

# Outdoor & Coated LED Driver Range

## Robustness for challenging conditions

Helvar's range of LED drivers extend to use in challenging conditions with our IP65/IP67 rated drivers which offer a reliable outdoor performance. Also added to our LED driver offering, we have a range of lacquer coated LED drivers, which have an extended temperature range of  $-40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ . These can also be used where there is a risk of condensation, but drivers must be used inside of a properly IP rated luminaire.

### What is an IP Rating?

An IP Rating details the level of protection provided against bodily harm, dust, accidental contact and water by mechanical casings and electrical enclosures. It is published by the International Electrotechnical Commission (IEC).

### Outdoor

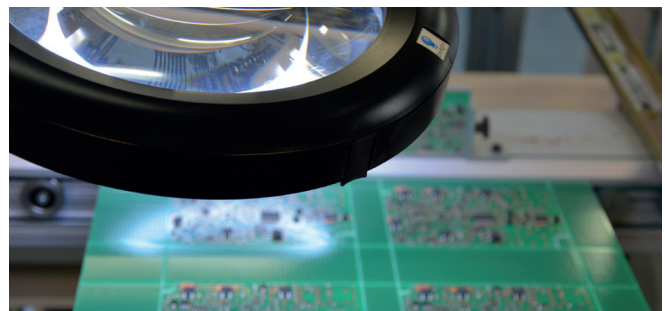
Helvar's range of IP65/IP67 rated drivers offer flexibility for outdoor luminaire design. Our drivers have maximum power from 60 W to 100 W and a lifetime of up to 50,000 hours.

Helvar has more than 50 years of experience of developing and producing components for outdoor luminaires, which ensures high quality of outdoor components.

### Coated

In our Coated LED driver range, the additional coating allows them to be used in outdoor applications where an IP20 rated driver can be used, but there is a risk of condensation within the properly IP rated housing/enclosure.

A very thin layer of lacquer is coated onto the circuit board providing an added protection against humidity, in case accidental condensation appears inside the luminaire. These coated drivers are suitable for extremely cold environments due to the extended temperature range starting from  $-40^{\circ}\text{C}$ .



Coating process for LED drivers



## Technical Data

	Model	IP Class	Control	Output Current (mA)	Output Voltage (V)	Max. Output Power (W)
Outdoor	OL1x30-E-CV24	IP67	ON / OFF	0–1250	24	30
	OL1x60-E-CC	IP65	ON / OFF	350 / 700 / 1400	35–90	63
	OL1x75-E-CV24	IP67	ON / OFF	0–3125	24	75
	OL1x100-E-CC1	IP65	ON / OFF	700 / 1050	70–120	105
	OL1x100-E-CC2	IP65	ON / OFF	1400 / 2100	30–72	105
Coated	LL1x20-E-DA	IP20 (with circuit coating)	DALI	350 / 500 / 700	10–57	20
	LL1x20-E-CC	IP20 (with circuit coating)	ON / OFF	350 / 500 / 700	10–57	20
	LC1x30-E-DA	IP20 (with circuit coating)	DALI	350 / 500 / 700	10–60	30
	LC1x30-E-CC	IP20 (with circuit coating)	ON/OFF	350 / 500 / 700	10–60	30
	LC1x30-E-AN	IP20 (with circuit coating)	1-10 V	350 / 500 / 700	10–60	30
	LC1x50-E-DA	IP20 (with circuit coating)	DALI	1050–1400	20–48	50.4
	LC1x50-E-CC	IP20 (with circuit coating)	ON / OFF	1050–1400	20–48	50.4
	LC1x70-E-DA	IP20 (with circuit coating)	DALI	700–1400	30–100	70
	LC1x70-E-CC	IP20 (with circuit coating)	ON / OFF	700–1400	30–100	70

## Coated Drivers



## Outdoor Drivers

