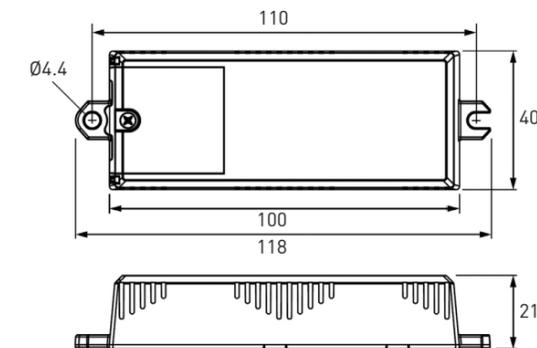
- 16 A high-current relay
- High-inrush specification relay
- Compact size for luminaire, electrical panel or in-line mounting
- Secure wire connection cover



Technical data

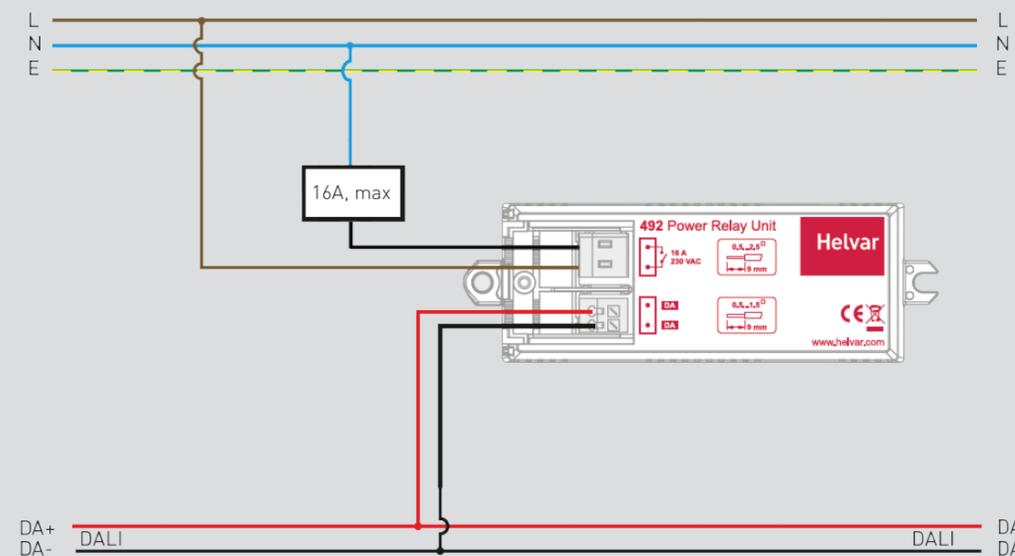
Power consumption from the DALI bus.....	2 mA
Relay load.....	16 A
Insulation.....	4 kV
Ambient temperature.....	0 °C to 40 °C
Degree of protection.....	IP30
Number of DALI addresses.....	1

Dimensions (mm)



Weight 52 g

Wiring diagram



498 8-Channel Relay Unit

This DIGIDIM 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 Imagine control systems.

Key features

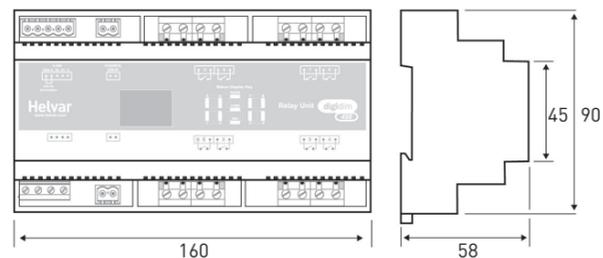
- High-inrush specification relays (single pole, normally open).
- Wired override input to allow for external triggers.
- LED segment display and push buttons.
- Can operate as:
 - 8 individual channels (8 × 1);
 - 4 sets of 2 channels (4 × 2); or
 - 2 sets of 4 channels (2 × 4).



Technical data

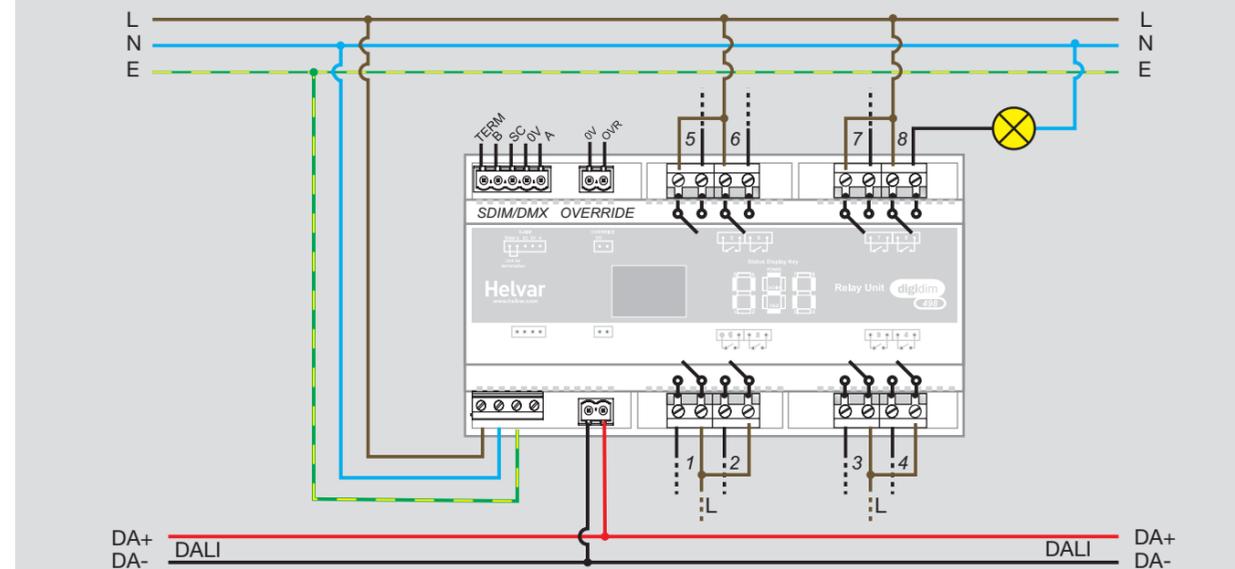
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Relay load.....	16 A
Power consumption.....	7 W
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP30 (except connectors)
Number of DALI addresses.....	8

Dimensions (mm)



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

Wiring diagram



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

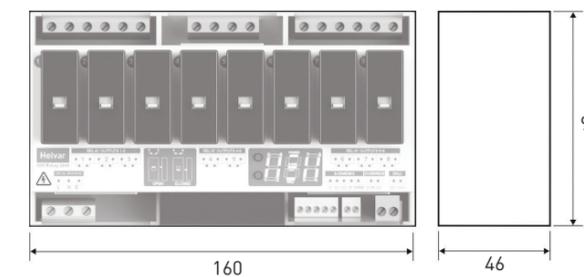
- Latching, single-pole, bistable relays with manual control.
- Wired override input to allow for external triggers.
- Manual control switch per channel.
- LED-segment display and push buttons.
- Can operate as:
 - 8 individual channels (8 × DALI addresses);
 - 4 sets of 2 channels (4 × DALI addresses); 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

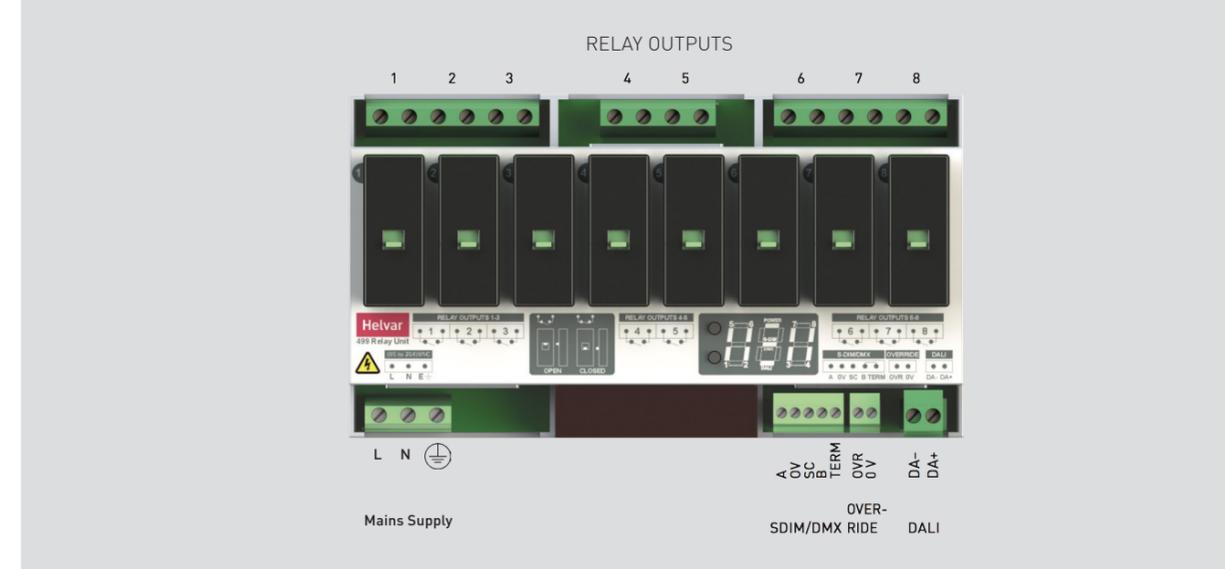
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Relay load.....	20 A
Power consumption.....	0.6 W per channel at 20 A current
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP20 (except connectors)
Number of DALI addresses.....	2, 4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

Dimensions (mm)



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

Wiring diagram



452 DIGIDIM Universal Dimmer

This DALI-compatible lamp interface for DIGIDIM 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

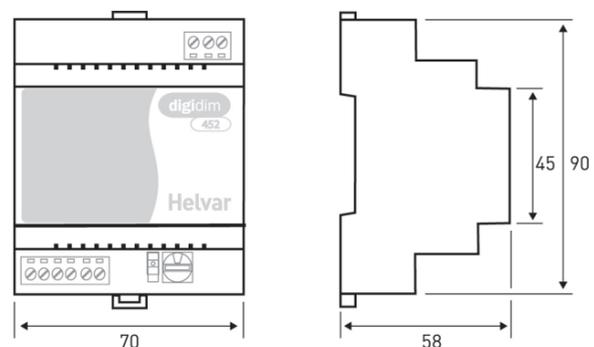
- Out-of-box operation. No programming required when using DIGIDIM slider, rotary, or push-button panels. For scene panels, 'preset download' must be carried out.
- Input voltage fluctuation compensation ensures stable output levels with fluctuating incoming mains levels.
- Group-selection switch for 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

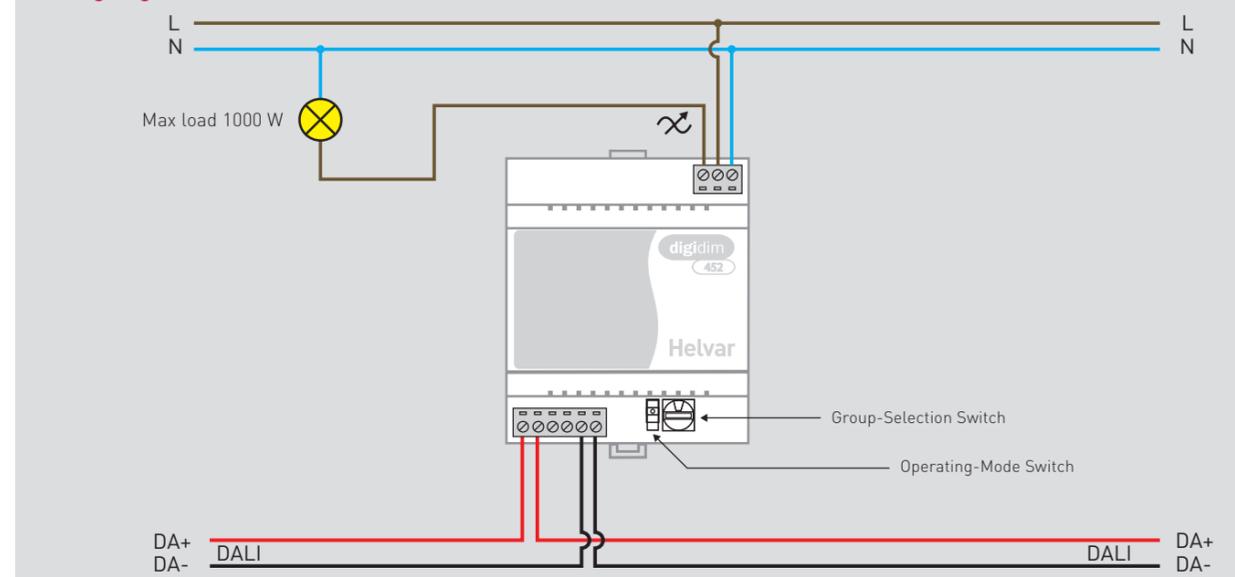
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Minimum load.....	5 W
Maximum load.....	1000 W
Power consumption in standby mode	0.8 W
Power consumption.....	7 W
Ambient temperature.....	0 ° C to 40 ° C
Degree of protection.....	IP30 (except connectors)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

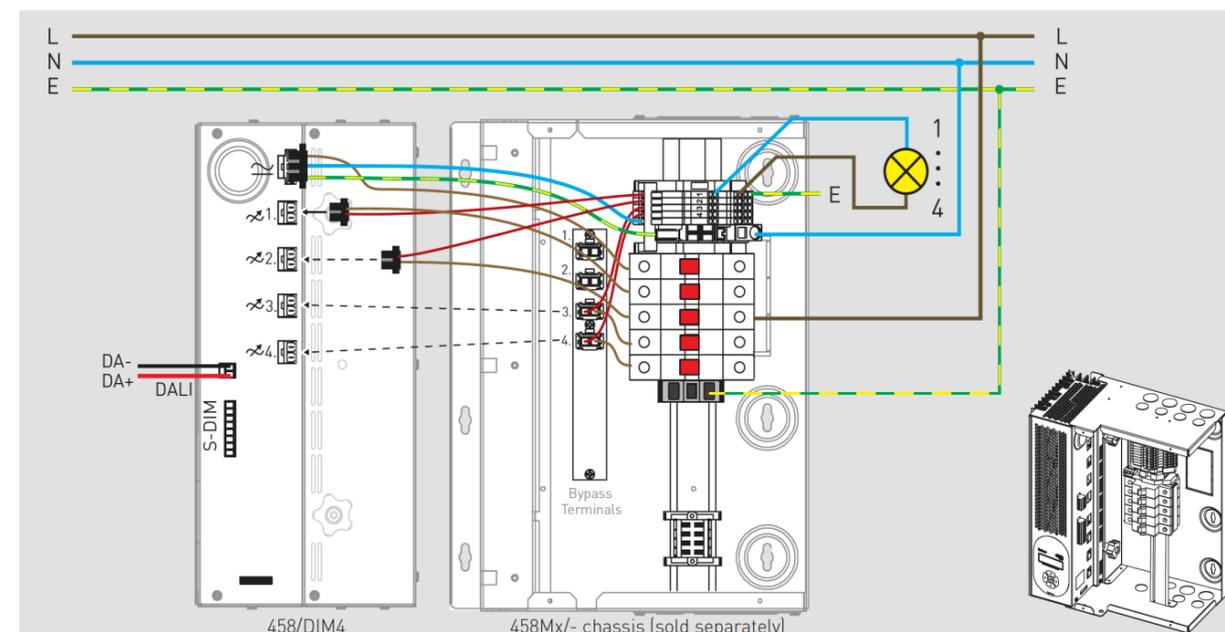
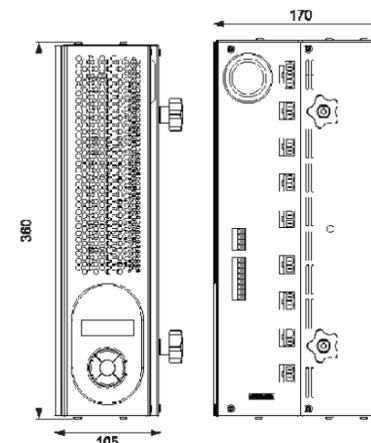
The 458/DIM4 is a four-channel digital thyristor dimmer module, capable of leading-edge dimming of resistive and inductive loads. It has a DALI and an SDIM/DMX interface, and therefore can be fully integrated into a standalone DALI, a DIGIDIM, an Imagine router or a DMX system.

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.
- Auxiliary power supply can be used to power one TouchPanel.
- Built-in DIGIDIM power supply, which can be used to power DALI systems if required.



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



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 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

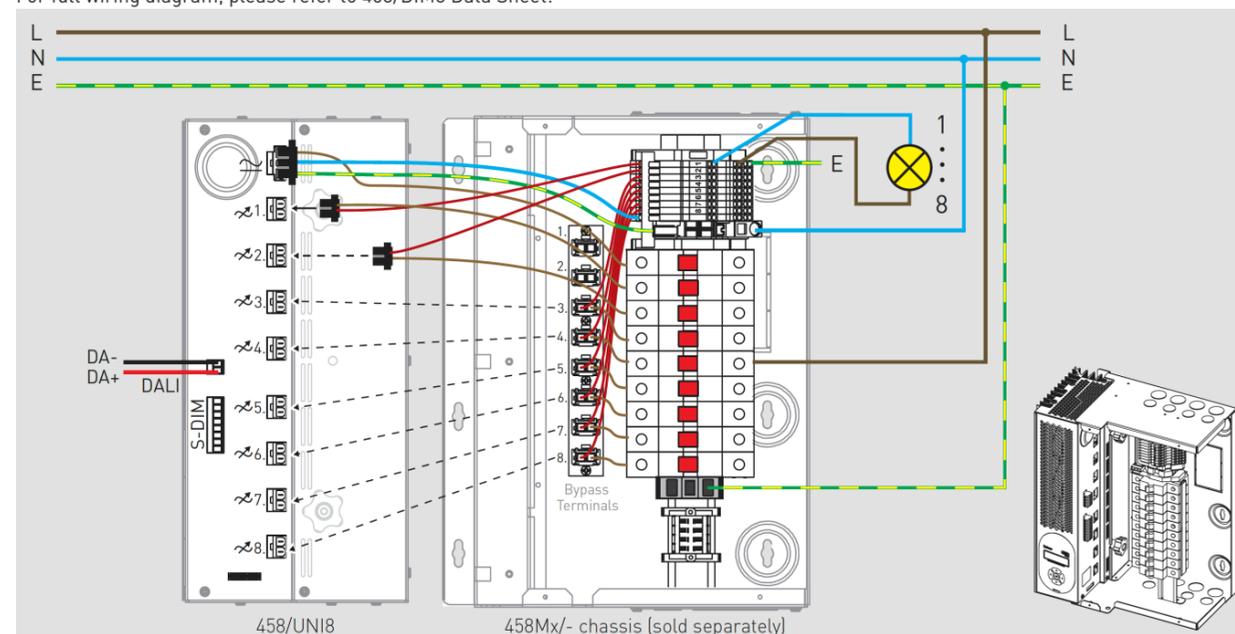
- Module plugs into any 458 mechanical chassis
- LCD display screen with navigation keys
- Built-in power supplies for the LCD TouchPanel & DIGIDIM
- Accepts options module 458/OPT4
- DALI / S-DIM / DMX control inputs

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:



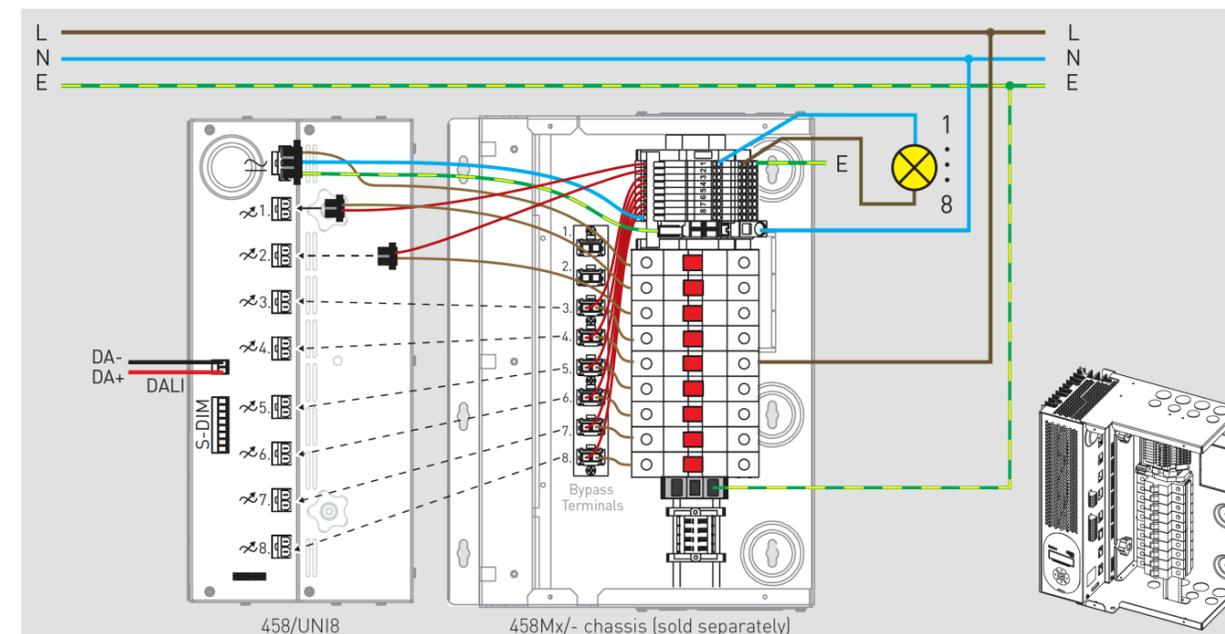
458/UNI8 8-channel Universal Dimmer Module

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 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

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



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

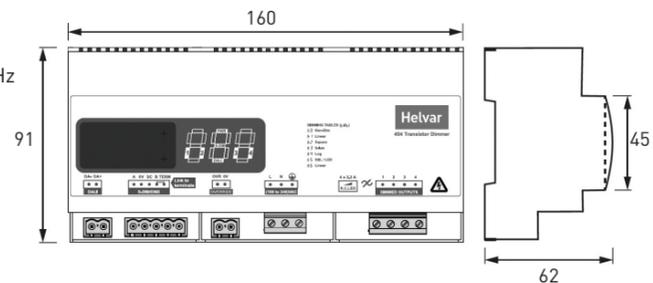
- Trailing-edge or leading-edge dimming
- LED segment and push buttons for manual configuration, including the following output types: linear, square, S-law, DALI logarithmic, LED curve, and DALI linear
- Manual wired override input
- Voltage and frequency compensation
- Overcurrent and temperature protection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



Technical data

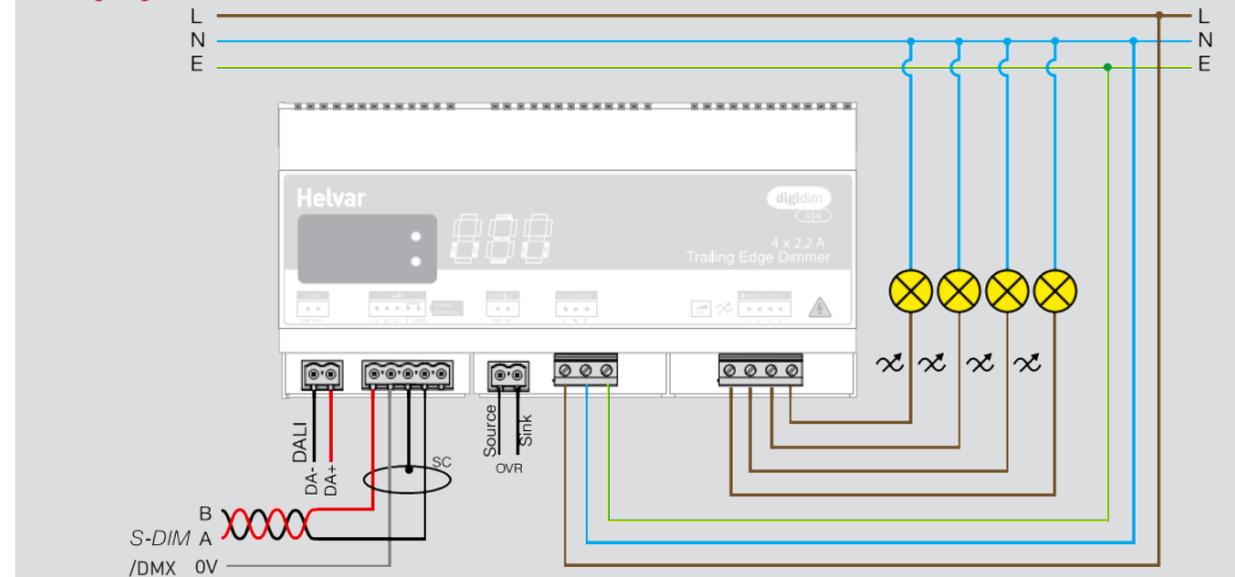
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Minimum load.....	5 W
Maximum load.....	2.2 A per channel (2.2 A × 230 V × 4 = 2 kW)
Power consumption in standby mode.....	2.3 W
Power consumption.....	11 W (maximum load)
Ambient temperature.....	0 °C to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

Wiring diagram



455 DIGIDIM 500 W Thyristor Dimmer

A leading-edge lamp interface for DALI DIGIDIM 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 DIGIDIM slider, dial or button panel.

Key features

- Out-of-box operation. No programming required when using DIGIDIM 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

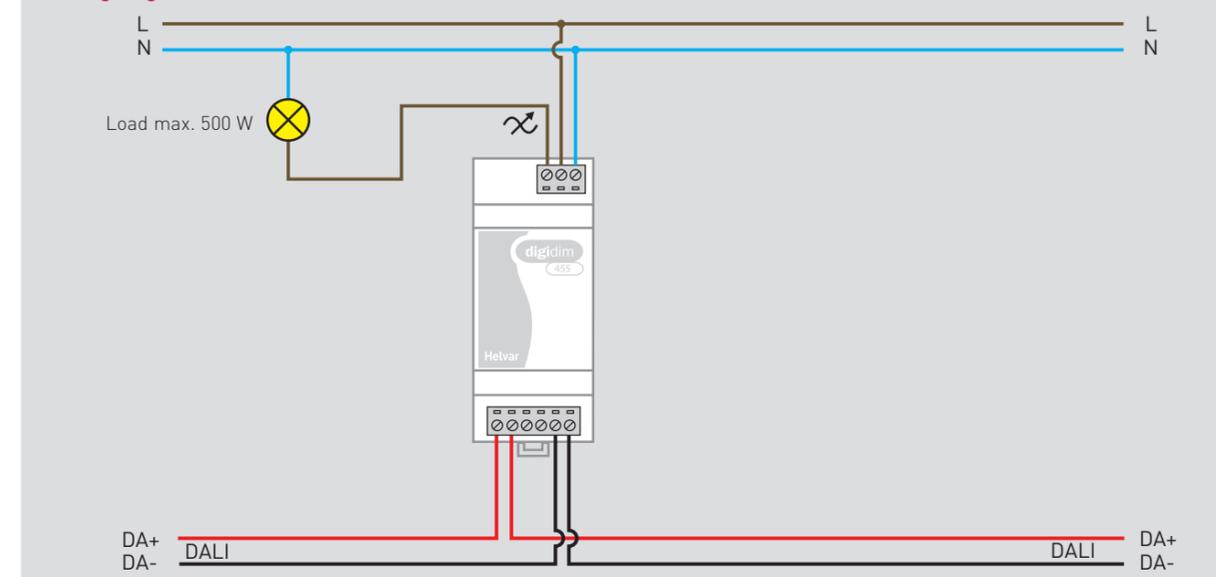
Power consumption from the DALI bus.....	2 mA
Power supply.....	100 VAC - 240 VAC 45 Hz - 65 Hz
Minimum load.....	25 W
Maximum load.....	500 W
Power consumption in standby.....	2 W
Power consumption.....	4 W
Ambient temperature.....	0 °C to 40 °C
Degree of protection.....	IP30 (except connectors)
Number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

Dimensions (mm)



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

Wiring diagram



472 DIGIDIM 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 bring DIGIDIM into other systems.

Key features

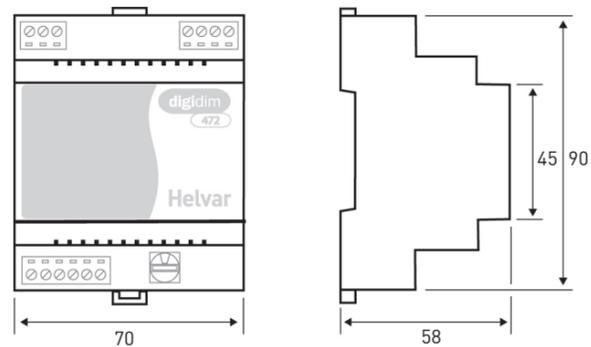
- Out-of-box operation provides control using DALI standard broadcast commands.
- For 1-10 V control, the converter can switch a maximum 15 ballasts/drivers. An external contactor should be used for more ballasts.
- Converter complies with DSI® 1 and DSI® 2 standards.
- Default light output at initial 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

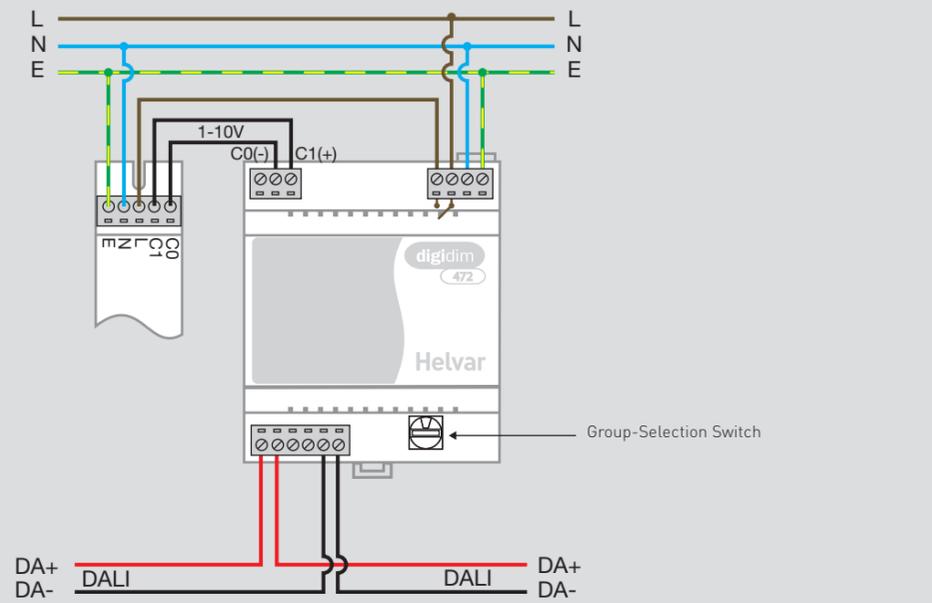
Power consumption from the DALI bus.....	2 mA
Power supply.....	85-264 VAC, 45-65 Hz
External protection.....	10 A
Network output.....	10 A (resistive)
Load.....	15 x ballast / LED power supply
Power consumption in standby mode.....	1.1 W
Power consumption.....	3 W
Ambient temperature.....	0 ° C to 40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

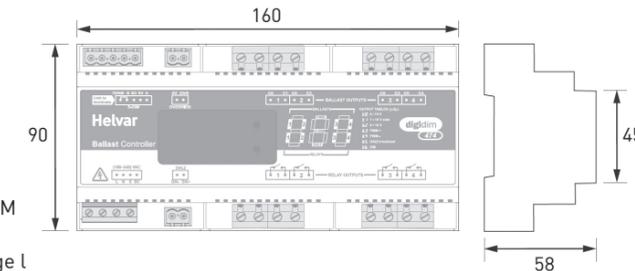
- High inrush specification relays
- Wired override input
- LED segment display and push buttons
- Multiple output configurations of:
 - 0-10 V: source 10 mA
 - 1-10 V: sink 100 mA
 - DALI broadcast: source 100 mA
 - DSI®: source 100 mA
 - PWM: source 100 mA



Technical data

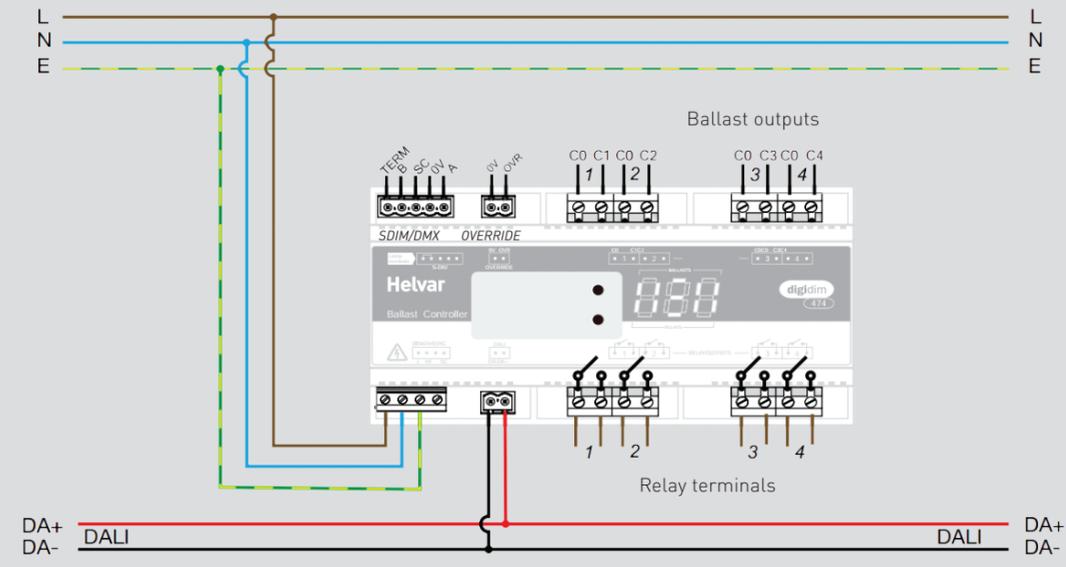
Power consumption from the DALI bus.....	2 mA
Power supply.....	85-264 VAC, 45-65 Hz
External protection.....	6 A
Power consumption in standby mode.....	2.4 W
Power consumption.....	13 W
Load per channel.....	50 x 1-10 V / DALI / DSI® / PWM ballast
Maximum relay load.....	16A (on the relay) 10A discharge I (cos φ = 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

Dimensions (mm)



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

Wiring diagram



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

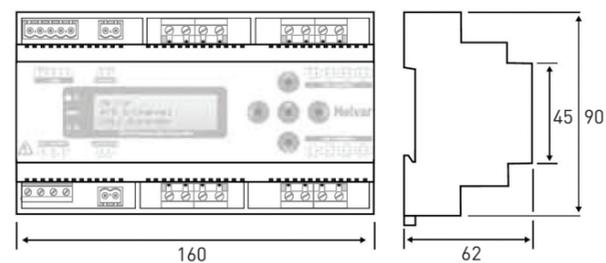
- Control using DALI broadcast messages on each subnet.
- Integral DALI power supply – supports up to 512 DALI devices (8 x 64 devices: 2 mA per driver/ballast).
- Lamp failure reporting per subnet.
- Lower commission costs – device addressing/grouping on subnet not required.
- DALI/SDIM/DMX control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

Dimensions (mm)



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

503 DIGIDIM 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

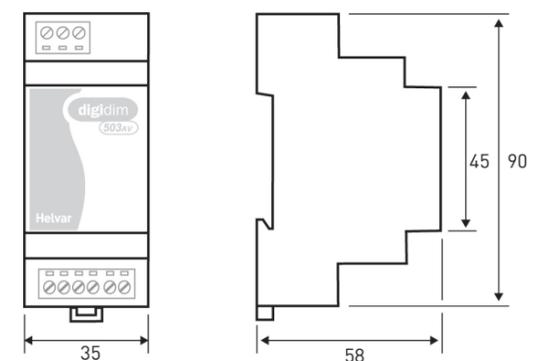
- Status LED
- Bi-directional serial interface for basic system monitoring and control
- Terminal blocks for DALI and RS232 wiring



Technical data

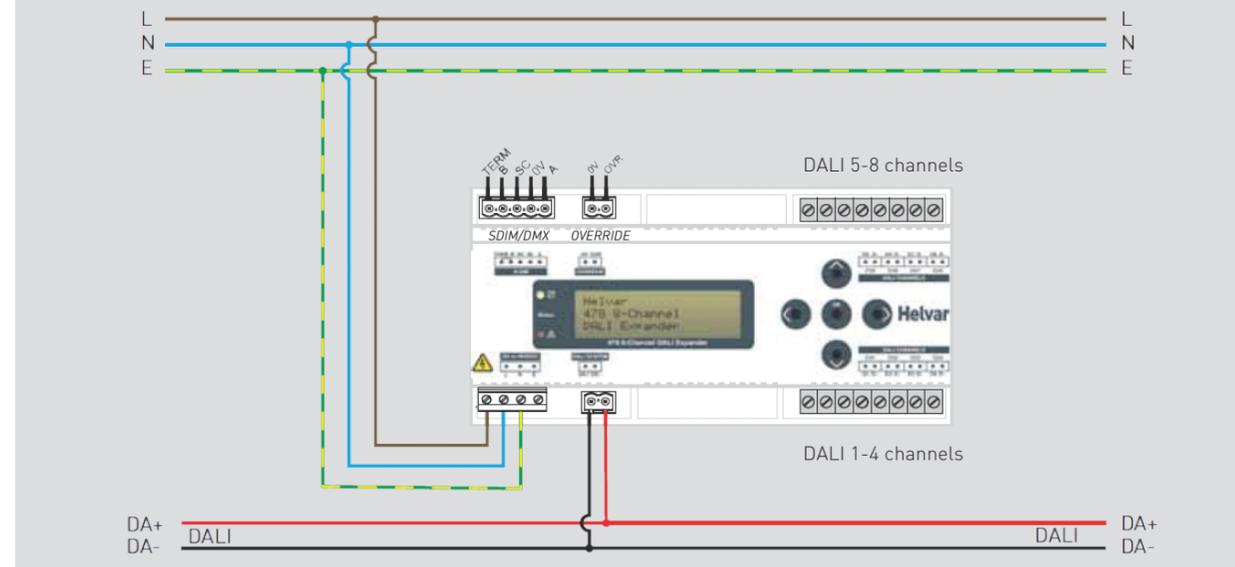
Power consumption from the
 DALI bus..... 15 mA
 Ambient temperature..... 0 °C to 40 °C
 Degree of protection..... IP30 (except connectors)
 Number of DALI addresses..... 1

Dimensions (mm)

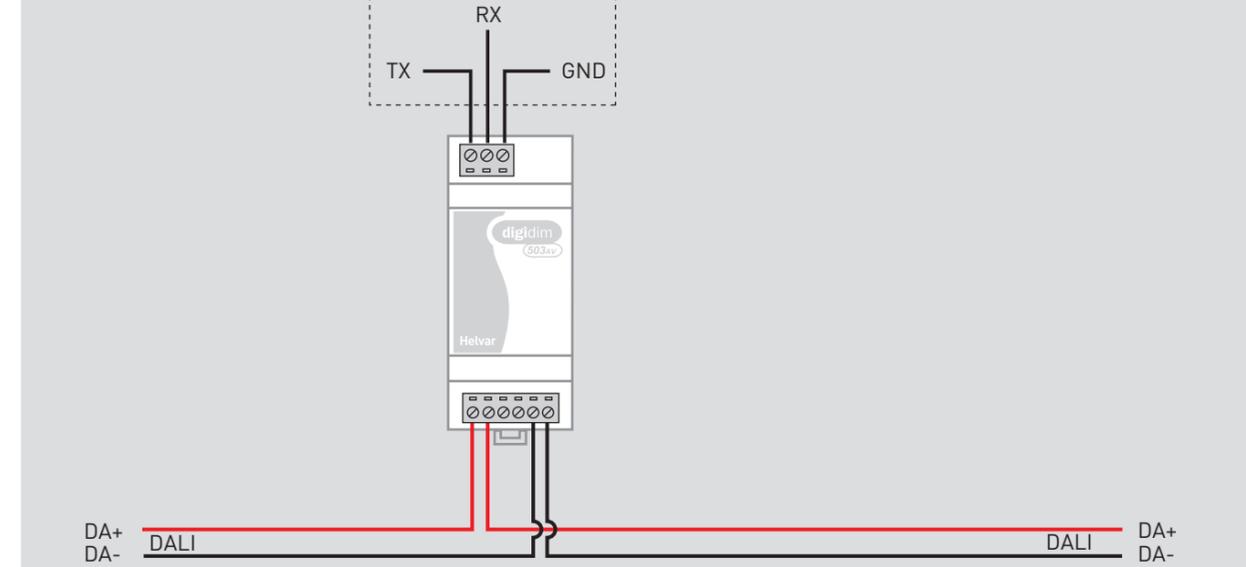


DIN rail housing; Width of 2 modules. Weight 80 g

Wiring diagram



Wiring diagram



303 DIGIDIM Infrared Remote Control

Control power and dimming. Choose from four lighting scenes. Take instant control of the blinds.

It's easy with our infrared remote.

There's a wall holder too (product code WH303).

Key features

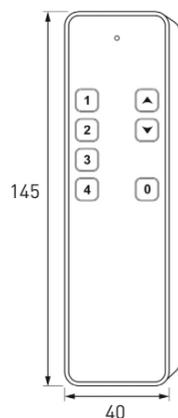
- Controls basic system functions.
- Programming tool for simple lighting systems (Helvar's Designer or Toolbox software is used for advanced programming).
- Up to four lighting groups can be programmed.
- Can be used for setting scene fade time.



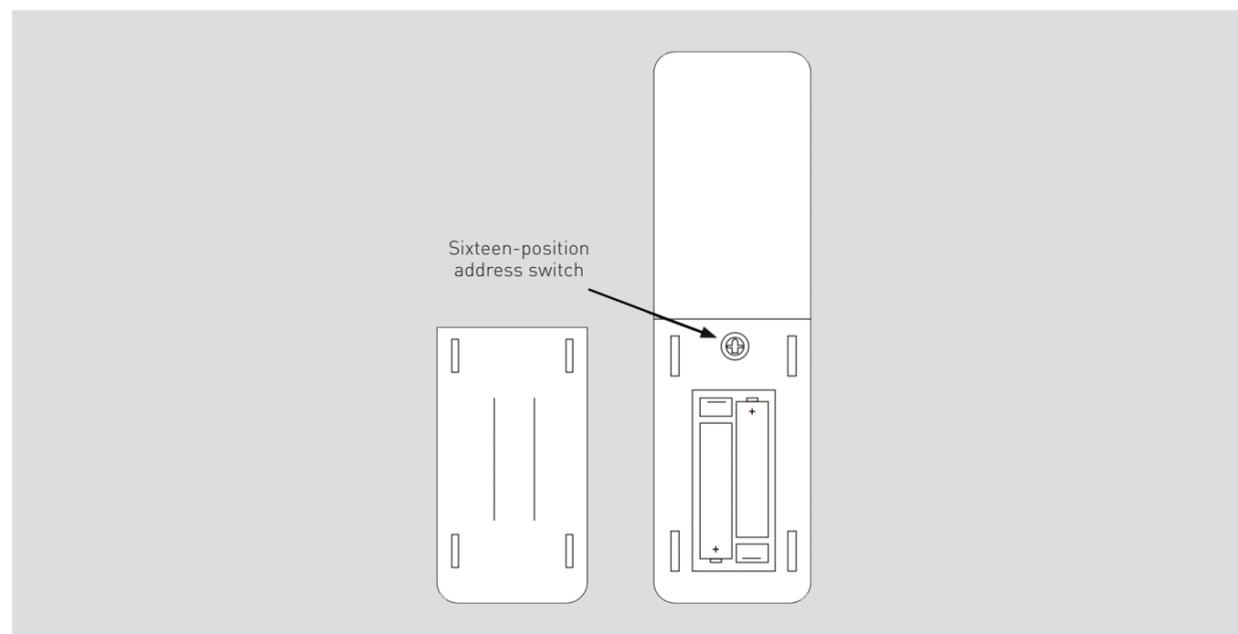
Technical data

Power supply.....	2 x IEC, LR03 / AAA
Battery.....	1.5V
Range.....	5 m
Frequency.....	36 kHz
Ambient temperature.....	0 ° C to 40 ° C
Dimensions.....	40 x 145 x 15 mm
Number of DALI addresses.....	0

Dimensions (mm)



Weight 50g



easySwitch

Simple and easy to install, these standalone products are ideal for corridors, washrooms and small offices.

What it includes:

- 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



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.*

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.*

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

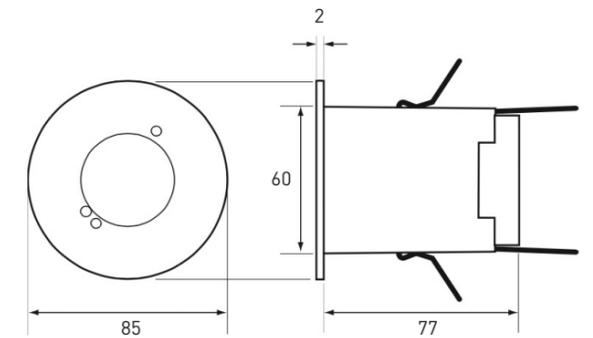
- Easily selectable presence or absence detection.
- Provides load control in response to changes in room occupancy and illuminance.
- Simple out-of-the-box operation.
- Energy saving.



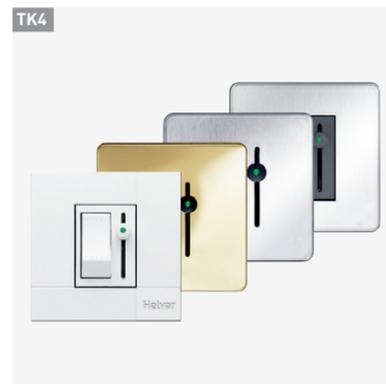
Technical data

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)



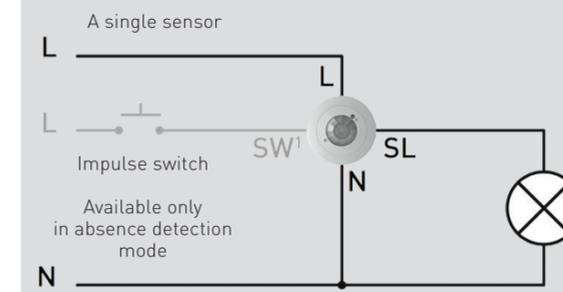
The diameter of the mounting hole: 75 mm
White plastic, weight 100g



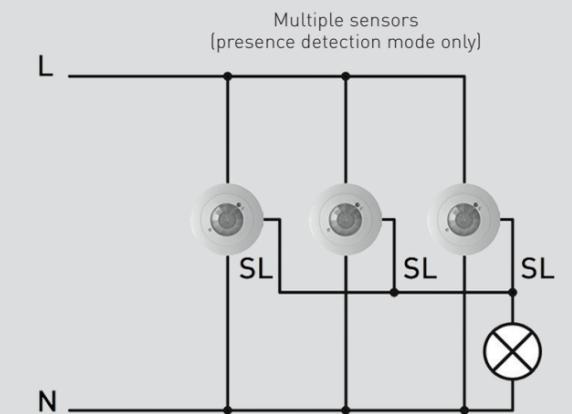
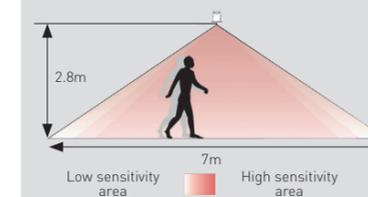
TK4 1-10V ballast controls

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

Wiring diagram



Motion detection area



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

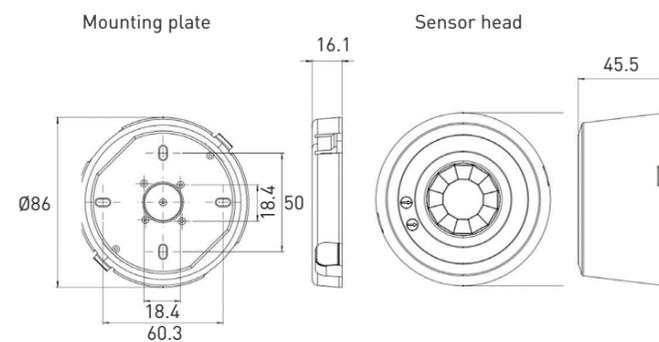
- Presence or absence detection
- Energy saving
- Switching option via bell switch



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

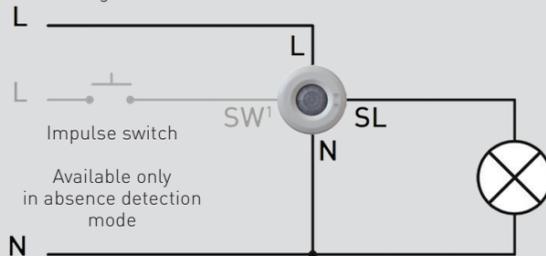
Dimensions (mm)



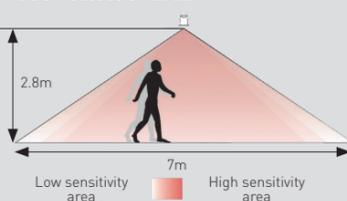
White plastic, weight 102g

Wiring diagram

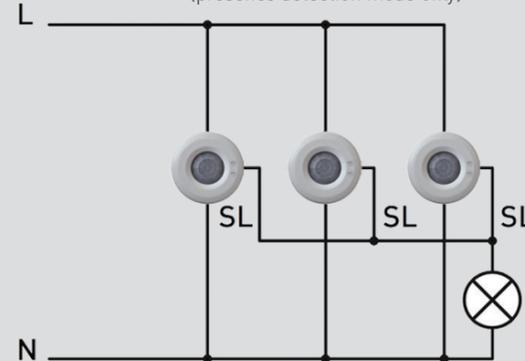
A single sensor



Motion detection area



Multiple sensors
(presence detection mode only)



Know more, Travel less

We offer **Remote Monitoring & Maintenance** to ensure your lighting controls are always performing at their best, meaning you can benefit from:

- System information available around the clock, so you're always in the know
- A simple web interface to give you full control
- Training and expert advice to give you added reassurance, and reduce the need for site visits

Make light make sense.

MONITORING & MAINTENANCE

Remote Monitoring and Maintenance will change the way you manage your lighting control systems. See how your sites are performing anytime, anywhere – from your mobile, tablet or laptop. Get email alerts if there's ever a problem, and you can even maintain control systems remotely.

Save time. Boost efficiency. Take control.

Key values for each stakeholder:



FACILITIES MANAGER

Get more productive by digitising and automating alert, notification and recommendation processes



INSTALLER

Cut your cost during warranty time by being always able to get automated diagnosis of the light control system, and by being able to remotely and securely access any installation



TENANT AND BUILDING OWNER

Get the peace of mind you need as your investment into a smart light control system pays off over time



Upgrading? Make the best even better.

You've invested in world-class lighting controls. You want to keep them in first-class condition. Even older lighting systems will benefit from upgrades. You'll have access to system information 24/7, so you'll know if something ever goes wrong - making it easy to deal with all the most common issues, and cutting down the need for callout journeys.



How does it work?

Whether you are installing or managing a lighting control system, or own or rent a building, our monitoring & maintenance service offers:

- Cost savings throughout the warranty period and beyond
- Efficiency of a digital service with notifications and recommendations
- Future proof intelligent lighting control system that adapts to your usage and needs

Better insight at your fingertips

Keep your new installation in peak working order.

When you sign up for Remote Monitoring Maintenance on a new control system:

- See how it's performing, day and night
- Know if something ever goes wrong
- Be guided by expert advice
- Save on needless visits.



Rock-solid security

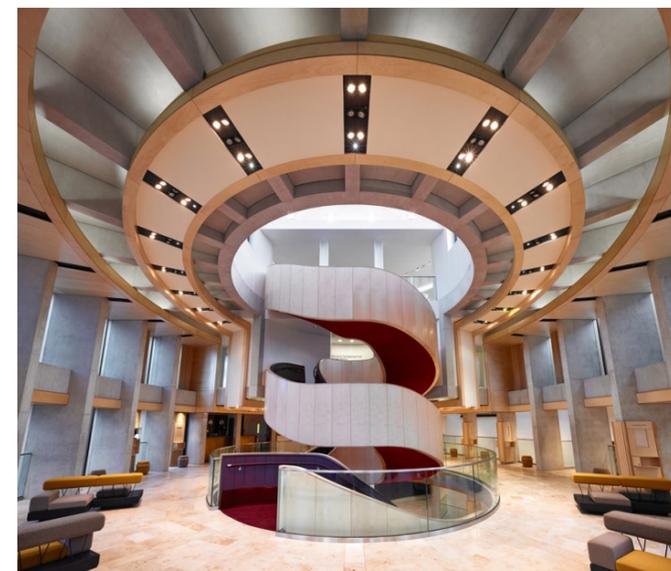
Is it safe to connect your site?

Absolutely.

From collection to storage, all your data is fully encrypted. Cloud Gateway runs entirely on its own hardware, complete with an independent firewall.

Only authorised and authenticated users can gain entry.

And while we provide the service, it's your data. You own it.





24/7 MULTI-SITE MONITORING

A secure, server-less and modern solution that let's you see how all your connected sites are working. Accessible from anywhere. At anytime



EASY ACCESS TO INFORMATION

No local programs to install. Access your sites through any device - PC, Mac, smart device. Immediately see what needs to be done with an intuitive dashboard



PRIOTISED 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



FAST AND 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



ACCESS VIA VPN

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 THE ISSUES

Instantly get a floorplan view of issues in the building, colour coded by severity level. You can see whether they are concentrated, and where the most critical ones are



SAVE TIME AND MONEY ON EMERGENCY LIGHTING TESTS

Emailed DALI emergency reports save you time and money by completing emergency lighting tests with a click of a button

510 Toolbox / programming point / USB cable

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

You can download it now 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.

The software can be downloaded from www.helvar.com

The programming point must be ordered separately. A 5-meter cable (USB-A - mini USB-B) is supplied with a 510 interface.

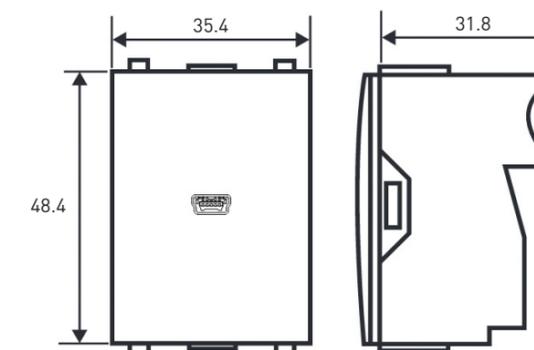


ToolBox

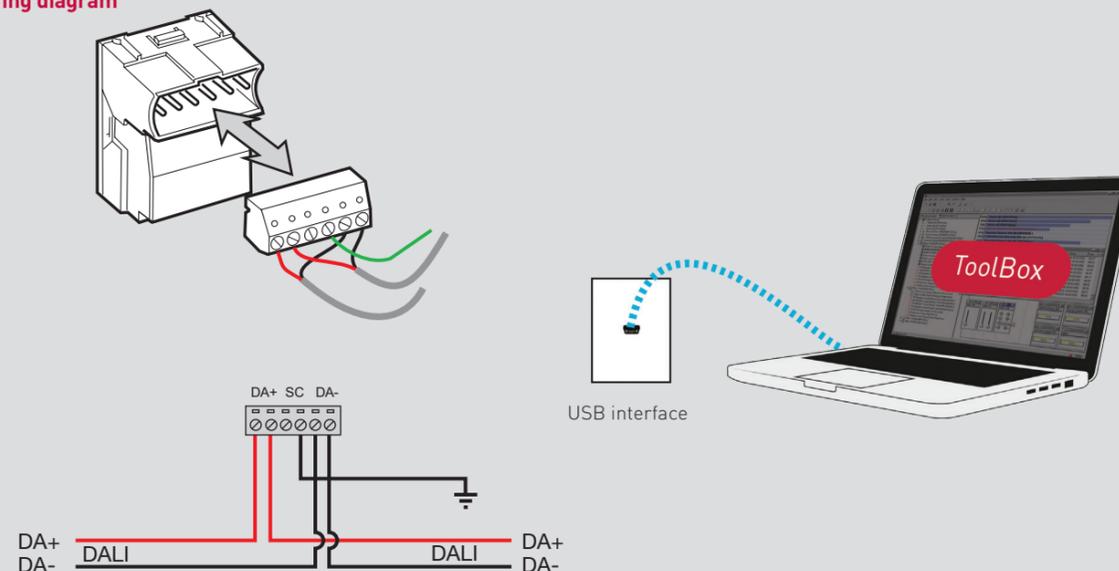
Technical data

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



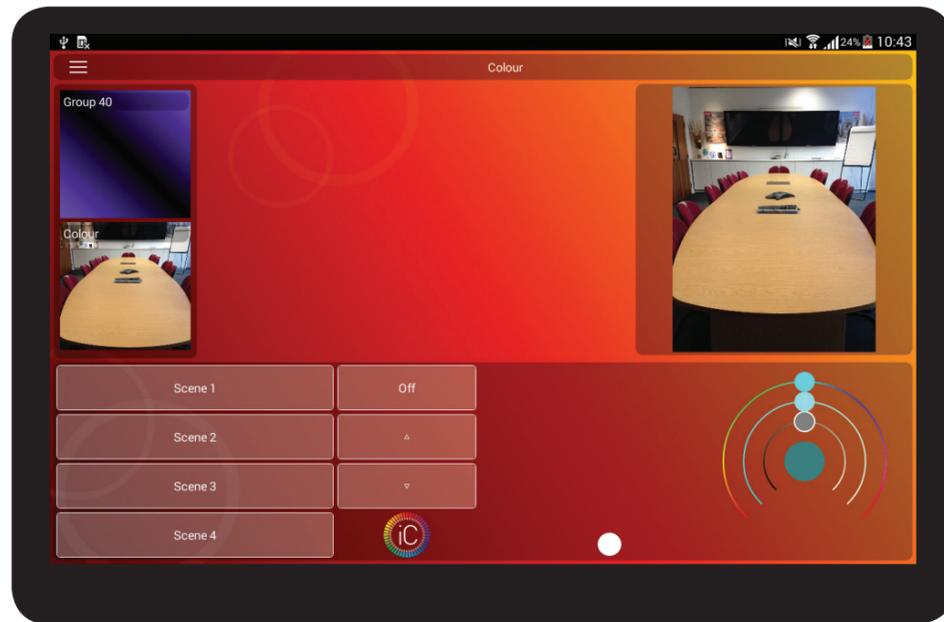
SceneSet

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

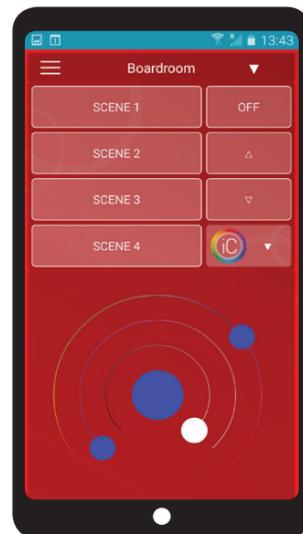
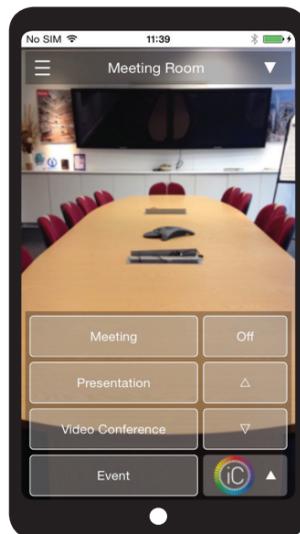
Easily modify lighting scenes. Update multiple lighting groups in one go. Even manage RGB colour and tunable white luminaires — all from this simple, customisable interface.



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 DALI 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.



Technical data

Dimensions (mm)

Functions

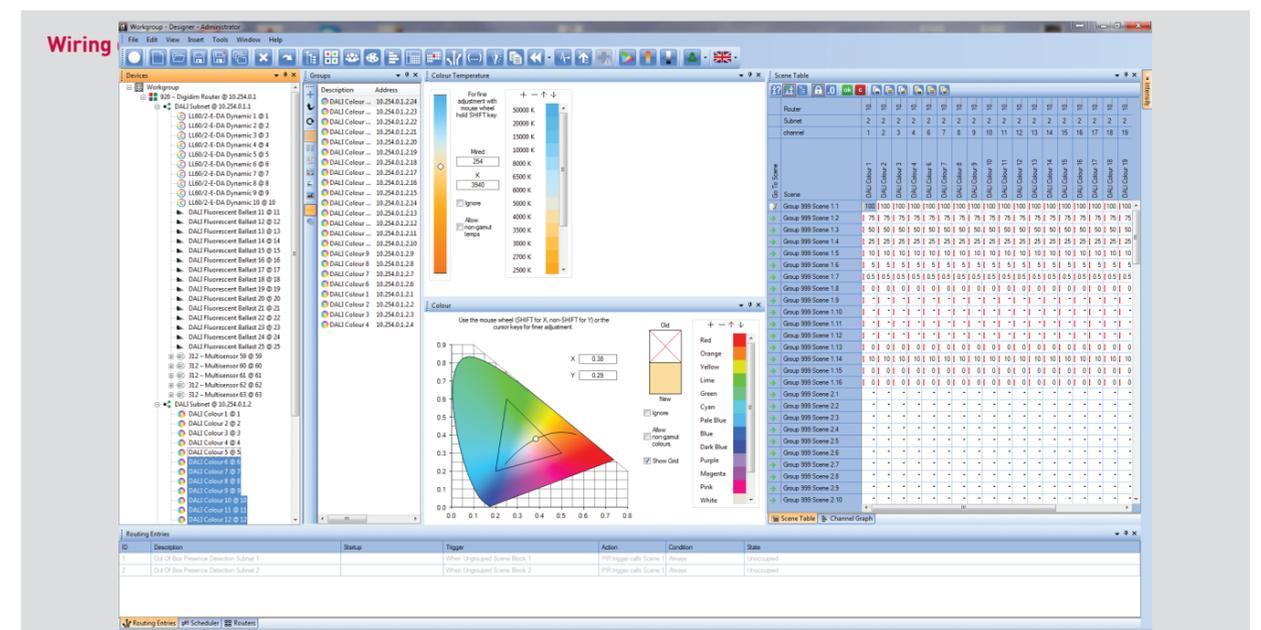
- Scenes, variable extinction times
- Schedule and logic functions
- Intelligent sensors
- Tunable white, RGB

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.

It's 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

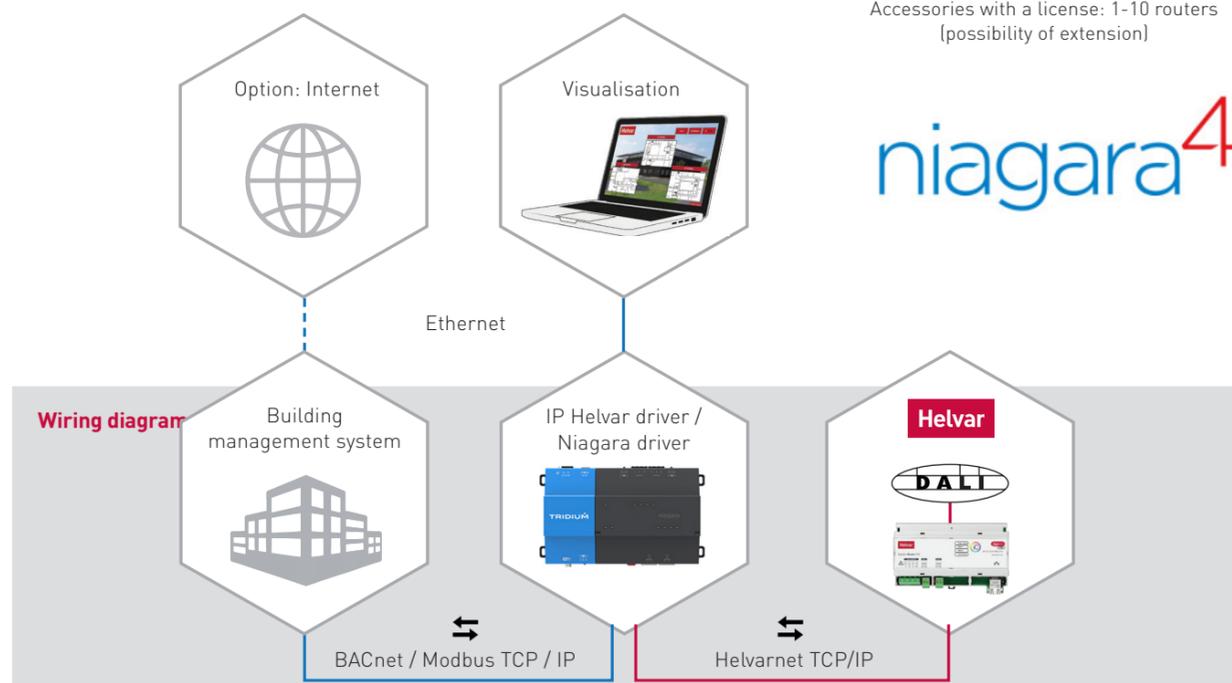


Software license: 1-40 routers
(possibility of extension)



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

Dimensions (mm)



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

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 DIGIDIM 910 routers to components which are able to control ventilation.



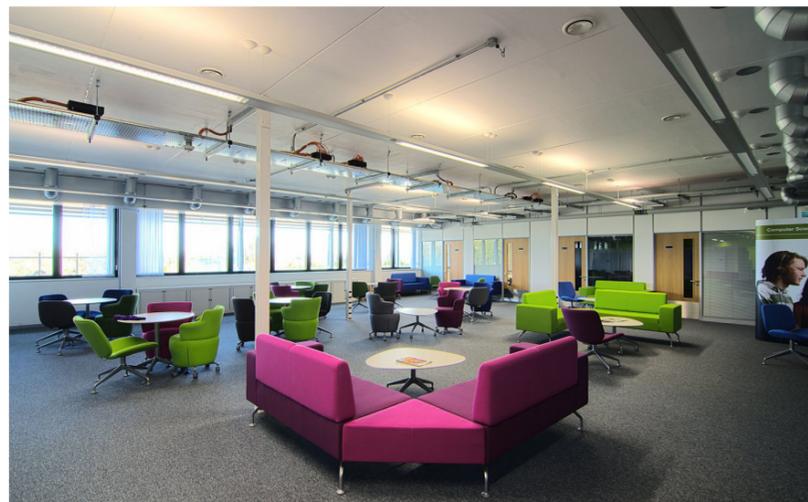
Education University of Bath, United Kingdom



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 of 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

Health and Wellbeing at Seinäjoki Central Hospital 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 Imagine Routers, 40 x 8 Scene Lighting Control Panels, and 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 DIGIDIM 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.





We're based in Finland, Sweden and the UK, and we work with partners all over the world.

FINLAND
HELVAR OY AB,
Keilaranta 5
FI-02150 Espoo
Tel. +358 9 5654 1

SWEDEN
Helvar AB
Åsögatan 155
SE-11632 Stockholm
Tel. +46 8 545 239 70

UNITED KINGDOM
Helvar Ltd
Hawley Mill, Hawley Road
Dartford, Kent, DA2 7SY
Tel. +44 1322 617 200

We're always improving our products. See what's new at helvar.com

09.2019

Front cover image: JW Marriott Hotel Ankara, Turkey.