ESYLUX

OPERATING MANUAL

DUO DALI PRESENCE DETECTOR

Version	Date	Comment
MA00437302	25/03/2024	Second edition; complete revision

© ESYLUX GmbH
An der Strusbek 40, 22926 Ahrensburg, Germany

Details may be subject to change.
Copying is only permitted with the written consent of ESYLUX GmbH. This includes translation into other languages and reuse of content for other purposes.

Table of contents

1. Introduction 5

1.1 Information about the document 5
1.2 Manufacturer/Contact 5
1.3 Product identification 5
1.4 Labelling information 6

2. Safety 7

2.1 Safety instructions 7
2.2 Intended use 8
2.3 Qualification 9

3. Overview 9

3.1 Product description 9
3.2 Included in delivery 10
3.3 System overview 10
3.4 Accessories 11

4. Installation 12

4.1 Installation 12
4.2 Connection 14
4.2.1 Preparing the connection 14
4.2.2 Connecting DALI devices 15

5. Commissioning 16

5.1 Warm-up phase 16
5.2 Factory setting 16
5.3 Functions 17
5.3.1 Light regulation 17
5.3.2 Presence-dependent switching 17
5.3.3 Switching on – automatic (fully automatic) 18
5.3.4 Switching on – via push button (semi-automatic Classic) 18
5.3.5 Switching on – via push button (semi-automatic Smart) 18
5.3.6 Automatic switch-off 19
5.3.7 Switching delay 19
5.3.8 Switch-off warning 19
5.3.9 Afterglow 20
5.3.10 Orientation light 20

5.3.11 Night light 20

6. Configuration 21

6.1 Settings via remote control 21
6.1.1 Devices for remote control 21
6.1.2 Adjustable parameters and functions 23
6.1.3 DIP switch settings 23
6.1.4 Setting fully automatic operation 24
6.1.5 Setting semi-automatic operation 24
6.2 Settings via app 25
6.2.1 Start screen 25
6.2.2 Operating groups 26
6.2.3 Installing the app: 27
6.2.4 Operation of the USER menu 27
6.2.5 Operation of ADVANCED menu 28
6.2.6 Operation of EXPERT menu 30
6.3 Settings via button 32
6.3.1 Setting 1-button operation 32
6.3.2 Setting 2-button operation 33
6.4 Activating the night light 33
6.4.1 Starting and stopping the night light 34
6.5 1-button operation 35
6.6 2-button operation 35
6.7 Parametrising light regulation 36
6.8 Adjusting the level of brightness 37
6.9 Adjusting the light factor 37
6.10 Afterglow 38
6.11 Orientation light 38

7. Maintenance 39

8. Disposal 39

9. EU Declaration of Conformity 39

10. ESYLUX manufacturer's warranty 40

1. Introduction

1.1 Information about the document

This document contains detailed information about the installation, commissioning and configuration of the products described.

The current version of this document is available on the Internet at www.esylux.com as a PDF file. It can be printed out if required.

- ➢ Read the document carefully before using the product.
- ➢ Observe safety instructions and warnings.
- ➢ If you have any questions, please contact the manufacturer.

1.2 Manufacturer/Contact

ESYLUX GmbH
An der Strusbek 40
22926 Ahrensburg I Germany
info@esylux.com
www.esylux.com

1.3 Product identification

This document applies to the following products:

Product name
PD-C 360i/8 DUO DALI
PD-C 360i/24 DUO DALI
PD-C 360i/32 DUO DALI
PD-C 360i/8 FM DUO DALI
PD-C 360i/24 FM DUO DALI
PD-C 360i/8 DUO DALI WAGO WINSTA Code I
PD-C 360i/24 DUO DALI WAGO WINSTA Code I

Product name
PD-C 360i/8 DUO DALI WAGO WINSTA CodeA/I
PD-C 360i/24 DUO DALI WAGO WINSTA CodeA/I
PD-C 360i/8 DUO DALI WAGO WINSTA CodeB
PD-C 360i/24 DUO DALI WAGO WINSTA CodeB
PD-C 360i/8 DUO DALI WIELAND GST18
PD-C 360i/24 DUO DALI WIELAND GST18

The item number and product name are located on the name plate of the products.

The product name contains important information about the product:

Element	Description
PD	Presence detector
C	COMPACT series
360	Detection angle
i	Remote controlled
8/24/32	Detection range width in metres Ø
DUO DALI	Function

1.4 Labelling information

Formatting

The following types of labelling are used in this document:

- ➢ Call to action
- ✓ Result of action
- < > Menu, button

Important and useful additional information

Note on high voltage

2. Safety

2.1 Safety instructions

Specialist personnel

Electrical devices connected to a 230 V mains supply may only be assembled and commissioned by electrical installation technicians or trained electricians, taking country-specific regulations into account.

The following residual risks exist:

DANGER!

Risk of fatal injury from electric shock!

- Always observe the five safety rules:

  1. Disconnect the power supply
  2. Secure the power supply from being switched on again
  3. Check that the relevant components have been de-energised
  4. Set up the earthing and short-circuiting mechanisms as required
  5. Cover or isolate neighbouring live parts

- Protect the connection with a 10 A circuit breaker.
- Protect the circuit with a residual current device (RCD).

ATTENTION

Injury due to improper installation.

When inserting the device into the installation opening, the raised mounting springs may snap back.

- Do not release the mounting springs before they are inserted into the installation opening.

CAUTION!

Damage due to improper connection.
Reverse polarity or short-circuiting of the bus cable can result in malfunctions or damage to the components.

CAUTION!

Damage due to improper cleaning.
Cleaning with alcohol-based, corrosive or abrasive cleaning agents or scouring pads can damage the surface and lens of the device and cause malfunctions.

➢ Use a soft cloth dipped in a detergent solution for cleaning.

2.2 Intended use

Ceiling-mounted presence detectors from the COMPACT series are designed for indoor use. These products are intended for the automatic light control of DALI or DALI-2 operating devices to a constant brightness level depending on presence and natural light.

These devices may only be used as follows:

- The devices are intended exclusively for indoor use and ceiling mounting with fixed installation.
- They are configured using the ESY-Pen + the ESY Control app or a remote control.
- The devices work with passive infrared technology (PIR) and react to moving heat sources (e.g. people) for which they require a clear view.
- The use of unsuitable components, modifications to the product and unauthorised repairs are not permitted.
- The product may only be used if it is in perfect technical condition.

The manufacturer will not accept liability for instances of personal injury or property damage caused by improper use.

2.3 Qualification

Installation, commissioning and other work on the 230 V mains may only be carried out by electricians or qualified electricians in accordance with the country-specific regulations.

Configuration and operation may also be carried out by persons without electrical qualifications.

3. Overview

3.1 Product description

Ceiling-mounted detectors in the COMPACT series are passive infrared detectors that automatically switch connected lighting on and off depending on natural light and presence/motion and are suitable for use indoors. These detectors automatically control the lighting based on motion and ambient light conditions. If they detect motion in their detection area, they switch or dim the connected lighting for an adjustable duration depending on the set level of brightness.

Properties

Main product features:

- Exclusively suitable for light regulation in a DALI system
- Two independent DALI buses for channel 1 (C1) and channel 2 (C2)
- Two additional virtual channels C3 and C4 for ESYLUX DALI switching actuator
- Sends DALI commands as broadcast message
- Integrated motion and light sensor
- Supply voltage for two DALI buses
- Two push button inputs

3.2 Included in delivery

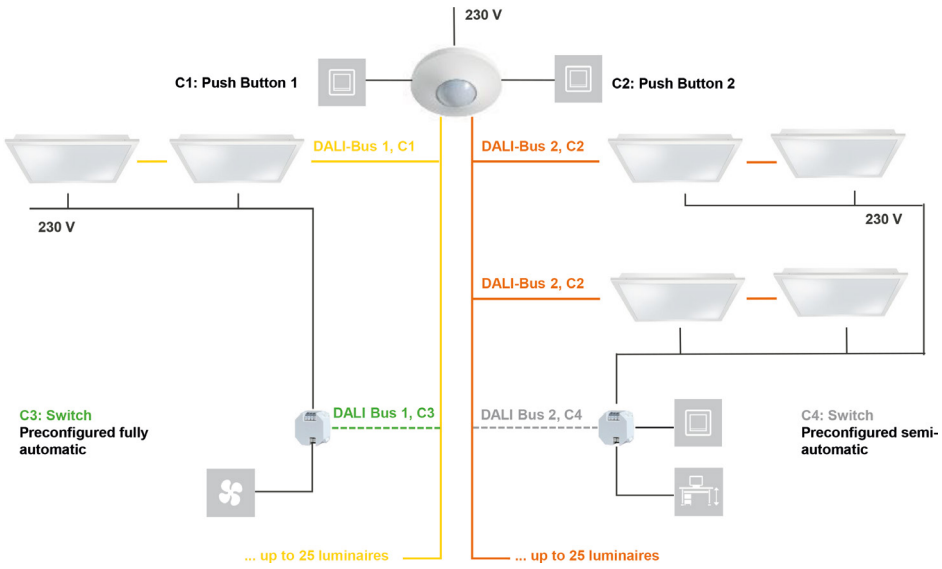
The scope of delivery of the product includes:

- Presence detector
- Lens mask
- Quick installation guide
- Safety instructions

3.3 System overview

Connection

Connection diagram of a simple room automation system for controlling light and HVAC:



3.4 Accessories

The following accessories are available for this product:

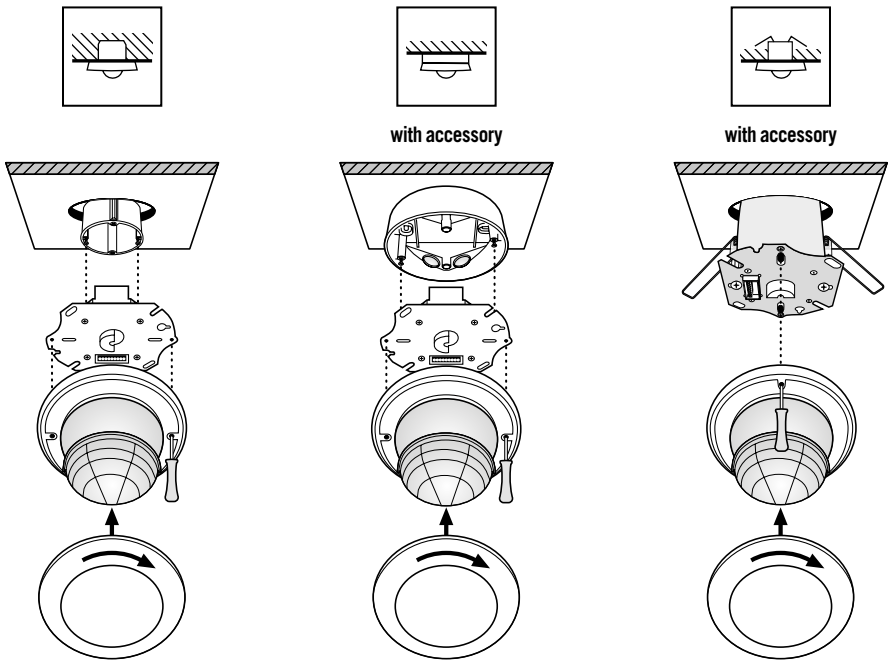
Item no.	Item designation	Description
EP10425356	ESY-Pen	Bluetooth remote control + ESY Control app: Parametrisation, remote control, light measurement and project management.
EP10425370	Surface-mounted box	Not for WAGO, WIELAND and FM versions
EP1045929	Recessed ceiling mounting set	Not for WAGO, WIELAND and FM versions
EP10425899	Remote Control PDi DALI	IR remote control for DALI presence and motion detectors.
EM10425547	Remote Control PDi User	IR remote control for end users of presence detectors.
EP10427473	ACTUATOR FULL AUTO C3 DALI	Module for converting bus commands from DALI presence detectors and other light controllers into switching signals (fully automatic system)
EP10427480	ACTUATOR SEMI AUTO C4 DALI	Module for converting bus commands from DALI presence detectors and other lighting controllers into switching signals (semi-automatic system)

4. Installation

4.1 Installation

Possible installation types:

- Installation in suspended ceilings and flush-mounted boxes
- Installation using the surface-mounted box
- Installation using the recessed ceiling mounting set (required accessories **only** included in the scope of delivery for WAGO, WIELAND and FM versions)



Installation types

The presence detector is a control device with an integrated interface supply.

- Addressing of the DALI operating devices is not required.
- All DALI operating devices are addressed at the same time via the broadcast address.
- Max. 25 DALI operating devices per channel can be connected.
- The presence detector has two channels/outputs.

Note the following when assigning the lighting groups to the channels:

- Channel C1 is the "master channel" in terms of light measurement and control.
- Channel C2 follows channel C1 via an adjustable offset.

Recommendation:
Assign lighting group "Room interior" to channel C1.
Assign lighting group "Window side" to channel C2.

When selecting an installation location, make sure that the detector has a clear line of sight, as infrared beams cannot penetrate solid objects.

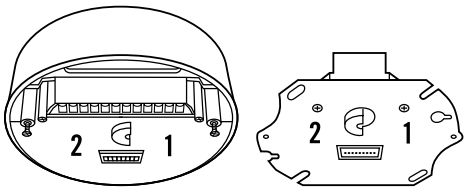
DANGER!

Risk of fatal injury from electric shock!

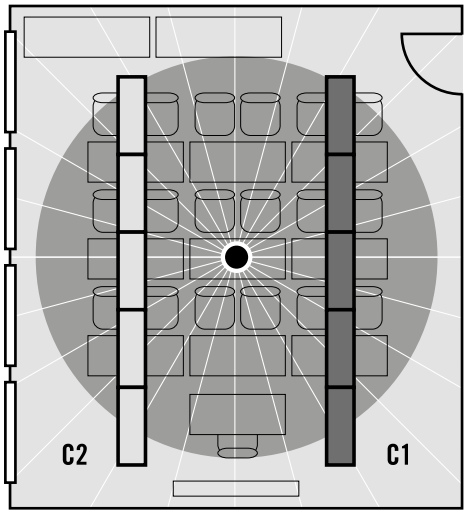
- ➢ Switch off the mains voltage prior to assembly/disassembly.
- ➢ Check that no mains voltage is present.

Installation steps:

- ➢ Disconnect the sensor unit and mounting base from each other. These are plugged together.
- ➢ Thread the cable through and secure the mounting base in the required position.
- ➢ Note the markings:
  Channel 1 = C1 = facing away from the window
  Channel 2 = C2 = facing the window



2 = C2 1 = C1



C2 = window side C1 = wall side

4.2 Connection

Connecting

4.2.1 Preparing the connection

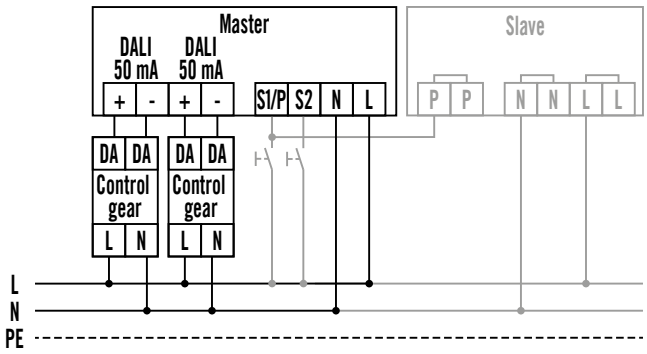
Observe the following when connecting the devices.

DANGER!

Risk of fatal injury from electric shock!

- ➢ Connect the mains voltage.
- ➢ Check that the relevant components have been de-energised.

Observe the following wiring diagram and terminal assignment:



Wiring diagram for DUO DALI devices

4.2.2 Connecting DALI devices

DALI operating devices that control luminaires and ESYLUX ACTUATORS that convert digital commands from DALI presence detectors and other ESYLUX lighting controllers (such as the lighting systems) into switching actions can be connected to the DALI interface.

The ACTUATOR FULL AUTO C3 DALI (art. no. EP10427473) is factory-set to fully automatic with a switch-off delay time of 30 min.

The ACTUATOR SEMI AUTO C4 DALI (art. no. EP10427480) is factory-set to semi-automatic with a switch-off delay time of 6 min.

The factory settings of both actuators can be changed using the remote control. Further information about these devices can be found at www.esylux.com. DALI switch actuators switch on independently of the twilight value as soon as motion is detected.

5. Commissioning

5.1 Warm-up phase

The presence detector initiates a warm-up phase each time the mains voltage is connected.

Initialisation

➢ Connect the mains voltage.

✓ A warm-up phase of approx. 25 s begins.
✓ During this time, the lighting is switched on.
✓ The red (channel 1 = C1), green (channel 2 = C2) and blue LEDs flash alternately.
✓ If programming mode is activated, the blue LED lights up.
✓ The warm-up phase is over when the green sensor LED briefly flashes three times after this and the lighting switches off again.
✓ Once the warm-up phase is complete, the detector is ready for operation.

If individual settings have already been configured on the presence detector, the sensor LED flashes blue and red alternately during the warm-up phase.

Factory setting

5.2 Factory setting

The detector is delivered with the factory program/remote control setting.

Parameter	Setting
Operating mode	Fully automatic
Level of brightness	500 lx
Offset from channel 2 (C2) to channel 1 (C1)	C1 = C2
Switch-off delay time	5 min
Switch-off warning	60 s
Afterglow	deactivated
Orientation light on/off	off

Parameter	Setting
Luminous efficiency of orientation light	10 %
Corridor function on/off	off
Activate/deactivate night light	Deactivated
Luminous efficiency of night light	10 %

5.3 Functions

The following functions are relevant when using DUO DALI presence detectors.

5.3.1 Light regulation

The lighting is regulated to a constant brightness level depending on natural light. The brightness is continuously measured and compared with the set level of brightness. The detector continuously adjusts the lighting so that the difference between the measured brightness value and the set level of brightness is minimised.

If the measured brightness value falls permanently below the set level of brightness when presence is continuously detected and during the switch-off delay time, the detector switches the light on and adjusts the light output.

If the measured brightness value is permanently above the set level of brightness, the detector switches the light off.

5.3.2 Presence-dependent switching

Channels 3 (C3) and 4 (C4) for the ESYLUX DALI switch actuators are controlled exclusively via motion, regardless of the ambient light. Use for HVAC or other devices (e.g. panel light).

5.3.3 Switching on – automatic (fully automatic)

When the detector has been triggered by motion and the ambient light has fallen below the preset light value.

The **red and green LEDs** are active as indicators for motion detection = two short flashes when motion is detected (only in control mode) / one short flash when movement is detected after manual override. Should there be a change in the natural light value, the artificial light will be adjusted accordingly.

5.3.4 Switching on – via push button (semi-automatic Classic)

If the measured light value (ambient light) is **below** the setpoint value when switching on using the push button, the light is switched on and remains switched on until no more motion is detected or the ambient light exceeds the setpoint value (control mode). The red and green LEDs are active as indicators for motion detection = two short flashes when motion is detected (only in control mode) / one short flash when movement is detected after manual override. Should there be a change in the natural light value, the artificial light will be adjusted accordingly.

If the light value is above the setpoint during continuous presence detection, the light is switched off automatically. If the light value falls below the setpoint again, the light must be switched on again using the push button.

If the light value is **above** the setpoint when switching on, the light is switched on by pressing the button as a manual override and remains switched on until no more motion is detected.

5.3.5 Switching on – via push button (semi-automatic Smart)

As with semi-automatic Classic, but the detector automatically regulates up again without the need to press the button again in the event of continuous presence detection if the detector has previously switched the light off.

5.3.6 Automatic switch-off

If motion is no longer detected, the preset switch-off delay time will start. After this time has elapsed, the detector switches to the switch-off warning (factory setting = 60 s). However, should the natural lighting level increase and the ambient lighting level exceed the preset light value, the detector automatically switches the lighting off after 5 min regardless of any motion/ presence. The lighting can be switched on again manually at any time in this state.

5.3.7 Switching delay

When persons are present, in order to avoid sudden changes in brightness caused by undesired switching on/off of the lighting, the detector will only be triggered after a time delay.

Example:
A passing cloud could potentially cause unnecessary switching.

Time delay from "dark to light":	5 min The red LED flashes slowly during this period.
Time delay from "light to dark":	30 s The red LED flashes slowly during this period.

5.3.8 Switch-off warning

After the switch-off delay time has elapsed, a switch-off warning lasting 60 s (preset at the factory) is issued. The light is dimmed to the orientation lighting level. If a motion is detected or a button is pressed during this time, the detector returns to its previous state.
The detector only returns to its original state if no movement is detected within 60 s.

The switch-off warning can be set to between 1 and 240 s (in 1 s increments).

5.3.9 Afterglow

Afterglow is an additional function for light regulation or light control.
It can be set via the ESY Control app in the range 0 … 240 min.

Afterglow starts after the switch-off delay time of light regulation or light control has elapsed and prevents unwanted darkness.
The light output of the afterglow corresponds to the light output of the orientation light. After the afterglow time has elapsed, a separate switch-off delay time runs.
If the light regulation would regulate below the light level in the afterglow, the afterglow is cancelled.
If presence is detected during the afterglow, the previously used function is reactivated.

Prerequisites:

- Afterglow must be activated. (Factory setting = deactivated)
- The controller is in [fully automatic] or [semi-automatic] operating mode.
- The light output in the previous state is greater than/equal to the light output when starting the afterglow.

5.3.10 Orientation light

The orientation light is a presence-independent basic lighting of rooms for better orientation. It is regulated to a defined light output depending on the ambient brightness.
The light output of the orientation light can be adjusted with the ESY-Pen and ESY Control app from 10 ... 50 % in 1 % increments.

5.3.11 Night light

In special situations (e.g. in hospitals or care facilities), the light should often not switch on at night with every movement. For this purpose, the night light can be activated with the DUO DALI.

- If the night light has been activated via the ESY Control app and ESY-Pen, the night light is switched on and off via push button 1 regardless of the ambient brightness. When the night light is switched on, the green sensor LED lights up permanently.
- The night light output can be selected from 10 % to 100 % in 1 % increments.
- The night light works in full and semi-automatic mode (button 2 to start semi-automatic mode).

6. Configuration

Individual settings can be made by remote control and manually via setting elements by switching the DIP switches (see illustration).

6.1 Settings via remote control

For information on setting options, see the operating instructions for the respective remote control at www.esylux.com.

6.1.1 Devices for remote control

The following devices can be used for remote control.

Item no.	Item designation
EP10425356	ESY-Pen (+ ESY Control app) Multifunctional device (Bluetooth®-IR) for commissioning, control and project management of complex lighting control systems. It enables communication between mobile end devices (smart phone, tablet) and ESYLUX automation and lighting solutions without the need for physical interfaces. In combination with the free ESY Control app, all remote-controlled ESYLUX products can be easily put into operation.

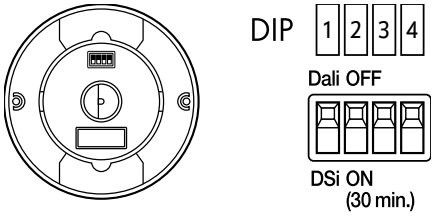
Item no.	Item designation
EP10425899	Remote Control PDi DALI IR remote control for DALI presence and motion detectors.
EM10425547	Remote Control PDi User IR remote control for end users of presence detectors.

6.1.2 Adjustable parameters and functions

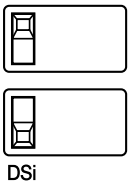
These parameters and functions can be set temporarily:

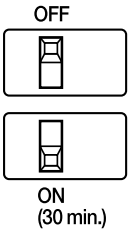
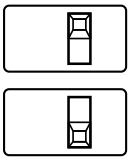
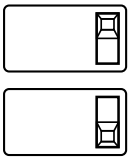
Channels 1 + 2	Luminous efficiency On/Off DIM DIM stop
Channels 3 + 4	On/Off 4 h on/off
Channels 1 – 4	On/Off 4h on/off Light/time values and operating modes

6.1.3 DIP switch settings



DIP switches on the detector

Dali  DSi	DIP switch 1	- No function

	DIP switch 2	- Remote lock off; remote control possible at any time - Remote lock on; remote control possible for 30 min after the warm-up phase; then locked (sabotage protection)
	DIP switch 3	- 2-button operation, buttons 1 and 2 control C1 and C2 - 1-button operation, button 1 controls both channels
	DIP switch 4	- OFF: DALI commands for C3 and C4 deactivated; may enable use of incompatible operating devices - ON: DALI commands for C3 and C4 activated

6.1.4 Setting fully automatic operation

Depending on the set light value and when motion is detected, the **light channel** switches on automatically. The light channel remains switched on as long as motion is detected and the ambient light value does not exceed the set light value.

If motion is no longer detected, the switch-off delay times of the respective channels start. Optionally, each channel can be switched on or off manually using **buttons S1 – S2**.

The fully automatic mode is preset.

6.1.5 Setting semi-automatic operation

Semi-automatic mode is switched on or off manually with push button S1/S2.

Situation 1:
If the light value is below the setpoint when switching on, the light is switched on and remains switched on until no more motion is detected or the ambient light exceeds the setpoint value.

Situation 2:
If the light value is above the set level of brightness, the light is switched on by pressing a button (manual override) and remains switched on until no more motion is detected.

Semi-automatic Classic:
In the variant semi-automatic Classic, the detector switches to control mode by pressing a button. The lighting is switched off automatically when the set level of brightness is exceeded or presence is no longer detected.
If the light value is above the setpoint during continuous presence detection, the light is switched off automatically. If the light value falls below the setpoint again, the light must be switched on again using the push button.

Semi-automatic Smart:
As with semi-automatic Classic, but the detector automatically regulates up again without the need to press the button again in the event of continuous presence detection if the detector has previously switched the light off.

6.2 Settings via app

ESY Control

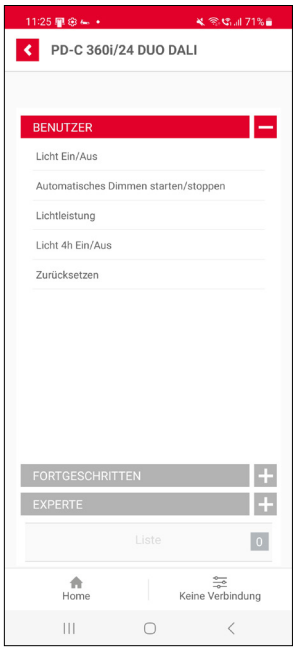
A Bluetooth-enabled mobile device (smart phone or tablet) is required to use the ESY Control app. The ESY-Pen and the ESY Control app simplify commissioning and parametrisation.

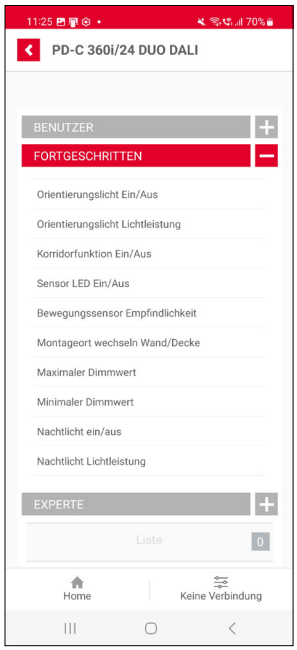
6.2.1 Start screen

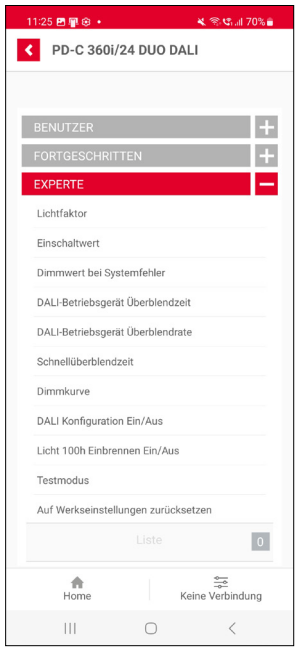
After starting the app, the following start screen appears.
The **< Home >** button takes you back here from any other page of this app.

6.2.2 Operating groups

Configurations can be made in three operating groups:







User ***Advanced*** ***Expert***

6.2.3 Installing the app:

- ➢ Download the app from the app store
- ➢ Install and open the app
  (Check for updates and the latest versions of the app)

Note on data protection:
The data used by the app is not stored or used outside the mobile device.

6.2.4 Operation of the USER menu

< User >

Light ON/OFF	Manually switch channels C1 … C4
Start/stop automatic dimming	Starts automatic dimming for C1 or C2; is stopped by the OFF command to set the desired dimming value. The dimming direction is reversed at each start.
Luminous efficiency	Manual setting of a desired light output for C1 and C2.
4 h light on/off	Manual switching on or off of channels C1 … C4 for 4 h
Reset	Reset manual override (lines 1 – 4) to saved configuration.

6.2.5 Operation of ADVANCED menu

< ADVANCED >	
Operating mode	**Fully automatic** Light regulation/light control is started automatically by presence detection. **Semi-automatic Classic** By pressing a button, the detector goes into control mode and the lighting is automatically switched off when the set level of brightness is exceeded or presence is no longer detected. **Semi-automatic Smart** By pressing a button, the detector switches to control mode and can adjust down to 0 %. In semi-automatic Smart mode, with continuous presence detection, the detector automatically regulates up again without the need to press a button again.
Level of brightness	The level of brightness is the target value for light regulation and can be parametrised here.
Offset from channel 2 to channel 1	Can be parametrised from 0 % – 50 %.
Switch-off delay time	Can be parametrised from 1 … 240 min. Factory setting = 5 min
Switch-off warning	Can be parametrised from 1 … 240 s (in 1 s increments). If no motion is detected during the switch-off delay time, the light level is dimmed to orientation light level (factory setting = 60 s). If the detector detects motion within the switch-off warning, the switch-off delay time starts again.
Afterglow	Can be parametrised from 0 … 240 min Afterglow starts after the switch-off delay time of a light regulation or light controller, as well as after the switch-off warning, and prevents unwanted darkness.

< ADVANCED >	
Orientation light on/off	The orientation light enables discreet illumination in the dark, regardless of presence in the room. The orientation light can be activated and deactivated at this point. Minimum illumination of a room, even if no presence is detected.
Luminous efficiency of orientation light	Can be parametrised to 10 % to 50 % of the maximum illuminance. The light output of the night light must be at least equal to the light output of the orientation light. If the light output of the orientation light is increased, the ESY Control app adjusts the light output of the night light to at least the light output of the orientation light.
Corridor function on/off	Switching the corridor function on or off. When the corridor function is activated, the light can only be switched on, and not off, using the push button.
Sensor LED on/off	Switching on and off
Motion sensor sensitivity	Three selection options: - normal - reduced - strongly reduced This function is selected to minimise unintentional triggering due to external interference.
Change mounting location wall/ceiling	In order to compensate for the influence of the mounting position on the light measurement, the mounting position can be changed from ceiling (factory setting) to wall for wall mounting.
Maximum dimming value	Highest value to which the detector can adjust the lighting.
Minimum dimming value	Lowest value to which the detector can adjust the lighting.

< ADVANCED >	
Activate/deactivate night light	Enable switching the night light on or off. See also → **"6.4.1 Starting and stopping the night light" on page 34**
Luminous efficiency of night light	Can be parametrised from 10 %…100 %. Value of the light output in relation to the set level of brightness. The light output of the night light must at least correspond to that of the orientation light. (Night light ≥ orientation light) If the light output of the orientation light is increased, the ESY Control app adjusts the light output of the night light to at least the light output of the orientation light.

6.2.6 Operation of EXPERT menu

< EXPERT >	
Light factor	Can be parametrised from 1 … 30. The measured value of the light sensor can be corrected with a light factor for the respective light sensor in order to take into account the actual light reflections at the sensor's installation location. Example: Measured value at the detector 45 lx × light factor 10 = calculated light value 450 lx
Switch-on value	Can be parametrised from 10 … 100 %. Value of the light output when the operating device is switched on in relation to the total possible light output.
Dimming value for system error	Can be parametrised from 0 … 100 %. Setting value for operating devices in the event of an error in the DALI bus.
DALI operating device fade time	Setting value for operating device. Can be parametrised from 0 … 90.5 s.
DALI operating device fade rate	Setting value for operating device. Can be parametrised from 2.8 … 358.0.

< EXPERT >	
Fast fade time	Can be parametrised from 0 … 675 ms. Time in which the LED operating device dims from level to level.
Dimming curve	Setting value for operating device. logarithmic = factory setting linear = if the operating device can only dim linearly.
DALI configuration on/off	Overwriting of the operating device settings with Power ON can be switched off here.
Light 100 h burn-in on/off	The burn-in of certain light sources (e.g. fluorescent tubes) for a period of 100 h can be activated/deactivated here.
Test mode	The detection range and the communication between master and slave are checked in test mode. Master flashes 4 x blue — received slave signal Master flashes 2 x blue — detected motion Slave flashes 4 x green — Detected motion + forwarding to master
Reset to default settings	All individual settings are deleted. The device is reset to the factory settings.
Resetting the operating device	Reset the operating device to the factory setting.
DALI output on/off	Operating device setting. Activating or deactivating the DALI output.
Actuator active/inactive	Activate/deactivate commands for channels 3 and 4.
Configuration of push button inputs	Four selection options for configuration for S1 and S2: - Switching off - Switching on - Dimming - Slave detection

< EXPERT >	
Configuration of push button inputs/2-button mode	Adjustable values: - Master - individual Master = when first switched on by push button (S1 or S2), both channels C1 and C2 are switched on together. The channels can then be controlled separately using buttons S1 = C1 and S2 = C2. Individual = when switched on for the first time by push button (S1 or S2), both channels C1 and C2 are switched on separately. S1 only switches C1 on, and S2 only switches C2 on.
Dimming speed	Three selectable speeds for dimming via push button: - slow - fast - medium

6.3 Settings via button

The presence detector has a connection for two external push buttons.
This means that the presence detector can be manually overridden at any time to switch the lighting on or off or to dim it.

Operation with just one push button is also possible if DIP switch 3 is set to the lower position.

➢ Connect push button to terminal S1 or S2.

Bridging S1 and S2 is not permitted.

6.3.1 Setting 1-button operation

All switching and dimming commands (from push button and remote control) are implemented simultaneously on both channels.

The offset from channel 1 to channel 2 is independent of this.

The desired ambient brightness can be selected by pressing the button for longer (> 2 s).

- ➢ Press and hold the button until the desired ambient brightness is reached.
- ✓ This preset ambient brightness level will be maintained for as long as people are present in the room. If people move out of the detection range, the preset switch-off delay time will start. Once this time has elapsed, the detector reverts to the set operating mode.
- ➢ To switch the lighting off, press the button again briefly.
- ✓ The lighting will remain switched off for as long as the detector continues to detect motion. If motion is no longer detected, the preset switch-off delay time will start. Once this time has elapsed, the detector reverts to the set operating mode.

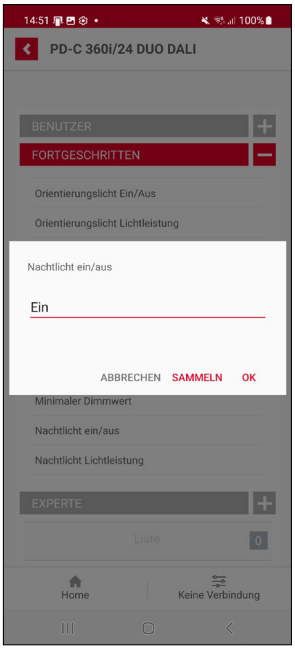
6.3.2 Setting 2-button operation

Control in 2-button mode differs from 1-button mode in that both channels C1 and C2 can be controlled separately in 2-button mode.

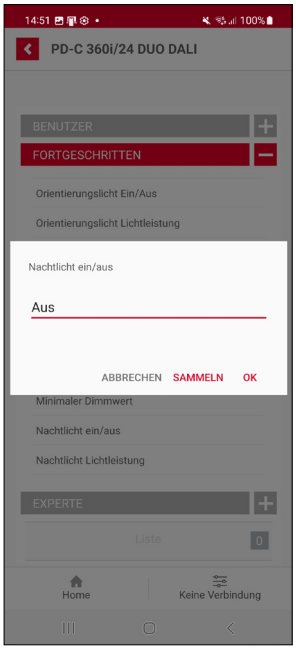
6.4 Activating the night light

Before it can be used, the night light function must first be activated in the ESY Control app.

- ➢ Start the ESY Control app
- ➢ Select the **< ADVANCED >** menu
- ➢ Select the **< Activate/deactivate night light >** sub-menu item
- ➢ On = Activate; Off = Deactivate



Activating the night light



Deactivating the night light

6.4.1 Starting and stopping the night light

When the night light function is activated, the night light can be switched on and off by briefly pressing a button on the S1.

When the night light is switched on, the factory-set night light output of the detector (10 %) is permanently switched on (the sensor LED lights up green) – regardless of detected motion and regardless of the ambient brightness.

The night light can be switched off at the touch of a button if more light output is required.

If the orientation light value is increased (10 = factory setting), the value of the night light is also increased automatically (via the ESY Control app) because the value of the night light must be at least equal to that of the orientation light.

6.5 1-button operation

Status		brief press	long press
Night light OFF	Push button 1	Night light ON (green LED lights up)	Manual dimming (OFF, 10 … 100 %) With switch-off delay time
Night light ON	Push button 1	Night light OFF (green LED OFF)	Manual dimming (OFF, 10 … 100 %) No switch-off delay time (green LED lights up)

6.6 2-button operation

Status		brief press	long press
Night light OFF	Push button 1	Night light ON (green LED lights up)	Manual dimming (OFF, 10 … 100 %) With switch-off delay time
	Push button 2	Automatic toggle ON/OFF (Presence detection + light regulation + switch-off delay time)	Manual dimming (OFF, 10 … 100 %) With switch-off delay time
Night light ON	Push button 1	Night light OFF (green LED OFF)	Manual dimming (OFF, 10 … 100 %) No switch-off delay time (green LED lights up)
	Push button 2	Automatic* (presence detection + light regulation + switch-off delay time, green LED OFF)	Manual dimming (OFF, 10 … 100 %) With switch-off delay time (green LED OFF)

*If:
Brightness measured value < Level of brightness = Light regulation
Brightness measured value > Level of brightness = ON as manual override

The configured light output of the night light [%] must at least correspond to the light output of the orientation light [%].

Increase the orientation light [%] :

➢ The light output of the night light [%] must first be set to at least the same value as the orientation light.

The detector will not accept light outputs that deviate from this.

Examples:
Orientation light 10 % and night light 30 % = permissible
Orientation light 10 % and night light 10 % = permissible
Orientation light 30 % and night light 10 % = **not** permissible!

6.7 Parametrising light regulation

Parameter	Variable	Standard
Level of brightness	100 … 2000 lx (in 10 lx increments)	500 lx
Light output at start:	0 … 100 % (in 10 % increments)	50 %
Switch-off delay time	1 … 240 min	5 min
Minimum light output	0 … 100 %	0 %
Maximum light output	0 … 100 %	100 %

Parametrising:

➢ Prevent extraneous light as far as possible.

If the measured value is more than 100 lx when the lighting is switched off, the proportion of extraneous light is too high.

➢ Measure the illuminance on the work surface below the detector (use a luxmeter).

➢ If the measured illuminance value deviates from the preset value, adjust the level of brightness.

➢ Leave the light factor at the default setting.

6.8 Adjusting the level of brightness

The level of brightness is the target value for light regulation.

Calculation example – adjusting the level of brightness:

The factory-set level of brightness is 500 lx.
The measured illuminance at the workplace is 450 lx.

- ➢ Level of brightness – measured illuminance = illuminance difference
  500 lx – 450 lx = 50 lx

- ➢ Brightness setpoint + illuminance difference = NEW brightness setpoint
  500 lx+ 50 lx = 550 lx

- ✓ In this example, the brightness setpoint to be set is 550 lx.

6.9 Adjusting the light factor

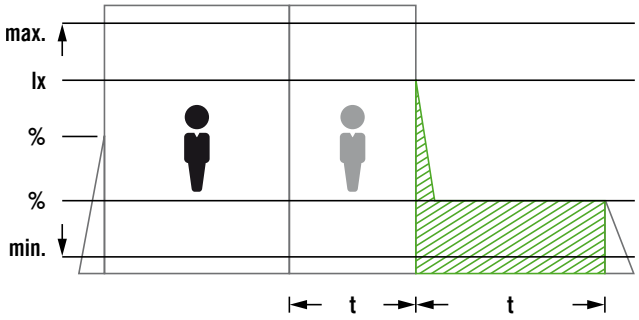
The light factor is a multiplier to adjust the light measurement of the light sensor mounted on the ceiling (in the detector) to the light measurement using a luxmeter on the table.

If the set level of brightness is not reached, the light factor must be adjusted in the ESY Control app.

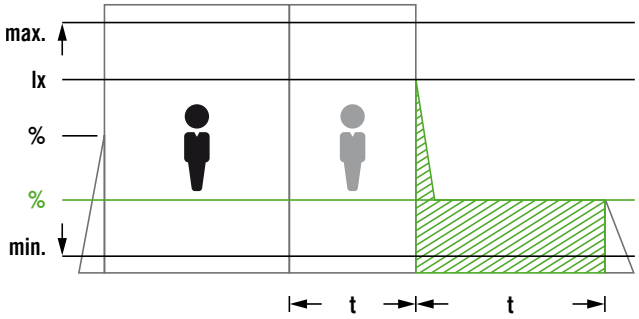
- ➢ Start the ESY Control app
- ➢ **< Select and parametrise product >**
- ➢ Select product
- ➢ Select **< Parametrise >**
- ➢ Select **< Expert >**
- ➢ Select **< Light factor >** and change the value from 10 to 6
- ➢ Confirm with **< OK >**
- ➢ Carry out control measurement

6.10 Afterglow

Afterglow is an additional function for light regulation or light control.
It can be set via the ESY Control app from 0 … 240 min.



The afterglow duration determines how long – after the switch-off delay time – the afterglow is activated.



The afterglow light output is lower than the standard light output.

6.11 Orientation light

The **< Orientation light on/off >** function enables discreet illumination in the dark regardless of presence in the room.

The orientation light can be set by remote control to a value between 10 % and 50 % of the maximum illuminance.

Switching on:

- No motion is detected in the field of detection.
- The preset switch-off delay time for the lighting duration has elapsed.
- The ambient light is below the set brightness setpoint.

✓ The motion detector switches the orientation light on.

Switching off:

- The ambient light is above the set brightness setpoint.

✓ The motion detector switches the orientation light off, despite the detected motion.

7. Maintenance

The device is maintenance-free.
In the event of damage, the entire device must be replaced.

8. Disposal

This product must not be disposed of as unsorted residual waste. All parts of the product must be disposed of properly and in accordance with legal regulations. Information can be obtained from municipal or local authorities.

9. EU Declaration of Conformity

The product complies with the following directives:

EMC 2014/30/EU
LVD 2014/35/EU
RoHS 2011/65/EU
REACH 1907/2006/EC

10. ESYLUX manufacturer's warranty

The ESYLUX manufacturer's guarantee can be found on the relevant product page at www.esylux.com.