6. Functions

6.1. corridorFUNCTION (ECO)

6.1.1. Description

The corridorFUNCTION enables the illuminance to be linked to the presence or absence of people. A conventional relay motion sensor is connected. The luminous intensity is increased when a person enters the room. When the person leaves the room the motion sensor switches off after a certain delay and the luminous intensity is automatically reduced.

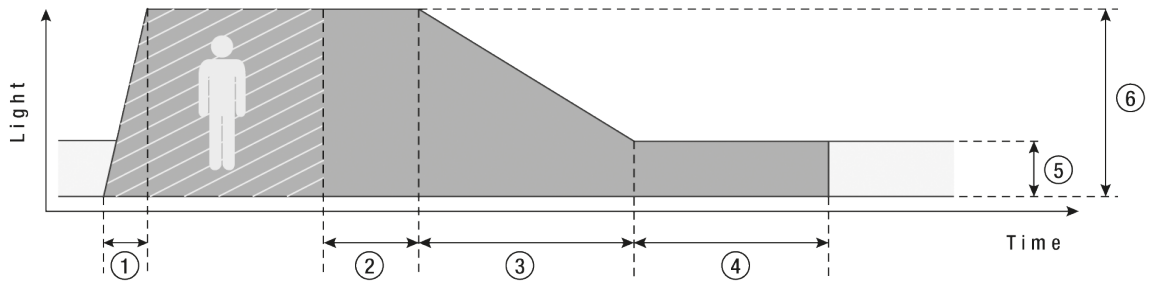
The corridorFUNCTION is particularly beneficial in applications in which light is needed round the clock for safety reasons, for example in public buildings, large apartment complexes, car parks, pedestrian underpasses and underground railway stations. Since the luminous intensity only has to be increased when there is a demand for light the corridorFUNCTION offers effective lighting management and helps saving energy and costs. Another benefit of the corridorFUNCTION is the enhanced convenience of automatic lighting control.

⚠ CAUTION!

To ensure correct operation a sinusoidal mains voltage with a frequency of 50 Hz or 60 Hz is required at the control input.
Special attention must be paid to achieving clear zero crossings. Serious mains faults may impair the operation of switchDIM and corridorFUNCTION.

Profile settings:

LED Drivers have different profiles so they can provide the best possible performance in a range of conditions. The profiles are defined by a series of values:



1. Fade-in time: the time that starts as soon as the presence of a person is detected. During the fade-in time the luminous intensity is faded up to the presence value.
2. Run-on time: the time that starts as soon as the presence of a person is no longer detected. If the presence of a person is detected again during the run-on time the run-on time is restarted from zero. If no presence is detected during the run-on time the fade time is started as soon as the run-on time expires.
3. Fade time: the time during which the luminous intensity is faded from the presence value to the absence value.
4. Switch off delay: the time during which the absence value is held before the lighting is switched off. Depending on the profile selected the switch-off delay may have different values or may not be defined.
5. Absence value: the luminous intensity when there is no person present

6. Presence value: the luminous intensity when persons are present

Variable switch-off times

The profiles and their values can be freely adjusted. The values can be adjusted via a connection to a DALI bus.

6.1.2. Installation

Requirements:

_ The LED Driver is correctly installed in the luminaire and cabled on the power supply side

_ A motion sensor is installed in the lighting system

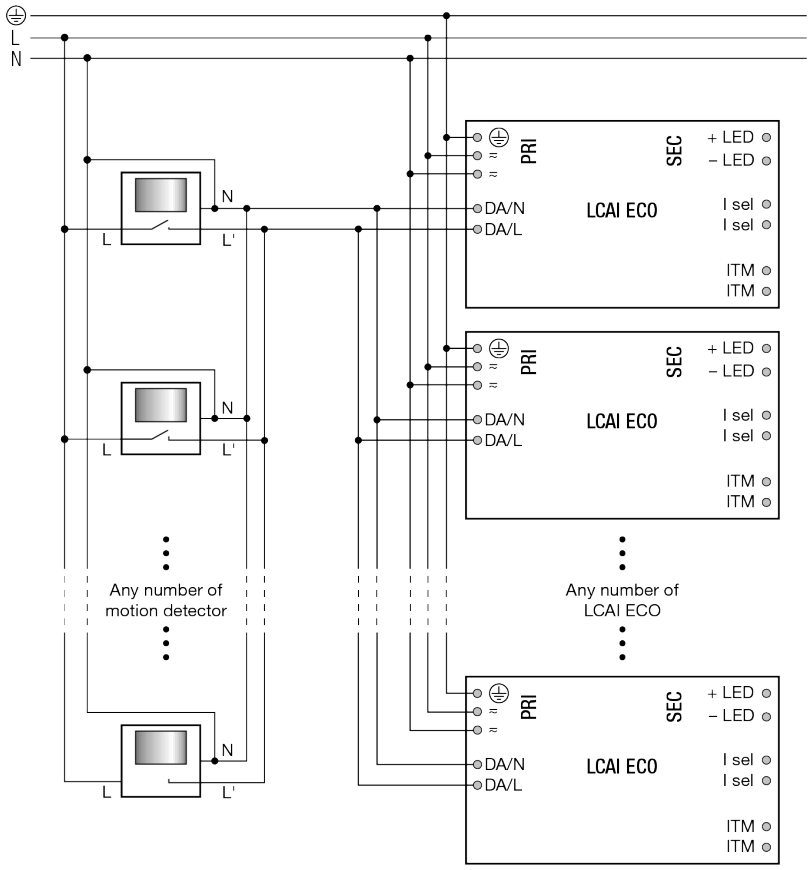
_ The motion sensor is connected to the LED Driver

Procedure:

_ Connect the neutral conductor (N) to terminal DA/N on the LED Driver

_ Connect the output of the motion sensor (switched phase) to terminal DA/L on the LED Driver

Wiring versions:



Benefits:

Control can be changed at any time to a digital control signal (DSI or DALI) without having to change the luminaire or provide an additional control line

⚠ CAUTION!

Use conventional relay motion sensors!
Electronic motion sensors (Triac) are not suitable because of their technical design.

⚠ CAUTION!

Do not use glow switches!
Glow switches may affect the control.

⚠ CAUTION!

Make sure that the control line (L') of the motion sensor is connected to terminal DA/L and the neutral conductor (N) to terminal DA/N.

⚠ CAUTION!

For five-pole wiring the neutral conductor must be connected to DA/N.
This prevents 400 V being applied between adjacent terminals if a different phase is used for the control input.

ⓘ NOTICE

For large installations, supply to the control gear may be split among several phases (L1, L2, L3).
Any phase can be used for the control input .
Any number of motion sensors can be connected in parallel.

6.1.3. Commissioning

Activating the corridorFUNCTION

Procedure by means of the mains voltage

Activating the corridorFUNCTION is simple. If an a.c. voltage of 230 V is applied to the digital interface of the control gear for a period of at least 5 minutes, the LED Driver detects the corridorFUNCTION and automatically activates it. Activation is required only once per device.
There are three procedures for activating by means of the mains voltage. The requirements are the same in each case.

corridorFUNCTION

Requirements:

_ The LED Driver is correctly installed in the luminaire

_ Input voltage is applied

_ A motion sensor is connected to information DA/N or DA/L

Procedure Version 1:

_ Remain in the activation range of the motion sensor for more than 5 minutes
→ The motion sensor detects movement and switches on
→ The corridorFUNCTION is activated automatically after 5 minutes
→ The light value switches to presence level (default: 100 %)

Procedure Version 2:

_ Set the run-on time on the motion sensor to a value greater than 5 minutes

_ Remain in the activation range of the motion sensor for a short time
→ The motion sensor detects movement and switches on
→ The corridorFUNCTION is activated automatically after 5 minutes
→ The light value switches to presence value (default: 100 %)

_ Reset the run-on time of the motion sensor to the required value

Procedure Version 3: Only possible if the motion sensor offers a manual override option

_ Set the slide switch on the motion sensor to the "Never-Off" function

_ Wait 5 minutes
→ The corridorFUNCTION is activated automatically after 5 minutes
→ The light value switches to presence value (default: 100%)

_ Reset the slide switch on the motion sensor to the "automatic" function

Procedure via the masterCONFIGURATOR

The corridorFUNCTION can also be activated via the masterCONFIGURATOR.

Further information can be found in the masterCONFIGURATOR manual (see Reference list, p. 64).

Deactivating the corridorFUNCTION

If the corridorFUNCTION is activated, the LED Driver is controlled only by motion. To operate the LED Driver via DALI, DSI or switchDIM, the corridorFUNCTION must be deactivated.

corridorFUNCTION

Procedure via mains

_ Connect mains voltage push button to the terminal marked DA/L

_ Connect neutral conductor to the terminal marked DA/N

_ Press the switch 5 times within 3 seconds

Procedure via DALI/DSI

_ Send 5 DALI or DSI commands within 3 seconds to the LED Driver

Procedure via masterCONFIGURATOR

If the corridorFUNCTION was activated via the masterCONFIGURATOR it can be deactivated as follows:

_ Send 5 DALI or DSI commands within 3 seconds to the LED Driver

Adjusting the values of the corridorFUNCTION

The values of the corridorFUNCTION can be individually adjusted. The values are set via a DALI USB on the bus and by entering special DALI commands via the masterCONFIGURATOR.

Further information can be found in the masterCONFIGURATOR manual (see Reference list, p. 64).