

User Guide

CORRIDOR CONTROL FOR LED DRIVERS

Corridor Control is a feature which enables simple and cost-efficient lighting control with relay-based presence / multisensors. Corridor Control offers straightforward install-and-forget lighting control solution, ensuring increased energy efficiency, lighting comfort and added feeling of safety in various environments. Large base of available different 3rd party PIR / RF sensors with relay can be used in implementing a Corridor Control installation on site.

Corridor Control operates by connecting the mains voltage through a relay-based sensor to the DALI input terminals. Therefore please ensure that all the components connected in this line are mains rated and protected according to all applicable safety requirements. The support of DALI or Switch-Control operation is disabled for the time of Corridor Control operation, but the Corridor Control feature can be disabled with a certain mains pulse sequence to change the LED driver back to Switch-Control operation. Please refer to the instructions below.

By installing an external mains voltage sensor and connecting it to the DALI terminal, the driver adapts to preset default mode to increase the light level when presence is detected, while decreasing the light level when no one is nearby anymore.

In case of any odd behavior occurring during operation with Corridor Control, always refer to the page 4 for troubleshooting.

ENABLING AND DISABLING CORRIDOR CONTROL

The Corridor Control feature is **disabled** by default.

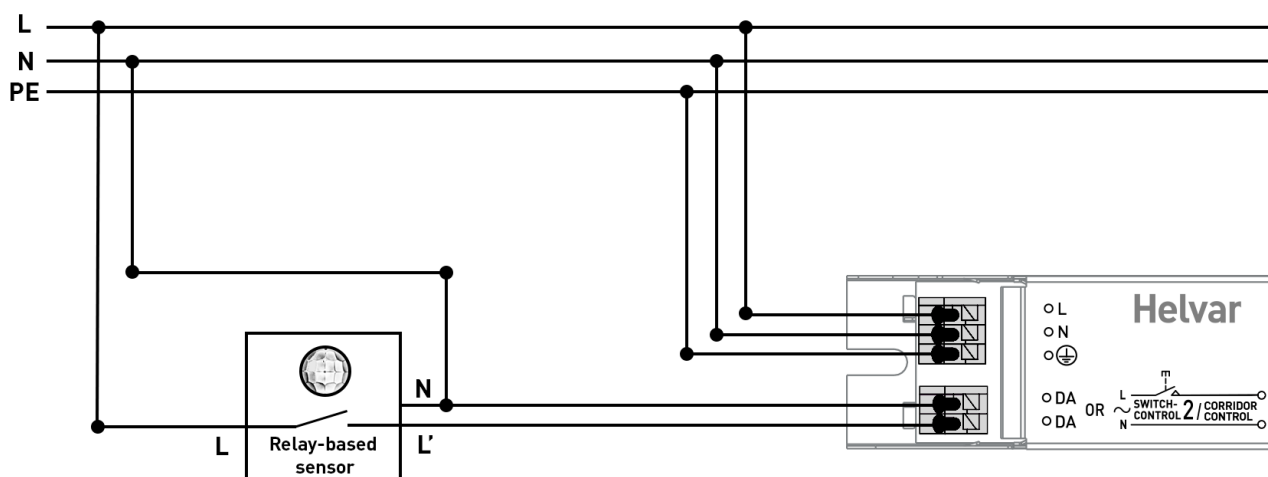
The feature will be automatically enabled, if mains voltage is present in DALI terminals of the driver for at least **55 seconds** without interruptions.

The feature can be disabled by giving exactly **5 short mains voltage signal pulses** to the drivers DALI terminals **within 3 seconds**. The single pulse must be less than 350 ms long. LED driver will not switch back to DALI / Switch-Control modes in case of mains supply interruption, but continue with Corridor Control mode unless disabled with the mains pulse sequence described above.

It is also possible to enable or disable Corridor Control or adjust the settings via DALI line and/or NFC programming using Helvar Driver Configurator / NFC Production Programmer software.

CONNECTION OF CORRIDOR CONTROL

With single sensor and LED driver

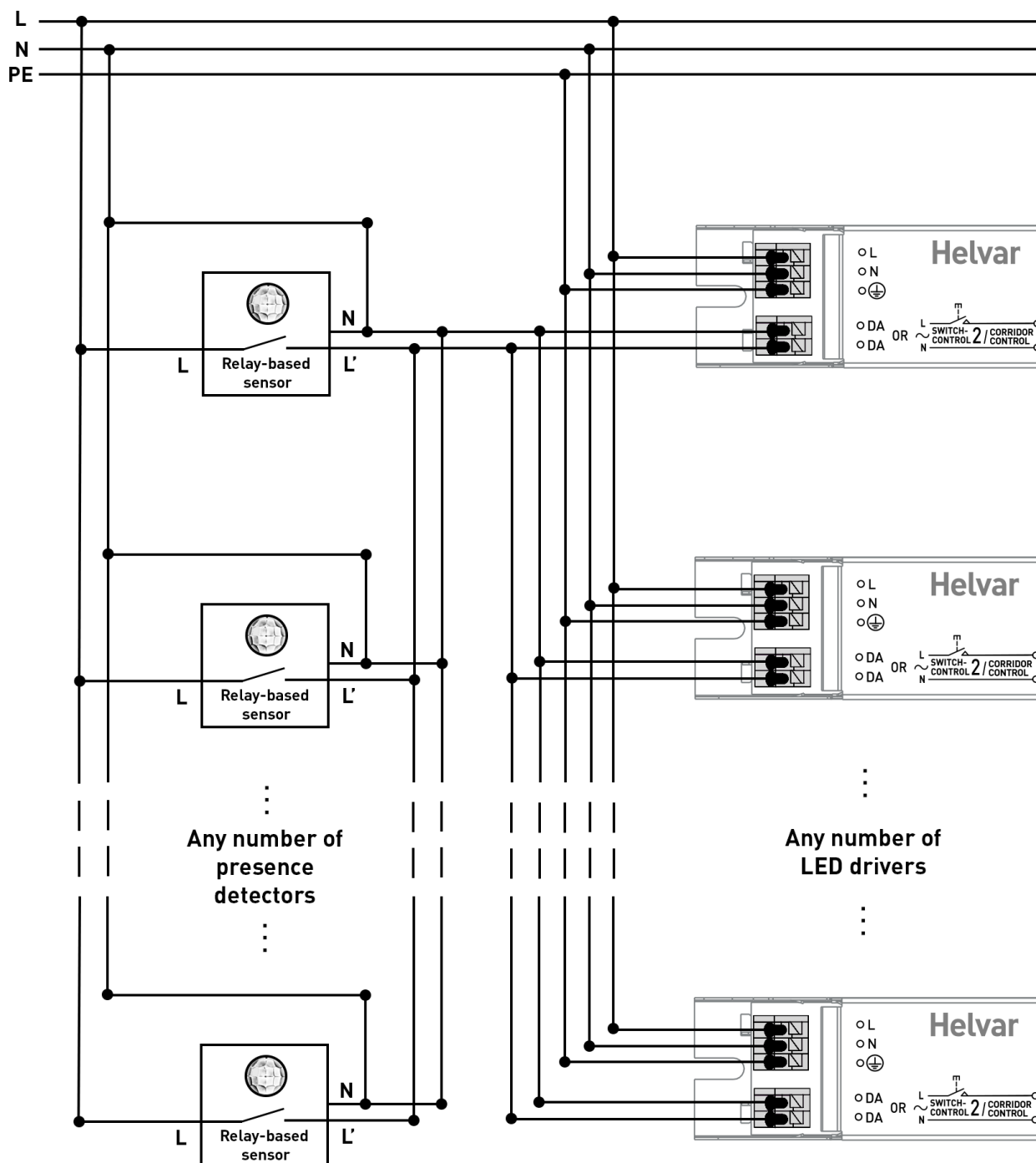


CONNECTION OF CORRIDOR CONTROL

With multiple sensors and LED drivers

At least one PIR/multisensor is required for normal operation of Corridor Control, although connecting multiple sensors is possible too. In this case, all of the sensors must be connected **in parallel**.

It is also possible to connect multiple LED drivers into a single or multiple sensor connection. Then the mains voltage must be signalled **in parallel** into all DALI terminals of the LED drivers connected in the circuit.



CORRIDOR FUNCTION OPERATION AND PARAMETERS

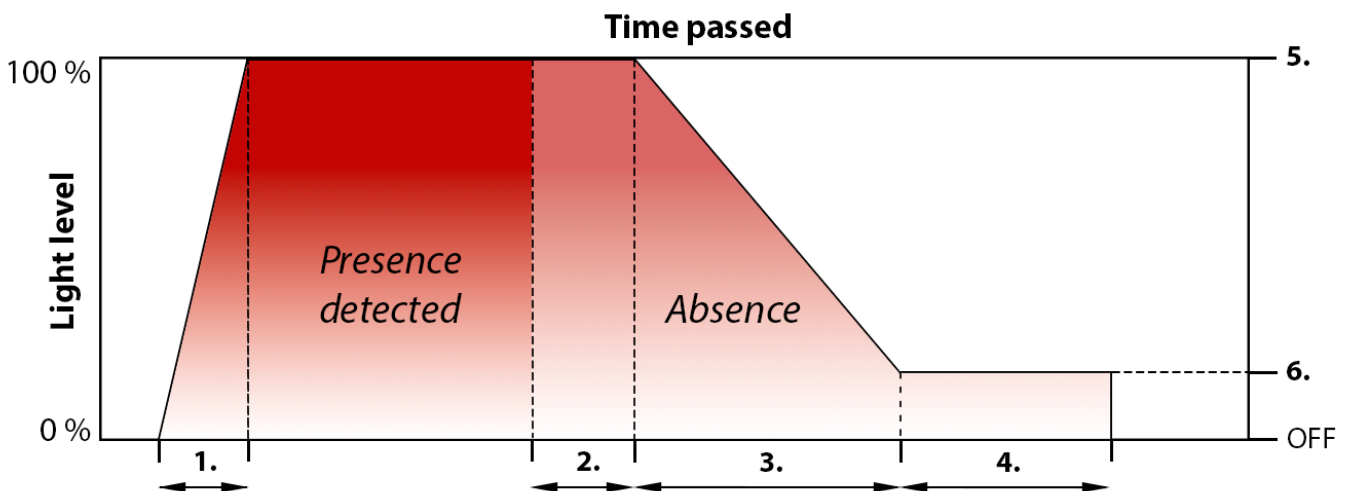
When the Corridor Control is enabled and mains voltage is detected in the DALI terminals of the driver, the light level is increased to **Presence level** (default 100 %) within **Fade in time**. The **Presence level** light level will be kept constant, as long as mains voltage is present in the DALI terminals.

When the sensor stops sensing presence and the internal timer of the sensor (usually adjustable delay) runs out, the relay opens the circuit and the mains voltage disappears from the DALI terminals of the LED driver. Then, after the **Presence light prolong time**, the driver will start fading the light within **Fade out time** into the **Absence level** (default 10 %). If new presence and mains voltage appears in the DALI terminals during the **Presence light prolong time**, it will be counted again from the start after the mains voltage disappears from the DALI terminal.

The driver will maintain that light level for the duration of the **Absence light period** before switching the output to off level. By default, that period is infinite however, so that the output is never switched off, but the driver keeps the **Absence level** indefinitely until new trigger into **Presence level** is recognised.

Default parameters are presented below, and if desired the parameters can be adjusted by using the **Helvar Driver Configurator** software, downloadable at www.helvar.com.

| Parameter | Default value | Min value | Max value |
|-----------------------------|---------------|-----------|--------------------|
| Fade in time | 0 s | 0 s | 120 s |
| Presence light prolong time | 0 s | 0 s | 120 s |
| Fade out time | 30 s | 0 s | 120 s |
| Absence light period | Infinite | 0 s | 60 min or infinite |
| Presence level | 100 % | 0 % | 100 % |
| Absence level | 10 % | 0 % | 100 % |
| Corridor Control status | Disabled | Enabled | Disabled |



- 1. Fade in time
- 2. Presence light prolong time
- 3. Fade out time
- 4. Absence light period
- 5. Presence level
- 6. Absence level

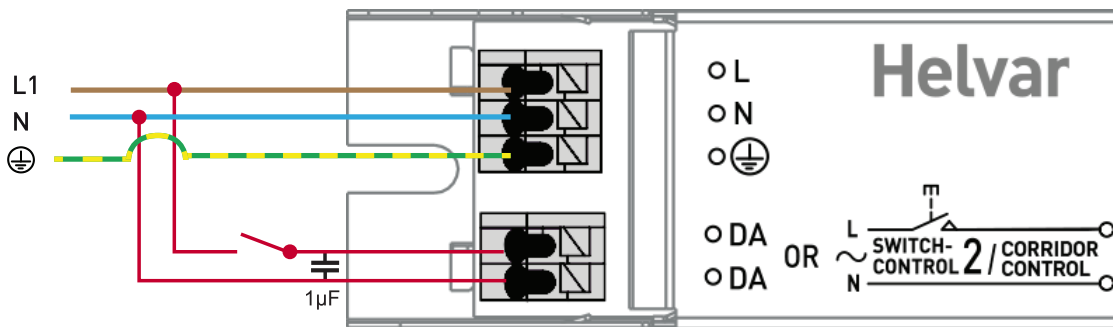
CORRIDOR CONTROL AND OTHER FEATURES

If the LED driver with Corridor Control activated supports **Internal thermal protection**, and that feature would be activated, the Internal thermal protection may limit the maximum output current and light level thus affecting the operation of Corridor Control.

If the LED driver with Corridor Control activated supports **Emergency lighting mode** in DC input, and that mode would be activated, the Emergency lighting mode always overrides other features such as Corridor Control while in use.

TROUBLESHOOTING

- In the case of problems, always check the cabling first and make sure the relay-based mains voltage sensors and Corridor Control LED drivers are connected according to the "Connection of Corridor Control" section of this guide.
- Make sure the Corridor Control is activated by connecting mains voltage in DALI terminals of the driver for at least **55 seconds** without interruptions in the LED driver that supports Corridor Control.
- If any doubt, the current parameter values in driver memory can be always checked through the use of Helvar Driver Configurator software, via DALI line or with the use of NFC technology if supported. Helvar Driver Configurator can be downloaded at www.helvar.com.
- In any installation where the lighting is still behaving in unintentional manner (e.g. sudden unwanted changes in dimming level) due to the installation environment (e.g. induced voltages to the cables or other disturbances due to installation environment), the X2 rated capacitor should be connected across the Corridor Control input (1 μF , min. 275 VAC RMS and X2 rated, according to IEC 60384-14)). See picture below of the capacitor placement.



- Cable length in a Corridor Control installation is not restricted by the driver technology, but it must be always ensured that the actual installation fulfills the relevant national legislation regulations regarding short-circuit current to ensure proper fuse or MCB operation in case of a fault condition.