ESYLUX

PD-FLAT 360i/8 RW KNX
EP10451706

PD-FLAT 360i/8 SW KNX
EP10451713

PD-FLAT 360i/8 RB KNX
EP10451768

PD-FLAT 360i/8 SB KNX
EP10451775

PD-FLAT-L 360i/8 RW KNX
EP10428685

Detailed operating instructions

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BA01309600	01/12/2016	First edition
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1 Information about the document

1.1 Introduction

These operating instructions contain detailed information about device functions and the processes for commissioning and assembling the specified devices.

This document is also available online at www.esylux.com and can be printed in A4 format.

When you are reading the document on screen, you can use the following functions:

- Linked table of contents: Clicking on the chapter title opens the corresponding chapter.
- List of bookmarks: All chapters can be accessed from the list of bookmarks. You can usually open the list of bookmarks in the PDF software by clicking the symbol 🔖 .
- Linked references: You can move to specified locations by clicking on the link. Many PDF programs highlight such links when you hover the mouse cursor over the link. For example:

(see Chapter "13.2.3 Manual settings").

Please read the operating instructions carefully and note all safety information and warnings.

1.2 Highlighted information within the text

To make these user instructions easier to read, certain information is highlighted using different formatting.

The meaning of this formatting is explained below:

➢   indicates a call for user action

✓   is used to highlight results of actions

> **i**   indicates important and useful information

1.3 Manufacturer address

ESYLUX GmbH
An der Strusbek 40
22926 Ahrensburg, Germany

Website: www.esylux.com
Email: info@esylux.com

1.4   Product identification

These instructions apply to the following products:

Item number	Item designation	Model
EP10451706	PD-FLAT 360i/8 RW KNX	RW: round, white
EP10451713	PD-FLAT 360i/8 SW KNX	SW: square, white
EP10451768	PD-FLAT 360i/8 RB KNX	RB: round, black
EP10451775	PD-FLAT 360i/8 SB KNX	SB: square, black
EP10428685	PD-FLAT-L 360i/8 RW KNX	RW: round, white

The item number and item designation can be found on the type plates for the devices (see Chapter 3.5).

2   Basic safety information

2.1   Intended use

The ESYLUX ceiling-mounted presence detector is designed for interior use. The device may only be connected to a KNX TP (2-wire bus) bus system.

2.2   Liability and damages

The product is designed only for the intended use, which is described in the corresponding chapter of these instructions. The device must not be changed, modified or painted — doing so will void any warranty claims.

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

2.3   Safety instructions

Specialist personnel!

The device may only be assembled and commissioned by electrical installation technicians or trained electricians, taking country-specific regulations into account.

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KNX guidelines

SELV installation regulations

Please also observe the applicable KNX guidelines as well as the installation regulations regarding SELV protective measures. Please note in particular:

- SELV networks may not be earthed.
- Cables designed for the installation of high-voltage current systems may not be used to install bus networks.
- Switch off the bus supply prior to assembly/disassembly of the product.

2.4 Warnings

Warnings are listed at the start of the relevant chapter if a hazardous situation is likely to occur. The preceding signal words have the following meanings:

NOTE!

This signal word warns against situations that could lead to instances of property damage if the information is not observed.

3 Product description

3.1 Introduction

The ESYLUX PD-FLAT 360i/8 KNX ceiling-mounted presence detector is a passive infrared presence detector. It responds to moving sources of heat. An integrated light sensor also measures brightness.

The presence detector can send and receive KNX communication objects via KNX TP (2-wire bus). A complete list of communication objects can be found in Chapter 7 together with an explanation of their function.

3.2 Functions and features

- Ceiling-mounted presence detectors with a 360° field of detection and maximum detection range of approx. 8 metres at an installation height of 3 metres
- Automatic control of two light channels (switching/dimming, channel 2 offset from channel 1 (-99% to +99%))
- Constant light regulation or switching of light channels
- Output for control of heating, ventilation and air-conditioning (HVAC channel)
- Twilight switch
- Temporary switching/dimming via KNX switch
- Configuration via ETS software
- Can be used as master or slave

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- Fully automatic and semi-automatic operation
- Orientation light function with two light values
- Test mode function
- Adjustable sensor sensitivity
- Correction factor for room light measurement
- Light value measurement approx. 5–2000 Lux, via mixed light

3.3 Included in delivery

- Magnet for switching on programming mode
- KNX bus terminal
- Lens mask

3.4 Field of detection

4 m

6 m

8 m
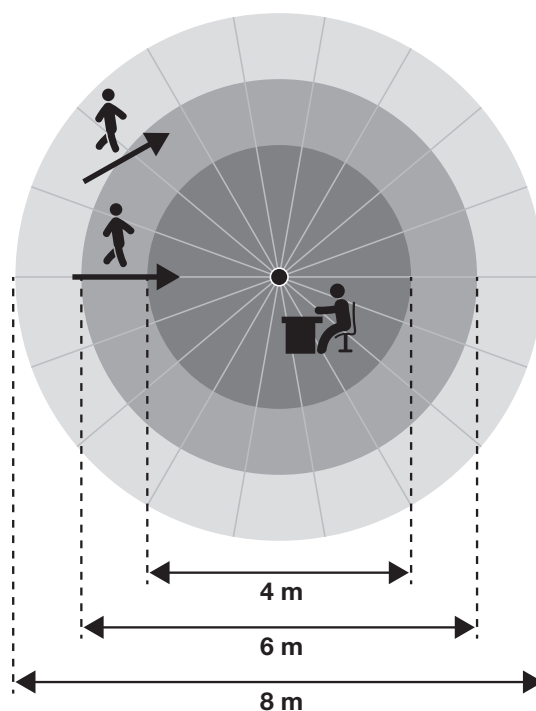
Movement crossways to the detector is ideal for detection. Movement directly towards the presence detector is harder for it to detect. This can significantly reduce the detection range.

- Field of detection 360° horizontal
- Detection range 8 m at an installation height of 3 – 5 m

The range specifications apply for an ambient temperature of approx. 20°C.

Adjustment with lens mask

A lens mask can be used to mask out specific fields of detection:
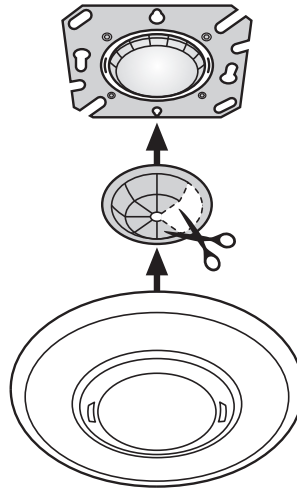
3.5 Type plates
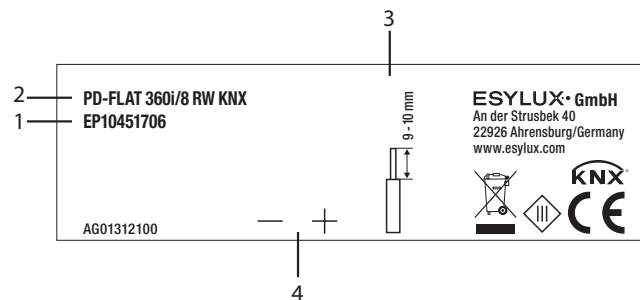
1 Item number
2 Item designation
3 Stripped insulation measurements
4 Connection markings (see wiring diagram in Chapter 4.3)

4 Connection and installation

4.1 Dimensions diagrams

Ø 94 mm

Ø 60 mm

24 mm

30 mm

Model PD-FLAT 360i/8 Rx KNX

77 mm

77 mm

Ø 60 mm

24 mm

30 mm
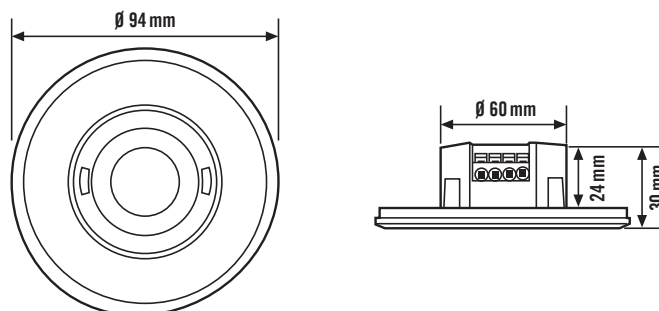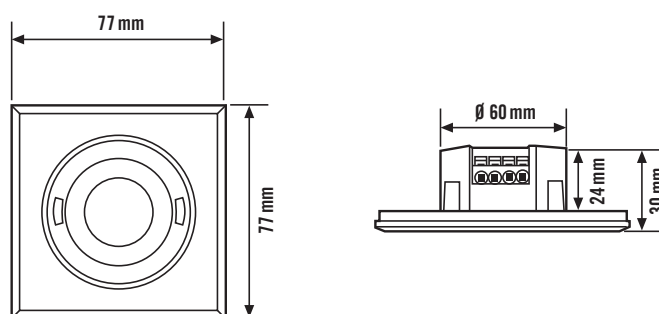
Model PD-FLAT 360i/8 Sx KNX

Ø 104 mm

Ø 60 mm

24 mm

30 mm
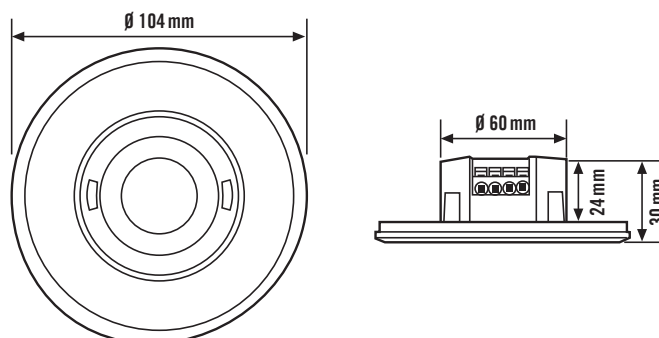
Model PD-FLAT-L 360i/8 RW KNX

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4.2 Installation

The presence detector is intended for recessed mounting and recessed ceiling mounting.

> **i** When choosing an installation location, make sure that the light sensor is not obstructed by plants, cupboards, room dividers or other objects, and that reflected light can reach the light sensor from the ground.

4.2.1 Recessed mounting

Installation in simple European flush-mounting box (not supplied).
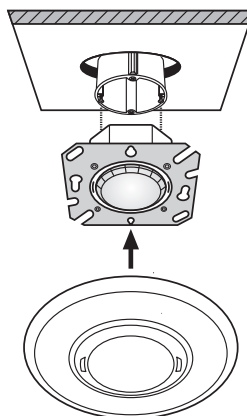
Remove the cover in order to screw the presence detector into the flush-mounting box.

4.2.2 Recessed ceiling mounting

The ESYLUX recessed ceiling mounting kit (item number EP10426889) is required for recessed ceiling mounting.
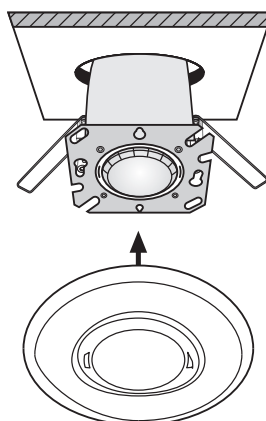
4.3 Connection

The device draws its supply voltage via the KNX bus. Connection takes place via the supplied KNX terminal. The terminal is connected to the contact pins in the opening in the housing.

Use the red terminal for the (+) pole and the black terminal for the (−) pole of the KNX bus.

Connect as shown in the following wiring diagram:
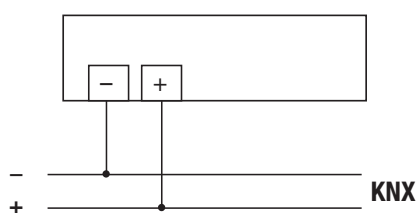
NOTE!

Applying a voltage that does not conform with KNX may lead to malfunctions or irreparably damage the device.

4.4 Warm-up phase

Whenever the bus supply is turned on, a warm-up phase starts during which the red and green LEDs flash slowly and alternately (f=1 Hz).

The presence detector is ready for use after approximately 10 seconds. If the presence detector detects motion, the LED flashes twice. The LED colour can be configured using the ETS software.

# 5 Initial set-up

5.1 Configuring the presence detector address

Prerequisites:

- A KNX bus system with power source in line with KNX standards
- ETS (Engineering Tool Software)
- Connection between ETS and KNX bus
- Magnet (included in scope of delivery)

Presence detector address (factory setting)

The presence detector has a physical address which also acts as a device address in the KNX network. The factory setting for this address is 15.15.255. In order to allow configuration of the presence detector using the ETS software, it must first be assigned a new address.

Configuring the address of the presence detector:

➢ Save the presence detector application on your PC or notebook. The application can be found in the Media Centre under the Service section of the Esylux website (www.esylux.com).

➢ Unzip the application file using a program such as Winrar or Winzip.

➢ Load the presence detector software using the ETS software.
In order to do so, click "Import" on the **Catalogues** tab, navigate to where the application file has been saved and open the file.

✓ The product software is displayed in the catalogue.

➢ Place the presence detector in programming mode. In order to do so, hold the supplied magnet to the lens of the presence detector.

✓ The blue LED on the presence detector will light up and stay illuminated.

➢ On the ETS "Bus" tab, search for the presence detector in programming mode with the physical address 15.15.255. The scanning function in the menu "Diagnostics/Physical addresses/Line scan" can be used for this purpose.

➢ Assign a new physical address. A value between 0 and 255 can be entered for each of the three numbers.

✓ The blue LED will go out once the new address has been assigned.

Programming mode only for physical address

ℹ The presence detector only needs to be placed in programming mode when a physical address is assigned. All other settings can be transferred to the presence detector directly from the ETS software.

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5.2 Configuring automatic mode

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▲▼
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ▲▼
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram
Group Objects Parameter		

On the "Light channel" tab (under "Parameter"), ascertain whether the presence detector is operating in semi-automatic or fully automatic mode. The difference:

Fully automatic

- Fully automatic: If presence is detected and the value is lower than the target brightness value, the presence detector automatically sends a switch-on telegram so that the lighting is switched on. If presence is not detected and the switch-off delay time has passed, or if the value is higher than the target brightness value because it is daylight, the presence detector sends a switch-off telegram.

Semi-automatic: Only manual switch-on

- Semi-automatic: The presence detector measures the brightness and sends switch-off telegrams if no presence is detected and the switch-off delay time has passed, or if the value is higher than the target brightness value because it is daylight. It does not send a switch-on command if presence is detected and the value is lower than the target brightness value, however.

Semi-automatic only with external button

i In semi-automatic operating mode, the light must always be switched on manually using a telegram. This operating mode should only be chosen if an external KNX button has been integrated.

6 Device application

The ETS software can be used to import the application associated with the presence detector and, for example, to link the KNX communication objects to those of other KNX devices as required. It is also possible to:

- configure the settings for general device parameters, for example by specifying whether the presence detector should operate as a master or slave
- configure parameters relating directly to the communication objects

A selection of general parameters are explained in the following section. Parameters that specify a communication object are explained in the section on the relevant communication object in Chapter 7.

6.1 "Parameter", "Common"

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Common		
Common	Configuration of device	○ Slave ● Master
LED	Test mode (activated for 10min. After download by choosing „On")	● Off ○ On
Motion	Behavior after ETS download/reset	no reaction ▾
Light channel	Remote	○ Off ● On
Constant light regulation	LED in sensor	very bright ▾
Group Objects / Parameter		

The following basic general settings can be configured under this tab:

Master - Slave

Master/Slave

Master: A presence detector operating as master measures brightness, detects presence and evaluates the data according to the configured parameters, for example by regulating or switching.

Slave: The presence detector is only used to expand the field of detection. It measures brightness and presence and writes the data to the KNX bus. A master evaluates the data.

Test mode

Test mode

Prerequisite: Test mode is only possible in the device configuration "Master".

This test mode can be used to check the connection between the presence detector and the lighting system. Test mode terminates automatically after 10 minutes if it has not been previously terminated by the off command.

Behaviour in test mode:

- Light measurement is disabled
- Blue LED flashes when motion is detected
- Lighting is on for 5 seconds if motion is detected, followed by one

second without lighting
- Messages from slave devices are evaluated

**After download
or
device restart**

Behaviour after ETS download/reset

Selection:

- No reaction
- Switching off
- Switching on

If "Switching off" or "Switching on" is selected, the presence detector will write the following objects to the bus after the restart, depending on the function mode (see "Light channel" tab, "Function" menu):

Function mode switching:

Output object 8: Light channel 1 ON/OFF

Output object 9: Light channel 2 ON/OFF

Function mode controlling or regulating

Output object 8: Light channel 1 ON/OFF

Output object 9: Light channel 2 ON/OFF

Output object 10: Light channel 1 dim value

Output object 11: Light channel 2 dim value

Output object 29: HVAC channel ON/OFF

Remote control

Activate or disable operation using the Mobil-PDi/User remote control (order separately).

LED in sensor

Configure LED brightness or switch off LED.

The LED colours are configured under the "LED" tab.

6.2 "Parameter", "LED"

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > LED		
Common	Color when motion is detected"	green ▾
LED	Color when motion detection is locked	red ▾
Motion	Color sensor in programming mode (blue, when application not programmed)	blue ▾
Light channel	Nightlight function	○ Off ◉ On
Constant light regulation	Color when threshold is underrun	white ▾
HVAC-channel	Color when threshold is underrun	white ▾
	Threshold (Lux)	50
Twilight switch	Hysteresis (Lux)	10

Group Objects / Parameter

The LED colours for various events can be configured under this tab.

6.3 "Parameter", "Motion"

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Motion		
Common	Interval between motion detction (1...240 seconds)	3
LED	Cyclic sending of On-telegramen at motion detection	○ No ◉ Yes
Motion	Sending Off-telegram after last motion detection	○ No ◉ Yes
Light channel	Sensitivitysensor	100,00% ▾
Constant light regulation	Light dependend sending of motion detection	Sending only above ▾
HVAC-channel	Threshold (Lux)	500
Twilight switch	Hysteresis (Lux)	50
light value	Motion sensors are locked by	○ Off-telegram ◉ On-telegram
Alarm	Presence simulation	○ No ◉ Yes
	External Master/Slave	deactivated ▾

Group Objects / Parameter

Presence simulation

The presence detector's reactions to motion can be set under this tab.

Presence simulation can also be activated. For more information on presence simulation, see "Input object presence simulation" on Page 44.

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6.4 "Parameter", "Light channel"

Key settings for the light channels can be configured under this tab:

Operation mode

A choice can be made between:

- Semi-automatic
- Fully automatic

The difference:

Fully automatic

- Fully automatic: If presence is detected and the value is lower than the target brightness value, the presence detector automatically sends a switch-on telegram so that the lighting is switched on. If presence is not detected and the switch-off delay time has passed, or if the value is higher than the target brightness value because it is daylight, the presence detector sends a switch-off telegram.

Semi-automatic: Only manual switch-on

- Semi-automatic: The presence detector measures the brightness and sends switch-off telegrams if no presence is detected and the switch-off delay time has passed, or if the value is higher than the target brightness value because it is daylight. It does not send a switch-on command if presence is detected and the value is lower than the target brightness value, however.

Semi-automatic only with external button

| i | In semi-automatic operating mode, the light must always be switched on manually using a telegram. This operating mode should only be chosen if an external KNX button has been integrated. |

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Function

A choice can be made between:

- **Switching**: The presence detector switches on and off at a defined switching threshold.

- **Controlling**: The presence detector controls the light value at a defined setpoint.

- **Regulating**: Regulating means that light is controlled on a linear basis using a minimum and maximum light value.
  The minimum and maximum light value are sent via telegram (regulating input objects 14 and 15) or set in the parameters.
  If the minimum light value or values which are lower than the minimum light value are measured, the presence detector sends a 100% telegram. If the maximum light value is measured, it sends a 0% telegram.
  If the presence detector measures values between the minimum and maximum light value or receives them from an external sensor, it regulates the lighting on a linear basis. In order to do so, it sends dim values to the dimming actuator using the output objects 12 and 13.
  For regulating purposes, the internal or external light sensor must be positioned such that it receives a large amount of daylight and only a small amount of artificial light.
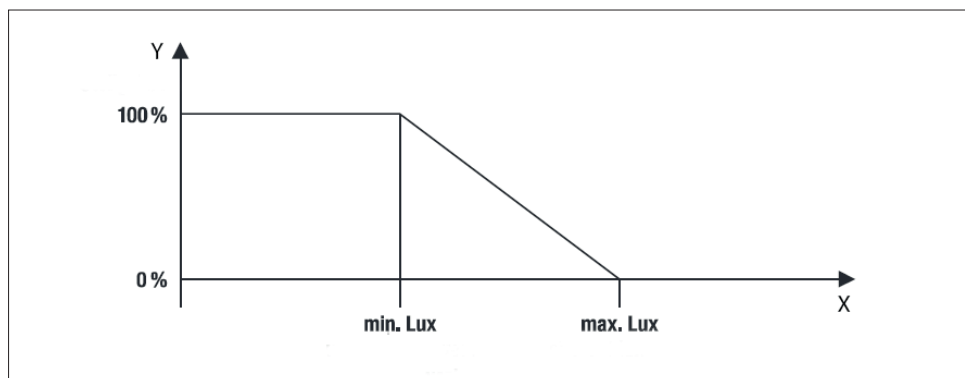
Regulating function: The X axis represents the light value and the Y axis represents the control variable. The control variable is determined on a linear basis between the minimum light value (min.Lux) and the maximum light value (max. Lux).

Effect of function selection

The function that has been selected determines which tab is shown below the "Light channel" tab. It also influences which communication objects can be used. If the "Switching" function is selected, for example, the communication objects for manual dimming are not available.

6.5   "Parameter", "Switching/controlling/regulating"

The function selected on the "Light channel" tab determines whether the "Switching", "Controlling" or "Regulating" tabs are visible. The settings relevant to each function can be configured on the function tab which is displayed as a result.

6.6 "Parameter", "HVAC channel"

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > HVAC-channel		
Common	Operation mode	○ Half automatic ● Full automatic
LED	Delay presence output (0 = no delay)	0 ▾
Motion	Switch off time (0 = no switch off time)	60 minutes ▾
Light channel	telegram interval for cyclic sending	no cyclic sending ▾
Constant light regulation	Behavior at switching on lock by communication object	no reaction ▾
HVAC-channel	Behavior at switching off lock by communication object	no reaction ▾
Twilight switch	Output telegram binary	○ Off ● On
light value	Output telegram dim value	○ Off ● On
Alarm	sendet value at On switching (%)	100 ⇕
	sendet value at Off switching (%)	0 ⇕
	Output telegram scene	○ Off ● On
	Sended scene at On switching	1 ⇕
	Sended scene at Off switching	2 ⇕
Group Objects / Parameter		

The settings for the HVAC channel (**H**eating, **V**entilation, **A**ir **C**onditioning) can be configured under this tab.

6.7 "Parameter", "Twilight switch"

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Twilight switch		
Common	Threshold twilight switch(Lux)	50 ⇕
LED	Hysteresis (Lux)	10 ⇕
Motion	Timedelay of twilight switch (minutes)	1 ⇕
Light channel	Offperiod after manual operation (minutes)	10 ⇕
Constant light regulation	Output telegram binary	○ Off ● On
HVAC-channel	Output telegram dim value	○ Off ● On
Twilight switch	Sended value at On switching (%)	100 ⇕
light value	Sended value at Off switching (%)	0 ⇕
Alarm	Output telegram scene	○ Off ● On
	Sended scene at On switching	1 ⇕
	Sended scene at Off switching	2 ⇕
Group Objects / Parameter		

In normal mode, the twilight switch sends an ON telegram if the threshold value is constantly fallen short of during the switching time. It sends an OFF telegram if the threshold value plus hysteresis is constantly exceeded during the switching time.

After manual switching, the twilight switch remains inactive; after the off-period, it returns to normal operation.

6.8 "Parameter", "Light value"

The following light value settings can be configured under this tab:

Internal light value: The internal light value is the light value measured by the sensor, without an offset or weighting factor. The internal light value can be transmitted either in cycles or from a determined difference to the last light value sent.

External light value: An external KNX sensor with weighting can be incorporated for light control.

The current light value for control is then:

Internal light value x (basic x multiplicator) + external light value x (basic x multiplicator).

7 KNX communication objects

The communication objects that can be used together with the presence detector are listed by the ETS software in the presence detector application. The communication objects are explained in this chapter with the following information:

- Object number
- Indication of whether the object is an "input" or "output" object type: Input objects are communication objects that the presence detector can receive.
  Output objects are communication objects that the presence detector can write to the KNX bus as telegrams.
- Object name
- Bit length of the communication object
- Function of the communication object
- Key parameters associated with the communication object.

Internal light value (margin)

External light value (margin)

Controlling light value (margin)

Input objects (margin)

Output objects (margin)

Parameters (margin)

KNX communication objects

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7.1 Functions and parameters

Object O

Object O: "Input: Lock light channels"
Length: 1 bit

Function: The ON telegram for this input object locks the switching/dimming outputs for the light channels, and the OFF telegram unlocks them.

If the presence detector is locked, it does not write switching and dimming commands to the bus.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▲▼
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ▲▼
	cyclic sending of	On- and Off-telegrams ▼
Alarm	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram
Group Objects / Parameter		

The way in which the light channels react to locking/unlocking can be configured using the light channel parameters. Possible settings:

- Switching on the light channel
- Switching off the light channel
- No reaction to locking or unlocking

Object 1

Object 1: "Input: Light channel 1 manual ON/OFF"   Length: 1 bit

Function: Input object for manual switching on and switching off, sent by external KNX buttons for example.

After receiving this object, the presence detector writes the ON/OFF commands to the bus using output object 8. This switches light channel 1.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▲▼
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ▲▼
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram
Group Objects / Parameter		

If "**active while presence**" has been selected as a light channel parameter, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured after the manual override. The presence detector returns to normal mode after the configured "**off-period after manual operation**".

Object 2

Object 2: "Input: Light channel 2 manual ON/OFF"   Length: 1 bit

Function: Input object for manual switching on and switching off, sent by external KNX buttons for example.

After receiving this object, the presence detector writes the ON/OFF commands to the bus using output object 9. This switches light channel 2.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ◉ Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ◉ with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▲▼
HVAC-channel	Processing actuator feedback	○ No ◉ Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ▲▼
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ◉ Can be activated via telegram

Group Objects / Parameter

If "**active while presence**" has been selected as a light channel parameter, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured after the manual override. The presence detector returns to normal mode after the configured "**off-period after manual operation**".

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Object 3

Object 3: "Input: Light channel 1 manual dimming"   Length: 4 bits

Function: Input object for manual override of channel 1 using relative dimming command, sent by KNX touch sensors for example.

After receiving this object, the presence detector writes commands to the bus using output object 10, and light channel 1 is manually overridden.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▲▼
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ▲▼
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram

| Group Objects | Parameter |

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured **"off-period after manual operation"**.

Object 4

Object 4: "Input: Light channel 2 manual dimming"   Length: 4 bits

Function: Input object for manual override of channel 2 using relative dimming command, sent by KNX touch sensors for example.

After receiving this object, the presence detector writes commands to the bus using output object 11, and light channel 2 is manually overridden.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ⬍
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ⬍
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram

Group Objects / Parameter

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured **"off-period after manual operation"**.

KNX communication objects

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Object 5: "Input: Light channel 1 manual dim value"   **Length: 1 byte**

Function: Input object for specifying dim values.

This object is used for manual overriding of light channel 1. The presence detector writes the dim value commands to the bus using output object 12.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ◉ Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ◉ with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ⇕
HVAC-channel	Processing actuator feedback	○ No ◉ Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1 ⇕
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ◉ Can be activated via telegram
Group Objects / Parameter		

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured "off-period after manual operation".

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Object 6

Object 6: "Input: Light channel 2 manual dim value"   Length: 1 byte

Function: Input object for specifying dim values.

This object manually overrides light channel 2, and the presence detector writes the dim value commands to the bus using output object 13.

Manual operation does not affect motion detection.

Parameters

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured **"off-period after manual operation"**.

Object 7

Object 7: "Input: Light channel controlling w/o presence"
Length: 1 bit

Function: Input object for overriding automatic controlling.

This object initiates controlling of both light channels on the basis of the setpoint configured in the parameter menu "Controlling", without any requirement for presence to be detected. The presence detector writes the commands to the bus using output objects 12 and 13.

The setpoint is controlled until the object is disabled using an OFF command.

Presence detection has no effect on control.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Constant light control		
Common	threshold (Lux, 0 = deactivated)	500
LED	Set value via telegram	○ Off ● On
Motion	dim value on switching on (0...100%)	60
Light channel	Maximum dim value step (0...10%)	3
	Minimal dim value step (0...10%)	0
Constant light control	Minimal dim value (0...100%)	0
HVAC-channel	Maximum dim value (0...100%)	100
Twilight switch	Control timing	2 seconds
light value	Orientation light	○ Off ● On
Alarm	Orientation light value 1 (%)	10,00%
	Orientation light value 2 (%)	25,00%
	Orientation light duration (minutes, 0 = always on)	5
	Offset between dimm value 1 and dimm value 2 (-100% ... 100%)	0
	Snooze funktion	○ Off ● On
Group Objects / Parameter		

The setpoint is entered under the parameter tab "Controlling".

ℹ The tab "Controlling" is visible if "Controlling" is selected as a function in the light channel menu.

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Object 8

Object 8: "Output: Light channel 1 ON/OFF" Length: 1 bit

Function: Output object for switching light channel 1 depending on the configured setpoint.

The object is output if the setpoint is fallen short of and motion is detected.

The output object is light-dependent and presence-dependent.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Constant light control	
Common	threshold (Lux, 0 = deactivated) — 500
LED	Set value via telegram — ○ Off ● On
Motion	dim value on switching on (0...100%) — 60
Light channel	Maximum dim value step (0...10%) — 3
	Minimal dim value step (0...10%) — 0
Constant light control	Minimal dim value (0...100%) — 0
HVAC-channel	Maximum dim value (0...100%) — 100
Twilight switch	Control timing — 2 seconds
light value	Orientation light — ○ Off ● On
Alarm	Orientation light value 1 (%) — 10,00%
	Orientation light value 2 (%) — 25,00%
	Orientation light duration (minutes, 0 = always on) — 5
	Offset between dimm value 1 and dimm value 2 (-100% ... 100%) — 0
	Snooze funktion — ○ Off ● On
Group Objects / Parameter	

The setpoint is entered under the parameter tab "Controlling".

> **i** The tab "Controlling" is visible if "Controlling" is selected as a function in the light channel menu.

Object 9

Object 9: "Output: Light channel 2 ON/OFF" Length: 1 bit

Function: Output object for switching light channel 2 depending on the configured setpoint.

The object is output if the setpoint is fallen short of and motion is detected.

The output object is light-dependent and presence-dependent.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Constant light control		
Common	threshold (Lux, 0 = deactivated)	500
LED	Set value via telegram	○ Off ● On
Motion	dim value on switching on (0...100%)	60
	Maximum dim value step (0...10%)	3
Light channel	Minimal dim value step (0...10%)	0
Constant light control	Minimal dim value (0...100%)	0
HVAC-channel	Maximum dim value (0...100%)	100
Twilight switch	Control timing	2 seconds
	Orientation light	○ Off ● On
light value	Orientation light value 1 (%)	10,00%
Alarm	Orientation light value 2 (%)	25,00%
	Orientation light duration (minutes, 0 = always on)	5
	Offset between dimm value 1 and dimm value 2 (-100% ... 100%)	0
	Snooze funktion	○ Off ● On
Group Objects / Parameter		

The setpoint is entered under the parameter tab "Controlling".

> **i** The tab "Controlling" is visible if "Controlling" is selected as a function in the light channel menu.

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Object 10

Object 10: "Output: Light channel 1 dimming"   Length: 4 bits

Function: Output object for manual override by writing the relative dimming commands for channel 1.

The object is output if the setpoint is fallen short of when presence is detected or after input object 3 has been received.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel	
Common	Operating mode ○ Half automatic ● Full automatic
LED	Function regulating ▼
Motion	Switch off time light channel (0 = no switch off time) 5 minutes ▼
Light channel	manual operation ○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately) 30 ▲▼
HVAC-channel	Processing actuator feedback ○ No ● Yes
Twilight switch	telegram interval for cyclic sending 1 second ▼
light value	Multiplicator 1 ▲▼
Alarm	cyclic sending of On- and Off-telegrams ▼
	Behavior at switching on lock by communication object no reaction ▼
	Behavior at switching off lock by communication object no reaction ▼
	Telegramfilter deactivated ▼
	Lighting regulated regardless of presence ○ deactivated ● Can be activated via telegram
Group Objects / Parameter	

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured **"off-period after manual operation"**.

Object 11

Object 11: "Output: Light channel 2 dimming"   Length: 4 bits

Function: Output object for manual override by writing the relative dimming commands for channel 2.

The object is output if the setpoint is fallen short of when presence is detected or after input object 4 has been received.

Manual operation does not affect motion detection.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ◉ Full automatic
LED	Function	regulating ▾
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▾
Light channel	manual operation	○ active while presence ◉ with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30 ▴▾
HVAC-channel	Processing actuator feedback	○ No ◉ Yes
Twilight switch	telegram interval for cyclic sending	1 second ▾
light value	Multiplicator	1 ▴▾
Alarm	cyclic sending of	On- and Off-telegrams ▾
	Behavior at switching on lock by communication object	no reaction ▾
	Behavior at switching off lock by communication object	no reaction ▾
	Telegramfilter	deactivated ▾
	Lighting regulated regardless of presence	○ deactivated ◉ Can be activated via telegram

Group Objects / Parameter

If "**active while presence**" has been selected, the manual override remains in place while presence is detected and for the duration of the switch-off delay time.

If "**with deactivated light measurement during off-period**" has been selected, light is not measured. The presence detector returns to normal mode after the configured **"off-period after manual operation"**.

Object 12

Object 12: "Output: Light channel 1 dim value"   Length: 1 byte

Function: Output object for constant light regulation of channel 1.

The presence detector sends a dim value telegram if artificial light is required and presence is detected, or after receiving input object 5.

If presence is detected and the switch-on delay time has passed, or if there is sufficient daylight, the presence detector sends the value "0 %" or the command to switch to orientation light.

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Object 13

Object 13: "Output: Light channel 2 dim value"   Length: 1 byte

Function: Output object for constant light regulation of channel 2.

The presence detector sends a dim value telegram if artificial light is required and presence is detected, or after receiving input object 6.

If presence is detected and the switch-on delay time has passed, or if there is sufficient daylight, the presence detector sends the value "0 %" or the command to switch to orientation light.

Object 14

Object 14: "Input: Light channel setpoint control"   Length: 2 byte

Function: Input object for manual specification of the setpoint for constant lighting control.

The setpoint for constant lighting control for both channels is changed and stored by the presence detector using this object. The presence detector then writes the changed requirements for the light channels to the bus using the dim value objects 12 and 13.

Object 14 regulation

Object 14: "Input: Light channel regulation lower light value" Length: 2 bytes

Function: Input object for specifying the lower light value for the regulating function.

This object specifies the light value up to which the presence detector sends 100% telegrams in regulating mode. The 100% telegram is sent at the lowest value and at all light values below the lowest light value.

For further details of the regulating function, see the section "Function" on page 18.

Object 15 regulation

Object 15: "Input: Light channel regulation upper light value" Length: 2 bytes

Function: Input object for specifying the maximum light value for the regulating function.

This object specifies the light value above which the presence detector sends 0% telegrams.

For further details of the regulating function, see the section "Function" on page 18.

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Object 16

Object 16: "Input: Light channel actuator feedback"   Length: 1 bit

Function: Input object for the status of actuators.

This object is used to evaluate the status of an actuator.

If the actuator is not solely regulated by the presence detector, the actuator and light channel 1 may have different statuses. In such cases, the presence detector returns to normal mode.

Object 18

Object 18: "Input: Light channel select orientation light"   Length: 1 bit

Function: Input object for selecting the orientation light brightness.

The ON telegram for this object switches from orientation light value 1 to orientation light value 2. The OFF telegram switches from value 2 to value 1.

After receiving the input object, the presence detector writes the new requirements for the light channels to the bus using output objects 12 and 13.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Constant light control		
Common	threshold (Lux, 0 = deactivated)	500
LED	Set value via telegram	○ Off ◉ On
Motion	dim value on switching on (0...100%)	60
Light channel	Maximum dim value step (0...10%)	3
	Minimal dim value step (0...10%)	0
Constant light control	Minimal dim value (0...100%)	0
HVAC-channel	Maximum dim value (0...100%)	100
Twilight switch	Control timing	2 seconds
light value	Orientation light	○ Off ◉ On
	Orientation light value 1 (%)	10,00%
Alarm	Orientation light value 2 (%)	25,00%
	Orientation light duration (minutes, 0 = always on)	5
	Offset between dimm value 1 and dimm value 2 (-100% ... 100%)	0
	Snooze funktion	○ Off ◉ On
Group Objects	Parameter	

The orientation light values are entered under the "Controlling" tab.

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Object 19

Object 19: "Input: Light channel orientation light ON/OFF"
Length: 1 bit

Function: The ON telegram for this input object activates the orientation light function, and the OFF telegram disables it.

Object 20

Object 20: "Input: Light channel snooze function ON/OFF"
Length: 1 bit

Function: Input object for specifying a temporary maximum dim value, sent by a time switch for example.

This object temporarily replaces the maximum dim value with the dim value of the snooze function. As soon as the object is disabled, the standard maximum dim value is reactivated.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Constant light control		
Common	threshold (Lux, 0 = deactivated)	500
LED	Set value via telegram	○ Off ● On
Motion	dim value on switching on (0...100%)	60
	Maximum dim value step (0...10%)	3
Light channel	Minimal dim value step (0...10%)	0
Constant light control	Minimal dim value (0...100%)	0
HVAC-channel	Maximum dim value (0...100%)	100
Twilight switch	Control timing	2 seconds
light value	Orientation light	○ Off ● On
	Orientation light value 1 (%)	10,00%
Alarm	Orientation light value 2 (%)	25,00%
	Orientation light duration (minutes, 0 = always on)	5
	Offset between dimm value 1 and dimm value 2 (-100% ... 100%)	0
	Snooze funktion	○ Off ● On
	dim value at snooze funktion (%)	20
Group Objects / Parameter		

The maximum dim value and the dim value for the snooze function are entered under the "Controlling" tab ("Parameter").

Object 22

Object 22: "Input: Light channel semi/fully automatic"   Length: 1 bit

Function: External specification of operating mode.

This object is used to set the operating mode.

Logic 1 = semi-automatic
Logic 0 = fully automatic

For more details regarding the differences between semi-automatic and fully automatic, see Chapter "5.2 Configuring automatic mode" on page 13.

> **i**   In semi-automatic operating mode, the light must always be switched on manually. This operating mode should only be chosen if you have integrated an external button.

Object 23

Object 23: "Input: External light value"   Length: 2 bytes

Function: Input object for receiving externally measured light values.

The presence detector receives externally measured light values via this object. The external light values can be combined with the internally measured light value in order to achieve a room average with individual weighting. The weighting factors can take into account whether the presence detector is located in a brighter or more shaded position, for example.

Object 24

Object 24: "Output: Internal light value"   Length: 2 bytes

Function: Output object for outputting the internally measured light value.

This object is used to output the internally measured light value without offset and weighting factor.

Object 26

Object 26: "Output: Current light value"   Length: 2 bytes

Function: Output object for outputting the current light value.

This object is used to output the current light value. The current light value incorporates an offset and weighting factor for the internal light value and a value and weighting factor for an external light value.

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Object 27

Object 27: "Input: HVAC channel lock"   Length: 1 bit

Function: The ON telegram for this input object locks the following output objects:

- HVAC ON/OFF
- HVAC dim value
- HVAC scene for light channels

The OFF telegram unlocks these outputs.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Light channel		
Common	Operating mode	○ Half automatic ● Full automatic
LED	Function	regulating ▼
Motion	Switch off time light channel (0 = no switch off time)	5 minutes ▼
Light channel	manual operation	○ active while presence ● with deactivated light processing during off-p...
Constant light regulation	Off-period after manual operation (Min., 0 = regulating starts immediately)	30
HVAC-channel	Processing actuator feedback	○ No ● Yes
Twilight switch	telegram interval for cyclic sending	1 second ▼
light value	Multiplicator	1
Alarm	cyclic sending of	On- and Off-telegrams ▼
	Behavior at switching on lock by communication object	no reaction ▼
	Behavior at switching off lock by communication object	no reaction ▼
	Telegramfilter	deactivated ▼
	Lighting regulated regardless of presence	○ deactivated ● Can be activated via telegram
Group Objects / Parameter		

The parameters are used to determine the reaction of the light channels to locking and unlocking. Possible settings:

- Switching on the light channel
- Switching off the light channel
- No reaction to locking or unlocking

Object 28

Object 28: "Input: HVAC channel ON/OFF"   Length: 1 bit

Function: Input object for manual switching of the HVAC channel.

After receiving this input object, the presence detector writes the ON/OFF commands to the bus using output object 29. This switches the HVAC channel 1.

Manual operation does not affect motion detection.

Object 29

Object 29: "Output: HVAC channel ON/OFF"   **Length: 1 bit**

Function: Output object for switching the HVAC channel if motion is detected.

The object does not depend on a light setpoint and is only output when motion is detected.

Object 30

Object 3O: "Output: HVAC channel dim value"   **Length: 1 byte**

Function: Output object "Value" if motion is detected.

The presence detector sends the values that are entered in the HVAC parameters as dim values.

The object does not depend on a light setpoint and is only output when motion is detected.

Parameters

The HVAC dim value is configured twice:

- as the value that is output when motion is detected
- as the value that is output after motion has been detected and the switch-off delay time has passed

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Object 31

Object 31: "Output: HVAC channel scene"   Length: 1 byte

Function: Output object for accessing a preset scene if motion is detected.

The presence detector sends one scene number in the event that motion is detected and another scene number in the event that motion is no longer detected. Both values are specified in the HVAC parameters.

The object does not depend on a light setpoint and is only output when motion is detected.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > HVAC-channel		
Common	Operation mode	○ Half automatic ● Full automatic
LED	Delay presence output (0 = no delay)	0
Motion	Switch off time (0 = no switch off time)	60 minutes
Light channel	telegram interval for cyclic sending	no cyclic sending
Constant light regulation	Behavior at switching on lock by communication object	no reaction
HVAC-channel	Behavior at switching off lock by communication object	no reaction
Twilight switch	Output telegram binary	○ Off ● On
light value	Output telegram dim value	○ Off ● On
Alarm	sendet value at On switching (%)	100
	sendet value at Off switching (%)	0
	Output telegram scene	○ Off ● On
	Sended scene at On switching	1
	Sended scene at Off switching	2

Group Objects / Parameter

Setting options in parameters:

- Start scene on a light-independent basis when motion is detected ON/OFF
- Scene number (1-64) for scene when motion is detected
- Scene number (1-64) for scene after motion has been detected

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Object 33

Object 33: "Input: Lock motion detection"   Length: 1 bit

Function: The ON telegram of this input object locks internal motion detection, and the OFF telegram unlocks internal motion detection. The telegram used for switching on and switching off can be adjusted in the parameters.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Motion		
Common	Interval between motion detction (1...240 seconds)	3
LED	Cyclic sending of On-telegramen at motion detection	○ No ⦿ Yes
Motion	Sending Off-telegram after last motion detection	○ No ⦿ Yes
Light channel	Sensitivitysensor	100,00%
Constant light regulation	Light dependend sending of motion detection	Sending only above
HVAC-channel	Threshold (Lux)	500
Twilight switch	Hysteresis (Lux)	50
light value	Motion sensors are locked by	○ Off-telegram ⦿ On-telegram
Alarm	Presence simulation	○ No ⦿ Yes
	External Master/Slave	deactivated
Group Objects / Parameter		

The telegrams used for locking and unlocking can be set as required.

Object 34

Object 34: "Output: Motion detection"   Length: 1 bit

Function: Output object for outputting motion detection when motion is detected by the presence detector.

Object 38

Object 38: "Input: Twilight switch manual ON/OFF"   Length: 1 bit

Function: Input object for manual switching on of the twilight switch, for example with an external KNX button.

After receiving this input object, the presence detector writes the ON/OFF commands to the bus using output object 39.

The manual override for switching on/switching off remains in place until the configured off-period has passed.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Twilight switch		
Common	Threshold twilight switch(Lux)	50
LED	Hysteresis (Lux)	10
Motion	Timedelay of twilight switch (minutes)	1
Light channel	Offperiod after manual operation (minutes)	10
Constant light regulation	Output telegram binary	◯ Off ◉ On
HVAC-channel	Output telegram dim value	◯ Off ◉ On
Twilight switch	Sended value at On switching (%)	100
light value	Sended value at Off switching (%)	0
Alarm	Output telegram scene	◯ Off ◉ On
	Sended scene at On switching	1
	Sended scene at Off switching	2
Group Objects / Parameter		

Configuration of off-period: The period during which motion detection is locked after a manual switch-on; entered in minutes.

Object 39

Object 39: "Output: Twilight switch ON/OFF"   Length: 1 bit

Function: Output object for switching the twilight switch on the basis of a configured setpoint.

If the following conditions are met, the object is output as "logic 1" and the twilight switch is switched on:

- the configured setpoint is fallen short of
- the configured "time until switch-on of twilight switch" has passed

If the following conditions are met, the object is output as "logic 0" and the twilight switch is switched off:

- the configured setpoint is exceeded
- the configured "time until switch-on of twilight switch" has passed

The output object is light-dependent.

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![ESYLUX logo]

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Twilight switch		
Common	Threshold twilight switch(Lux)	50
LED	Hysteresis (Lux)	10
Motion	Timedelay of twilight switch (minutes)	1
Light channel	Offperiod after manual operation (minutes)	10
Constant light regulation	Output telegram binary	○ Off ◉ On
HVAC-channel	Output telegram dim value	○ Off ◉ On
	Sended value at On switching (%)	100
Twilight switch	Sended value at Off switching (%)	0
light value	Output telegram scene	○ Off ◉ On
Alarm	Sended scene at On switching	1
	Sended scene at Off switching	2

Group Objects / Parameter

Setting options in parameters:

- Twilight switching value in Lux
- Time until switching of twilight switch in minutes

Object 40

Object 40: "Output: Twilight switch dim value"   Length: 1 byte

Function: Output object for specifying the twilight switch dim value depending on the configured setpoint.

If the following conditions are met, the object is output with the configured value "Value sent at switching on":

- the configured setpoint is fallen short of
- the configured "time until switch-on of twilight switch" has passed

If the following conditions are met, the object is output with the configured value "Value sent at switching off":

- the configured setpoint is exceeded
- the configured "time until switch-on of twilight switch" has passed

The output object is light-dependent.

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Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Twilight switch		
Common	Threshold twilight switch(Lux)	50
LED	Hysteresis (Lux)	10
Motion	Timedelay of twilight switch (minutes)	1
Light channel	Offperiod after manual operation (minutes)	10
Constant light regulation	Output telegram binary	○ Off ◉ On
HVAC-channel	Output telegram dim value	○ Off ◉ On
	Sended value at On switching (%)	100
Twilight switch	Sended value at Off switching (%)	0
light value	Output telegram scene	○ Off ◉ On
Alarm	Sended scene at On switching	1
	Sended scene at Off switching	2

Group Objects / Parameter

Setting options in parameters:

- Output telegram dim value ON/OFF
- Dim value at switching on as a percentage
- Dim value at switching off as a percentage

If the dim values are configured to 100% and 0%, the dimming object only switches on and off.

Object 41

Object 41: "Output: Twilight switch scene"   Length: 1 byte

Function: Output object for accessing a configured scene depending on the configured twilight switch value.

The object is output if the twilight switch value set under the "Twilight switch" tab ("Parameter") is fallen short of.

The presence detector sends a scene number if the twilight switch value is fallen short of or exceeded. Scene values for both cases are specified in the twilight switch parameters.

The output object is light-dependent.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Twilight switch			
Common	Threshold twilight switch(Lux)	50	⬍
LED	Hysteresis (Lux)	10	⬍
Motion	Timedelay of twilight switch (minutes)	1	⬍
Light channel	Offperiod after manual operation (minutes)	10	⬍
Constant light regulation	Output telegram binary	○ Off ◉ On	
HVAC-channel	Output telegram dim value	○ Off ◉ On	
	Sended value at On switching (%)	100	⬍
Twilight switch	Sended value at Off switching (%)	0	⬍
light value	Output telegram scene	○ Off ◉ On	
Alarm	Sended scene at On switching	1	⬍
	Sended scene at Off switching	2	⬍
Group Objects / Parameter			

Setting options in parameters:

- Start scene via an output telegram if the twilight switch value ON/OFF is fallen short of.
- Scene number (1-64) upon output of twilight switch
- Scene number (1-64) after twilight switch value is exceeded

---

Object 42

Object 42: "Input: Presence simulation ON/OFF"   Length: 1 bit

Function: Input object for presence simulation.

The object is activated via Logic 1. The presence detector starts presence simulation when it receives the telegram.

Presence simulation is based on a recording process: Every time the light setpoint is fallen short of, the presence detector automatically records everything: Control operations and manual interventions as well as the expiry of a switch-off delay time and the automatic switching off of lighting. The presence detector ends the recording when the light value exceeds the light setpoint.

If the presence simulation is accessed by output object 42, the presence detector continues to replay the recording while the object is active.

Object 43

Object 43: "Input: Nightlight ON/OFF"   Length: 1 bit

Function: Input object for external overriding of the nightlight with ON and OFF telegrams.

The nightlight function must be activated under the "LED" tab ("Parameter"). The nightlight parameters then appear under the "LED" tab ("Parameter").

The internal RGB-LED will light up in the configured colour as soon as the configured switching threshold is exceeded or fallen short of.

Parameters

Setting options in parameters:

- Nightlight function ON/OFF
- LED colour if the threshold value is fallen short of
- LED colour if the threshold value is exceeded
- Threshold value and hysteresis in Lux

Object 44

Object 44: "Input: Alarm lock"   Length: 1 bit

Function: The ON telegram of this input object locks the alarm function, and the OFF telegram unlocks it.

The locking/unlocking behaviour is configured under the "Alarm" tab ("Parameter").

Parameters

The following settings are available for locking/unlocking behaviour:

- No reaction
- Switching off
- Switching on

KNX communication objects

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Object 45

Object 45: "Input: Alarm manual ON/OFF" Length: 1 bit

Function: Input object for manual overriding of the alarm function.

Object 46

Object 46: "Output: Alarm ON/OFF" Length: 1 bit

Function: Output object for switching the alarm.

Parameters

The alarm function can be configured for the same or different behaviour at switching on/switching off.

ℹ️ The alarm function can be locked via object 44 using various configurations.

Object 47

Object 47: "Input: Reset" Length: 1 bit

Function: Input object for resetting the presence detector to factory settings.

A reset of the presence detector is triggered using a "Logic 1" telegram. The presence detector requires approx. 6 seconds for the subsequent device restart. During this time, the presence detector does not detect motion or measure light.

Restart after reset and ETS download

The presence detector also performs a device restart after every ETS download.

Parameters

1.1.1 ESYLUX PD-FLAT 360i/8 KNX > Common		
Common	Configuration of device	○ Slave ● Master
LED	Test mode (activated for 10min. After download by choosing „On")	● Off ○ On
Motion	Behavior after ETS download/reset	no reaction ▼
Light channel	Remote	○ Off ● On
Constant light regulation	LED in sensor	very bright ▼
Group Objects / Parameter		

Resets and ETS downloads result in a device restart. The behaviour of the presence detector after a restart can be configured. The following settings are available:

- No reaction
- Switching off
- Switching on

8   Connecting the KNX button

Rather than connecting the KNX button directly to the actuator, it is a good idea to connect it to the presence detector by programming the latter:

- Button commands are temporary settings that override controlling or switching.
  A lighting state that is set using a button remains set for as long as people are present. Should these persons leave the detection range, the preset switch-off delay time will start. Once the switch-off delay time has passed, the detector returns to normal mode.
- After returning to normal mode, the presence detector will once again control and switch on the basis of the current settings. For example, if the light setpoint is fallen short of and the presence detector detects presence, it will switch on lighting at the preset lighting value rather than at the lighting value set using the button.

Depending on the settings, a button can be used to switch on or off or dim the light.

9   Maintenance

The device is maintenance-free. In the event of damage to the device, it may only be replaced as a complete unit.

9.1   Cleaning

CAUTION

Using the wrong cleaning products will damage the device!
➢   Use a lint-free cloth that is either dry or dampened with water.

9.2   Troubleshooting

Fault	Cause/solution
Lighting is off	• Ambient light level is above the preset switching value. • Lighting has been switched off manually. • The switch-off delay time has been set too short.
Lighting is switched off during the hours of darkness despite the presence of persons.	• Ambient light level is above the preset switching value. • Lighting has been switched off manually.
Lighting does not switch off or lighting switches on spontaneously when no persons are present.	• The switch-off delay time has not yet elapsed. • There are moving objects within the field of detection, such as curtains next to an open window, animals or plants. • There are sources of thermal interference within the field of detection, e.g. heating or air-conditioning.
Detector does not respond.	• Lack of power supply; check the bus voltage.

10 Technical data

Operating voltage	29 - 31 V DC (KNX-BUS)
Power consumption	6 mA
Dimensions (width x height x depth)	see dimensions diagrams in Chapter 4.1.
Installation dimension	Installation depth 24 mm Installation hole size Ø 68 mm
Weight	81 g
Installation type	Flush ceiling mounting; recessed ceiling mounting with accessories (recessed ceiling mounting kit, item number EP10426889) possible
Recommended installation height	3 m
Field of detection	360° horizontal
Range	approx. 8 m at an installation height of 3 to 5 m
Light value	approx. 5 - 10,000 lux
Light measurement	mixed light
Protection type	IP 20
Protection class	III
Terminal	1.5 mm^2
Interface	KNX
KNX input	manual light control, block objects, reset, slave
KNX output	presence, status, light value, HVAC
Light channels	C1 and C2: switching/dimming, offset (-50% - +50%)
Turn-on delay	disabled/2 min - 30 min
Switch-off delay time	disabled/30 seconds/1 min./12 hours
Switch-off delay channel 2	10 sec. - 1 hour
Orientation light	disabled/10%-50%, 2 values can be selected
Setting	remotely with ETS software; temporarily by infra-red Mobil-PDi/User and Mobil-PDi/MDi-universal remote controls (order separately)
Permissible ambient temperature	+5 °C ... +35 °C
Relative humidity	5% – 93%, non-condensing
Housing material	UV stabilised polycarbonate
Technical and design features may be subject to change.	

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11   Disposal

As the owner, you are required by law to correctly dispose of used devices. Contact your local town council for more information.

CE declaration

12   EC Declaration of Conformity

The products listed in "1.4 Product identification" on page 5 comply with the following standards:

- EMC 2004/108/EC
- RoHS 2011/65/EU
- LVD 2006/95/EC

13   ESYLUX MANUFACTURER'S GUARANTEE

ESYLUX products are tested in accordance with applicable regulations and manufactured with the utmost care. The guarantor, ESYLUX Deutschland GmbH, Postfach 1840, D-22908 Ahrensburg, Germany (for Germany) or the relevant ESYLUX distributor in your country (visit www.esylux.com for a complete overview) provides a guarantee against manufacturing/material defects in ESYLUX devices for a period of three years from the date of manufacture.

This guarantee is independent of your legal rights with respect to the seller of the device.

The guarantee does not apply to natural wear and tear, changes/interference caused by environmental factors or damage in transit, nor to damage caused as a result of failure to follow the user or maintenance instructions and/or as a result of improper installation. Any illuminants or batteries supplied with the device are not covered by the guarantee.

The guarantee can only be honoured if the device is sent back to the guarantor with the invoice/receipt, unchanged, packed and with sufficient postage, along with a brief description of the fault, as soon as a defect has been identified.

If the guarantee claim proves justified, the guarantor will, within a reasonable period, either repair the device or replace it. The guarantee does not cover further claims; in particular, the guarantor will not be liable for damages resulting from the device's defectiveness. If the claim is unfounded (e.g. because the guarantee has expired or the fault is not covered by the guarantee), then the guarantor may attempt to repair the device for you for a fee, keeping costs to a minimum.