

LED Solutions

Helvar

freedom in lighting



APPLICATIONS

Helvar focus on providing LED solutions for professional lighting applications.

The continuous improvement in LED efficacy, quality and cost efficiency allows more and more applications to be designed around this technology. So far LED has been successful by applied accent / ambient lighting, beautification and safety lighting. Functional lighting is also becoming increasingly visible in commercial applications; all part of Helvar's application and solution focused approach.

FUNCTIONAL - OFFICE, EDUCATION, HEALTHCARE

LED drivers with high efficiency & long lifetime, aiming for low cost of ownership

ACCENT - RETAIL, MUSEUM, CONFERENCE CENTRE

LED drivers & compatible sensor solutions, enabling maximum energy saving



AMBIENT - HOTEL, MUSEUM, RESTAURANT,
CRUISE LINER

Dimmable LED drivers & controls systems, allowing smooth dimming 1-100 %

BEAUTIFICATION & SAFETY - FACADE,
INDUSTRY, ARENA, PUBLIC SPACE

LED drivers with high efficiency, high immunity & robust enclosures for reliable operation



LED DRIVER OFFERING

Helvar's LED offering contain a range of Constant Current drivers including dimmable and non-dimmable solutions.

The LED drivers can be used in both indoor and outdoor applications for spot lights, down lights, flood lights and linear strip lighting.



BENEFITS FOR SPOT LIGHTS

- Range of drivers in robust mechanics
- Good efficiency for energy saving



BENEFITS FOR DOWN LIGHTS

- Drivers for built-in and independent use
- Smooth dimming 1-100 % for comfort



BENEFITS FOR LINEAR LIGHTS

- Linear slim line drivers
- DALI drivers with compatible lighting controls



BENEFITS FOR HIGH BAY LIGHTS

- Robust drivers with long lifetime
- Multiple output currents for flexibility

THE LED DRIVER RANGE

The Helvar LED driver range is designed for easy installation and to provide long life. All drivers provide power with high efficiency. The dimmable drivers ensure reliable and smooth dimming from 1 % - 100 %. Helvar's LED drivers

are complemented by a full and compatible range of Helvar controls and sensor solutions, suitable for both luminaire based (μ Dim, iDim, MIMO3) and networked applications (DIGIDIM Router).

Driver type	Switching	1 - 10 V	DALI	DMX	Output current	Output voltage	Max. output power	Efficiency at max power	IP Class	Dimensions l x w x h (mm)
LL6-U-CC	●	-	-	-	350 700	7 - 16 7 - 10	7	80 %	20	118 x 40 x 21
LL1x20-E-CC	●	-	-	-	350 500 700	10-57 10-40 10-28	20	87 %	20	184 x 40 x 25
LL1x20-E-DA	-	-	●	-	350 500 700	10 - 57 10 - 40 10 - 28	20	86 %	20	184 x 40 x 25
LC1x30-E-CC	●	-	-	-	350 500 700	10 - 60 10 - 60 10 - 43	30	86 %	20	106 x 67 x 28 *
LC1x30-E-AN	-	●	-	-	350 500 700	10 - 60 10 - 60 10 - 43	30	86 %	20	106 x 67 x 28 *
LC1x30-E-DA	-	-	●	-	350 500 700	10 - 60 10 - 60 10 - 43	30	86 %	20	106 x 67 x 28 *
LL1x40-E-CC	●	-	-	-	350 -1050	20 - 80 @ 350 mA 20 - 38 @ 1050 mA	40	89 %	20	184 x 46.5 x 28 *
LL1x40-E-DA-350-700	-	-	●	-	350 - 700	20 - 80 @ 350 mA 20 - 57 @ 700 mA	40	89 %	20	184 x 46.5 x 28 *
LL1x40-E-DA-700-1050	-	-	●	-	700 -1050	20 - 57 @ 700 mA 20 - 38 @1050 mA	40	89 %	20	184 x 46.5 x 28 *
LL1x10-42-E-CC	●	-	-	-	120-350	80 - 350 @ 120 mA 80 - 300 @ 140 mA 30 - 120 @ 350 mA	42	94%	20	190 x 30 x 21
LL1x10-42-E-DA	-	-	●	-	120-350	80 - 350 @ 120 mA 50 - 120 @ 350 mA	42	92%	20	280 x 30 x 21
LL1x23-80-E-CC	●	-	-	-	150-350	150 - 350 @ 150 mA 120 - 350 @ 200 mA 120 - 228 @ 350 mA	80	95%	20	230 x 30 x 21
LL1x23-80-E-DA	-	-	●	-	150-350	150 - 350 @ 150 mA 120 - 350 @ 200 mA 120 - 228 @ 350 mA	80	93%	20	280 x 30 x 21
LL2x35-E-CC	●	-	-	-	350-700	25 - 100 @ 350 mA 25 - 50 @ 700 mA	2x35	91 %	20	380 x 35 x 21
LL2x35-E-DA	-	-	●	-	350-700	25 - 100 @ 350 mA 25 - 50 @ 700 mA	2x35	90 %	20	380 x 35 x 21
LL1x70-E-CC	●	-	-	-	350-700	50 - 200 @ 350 mA 50 - 100 @ 700 mA	70	91 %	20	280 x 30 x 21
LL1x70-E-DA	-	-	●	-	350-700	50 - 200 @ 350 mA 50 - 100 @ 700 mA	70	91 %	20	280 x 30 x 21
LC1x70-E-CC	●	-	-	-	700 -1400	30 - 100 @ 700 mA 30 - 50 @ 1400 mA	70	90 %	20	141.5 x 80.5 x 29.5 *
LC1x70-E-DA	-	-	●	-	700 -1400	30 - 100 @ 700 mA 30 - 50 @ 1400 mA	70	90 %	20	141.5 x 80.5 x 29.5 *
OL1x60-E-CC	●	-	-	-	350 700 1400	60 - 90 35 - 90 35 - 42	63	90 %	65	149 x 53 x 35
OL1x100-E-CC1	●	-	-	-	700 1050	70 - 120 70 - 100	105	91 %	65	234 x 53 x 35
OL1x100-E-CC2	●	-	-	-	1400 2100	30 - 72 30 - 48	101	91 %	65	234 x 53 x 35
LC50-U-DX3	-	-	-	●	350 -1050	10 - 55	50	89 %	20	130 x 76 x 30

*) Dimensions without strain relief

DALI Control with CV Drivers



KEY FEATURES

- Highest quality DALI extension unit
- Dimming range 0.1 % - 100 % with 1kHz PWM frequency
- Designed for CV drivers up to 5A (12V & 24V)
- Low stand-by power 0.1W

6 W & 20 W Driver platform



KEY FEATURES

- Robust enclosure with integrated strain reliefs
- 20 W DALI dimmable version, 1-100 % range
- Multiple output currents 350, 500, 700 mA
- Low stand-by power 0.4 W (DALI)

30 W Driver platform



KEY FEATURES

- 30 W Constant Current, DALI and Analogue 1-10 V version
- Smooth dimming in 1-100 % range
- Selectable output currents 350, 500 or 700 mA
- Low stand-by power 0.3 W (DALI)
- Optional click-on strain relief for independent use

40 W Driver platform



KEY FEATURES

- 40 W Constant Current and DALI version
- Smooth dimming in 1-100 % range
- Adjustable output currents range 350 - 1050 mA
- Low stand-by power 0.3 W (DALI)
- Optional click-on strain reliefs for independent use

23-80 W Driver platform



KEY FEATURES

- Full range covered by 1x10-42W and 1x23-80W drivers
- Selectable output currents 120-700mA
- Highest energy efficiency up to 0.95
- DALI drivers with highest quality smooth dimming in range 1-100%

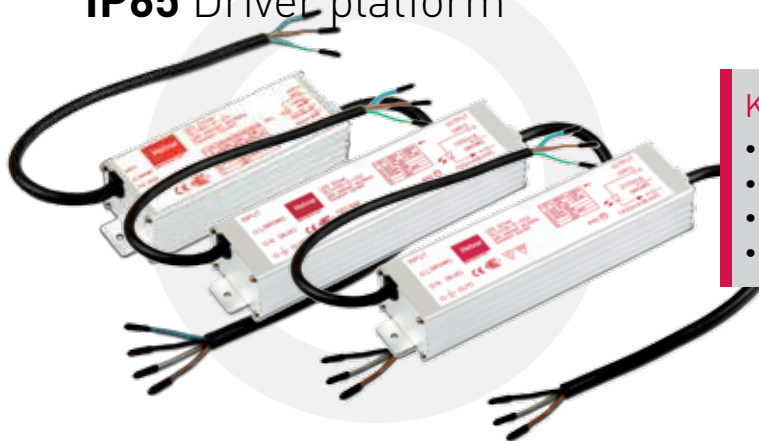
70 W Driver platform



KEY FEATURES

- Linear & Compact 1x70 W versions (Constant Current and DALI)
- Linear 2x35 W version (Constant Current and DALI)
- DALI dimmable versions with smooth dimming 1-100 %
- Linear 1x70 / 2x35: Adjustable output current range 350 - 700 mA
- Compact 1x70: Adjustable output current range 700 - 1400 mA
- Low stand-by power 0.4 W (DALI)
- Compact: Optional click-on strain relief for independent use

IP65 Driver platform



KEY FEATURES

- Robust IP65 rated enclosure for outdoor use
- 60 W: Multiple Constant Currents 350, 700, 1400 mA
- 100 W: Multiple Constant Currents 700, 1050, 1400, 2100 mA
- High efficiency ≥ 0.91

50 W DMX Driver platform



KEY FEATURES

- 3 channel DMX driver, 50 W max total
- Programmable output current 350 (default) - 1050 mA
- Smooth dimming range 0.1-100 %
- NTC thermal protection input

CONTROLS

Network & Integration



- Web-based GUI for lighting system management
- Energy monitoring, Scene control, Emergency test



- Open platform for integration to BMS
- Intelligent driver with Helvar system commands



- HelvarNet I/O command list
- Link 3rd party systems via TCP/IP



TCP-IP: Open protocol

DALI ROUTER



Output devices

LED DRIVERS

- Variety of Constant Current LED drivers
- DALI dimmable, smooth dimming 1-100 %
- High efficiency & Long lifetime



DALI: Open protocol

Input devices



SENSORS

- Network & Stand-alone sensors
- PIR, Daylight, Microwave



USER INTERFACES

- DALI based control panels
- Range of panel options and finishes



3RD PARTY

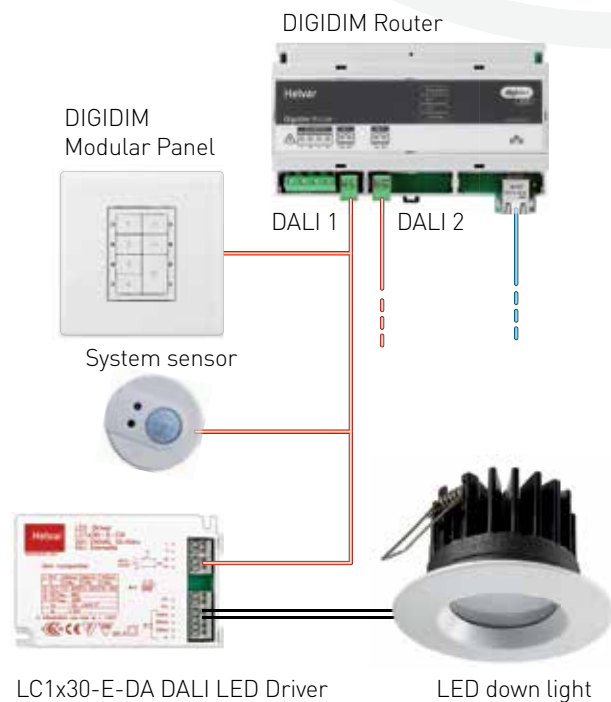
- Input devices for 3rd party panels
- EnOcean wireless interface & panels

SOLUTIONS

SYSTEM SOLUTION

This solution shows an application example of a commercial office system. Helvar's DALI dimmable 30 W LED driver is connected independently to an LED down light fitting. The DIGIDIM router allows linking of multiple drivers into a larger office solution. The DIGIDIM multi-sensor enables the LED light source to be dimmed up or down, depending on the user activity and the level of natural daylight. DIGIDIM modular panels provide manual override, useful during after-office hours.

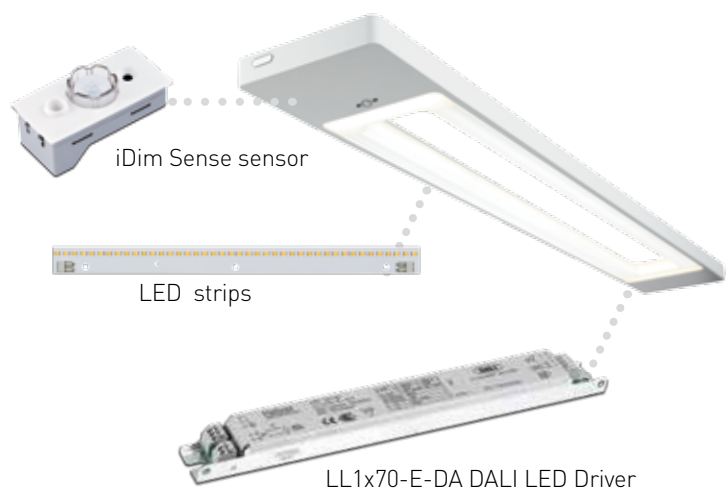
- Smooth LED dimming
- High efficiency for maximum energy saving
- Fully compliant DALI solution



LUMINAIRE SOLUTION

This example shows an office application using a single room LED control solution. Each luminaire in the room contains linear LED modules connected to a built-in LED driver. In this example the Helvar LL1x70 dimmable DALI driver is connected to the luminaire based iDim sensor solution. The iDim solution allows a single master luminaire to control other connected luminaires in the same room. The smart out-of-box functionality minimizes the installation complexity.

- Low DALI stand-by power for energy efficiency
- Long lifetime for low cost of ownership
- Single room control for faster payback

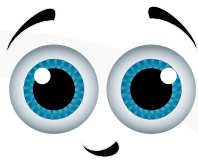


INTELLIGENT COLOUR SOLUTION

- DALI Colour Control with LL2x35-E-DA-iC
- Tunable white solution using a single DALI address
- Artificial light that follows the rhythm of daylight
- Improving health, wellbeing and productivity



iDIM ACTIVE

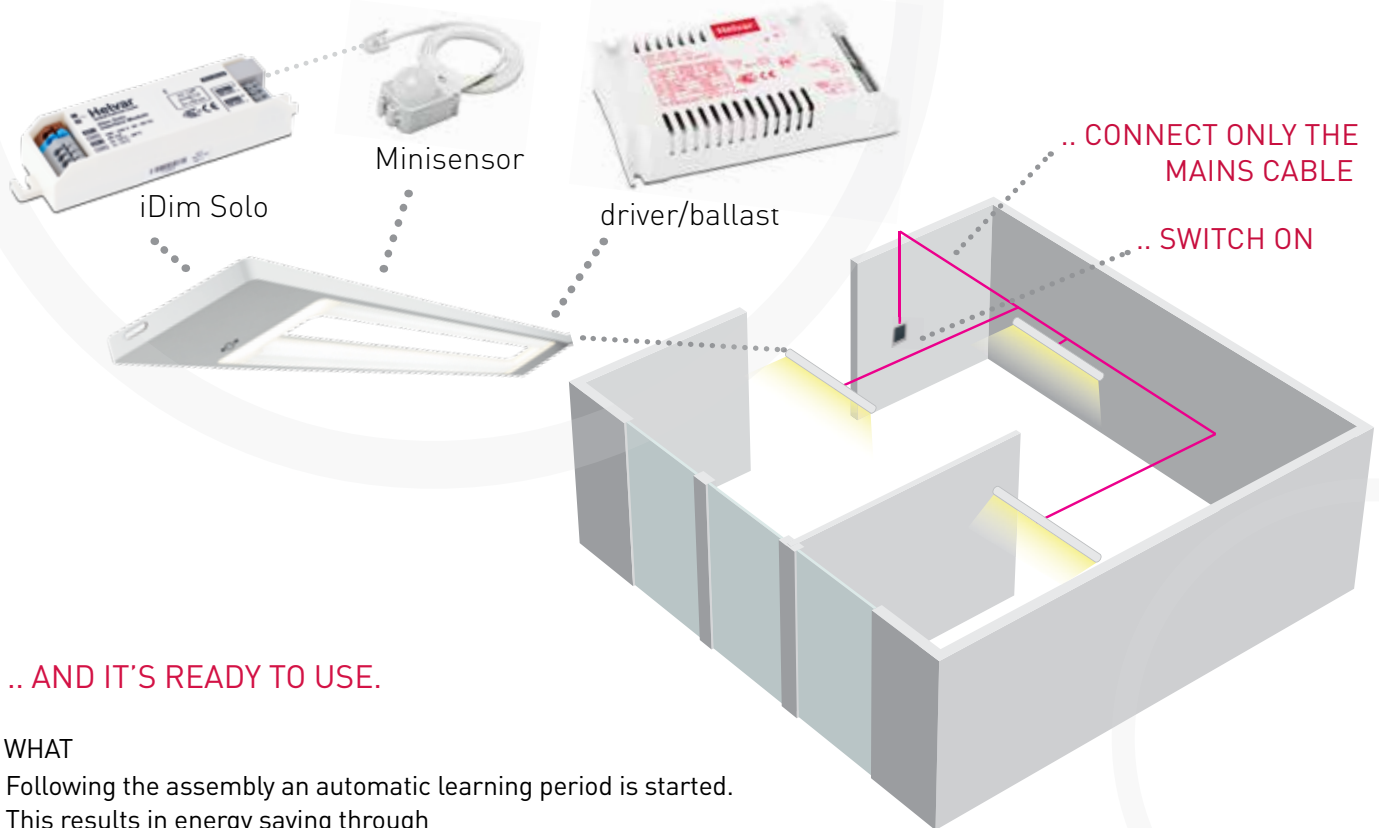


WHY

You want to renew your office lighting and make it more modern and energy efficient. You have no possibilities to change the wiring in the installation and it is not an option to pay high fees for the installation job. Furthermore you would appreciate if the office lighting was maintenance free and the investment turned profitable fast enough.

HOW

ASSEMBLE THE LUMINAIRE..



.. AND IT'S READY TO USE.

WHAT

Following the assembly an automatic learning period is started. This results in energy saving through

- Optimized absence detection for different situations
- Light level compensation over the entire life cycle
- Automatic daylight harvesting

All of this without external control, programming or any kind of configuration!

KEY FEATURES

- Stand-alone inbuilt solution for LED luminaires
- Fully automatic setup through smart learning functions
- Optimized absence detection for different situations
- Light level compensation over the entire life cycle (CLO)
- Automatic daylight harvesting
- No programming, configuration or external control wiring

NIGHT-TIME LIGHT CONCEPT

WHY

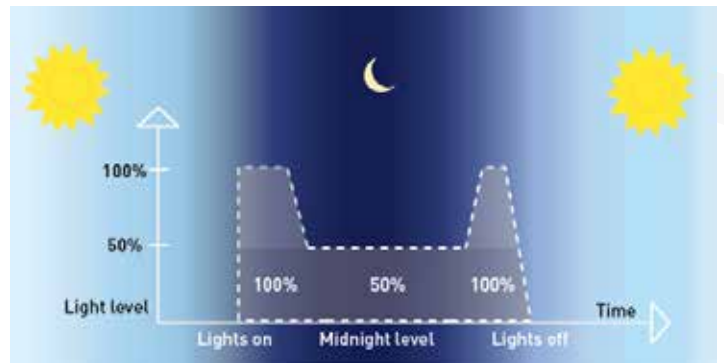
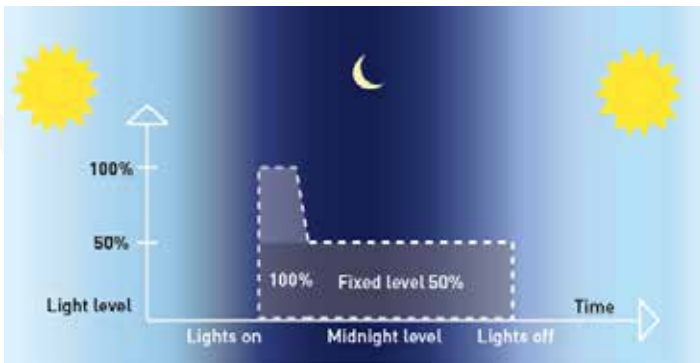
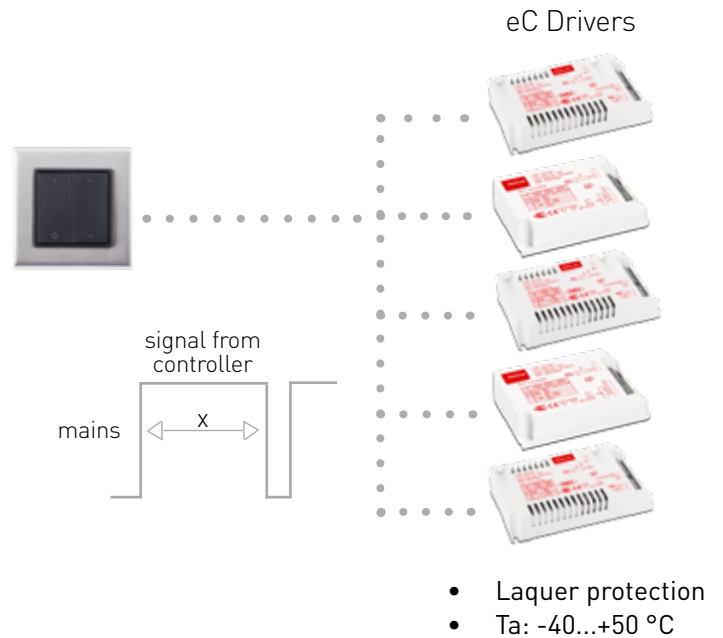
The outdoor lighting solution close to your building is old-fashioned and needs an energy efficient facelift. The challenge is to find an easy affordable solution for the refurbishment using existing wiring without having to program the site. Furthermore you would love the freedom to change lighting scenarios when needed.

HOW

You provide Scene commands to the LED-driver by ON/OFF pulses of the mains power. The dimmable outdoor drivers with the special eC-software are able to read this pulse and recall a scene by referring to the provided pulse. The chosen scene is active until a different scenario is chosen.

WHAT

A variety of scenes can easily be recalled having a mixture of different light levels from dusk till dawn.



KEY FEATURES

- Maximized energy saving
- Easy and inexpensive recall of scenes
- Manual switch directly from electrical cabinet
- Advanced automatic solution with Router + relay unit
- Perfect for refurbishment
- Uses existing wiring



LEDesign™

LEDesign™ is a calculating tool to assist LED specialists in selecting the appropriate control gear for a given LED light source. Using the LED's main input data it will automatically recommend Helvar's compatible driver. Additionally the tool shows the efficiency graph of the selected LED load, as well as whether the LED's are under or overdriven.

The LEDesign™ calculator is available from the Helvar website as online web version or as downloadable offline version for Windows PC, MAC OS X and Android application.

To download the Helvar LEDesign calculator go to helvar.com/ledesign or scan this QR code:



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