

# COMPACT IS ESY BECAUSE FLEXIBLE LIGHT CONTROL NEEDS INNOVATIONS

COMPACT PRESENCE AND MOTION DETECTORS

**Every application and every technology** 

# HIGH-PERFORMANCE DIVERSITY

## **EVERY INSTALLATION, EVERY TECHNOLOGY**

The COMPACT series offers not only a wide range of versions for a broad range of applications, but also impressive innovative concepts for the realisation of intelligent solutions for all building areas.

- Ceiling detectors: 360° detection range, range ∅ 8 or ∅ 24 metres
- Wall-mounted detectors: 180° detection range, range Ø 16 metres
   230 V, DIM 1-10 V, Universal Current (12-36 V), DALI, KNX and ELC
- Surface mounting, recessed mounting or recessed ceiling mounting
- Switching, dimming and HVAC
- Option of further functions such as acoustic sensor or touch function

	CEILING-MOUNTED DETEC	TORS	WALL-MOUNTED DETECTORS	Motion detection	Presence detection	Integrated acoustic sensor	Light channel switchi	Light channel control (constant light contro	HVAC channels (switching)	Switching output (relay)	Switch input	Remote controllable	Touch operation
Sensing	Ø 8 metres, 360°	Ø 24 metres, 360°	Ø 16 metres, 180°	Mot	Pre	Integra	큹	Ligh Co	S S S	Sei Sei	Swit	Ren	Jo L
PRESENCE DETECT	ORS												
230 V (ON/OFF)	PD-C 360i/8	PD-C 360i/24		•	•		1			1	1	•	
	PD-C 360i/8 MIC			•	•	•	1			1	1	•	
		PD-C 360i/24 DRY		•	•		1			2	1	•	
	PD-C 360i/8 plus	PD-C 360i/24 plus		•	•		1		1	2	2	•	
		PD-C 360i/24 DUOplus SM/FM		•	•		2		1	3	3	•	
			PD-C 180i/16 Touch plus	•	•	•	1		1	2	1	•	•
	PD-C 360/8 Slave	PD-C 360/24 Slave		•	•								
		PD-C 360/24 Slave WH	-	•	•								
230 V with 1–10 V	PD-C 360i/8 DIM	PD-C 360i/24 DIM		•	•			1		1	1	•	
control output		PD-C 360i/24 DIMplus SM/FM		•	•			1	1	1	2	•	
		PD-C 360i/24 DIMplus WH		•	•			1		1	2	•	
		PD-C 360i/24 DUODIMplus SM/ FM		•	•			2	1	2	3	•	
12-36 V (AC/DC)	PD-C 360i/8 UC	PD-C 360i/24 UC	PD-C 180i/16 UC	•	•		1	1		1	1	•	
		PD-C 360/24 DC24V Slave		•	•								
DALI	PD-C 360i/8 DUO DALI	PD-C 360i/24 DUO DALI		•	•			2	2*		2	•	
DALI		PD-C 360i/24 PS plus DALI		•	•			16	1	1	4	•	
KNX		PD-C 360i/24 KNX ECO	PD-C 180i KNX ECO	•	•		1					•	
	PD-C 360i/8 KNX UP	PD-C 360i/24 KNX UP		•	•		1	2	1			•	
			PD-C 180i KNX	•	•	•	1	1	1			•	
			PD-C 180i/16 Touch KNX	•	•	•	1	1	1			•	•
ELC	PD-C 360i/8 ELC	PD-C 360i/24 ELC		•	•			4	2*			•	
MOTION DETECTORS	S												
230 V	MD-C 360i/8	MD-C 360i/24		•			1			1		•	
	MD-C 360i/8 MIC			•		•	1			1		•	
			MD-C 180i/16 Touch	•		•	1			1	1	•	•

\* With additional SW DALL (DALL-Switch) as accessory

<u>ii</u> <u>ii</u> <u>io</u>

#### PD-C 360i/24 PS PLUS DALI

The universal DALI presence detector enables intelligent light control of lighting groups and lighting scenes — with simple networkability, direct control of HVAC devices and interoperability in accordance with the DALI-2 standard.

Further information can be found on page 4.



Recessed ceiling-mounted version: Easy installation using a standard drill bit (Ø 68 mm)



Surface mounting with a separately available IP 20 surface-mounted socket

## PD-C 180i/16 TOUCH PLUS MD-C 180i/16 TOUCH

The PD/MD-C 180i/16 Touch wall-mounted detectors for 230 V and KNX feature an impressive and innovative operating concept: Users can conveniently control and activate functions simply by lightly touching the surface of the lens.

Further information can be found on page 6.



Sensor insert for recessed mounting. Compatible with all common brand name switches



With separately available IP 20 cover and frame (surface-mounted socket available separately)

PD-C 360i/24 DUODIMplus FM PD-C 360i/24 DUODIMplus SM

The multiple award-winning DuoDIMplus is the ideal multichannel solution for 230 V — with automatic control of two independent light series and more.

Further information can be found on page 8.



FM variant for recessed mounting



SM variant for surface mounting

## PD-C 360i/8 ELC PD-C 360i/24 ELC

ESYLUX Light Control lighting solutions use intelligent system sensors to ensure optimal lighting conditions and maximum energy efficiency — biologically effective light included!

Further information can be found on page 10.



ELC sensor with 8-metre range



ELC sensor with 24-metre range

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# SIMPLY EFFICIENT

AVOID UNNECESSARY ENERGY CONSUMPTION

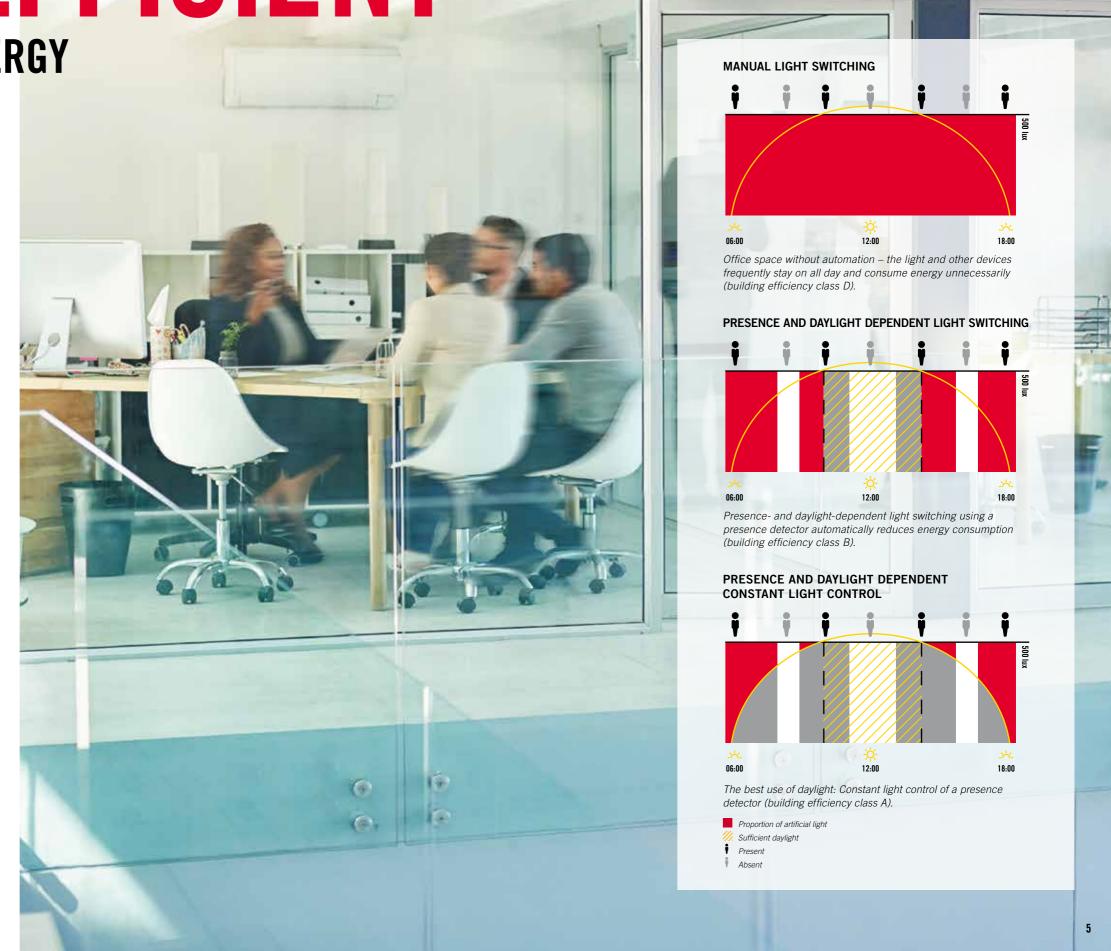
The principle of demand-driven automation is as easy as it sounds: Only use energy when it is really needed. It replicates typical human behaviour. When users of office buildings and other workplaces switch on lights, ventilation and heating, they often stay on the entire day – in the worst-case scenario, even overnight because more often than not, people forget to switch them off. The results are too much energy consumption which are unnecessary. On top of this, artificial light does not always need to be on at full power and ventilation does not need to be on at full blast.

This is why ESYLUX offers cross-component sensor-operated solutions that easily turn the workplace into a "smart office" without users having to worry about it. These solutions ensure that light and other devices are only used to the extent required by the current conditions. In this way, workplaces can be equipped to comply with standards while providing an optimal atmosphere and automatically achieving a high level of energy efficiency.

## SAVING ENERGY THROUGH INTELLIGENT SENSOR TECHNOLOGY

The use of a simple presence detector alone already results in a significant improvement. This is because it automatically ensures that the lighting or other devices are only switched on when people are actually in the workplace. At the same time, each presence detector has a light sensor that checks the current brightness during operation. If the daylight that enters the room through the window is adequate for work, for example in the middle of the day, the presence detector will also switch off the artificial light.

Even more energy can be saved by constantly adapting to prevailing environmental conditions. If the presence detector is capable of constant light control, it only dims up the artificial light to the extent necessary to achieve a specific set value, based on the available daylight. This is the best possible way of using daylight and also naturally ensures an extremely high level of convenience. It automatically ensures that rooms never become too dark or too bright. If the presence detector contains additional sensors to measure air quality, for example, the operation of additional devices can still be continuously aligned to the current room conditions.



# NTELLIGENT ALL-ROUNDER

## FOR THE DALI-2 STANDARD

DALI-2 is gaining ground and opening up completely new opportunities for demand-driven building automation. With the PD-C 360i/24 PS plus DALI presence detector, ESYLUX offers a prototype for intelligent light control with the DALI-2 standard. It is developed in accordance with IEC 62386 version 2 and enables simple solutions even for situations with the most complex requirements.

## ADJUSTABLE LIGHT SENSOR FOR HIGHEST-PRECISION MEASUREMENT

As a multimaster device with integrated bus power supply, it uses the options of the new standard to optimal effect, while its adjustable light sensor guarantees particularly precise light measurement and control. With a housing diameter of  $\emptyset$  68 mm and the new ESY-Pen, installation and initial operation are performed in no time at all!



Easy recessed ceiling installation using a standard drill bit (Ø 68 mm)



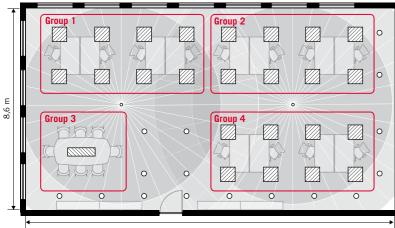
Adjustable light sensor in the housing for particularly precise light measurement



Simply ready to start with the ESY-Pen: The new all-in-one device for operation, remote control, light measurement and project management

### Application example of an open-plan office:

The PD-C 360i/24 PS plus DALI can control up to 16 groups individually – and trigger up to 16 scenes. This allows a very wide range of configurations for greater quality of life and energy efficiency in the workplace.  $\mathbb{V}$ 



15,7 m



# TOUCHING ALLOWED

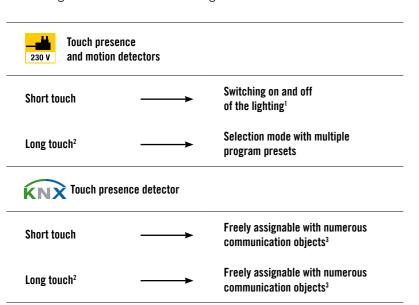
## PRESENCE AND MOTION DETECORS WITH TOUCH FUNCTION

What is most common for smartphones and tablets has now also reached the key area of demand-driven building automation – with the PD-C/MD-C 180i/16 TOUCH wall-mounted presence and motion detectors from ESYLUX. Their touch-sensitive lens surface allows convenient control of numerous functions – thereby replacing light switches or KNX touch sensors.

## TOUCH CONTROL WITH TWO DIFFERENT FUNCTIONS

The touch detectors react to two types of touching: short and long. Which function can be controlled with the different touch types depends on the relevant detector type. With the 230 V versions, you can switch the lighting with a brief touch or select multiple program presets following a longer touch. You can deactivate this second touch option remotely if required.

The options available with the KNX versions are particularly wide-ranging. Both touch types can be freely assigned with various KNX communication objects. For example, the touch function can be used for dimming, controlling a shutter-blind or selecting entire scenes!





An integrated touch function enables convenient manual control of numerous functions



<sup>&</sup>lt;sup>1</sup> Can be reduced to switching on by remote control

Can be deactivated by remote control

<sup>&</sup>lt;sup>3</sup> Switching, dimming, selecting scenes, controlling blinds etc.

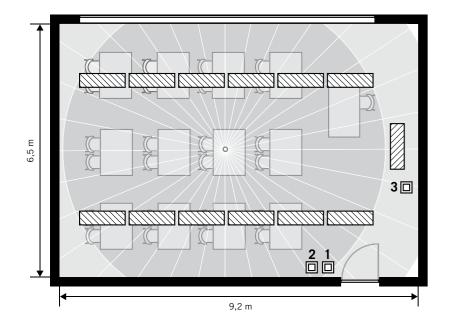
# MULTI-CHANNEL SO LUTION FOR 230 V

## THE DUODIMPLUS PRESENCE DETECTORS

The award-winning COMPACT-series DuoDIMplus presence detectors enable a complete room solution for demand-driven automation in the 230 V range. With their wide detection range they can detect human presence within a room by themselves. Based on their light measurement, they then ensure daylight-dependent constant light control of two individually controlled light rows.

## TWO LIGHT CHANNELS PLUS ADDITIONAL CHANNEL

Rooms with just one window area, for example a classroom, are a typical application. Here, the DuoDIMplus detectors ensure optimal light conditions and only use energy to the extent that it is actually needed. As the "plus" in their name suggests, they additionally have a third output which can be used for presence-dependent switching of further consumers – such as board lighting or ventilation.





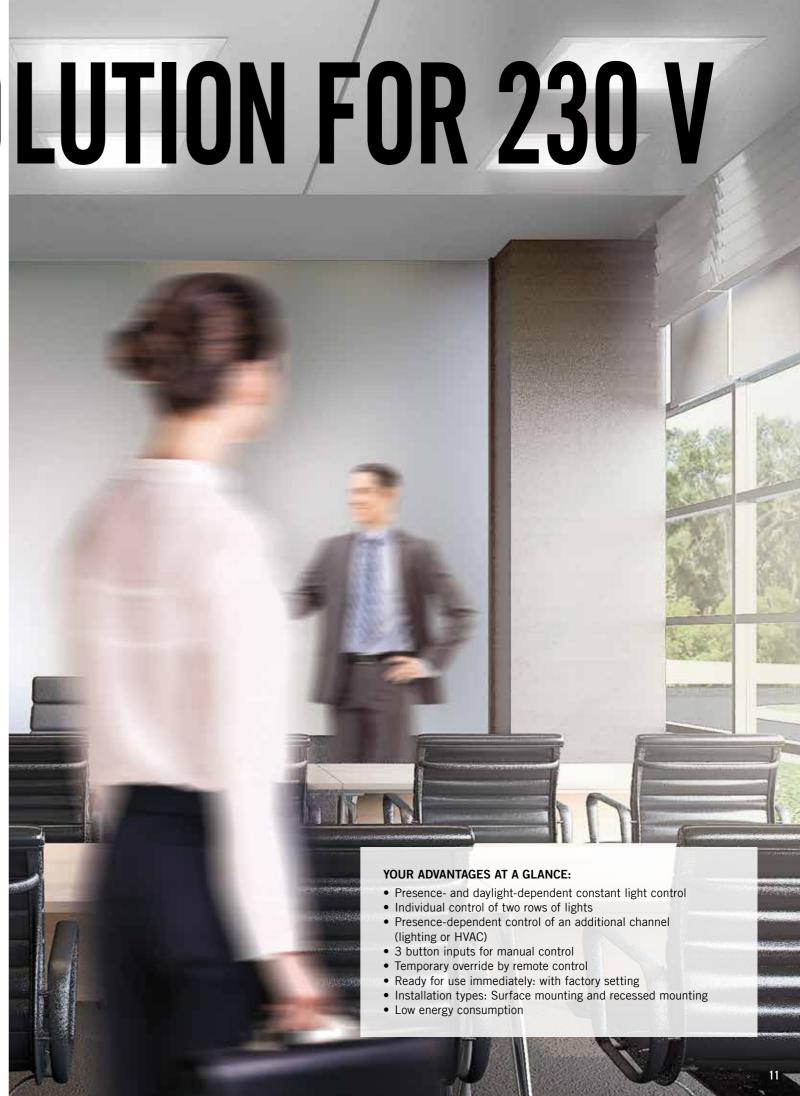
DuoDIMplus presence detectors for recessed mounting



DuoDIMplus presence detectors for surface mounting

## ■ Application example of a classroom:

The PD-C 360i/24 DuoDIMplus activates both light rows only when people are present and then controls them individually according to the available daylight. An additional output is available for the semi-automatic or fully automatic switching of additional devices.



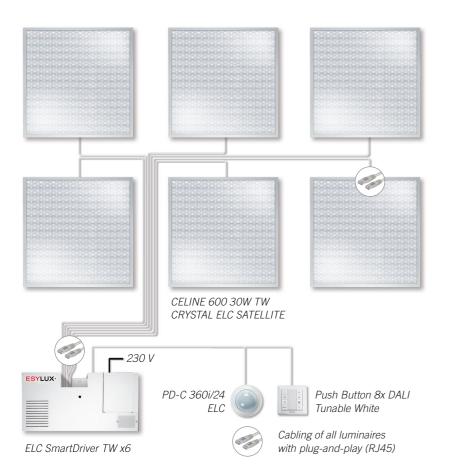
# SMART SYSTEM SENSOR TECHNOLOGY

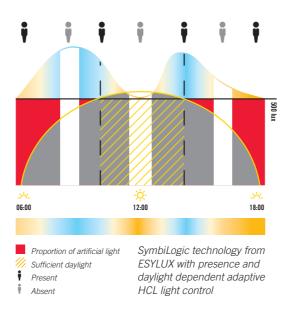
## PRESENCE DETECTORS FOR ESYLUX LIGHT CONTROL ELC

Whether as a preconfigured, ready-to-install set for standard rooms or an individual customisable solution: Our light systems with ESYLUX Light Control ELC combine the best light with the simplest installation and operation – whatever your budget! Ceiling lights, controlunits, as well as the PD-C 360i/8 and /24 CU-C Light presence detectors, are connected to one another as system components using plug-and-play, and can be grouped for different room zones via simple plug connections.

## **ENERGY-EFFICIENT HUMAN CENTRIC LIGHTING VIA PLUG-AND-PLAY**

When in operation, the ELC system solutions create optimal lighting for workplaces. Due to the energy-efficient human centric lighting (HCL) of the SymbiLogic technology, they promote lasting vitality, well-being, the ability to concentrate and a restful night's sleep. With automatic presence- and daylight-dependent switching and the adaptive HCL light control of SymbiLogic, energy consumption is kept to a minimum.







## TECHNICAL DATA CEILING DETECTORS

	230 V (ON/OFF)			
	Presence detectors			
Product designation	PD-C 360i/8	PD-C 360i/24	PD-C 360i/8 MIC	PD-C 360i/24 DRY
Item number	EP10425059	EP10428067	EP10425882	EP10425707
Mains voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Power consumption	0.3	0.3	0.3	0.3
Range (Ø in m)	8	24	8	24
Field of detection	360°	360°	360°	360°
Rec. installation height (in m)	3	3	3	3
Rec. installation height max. (in m)	5	10	5	10
Installation type	Built-in	Built-in	Built-in	Built-in
Protection type	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version
Special product features			In-built acoustic sensor	
Number of parallel switchable detectors				
Slave input	•	•	•	•
Max. number of slave detectors	10	10	10	10
Channel 1	Lighting	Lighting	Lighting	Lighting
Interface	Switching	Switching	Switching	Switching
Contact	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	1 + 2, break contact/floating
Switching capacity channel 1	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	floating/NC 230 V AC/5 A, 24 V DC/5 A
In-rush current	800 A/200 μs	800 A/200 μs	800 A/200 μs	Capacitive load/electronic ballasts max. in-rush current 30 A/20 ms
Control output				
Switch input	•	•	•	•
Orientation light				
Channel 2				
Output				
Contact				
Switching capacity channel 2				
Switch input				
Orientation light				
Channel 3				
Output				
Contact				
Switching capacity channel 3				
Switch input				
Fully automatic	•	•	•	•
Semi-automatic	•	•		•
Impulse feature	•	•	•	•
·				

PD-C 360i/8plus	PD-C 360i/24plus	PD-C 360i/24 DUOplus-FM	PD-C 360i/24 DUOplus-SM	PD-C 360i/8 DIM	PD-C 360i/24 DIM
EP10425042	EP10425288	EP10426803	EP10426810	EP10426711	EP10426704
230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
0.3	0.3	0.3	0.3	0.3	0.3
8	24	24	24	8	24
360°	360°	360°	360°	360°	360°
3	3	3	3	3	3
5	10	10	10	5	5
Built-in	Built-in	Built-in	Surface mounting	Built-in	Built-in
IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20	IP 20	IP 20 as recess-mounted version, IP 54 with surface- mounted socket, IP 20 as recessed ceiling-mounted version	IP 20 as recess-mounted version, IP 54 with surface- mounted socket, IP 20 as recessed ceiling-mounted version
•	•	•	•	•	•
10	10	10	10	10	10
Lighting	Lighting	Lighting	Lighting	Lighting	Lighting
Switching	Switching	Switching	Switching	Switching/dimming	Switching/dimming
Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating
230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V AC 50 Hz, 2300 W/10 A (cos φ = 1), 1150 VA/5 A (cos φ =0.5)	230 V AC 50 Hz,	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)
800 A/200 μs	800 A/200 μs	800 A/200 μs	800 A/200 μs	800 A/200 μs	800 A/200 μs
				1–10 V =/50 mA	1–10 V =/50 mA
•	•	•	•	•	•
				10 % luminous efficiency	10 % luminous efficiency
HVAC	HVAC	Lighting	Lighting		
Switching	Switching	Switching	Switching		
Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating		
230 V ~/2 A, 24 V =/2 A, capacitive load/electronic ballasts max. inrush current 30 A/20 ms	230 V ~/2 A, 24 V =/2 A, capacitive load/electronic ballasts max. inrush current 30 A/20 ms	230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)	230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)		
		•	•		
		HVAC	HVAC		
		Switching	Switching		
		Make contact/non-floating	Make contact/non-floating		
		230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)	230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)		
		•	•		
•	•	•	•	•	•
•	•	•	•	•	•
	•	•	•	•	•

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## TECHNICAL DATA CEILING DETECTORS

	230 V (ON/OFF)			
	Presence detectors			
Product designation	PD-C 360i/24 DIMplus-FM	PD-C 360i/24 DIMplus-SM	PD-C 360i/24 DIMplus-WH	PD-C 360i/24 DUODIMplus-FN
Item number	EP10426728	EP10426735	EP10425783	EP10426742
Mains voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Power consumption	0.3	0.3	0.3	0.3
Range (Ø in m)	24	24	32	24
Field of detection	360°	360°	360°	360°
Rec. installation height (in m)	3	3	10	3
Rec. installation height max. (in m)	5	5	15	5
Installation type	Built-in	Surface mounting	Built-in	Built-in
Protection type	IP 20	IP 20	IP 20 as recess-mounted version, IP 54 with surface- mounted socket, IP 20 as recessed ceiling-mounted version	IP 20
Special product features				
Number of parallel switchable detectors				
Slave input	•	•	•	•
Max. number of slave detectors	10	10	10	10
Channel 1	Lighting	Lighting	Lighting	Lighting
Interface	Switching/dimming	Switching/dimming	Switching/dimming	Switching/dimming
Contact	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating
Switching capacity channel 1	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)
In-rush current	800 A/200 μs	800 A/200 μs	800 A/200 μs	800 A/200 μs
Control output	1–10 V =/50 mA	1-10 V =/50 mA	1-10 V =/50 mA	1-10 V =/50 mA
Switch input	•	•	•	•
Orientation light	10 % luminous efficiency	10 % luminous efficiency	10 % luminous efficiency	10 % luminous efficiency
Channel 2	HVAC	HVAC	HVAC	Lighting
Output	Switching	Switching	Switching	Switching/dimming
Contact	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating	Make contact/non-floating
Switching capacity channel 2	230 V ~/2 A, 24 V =/2 A, capacitive load/electronic ballasts max. inrush current 30 A/20 ms	230 V ~/2 A, 24 V =/2 A, capacitive load/electronic ballasts max. inrush current 30 A/20 ms	230 V ~/2 A, 24 V =/2 A, capacitive load/electronic ballasts max. inrush current 30 A/20 ms	230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = $0.5$ )
Switch input	•	•	•	•
Orientation light	10 % luminous efficiency	10 % luminous efficiency	10 % luminous efficiency	10 % luminous efficiency
Channel 3				HVAC
Output				Switching
Contact				Make contact/non-floating
Switching capacity channel 3				230 V/50 Hz, 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)
Switch input				•
Fully automatic	•	•	•	•
Semi-automatic	•	•	•	•
Impulse feature	•	•	•	•

			Motion detectors		
PD-C 360i/24 DUODIMplus-SM	PD-C 360i/24 CU-C Light	PD-C 360i/8 CU-C Light	MD-C 360i/8	MD-C 360i/24	MD-C 360i/8 MIC
P10426759	EP10427619	EP10427602	EP10055393	EP10055317	EP10425875
30 V/50 Hz	9.5–22.5 V =	9.5–22.5 V =	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
.3	0.3	0.3	0.3	0.3	0.3
4	24	8	8	24	8
60°	360°	360°	360°	360°	360°
	3	3	3	3	3
	5	5	5	10	5
Surface mounting	Built-in	Built-in	Built-in	Built-in	Built-in
P 20	IP 20 as recess-mounted version, IP 54 with surface- mounted socket, IP 20 as recessed ceiling-mounted version	IP 20 as recess-mounted version, IP 54 with surface- mounted socket, IP 20 as recessed ceiling-mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version In-built acoustic sensor
			10	10	10
,					
0					
ighting	Lighting	Lighting	Lighting	Lighting	Lighting
witching/dimming	Switching/dimming	Switching/dimming	Switching	Switching	Switching
lake contact/non-floating			Make contact/non-floating	Make contact/non-floating	Make contact/non-floating
230 V/50 Hz, 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)			230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1) 150 VA/5 A (cos phi = 0.5)
800 A/200 μs			800 A/200 μs	800 A/200 μs	800 A/200 μs
−10 V =/50 mA					
1			•	•	•
0 % luminous efficiency	10-50 % light output	10-50 % light output			
ighting					
witching/dimming					
Make contact/non-floating					
30 V/50 Hz, 300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)					
0 % luminous efficiency	-				
VAC					
witching	-				
lake contact/non-floating	-				
30 V/50 Hz, 300 W/10 A (cos phi = 1), 150 VA/5 A (cos phi = 0.5)					
	•	•	•	•	•

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## TECHNICAL DATA CEILING DETECTORS

	DALI		
	Presence detectors		
Product designation	PD-C 360i/8 DUO DALI	PD-C 360i/24 DUO DALI	PD-C 360i/24 PS plus DALI
Item number	EP10427442	EP10427459	EP10428111
Mains voltage	230 V/50 Hz	230 V/50 Hz	230 V/50 Hz
Power consumption (W)	0.6	0.6	
Field of detection	360°	360°	360°
Range (Ø in m)	8	24	24
Rec. installation height (in m)	3	3	3
Rec. installation height max. (in m)	5	5	5
Installation type	Built-in	Built-in	Built-in
Protection type	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling-mounted version	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling-mounted version	IP 20
KNX input			
KNX output			
Light channel			
Analogue output			
Special product features			Installation and control via ESY-App
Slave input	•	•	• via DALI
Controllable DALI electronic ballasts	max. 25 per DALI/DSI output	max. 25 per DALI/DSI output	up to 64 devices
Channel 1	Lighting	Lighting	Lighting
Interface	DALI	DALI	DALI
Contact			
Switching capacity channel 1			
DALI output 1	2-pin DALI/DSI control cable/broadcast	2-pin DALI/DSI control cable/broadcast	Channel 1-64 2-pole DALI control cable/addressable
Switch input	•	•	•
Orientation light	10–50 % light output	10–50 % light output	Selectable 0–100 %
Channel 2	Lighting	Lighting	
Output	DALI	DALI	
DALI/DSI output 2	2-pin DALI/DSI control cable/broadcast	2-pin DALI/DSI control cable/broadcast	
Switch input	•	•	
Orientation light	10–50 % light output	10-50 % light output	
Manual override	•	•	•
Night-light feature			• Value selectable 0–100 %
Fully automatic	•	•	•
Semi-automatic	•	•	•

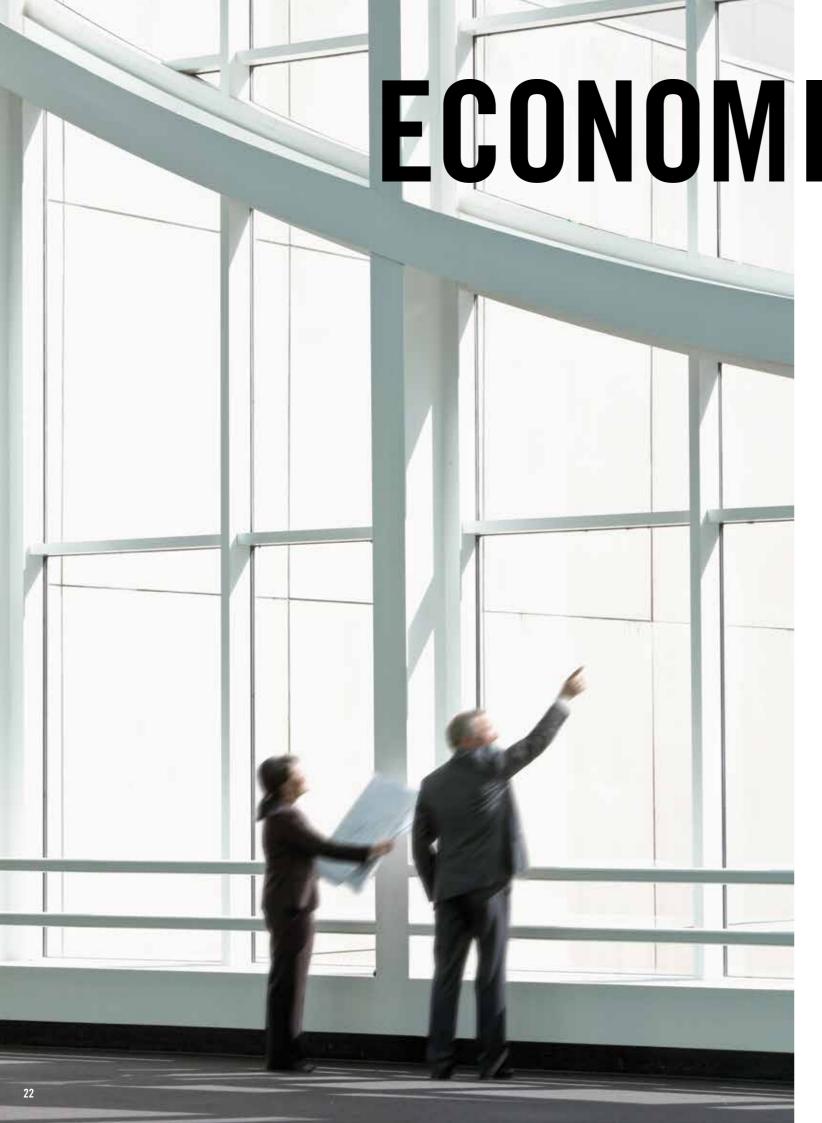
KNX			12–36 V (AC/DC)	
Presence detectors			Presence detectors	
PD-C 360i/24 KNX ECO UP	PD-C 360i/8 KNX UP	PD-C 360i/24 KNX UP	PD-C 360i/8 UC	PD-C 360i/24 UC
EP10427435	EP10427404	EP10427428	EP10427312	EP10427329
from KNX bus 29–31 V	from KNX bus 29-31 V	from KNX bus 29-31 V	12–36 V UC (AC/DC)	12-36 V UC (AC/DC)
			0.3	0.3
360°	360°	360°	360°	360°
24	8	24	8	24
3	3	3	3	3
10	5	10	5	10
Built-in	Built-in	Built-in	Built-in	Built-in
IP 20	IP 20	IP 20	IP 20 as recess-mounted version, IP 20/IP 54 with surface-mounted socket, IP 20 as recessed ceiling- mounted version	IP 20 as recess-mounted v IP 20/IP 54 with surface-m socket, IP 20 as recessed of mounted version
Manual light control, block objects, reset, slave	Manual light control, block objects, reset, slave	Manual light control, block objects, reset, slave		
Presence, status, light value	Presence, status, light value, HVAC	Presence, status, light value, HVAC		
c1 + c2 switching	c1 + c2 switching/dimming, offset (-50 to +50%)	c1 + c2 switching/dimming, offset (-50 to +50%)		
			0-10 V =	0-10 V =
Light-dependent motion detection, brightness detection via the object	Alarm via object, twilight switch (1 object), brightness detection via the object, light-dependent motion detection, snooze function, scene number over object	Alarm via object, twilight switch (1 object), brightness detection via the object, light -dependent motion detection, snooze function, scene number over object		
Device configurable as master or slave	Device configurable as master or slave	Device configurable as master or slave		
Lighting	Lighting	Lighting	Lighting	Lighting
KNX	KNX	KNX	Switching/dimming	Switching/dimming
			Make contact/floating	Make contact/floating
			12–36 V UC (AC/DC), 2 A	12-36 V UC (AC/DC), 2 A
			•	•
	Deactivated/10–50 %, 2 values selectable	Deactivated/10–50 %, 2 values selectable		
	Deactivated/10–50 %, 2 values selectable	Deactivated/10–50 %, 2 values selectable		
•	•	•		
•	•	•		
	•	•	•	•
	•	•	•	•

## **TECHNICAL DATA**

## **WALL-MOUNTED DETECTORS**

	230 V (ON/OFF)		KNX
	Presence detectors	Motion detectors	Presence detectors
Product designation	PD-C 180i/16 Touch plus	MD-C 180i/16 Touch	PD-C 180i KNX ECO
Item number	EP10428500	EP10428517	EP10426452
Mains voltage	230 V/50 Hz	230 V/50 Hz	from KNX bus 29-31 V
Power consumption (W)	0.3	0.3	_
Field of detection	180° horizontal, 60° vertical	180° horizontal, 60° vertical	180° horizontal, 60° vertical
Range (Ø in m)	16	16	16
Rec. installation height (in m)	1.10	1.10	1.10
Rec. installation height max. (in m)	2.20	2.20	2.20
Installation type	Built-in	Built-in	Built-in
Protection type	IP 40	IP 40	IP 20, IP 44 depending on cover
KNX output			Manual light control, block objects, slave
KNX input			Presence, status, light value
Light channel			c1 + c2 switching
Special product features			
Special product features			Twilight switch (1 object), motion direction detection (2 objects), brightness detection via the object, light-dependent motion detection
Analogue output			
Number of parallel switchable detectors		6	_
Slave input	•		Device configurable as master or slave
Max. number of slave detectors	10		
Channel 1	Lighting	Lighting	Lighting
Interface	Switching	Switching	KNX
Contact	Make contact/non-floating	Make contact/non-floating	
Switching capacity channel 1	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)	230 V/50 Hz (16 A relay), 2300 W/10 A (cos phi = 1), 1150 VA/5 A (cos phi = 0.5)	
In-rush current	800 A/200 μs	800 A/200 μs	_
Switch input	•	•	
Orientation light			
Channel 2	HVAC		_
Output	Switching		
Contact	Make contact/non-floating		
Switching capacity channel 2	230 V AC/2 A, 24 V DC/2 A		
Orientation light			
Fully automatic	•	•	
Semi-automatic	•	•	
Impulse feature	•	•	_ [
Manual override			_ •
Night-light feature			<u> </u>

		12-36 V (AC/DC)
		Presence detectors
PD-C 180i KNX	PD-C 180i/16 Touch KNX	PD-C 180i/16 UC
EP10426445	EP10460104	EP10427305
from KNX bus 29–31 V	from KNX bus 29-31 V	12–36 V UC (AC/DC)
		0.3
180° horizontal, 60° vertical	180° horizontal, 60° vertical	180° horizontal, 60° vertical
16	16	16
1.10	1.10	1.10
2.20	2.20	2.20
Built-in	Built-in	Built-in
IP 20, IP 44 depending on cover	IP 40, IP 44 depending on cover	IP 20, IP 44 depending on cover
Manual light control, block objects, slave	Manual light control, block objects, slave	
Presence, status, light value, HVAC	Presence, status, light value, HVAC	
c1 + c2 switching/dimming, c2 as offset to c1 (-50 to +50%)	c1 + c2 switching/dimming, c2 as offset to c1 (-5 to +50%)	
Microphone, lens lighting, choice of 7 colours	Microphone, lens lighting, choice of 7 colours	
Twilight switch (1 object), motion direction detection (2 objects), brightness detection via the object, light-dependent motion detection	Twilight switch (1 object), motion direction detection (2 objects), brightness detection via the object, light-dependent motion detection	
		0-10 V =
2		. <u> </u>
Device configurable as master or slave	Device configurable as master or slave	
Lighting	Lighting	Lighting
KNX	KNX	Switching/dimming
NIVA	NIN	Make contact/floating
		12–36 V UC (AC/DC), 2 A
D 1: 1 1/0 50 0/	D 1: 1 1/0 50 0/	- <mark>- •</mark>
Deactivated/0–50 %, 2 values selectable	Deactivated/0–50 %, 2 values selectable	
		·
		- <u> </u>
Deactivated/0–50 %, 2 values selectable	Deactivated/0–50 %, 2 values selectable	
•	•	•
•	•	•
		•
•	•	
•	•	



# ECONOMICAL PLANNING

## MANY GOOD REASONS WHY AN ESYLUX SOLUTION IS ALWAYS WORTH IT



## **ESYLUX LIGHT CONTROL ELC**

Preconfigured or simple scaling to individual requirements



LOW INVESTMENT COSTS



UP 70%

## POTENTIAL ENERGY SAVINGS\*

Through the use of control in line with demand, combined with modern lighting.

\* Source: Energy Efficiency Initiative, Deutsche Energie-Agentur GmbH (dena)



UP 60%

TIME SAVINGS THROUGH PLUG AND PLAY

## **EASY PROCESSING**

ESYLUX guarantees the functional interaction of individual components, thereby offering a high degree of operational reliability throughout the entire life cycle. Preconfigured set system solutions for standard rooms comprising lights, sensor systems, control units and cabling are available under a single item number, which simplifies the ordering process across the entire delivery chain as well as handling at the construction site. Alternatively, system components can be put together individually and scaled for all room dimensions.

### LOW INVESTMENT COSTS

Affordable innovation: ESYLUX solutions offer a high degree of automation with clear investment costs. The quick and easy installation keeps overall costs low; room solutions with ESYLUX Light Control ELC can be installed as quickly as non-automated room lighting. The amortisation time is also similar – however in the long term, the efficient automation of intelligent lighting brings considerably higher savings.

## **LOW OPERATING COSTS**

With efficient automation involving demand-oriented, daylight-dependent light control, you can reduce power consumption and the number of operating hours. Result: a considerably longer lifetime for your lights – depending on the room usage, this can even be twice as long as for LED lighting without automation. This reduces the maintenance workload and associated costs, and faults in everyday operations.

### **IDEAL FOR BUILDING RENOVATIONS**

In the modernisation and renovation of buildings, the key factors are simple implementation and an increase in overall performance of the building. The modern automation solutions from ESYLUX can be easily integrated into the existing building infrastructure. Many ESYLUX solutions for offices function fully autonomously in the room and can also be integrated into a higher-level building automation (e.g. via KNX). This enables simple renovation room by room and reduces faults in the operating processes to a minimum.

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