

A person is silhouetted against a bright, warm sunset sky. Their arms are raised in a gesture of freedom or joy. Numerous birds are scattered across the sky, some in flight and others as small specks. The overall color palette is dominated by warm oranges, yellows, and reds.

FREEDOM

Luminaire components for wireless lighting

Helvar



The world is **wireless**

We believe in a wireless future. Where lighting is just one loop in an endless mesh of connectivity. We believe in open sources, ecosystems where standards don't limit ingenuity or inspiration. We believe in freedom of choice.

That's why we created Freedom. We want to support our clients in transition from traditional lighting into the world of wireless. But which wireless control system to use? What if we could offer a possibility to choose? And that's what we did. Instead of following one standard, we give the possibility to choose one of the many wireless systems or to go with all of them. Or create your very own. The rules have changed.

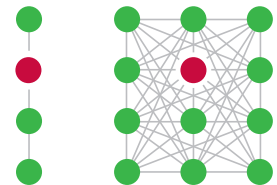


Helvar ActiveAhead® self-learning wireless solution in YIT HQ, Helsinki

Freedom to **connect**

Wireless technologies are present in our everyday lives, so should your lighting be wireless too? Wireless lighting control offers simplicity, a totally new level of flexibility and excellent connectivity. Commissioning and programming is quick, if even needed. You save time and money, and users can enjoy the benefits of excellent lighting that is future proof.

Wireless lighting is based on mesh: a communication network of devices. Instead of data moving via bus in a specified order, each device automatically interacts wirelessly with others using mesh technology, such as Bluetooth low energy (BLE), Wirepas, Mymesh and others. This ensures interaction even if one of the connection points fails. It's safe, reliable and easy to maintain. And easily scalable into larger networks.



Single point of failure is fatal for bus communication, but not for mesh.



Simply clever

Freedom is built on two basic luminaire components: The Freedom Node and the Freedom LED driver. You also need a connecting cable between them. Any Freedom LED driver works with any Freedom Node.

You can design your luminaire and choose the desired driver and wireless control software - as you wish.



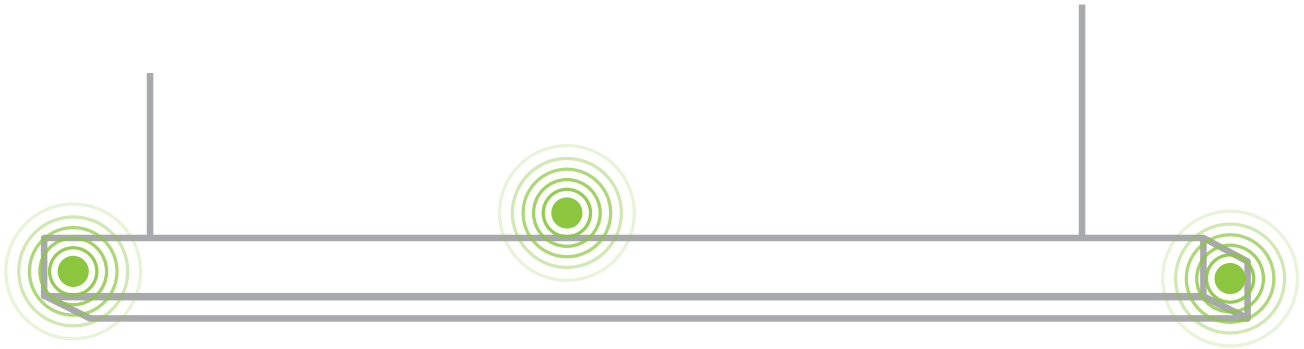
Pick the right Freedom driver for your LED light source.



Choose any of the Freedom Nodes for wireless control. You can also change the Node afterwards.



Make your design magic and enjoy your wireless luminaires.



IN OR OUT? The Node is designed to be mounted freely anywhere inside or outside the luminaire. This is the best way to ensure connectivity in different luminaire designs or installation sites.

Freedom **Node**

Freedom Node is the intelligence. It's also the antenna, the radio unit. It communicates with the Freedom LED driver, other Freedom Nodes or any supported device in the mesh. Inside we can store any Freedom compatible wireless lighting control software. One Node, many options. You choose. Or create your own!

We designed the Node's connectivity to be the best in the market. It's antenna is tested to be awesome. And that's why we didn't embed it inside the driver. You can place the Node inside or outside your luminaire and ensure the best connectivity of your products. No weak signals. No design nightmares. No struggle. Just freedom to connect.

FL
ON
OFF

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LED Driver
LL42-FD-120-350
220-240 V 50-60 Hz
Made in Finland

Freedom **CE ENEC**

I-OUT	120 mA	350 mA
I-OUT	R = ∞ Ω	R = 0 Ω
U-OUT	71-228 V	35-114 V
A	0.98	
U-OUT max	500 V	
P-OUT max	20 W	
Ta	-20	+50 °C
Tc	-25	+75 °C

7 mm

Sense
+ -
I-OUT

Freedom LED drivers

We have 70 years of experience in lighting. We are specialists in lighting control. And we certainly know how to create world class LED drivers to maximise the quality of LED light source. Freedom LED drivers are the powerful and tireless workhorses that keeps your LED module operating at its finest and saving energy. It's also powering up the Node.

- Compact and linear drivers
- 25 -110 W
- 100-1400 mA
- SELV60 & Non-isolated
- Amplitude dimming or hybrid dimming
- Flicker free
- Accessory strain-reliefs available



Freedom to **develop**

We want to offer everyone the possibility to connect with Freedom. That's why we invite you to innovate. Our Freedom protocol library is free to use for everyone.

The UART serial interface command protocol offers a quick way to build a Freedom compatible software. We can add new commands for new features anytime. Go on and try it! Don't let rigid standards to get in your way of creating something brilliant.

Freedom System Components



FREEDOM LED DRIVERS

Max power	Driver casing	Current range
25 W	Compact	350 – 700 mA
35 W	Compact	700 – 1050 mA
50 W	Compact	900 – 1400 mA
42 W	Linear	120 – 350 mA
50 W	Linear	100 – 1400 mA
80 W	Linear	150 – 350 mA
80 W	Linear	350 – 700 mA
110 W	Linear	350 – 700 mA
150W	Linear	350 - 700mA

FREEDOM NODE

Freedom Node Active Ahead
Freedom Node Casambi
Freedom Node Ensto Workspaces
Freedom Node Mount Kelvin
Freedom Node Mymesh by Chess



FREEDOM CABLE

To connect Freedom Node to
Freedom LED driver
15 cm and 30 cm

ACCESSORIES

Strain reliefs for compact and linear
Freedom LED drivers

ActiveAhead®

CASAMBI

Ensto Workspaces

▲ Mount Kelvin

mymesh
by Chess

helvar.com/freedom

HELVAR OY AB
LUMINAIRE COMPONENTS

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Helvar

We're based in Finland, but work with partners all around the world.
Find your closest Helvar specialist at helvar.com