ESYLUX

DALI · KNX® · 12-36 V

SOLUTIONS FOR ROOM AUTOMATION FOR NEW BUILDINGS, RETROFITTING AND RENOVATIONS

INTELLIGENT
AUTOMATION SOLUTIONS
FOR THE "SMART OFFICE"

INTELLIGENT ROOM AUTOMATION
FOR MODERN REQUIREMENTS

AS SPECIALISTS IN DEMAND-DRIVEN AUTOMATION FOR THE BUILDING SECTOR, ESYLUX PRESENTS A COMPLETE PORTFOLIO OF INTELLIGENT, FLEXIBLE AND INNOVATIVE PRODUCT SOLUTIONS WHICH ALWAYS PUT THE CONSUMER IN FOCUS OF ITS FUNCTIONALITY.

THE CO-ORDINATED COMBINATION OF SENSITIVE SENSOR TECHNOLOGY AND HIGH-QUALITY ACTUATING ELEMENTS ENHANCES QUALITY OF LIFE AND USES ENERGY ONLY WHEN IT IS REALLY NEEDED.

THIS MEANS THAT ESYLUX TECHNOLOGY SAVES MONEY, PROVIDES PEOPLE WITH MAXIMUM COMFORT AND UNDERLINES THE FACT THAT A WELL-THOUGHT OUT PRODUCT RANGE MEANS EVEN COMPLEX REQUIREMENTS CAN BE FULFILLED VERY EASILY.

ESYLUX – BECAUSE THERE IS AUTOMATICALLY A BETTER SOLUTION.

A BETTER LIFE THANKS TO COMPLIANCE WITH THE REQUIRED STANDARDS

Regulatory and industrial standards require organisations to protect the health of individuals and protect the Earth's natural resources from overconsumption. That's why room automation as an element of building automation is now an integral part of the normative guidelines on saving energy. At the same time, room automation is a prerequisite for combining high levels of energy efficiency with a configuration of workstations and functional spaces that conforms to the required standards. We deliver the technology to do this.

Our products comply with Version 4 of the LEED standard laid down by the US Green Building Council (USGBC).

NATIONAL AND EUROPEAN LIGHT + HVAC STANDARDS

EPBD 2002/2006
EU directive on the energy performance of buildings

EN 15232
Energy performance of buildings –
impact of building automation and building management

EnEV 2014
Energy Conservation Ordinance

Guideline series **VDI 3813** "Building automation – Room automation"

Guideline series **VDI 3814** "Building automation"
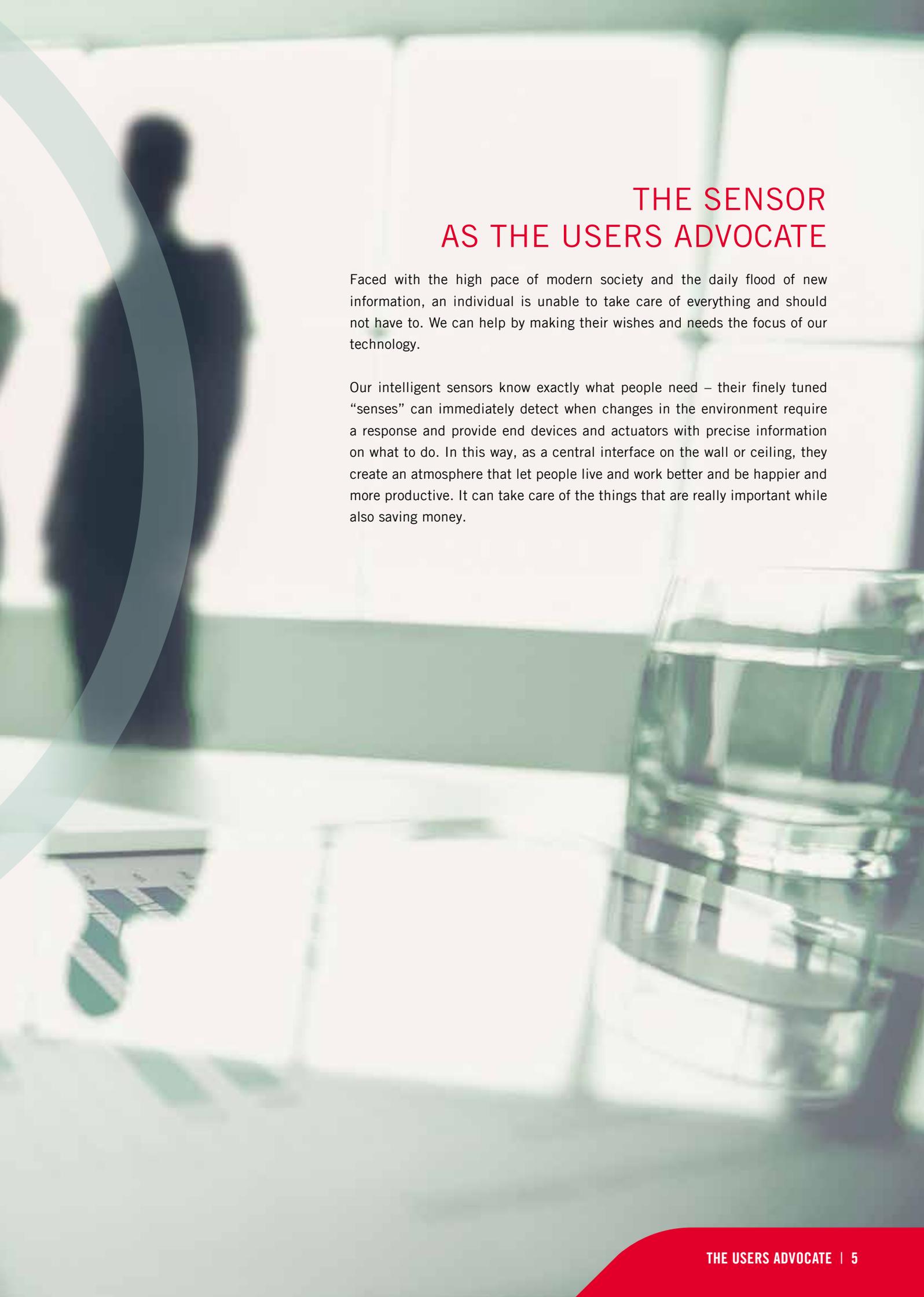
THE SENSOR
AS THE USERS ADVOCATE

Faced with the high pace of modern society and the daily flood of new information, an individual is unable to take care of everything and should not have to. We can help by making their wishes and needs the focus of our technology.

Our intelligent sensors know exactly what people need – their finely tuned "senses" can immediately detect when changes in the environment require a response and provide end devices and actuators with precise information on what to do. In this way, as a central interface on the wall or ceiling, they create an atmosphere that let people live and work better and be happier and more productive. It can take care of the things that are really important while also saving money.

THE ROOM IN FOCUS

Our product range includes solutions for all areas of the building. From the car park to the lobby, in stairwells and along hallways, our technology accompanies people in their daily life.

At the centre of our product development is the holistic automation of individual rooms. Anyone who wants to improve the life of people in a building must focus their expertise on the place where they spend most of their time.
Individual products or a complete solution: our portfolio includes a complete range optimized for areas that are the focus of people's life at work, with a particular focus on non-residential buildings.

PROPERTY PORTFOLIO

PROPERTY

BUILDINGS
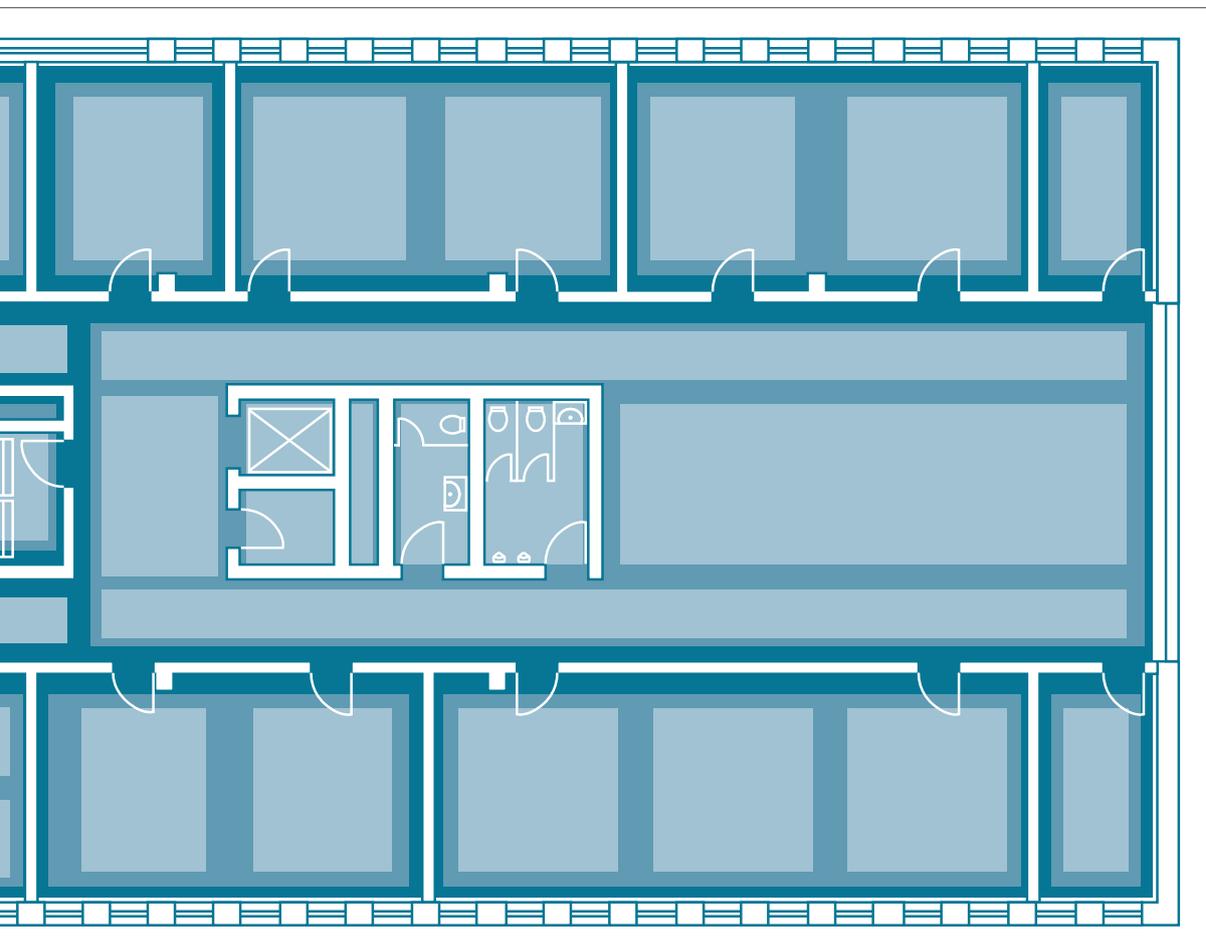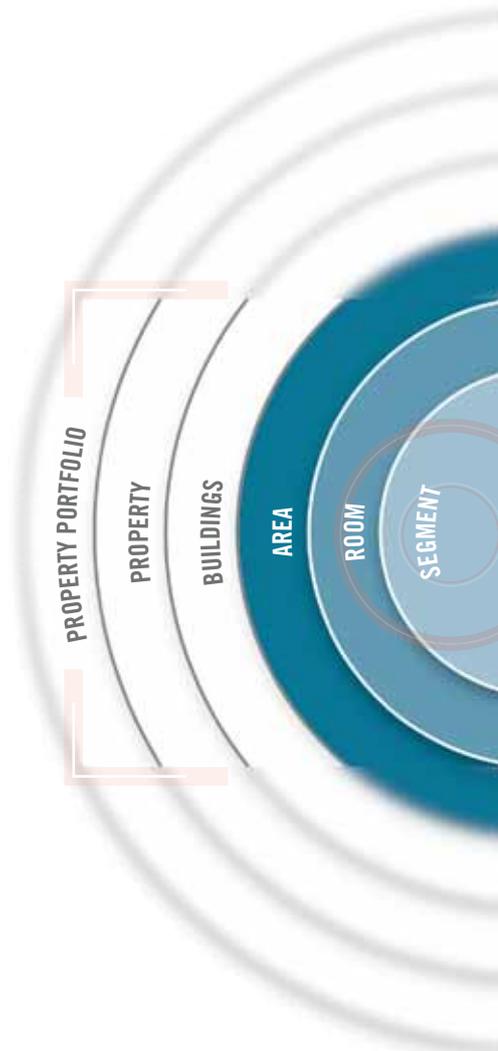
AREA

ROOM

SEGMENT

Segment

Room

Area

POWERFUL MULTI-SENSORS

The PD-ATMO 360i/8 O KNX is the perfect example to demonstrate the capability and the potential of our technology, using just one product solution. At its highest level of configuration, the unique multi-sensors of the PD-ATMO 360i/8 O KNX enable it to detect changes in the lighting, humidity, temperature and air quality and ensure optimal brightness and maintain a healthy, productive and comfortable ambient climate when people are in the room.

The acoustic sensor also supports a high-quality passive infra-red sensor for presence detection in particularly difficult environments.

With a total of six "senses" in just one device there's no need for several individual solutions. This shows just how easy it is to accommodate specific requirements using intelligent technology.

PLUS X AWARD
2014 achieved for:
Functionality

PLUS X AWARD
2014 achieved for:
Design

PLUS X AWARD
2014 achieved for:
Ease of Use

PD-ATMO 360i/8 T KNX

PD-ATMO 360i/8 A KNX

PD-ATMO 360i/8 O KNX

| Air quality (VOC) | Ambient humidity | Acoustics | Temperature | Lighting | Presence |

AIRFLOW CAPACITY

Energy saving

Constant flow rate

On-demand ventilation control

100%
80%
60%
40%
20%
0%

2:00 4:00 6:00 8:00 10:00 12:00 14:00 16:00 18:00 20:00
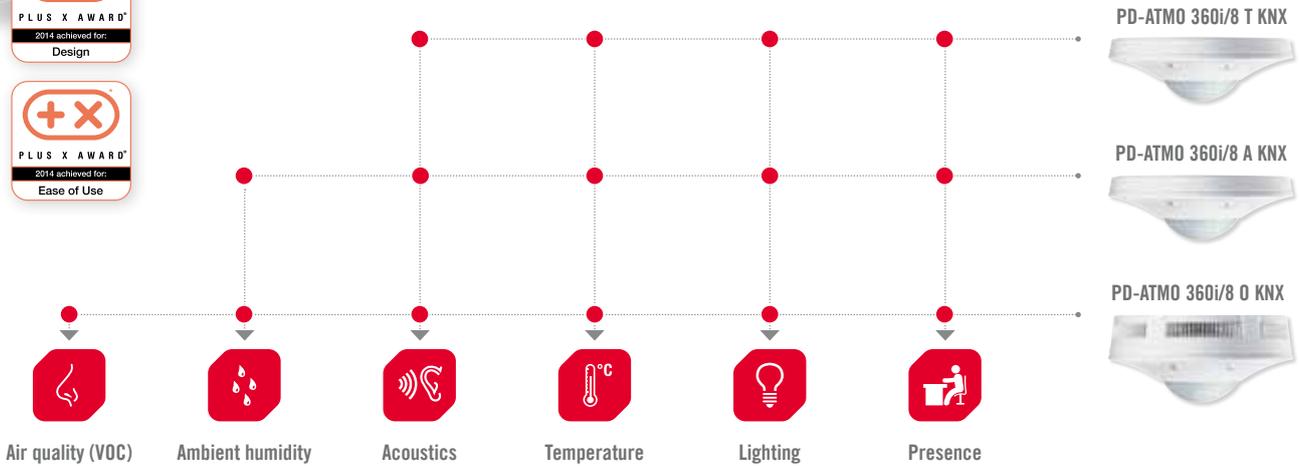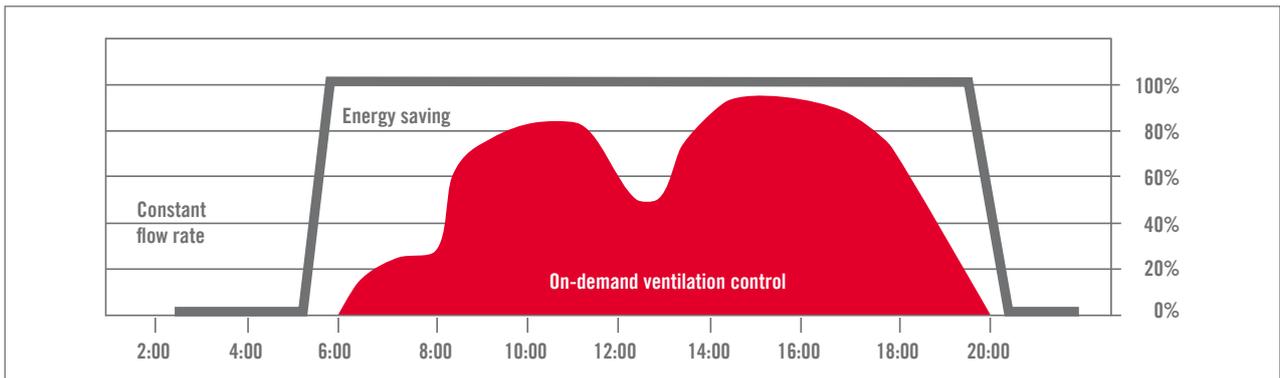
4 SOLUTIONS FOR ROOM AUTOMATION

1

MORE THAN JUST LIGHTING...
LIGHTING AND HVAC AUTOMATION WITH DALI
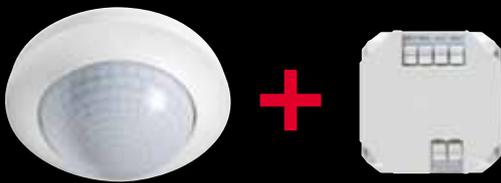
- Perfect entry-level solution for presence-dependent, cross-component room automation
- Daylight-based, energy-efficient constant lighting control for two lighting groups
- Integration and control of conventional end devices using the DALI switch
- Key inputs for manual control
- As always with DALI: simple cabling and wiring concepts

Pages 10 - 11

2

COMPACT SWITCHING CABINET
THE ROOM CONTROLLER BOX FROM ESYLUX

- Full switching technology in a single compact housing
- Cross-facility functionality thanks to DALI interfaces and special outputs for HVAC
- Drastic reduction of cable runs due to placement within the room
- Simple connectors and factory pre-programming for quick activation
- Binary inputs for manual control

Pages 14 - 15

3

SCALABLE KNX MODULARITY
WITH KNX DIN-RAIL MODULES

- A comprehensive selection of KNX modules for complete room/building automation
- Variable switching and dimming actuators, special actuators for blinds and HVAC
- Interface modules for cross-system communication, binary inputs for manual control
- From simple threshold values to the sequential control of entire scenes
- Scalable system at any time

Pages 16 - 17

4

SENSORS FROM SPECIALISTS
FOR PLC AUTOMATION SYSTEMS
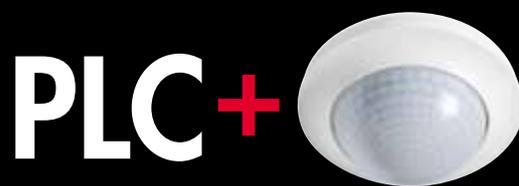
- Quality sensors for greater energy efficiency and comfort in buildings with PLC systems
- Compatible with DC and AC voltage due to universal current (UC)
- Even more customisable due to an operating voltage of 12 - 36 volts
- Can be integrated into the systems from all major manufacturers
- Four different design lines for visually attractive use for any environment
- Completely silent sensor switching

Pages 26 - 27

ENERGY EFFICIENT LIGHTING CONTROL AND MORE

Combining the DUO DALI presence detectors with the DALI switch produces an excellent introduction to room automation. Thanks to their daylight-based constant lighting control, they automatically deliver the perfect lighting conditions with an excellent degree of energy efficiency. They can also be manually adjusted using buttons to accommodate individual needs at all times.

The additional switching channel on the DALI switch also allows users to connect and control conventional appliances, enabling them to automate all the room technology with even lower power consumption.
Another advantage of the DALI bus is the simple cabling and wiring – and broadcast operation avoids an complicated software configuration.

ADVANTAGES

- **Automation of lighting and switched devices**
- **Presence detection and constant light control for up to two light channels**
- **Easy to install due to bus cabling**
- **No programming required (DALI broadcast)**
- **Customisable extension with DALI-controlled switch actuators (e.g. panel light, projectors, fans etc.)**
- **Simple integration of conventional dimmers, twilight switches etc. via DALI switch actuator**
- **50 devices (DALI ECG or DALI switch actuators) can be controlled via DALI Bus**
- **Quick and easy activation (factory settings can be used immediately and configured by remote control)**
- **Maximum flexibility due to separate switch actuators (flush-mounted option)**

① EXAMPLE CIRCUIT WITH DALI SWITCH
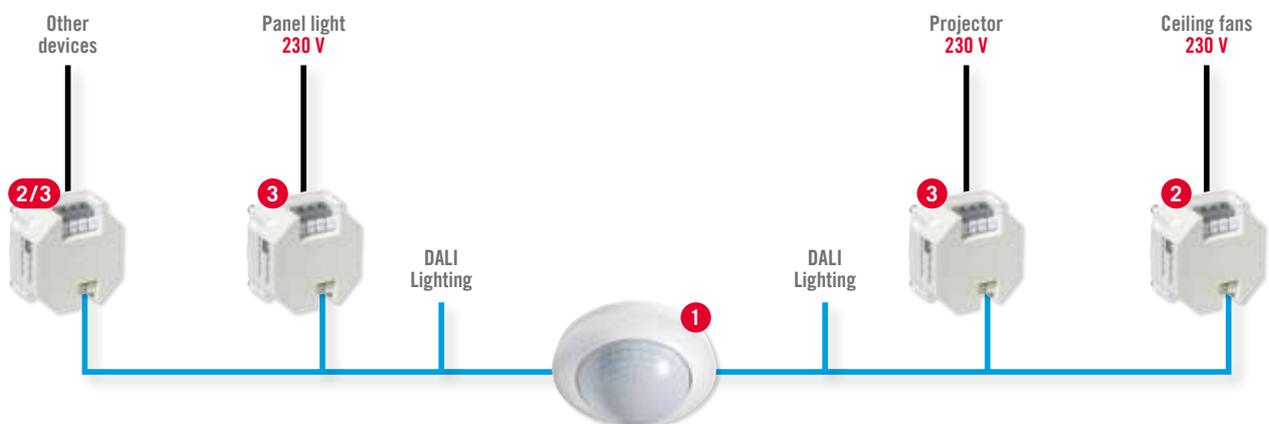
RECOMMENDED PRODUCT FOR CLASSROOMS

1 PD-C360i/24 DUO DALI

Ceiling presence detector

- with 8 or 24 m range
  in diameter
- Two lighting channels with
  constant lighting control
- Two presence-dependent
  switching channels
- DALI broadcast, configurable
  via remote control

2 SW DALI Full Automation

SW DALI fully automatic switch actuator

- Max. 10 A switching capacity
- Potential free switching
- Fully automatic with switch input
- Control via
  PD-C360i/24 DUO DALI

3 SW DALI Semi Automation

SW DALI semi-automatic switch actuator

- Max. 10 A switching capacity
- Potential free switching
- Semi-automatic with switch input
- Control via
  PD-C360i/24 DUO DALI
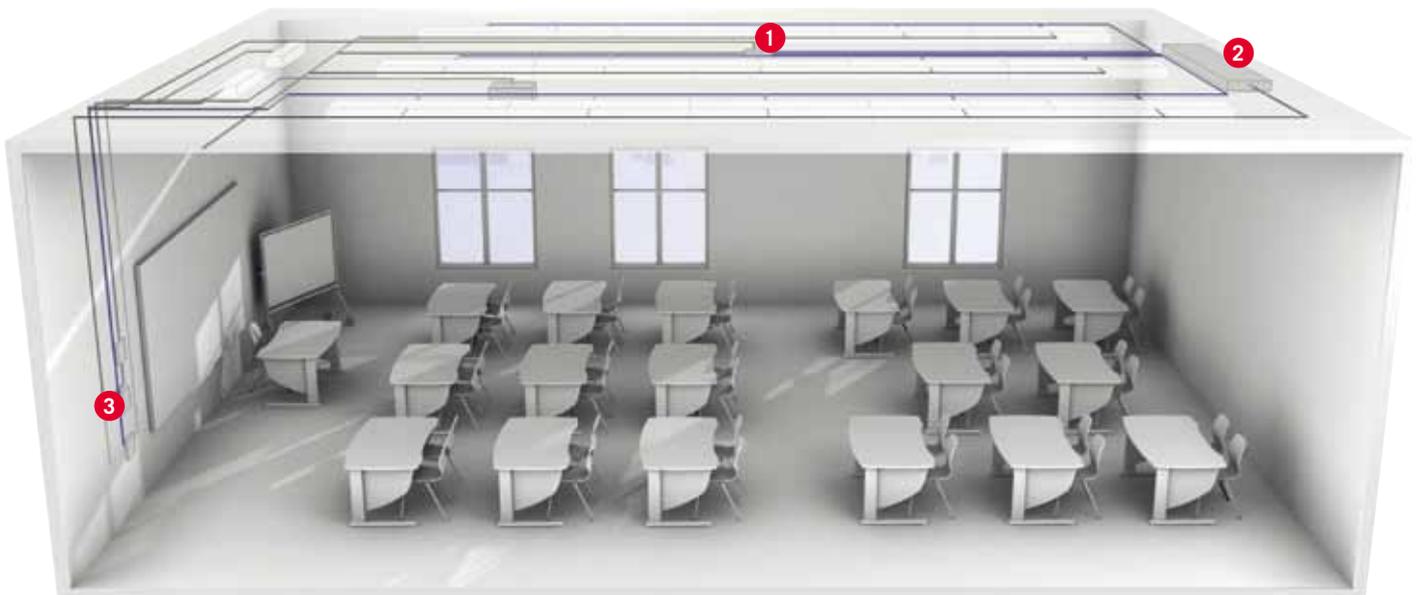
ROOM AUTOMATION WITH DALI PRESENCE DETECTORS

Product name	PD 360i/8 DALI ADR	blue mode PD-C360i/8 DUO DALI	blue mode PD-C360i/24 DUO DALI
GENERAL			
Item no.	EM10210709	EP10427442	EP10427459
Mains voltage	9.5 - 22.5 V ⎓	230 V ~ / 50 Hz	230 V ~ / 50 Hz
Field of detection	360°	360°	360°
Range (at recommended installation height)	Ø 8 m	Ø 8 m	Ø 24 m
Recommended installation height	2.5 m	3 m	3 m
Maximum installation height	5 m	5 m	10 m
Dimmer feature	DALI	DALI Broadcast	DALI Broadcast
DALI output	1	–	–
DALI/DSI output / dimmer feature	1	2	2
"Sensitivity" toggle	–	●	●
Additional light switch input	1	2	2
Toggle switch input "room = ON + OFF / hallway = ON"	●	●	●
Orientation light function	10 % / 20 % / 30 %	10 % - 50 %	10 % - 50 %
Fully automatic / semi-automatic	● / ●	● / ●	● / ●
Default settings	●	●	●
INSTALLATION TYPES			
Ceiling mounting	●	●	●
Recessed ceiling mounting	● (1)	● (1)	● (1)
Flush-mounted	–	IP 20	IP 20
Surface mounted (plaster)	–	IP 20 / IP 54 (2)	IP 20 / IP 54 (2)
Recessed ceiling mounting with installation set (available as an accessory)	IP 40	IP 20	IP 20

The parallel connection of two or more presence detectors is not possible. The appropriate slave devices (available as accessories) must be used to extend the field of detection.

ACCESSORIES				
Remote control Mobil-PDi/MDi-universal	EP10433993	–	●	●
Remote control Mobil-PDi/User	EM10425547	–	●	●
Remote control Mobil-PDi/DALI	EP10425899	–	●	●
Remote control Mobil-PDi/DALI ADR	EM10210891	●	–	–
PD-C360/8 Slave	EP10055379	–	●	●
PD-C360/24 Slave	EP10055386	–	●	●
Surface-mounted box-C IP 20 white	EP10425370	–	●	●
Surface-mounted box-C IP 20 silver	EP10425387	–	●	●
Surface-mounted box-C IP 54 white	EP10425905	–	●	●
Surface-mounted box-C IP 54 silver	EP10425912	–	●	●
Ceiling-mounted set-C	EP10425929	–	●	●
Cover set-C360/8 silver	EP10425936	–	●	–
Cover set-C360/24 silver	EP10425431	–	–	●
● Surface-mounted box DALI ADR	EM10210815	●	–	–
Ceiling-mounted set DALI ADR	EM10210808	●	–	–
Basket guard 180/90	EM10425608	●	●	●
Basket guard 165/70	EM10425615	●	●	●

(1) recessed ceiling mounting possible with accessories
(2) surface mounting with accessories

ROOM AUTOMATION WITH
DALI ACTUATORS

Product name	SW DALI Semi Automation	SW DALI Full Automation
GENERAL		
Item no.	EP10427480	EP10427473
Mains voltage	–	–
Bus voltage	DALI Broadcast	DALI Broadcast
Installation type	Flush-mounted	Flush-mounted
Power consumption (standby)	< 0.2 W	< 0.2 W
Power consumption (operating)	< 0.2 W	< 0.2 W
Switching contacts	1	1
Switching capacity	10 A (cos phi = 1)	10 A (cos phi = 1)
Screw-type terminal	–	–
Max. inrush current IP	78 A / 5 ms	78 A / 5 ms
DC switching capacity	10 A	10 A
Halogen lamps	2300 W	2300 W
Fluorescent lamps	1150 W	1150 W
Protection type	IP 20	IP 20
Permissible ambient temperature	+ 5 °C…+ 45 °C	+ 5 °C…+ 45 °C
Pre-set switching channel	4	3
Switch input	1	1
Switch-off delay time (1)	1 - 120 min.	1 - 120 min.
Pre-set switch-off delay time	6 min.	30 min.
FEATURES		
Channels Max. no. of independent switching channels	max. 1	max. 1
4hr ON/OFF	●	●
Fully automatic (factory setting)	–	●
Semi-automatic (factory setting)	●	–
Fully automatic mode configurable (1)	●	●
Semi-automatic mode configurable (1)	●	●

(1) Only with Mobil PDI/MDI-universal remote control (EP10433993)

COMPACT, DECENTRALISED ACTUATOR INTELLIGENCE FOR ROOM AUTOMATION

The room controller box is a compact, decentralised alternative to the KNX switching cabinet. All contained in one single housing, its cross-component actuating elements, combined with the appropriate multi-sensor elements, create the perfect conditions in terms of light, ventilation and temperature. Thanks to its placement within the room, almost all cable routing paths to the switching cabinet can be eliminated. Plug-in Connections are making the installation even easier for inexperienced user – installing the room controller box is a breeze. This means it is ideal for quick, uncomplicated retrofitting of buildings in need of renovation.

ADVANTAGES

- **Fast and simple installation**
- **Can be preconfigured**
- **Plug and play**
- **Easy cabling**
- **100% KNX-compatible**
- **Problem-free installation for renovations and restorations**

2 EXAMPLE CIRCUIT WITH ROOM CONTROLLER BOX

Ventilation flap
0 - 10 V

Rooms 1 - 3
KNX BUS power supply
control cabinet (hallway)

Two shutters
230 V

Twelve DALI lamps
in four DALI groups

WAGO
connections

ESYLUX
Room Controller Box
(190 x 140 x 40 mm)

230 V
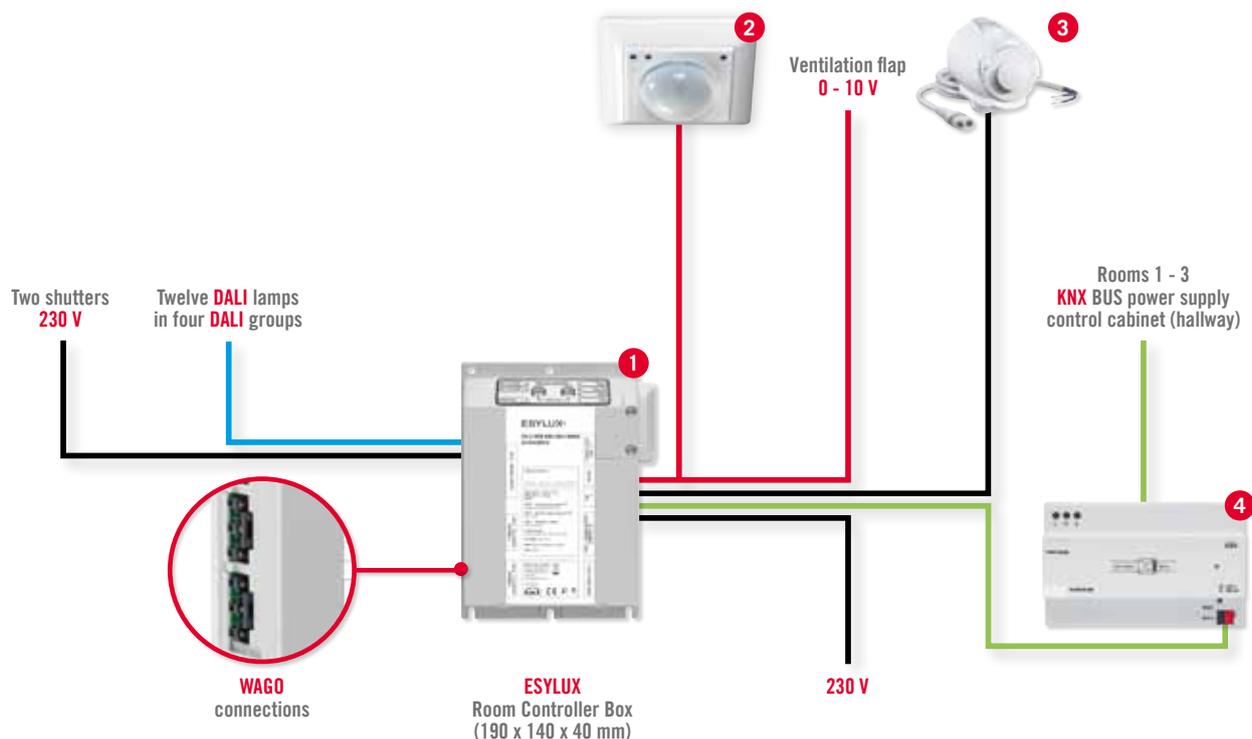
RECOMMENDED PRODUCT FOR DECENTRALISED CONTROL OF INDIVIDUAL OFFICES

1 CU-C RCB KNX DALI WAGO

Room 1, 2, 3, or control cabinet (hallway) / Room controller box

- Ready for immediate use by factory pre-settings
- KNX compatible
- DALI addressable or broadcast
- Two switching outputs, 230 V, 16 A
- Two PWM channels for 230 V thermal electric valve control
- Optional: 2x analogue 0 - 10 V input/output

2 PD 360i/8 LIN

Room 1, 2, 3 / multi sensor

- 360° presence detection with an 8 m range
- Constant lighting control
- Temperature measurement
- Humidity measurement

3 EA-C TEVD 230 V

Room 1, 2, 3 / thermo-electric valve actuator

- 230 V connection
- Silent drive
- PWM-controlled

4 CU-DIN PS 960 KNX

Control cabinet (floor) / KNX voltage supply

- KNX bus voltage supply, 960 mA
- Overload protection
- Reset function
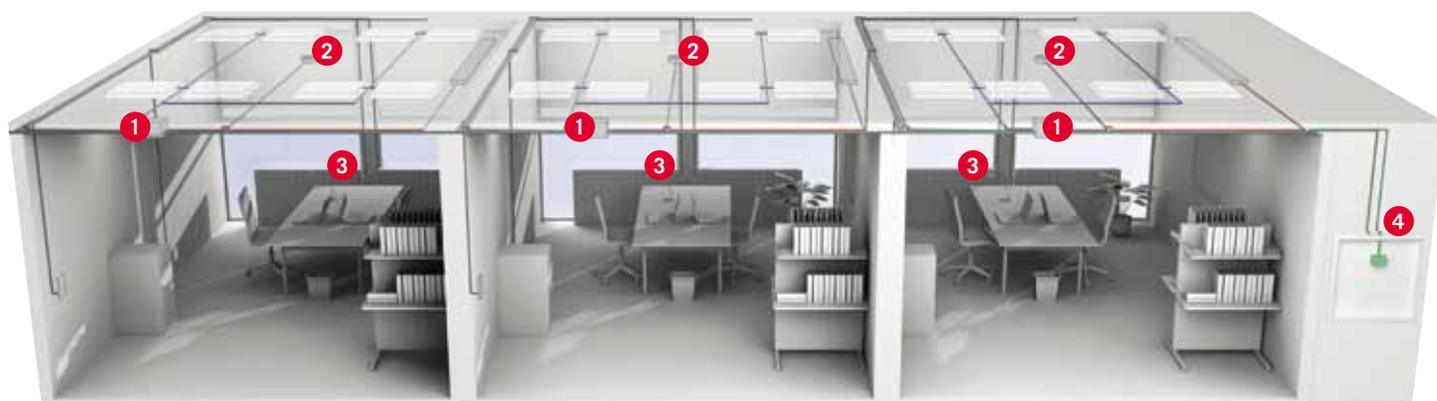
SCALABLE KNX MODULARITY FOR CUSTOMISABLE CONTROL OF ROOM AND BUILDING TECHNOLOGY

Our room automation system features an impressive, well-thought-out modular design and the option to scale functionality at any time as required. The extensive range of individual KNX DIN-Rail modules means the right combination can be found for virtually any application – for one room or the entire building. The result is a customisable concept tailored to the needs of the user. Thanks to their extensive functionality, these concepts ensure the best connection and integration of control and end devices and clears the way to energy efficiency class A.

ADVANTAGES

- **Comprehensive room automation**
- **Presence-dependent control of mechanical components**
- **Constant lighting control**
- **Control of shade devices**
- **Regulation of heaters and coolers**
- **Control of ventilation**
- **Switching of other devices**
- **Integration into the KNX world**

3 KNX-BUS EXAMPLE CIRCUIT

KNX Switch
Room 1

KNX Switch
Room 2

KNX Switch
Room 3

230 V

Twelve **DALI** lamps
in three groups

Six shutters/blinds
230 V

Three
ceiling fans
230 V

Room 1
heating, cooling,
0 - 10 V

Room 2
heating, cooling,
0 - 10 V

Room 3
heating, cooling,
0 - 10 V
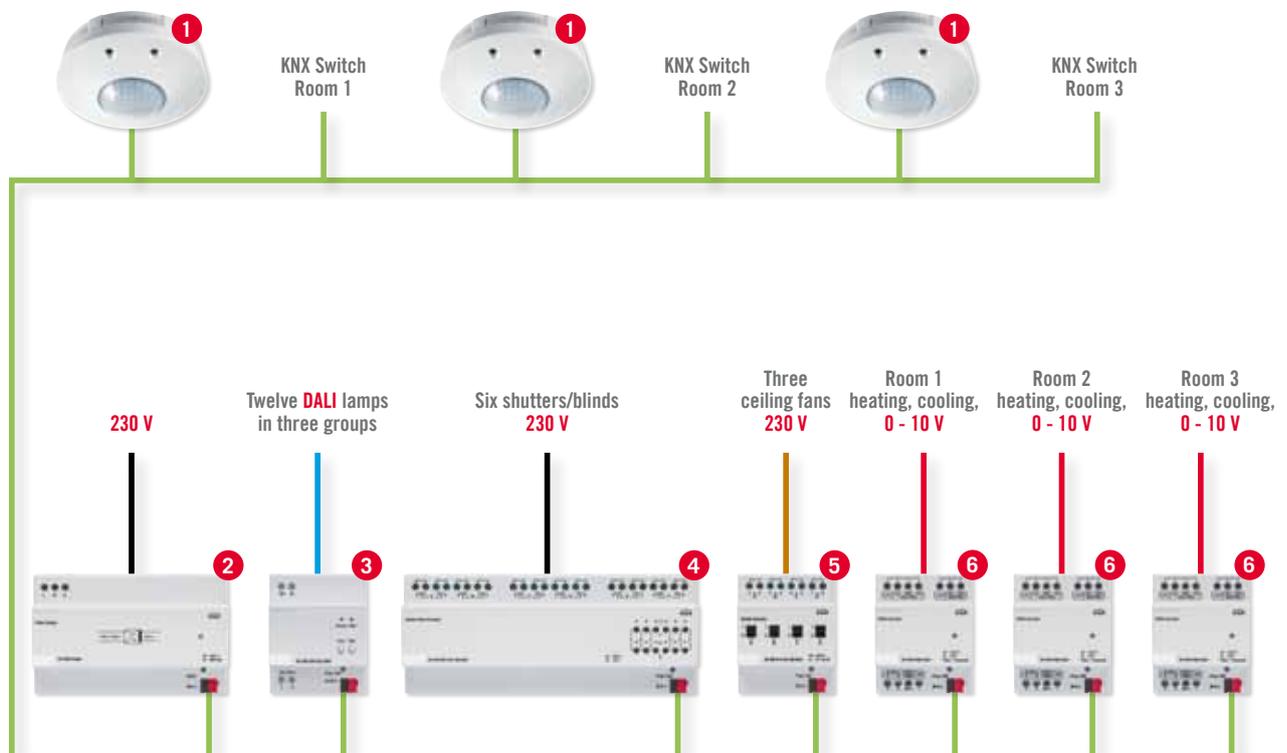
RECOMMENDED PRODUCT FOR THE CENTRAL CONTROL OF INDIVIDUAL OFFICES

1 PD-ATMO 360i/8 O KNX

Rooms 1, 2, 3

- 360° presence detection with an 8 m range
- Constant lighting control
- Temperature measurement
- Humidity measurement
- Air quality measurement (VOCs)
- Acoustic sensor

2 CU-DIN PS 960 KNX

Rooms 1, 2, 3 / KNX power supply

- KNX bus voltage supply, 960 mA
- Overload protection
- Reset function

3 CU-DIN GW DALI KNX

Rooms 1, 2, 3 / KNX DALI Gateway

- Max. 64 electronic ballast in 16 groups
- Scene control
- Emergency lighting functions

4 CU-DIN SB 6-CH 10A KNX

Rooms 1, 2, 3 / blind actuator

- Six channels (twelve relays) for 230 V and 24 V motors
- Automatic functions for roller blinds and louvre blinds
- Scene control

5 CU-DIN R 4-CH 16A KNX

**Rooms 1, 2, 3 / switch actuator**

- Four to twelve bistable relays, 16 A
- Various switching functions (e.g. On/Off, PWM, blinds)
- Scene control

6 CU-DIN HVAC KNX

Rooms 1, 2, 3 / HLK module

- Five 10 A switching channels
- Various switching functions (e.g. On/Off, PWM, blinds)
- Two analogue 0 - 10 V outputs
- Scene control
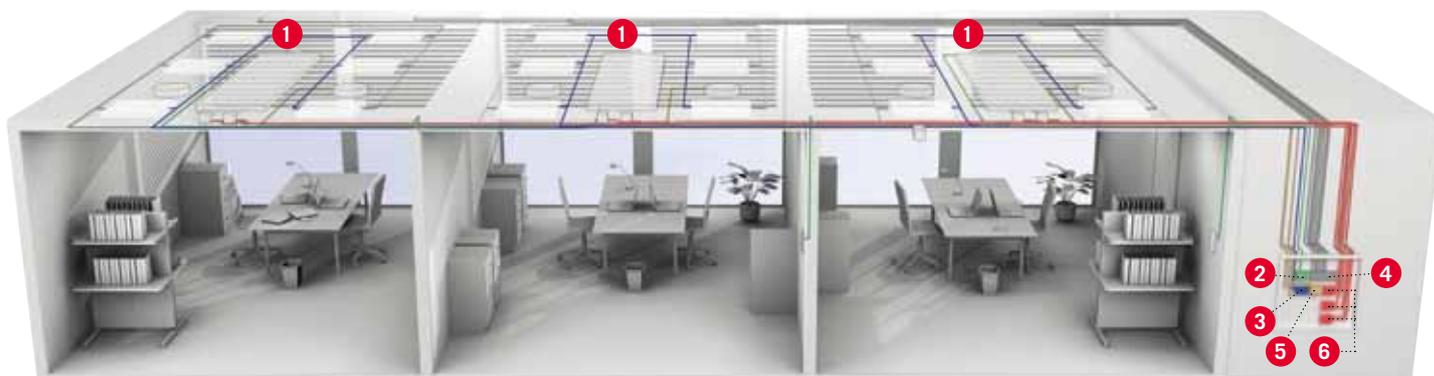
ROOM AUTOMATION WITH
KNX PRESENCE AND MOTION DETECTORS
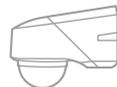
Product name	RC 230i KNX	PD 360/8 KNX BASIC
GENERAL		
Item no.	EM10015472	EB10430442
Power supply	29 V - 31 V	29 V - 31 V
Supplementary power	–	–
Field of detection	230°	360°
Anti-creep protection	●	–
Range (at recommended installation height)	Ø 20 m	Ø 8 m
Recommended / maximum installation height	2.50 m	2.50 m
Permissible ambient temperature	- 25 °C…+ 50 °C	+ 5 °C…+ 35 °C
FEATURES		
General		
Device configuration: single unit can be used as a master or slave device	●	●
Fully-automatic/semi-automatic	●	●
Light measurement	mixed light	mixed light
Sensitivity configurable via ETS	●	●
Night-light feature	–	–
Infrared reception for temporary override	●	–
Manual override of channels	●	●
Sends a telegram at regular intervals	●	–
Snooze function	–	–
Presence simulation	●	–
Light output		
Light-dependent motion detection	1 objekt	1 objekt
Constant lighting control	●	–
Brightness detection via the object	●	●
In-built acoustic sensor	–	–
Manual locking of the light-dependent channel	●	●
Orientation light function	●	–
Switching trigger value sent via telegram	–	–
Time setting (light)	0 sec. - 30 min.	0 sec. - 12 hours
External light value processed via input communication object	●	–
HVAC		
Light-independent object for HVAC applications	1 object	–
Manual locking of the HVAC channel	●	–
HVAC switch-on delay function	2 min. - 30 min.	–
Time setting (HVAC)	10 sec. - 1 hour	–
Presence		
Motion direction detection function	3 objects	–
Twilight switches		
Twilight switches	1 object	–
Output object scene number	–	–
Alarm		
Alarm object freely configurable (not VDS approved)	–	–
ATMO		
Additionally use external air quality	–	–
Air quality	–	–
Additionally use external temperature	–	–
Temperature	–	–
Additionally use external air humidity	–	–
Air humidity	–	–
INSTALLATION		
Wall mounting	●	–
Ceiling mounting	●	●
Recessed ceiling mounting	–	–
Flush-mounted	–	IP 40
Surface mounted (plaster)	IP 54	IP 40
Recessed ceiling mounting with installation set (available as an accessory)	–	●
Inner / outer corner installation (with use of accessories)	● with accessories	–

(1) recessed ceiling mounting possible with accessories
(2) surface mounting with accessories
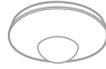
PD-C180i KNX	PD-C180i KNX ECO	PD-C360i/8 KNX UP	PD-C360i/24 KNX ECO UP	PD-C360i/24 KNX UP
KNX	KNX	KNX	KNX	KNX
EP10426445	EP10426452	EP10427404	EP10427435	EP10427428
29 V - 31 V	29 V - 31 V	29 V - 31 V	29 V - 31 V	29 V - 31 V
–	–	–	–	–
180°	180°	360°	360°	360°
–	–	–	–	–
Ø 16 m	Ø 16 m	Ø 8 m	Ø 24 m	Ø 24 m
1.1 m / 2.2 m	1.1 m / 2.2 m	3 m / 5 m	3 m / 10 m	3 m / 10 m
+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C
●	●	●	●	●
●	●	●	●	●
mixed light	mixed light	mixed light	mixed light	mixed light
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
–	–	●	–	●
●	–	●	–	●
1 object	1 object	2 objects	2 objects	2 objects
●	–	●	–	●
●	●	●	●	●
●	–	–	–	–
●	●	●	●	●
●	–	●	–	●
–	–	●	●	●
0 sec. - 30 min.	0 sec. - 30 min.	0 sec. - 12 hours	0 sec. - 12 hours	0 sec. - 12 hours
●	●	●	●	●
1 Objekt	–	1 object	–	1 object
●	–	●	–	●
2 min. - 30 min.	–	2 min. - 30 min.	–	2 min. - 30 min.
10 sec. - 1 hour	–	10 sec. - 12 hours	–	10 sec. - 12 hours
2 objects	–	–	–	–
1 object	–	1 object	–	1 object
–	–	1 object	–	1 object
–	–	1 object	–	1 object
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
●	●	–	–	–
–	–	●	●	●
–	–	●(1)	●(1)	●(1)
IP 20 / IP 44	IP 20 / IP 44	IP 20	IP 20	IP 20
IP 20 / IP 44	IP 20 / IP 44	IP 20 / IP 54 (2)	IP 20 / IP 54 (2)	IP 20 / IP 54 (2)
–	–	IP 20	IP 20	IP 20
–	–	–	–	–

ROOM AUTOMATION WITH
KNX PRESENCE AND MOTION DETECTORS

Produktname	KNX PD-C360i/8 mini KNX	KNX PD-C360i/12 mini KNX
GENERAL		
Item no.	EP10426155	EP10426162
Power supply	29 V - 31 V	29 V - 31 V
Supplementary power	–	–
Field of detection	360°	360°
Anti-creep protection	–	–
Range (at recommended installation height)	Ø 8 m	Ø 12 m
Recommended / maximum installation height	3 m / 5 m	3 m / 5 m
Permissible ambient temperature	+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C
FEATURES		
General		
Device configuration: single unit can be used as a master or slave device	●	●
Fully-automatic/semi-automatic	●	●
Light measurement	mixed light	mixed light
Sensitivity configurable via ETS	●	●
Night-light feature	●	●
Infrared reception for temporary override	●	●
Manual override of channels	●	●
Sends a telegram at regular intervals	●	●
Snooze function	–	–
Presence simulation	●	●
Light output		
Light-dependent motion detection	1 object	1 object
Constant lighting control	●	●
Brightness detection via the object	●	●
In-built acoustic sensor	–	–
Manual locking of the light-dependent channel	●	●
Orientation light function	●	●
Switching trigger value sent via telegram	●	●
Time setting (light)	0 sec. - 12 hours	0 sec. - 12 hours
External light value processed via input communication object	●	●
HVAC		
Light-independent object for HVAC applications	1 object	1 object
Manual locking of the HVAC channel	●	●
HVAC switch-on delay function	2 min. - 30 min.	2 min. - 30 min.
Time setting (HVAC)	10 sec. - 12 hours	10 sec. - 12 hours
Presence		
Motion direction detection function	–	–
Twilight switches		
Twilight switches	1 object	1 object
Output object scene number	1 object	1 object
Alarm		
Alarm object freely configurable (not VDS approved)	1 object	1 object
ATMO		
Additionally use external air quality	–	–
Air quality	–	–
Additionally use external temperature	–	–
Temperature	–	–
Additionally use external air humidity	–	–
Air humidity	–	–
INSTALLATION		
Wall mounting	–	–
Ceiling mounting	–	–
Recessed ceiling mounting	IP 55	IP 55
Flush-mounted	–	–
Surface mounted (plaster)	–	–
Recessed ceiling mounting with installation set (available as an accessory)	–	–
Inner / outer corner installation (with use of accessories)	–	–

(1) recessed ceiling mounting possible with accessories
(2) surface mounting with accessories

PD-ATMO 360i/8 T KNX	PD-ATMO 360i/8 A KNX	PD-ATMO 360i/8 O KNX	PD 360i/8 LIN
EP10427213	EP10427206	EP10427220	EB10430619
29 V - 31 V	29 V - 31 V	29 V - 31 V	Bus voltage
–	–	230 V	–
360°	360°	360°	360°
–	–	–	–
Ø 8 m	Ø 8 m	Ø 8 m	Ø 8 m
3 m / 5 m	3 m / 5 m	3 m / 5 m	2.5 m / 3 m
+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C	+ 5 °C…+ 35 °C	+ 5 °C…+ 45 °C
●	●	●	Master
●	●	●	● / ●
mixed light	mixed light	mixed light	mixed light
●	●	●	●
●	●	●	–
●	●	●	●
●	●	●	●
●	●	●	–
–	–	–	–
●	●	●	–
1 object	1 object	1 object	●
●	●	●	●
●	●	●	–
●	●	●	–
●	●	●	●
●	●	●	–
●	●	●	–
0 sec. - 12 hours	0 sec. - 12 hours	0 sec. - 12 hours	–
●	●	●	–
1 object	1 object	1 object	–
●	●	●	–
2 min. - 30 min.	2 min. - 30 min.	2 min. - 30 min.	–
10 sec. - 12 hours	10 sec. - 12 hours	10 sec. - 12 hours	–
–	–	–	–
1 object	1 object	1 object	–
1 object	1 object	1 object	–
1 object	1 object	1 object	–
–	–	●	–
–	–	3 limit values	–
●	●	●	–
2 limit values	2 limit values	2 limit values	●
–	●	●	–
–	2 limit values	2 limit values	●
–	–	–	–
●	●	●	●
● (1)	● (1)	● (1)	●
IP 20	IP 20	IP 20	IP 20
IP 20 / IP 54 (2)	IP 20 / IP 54 (2)	IP 20 / IP 54 (2)	–
IP 20	IP 20	IP 20	–
–	–	–	–

ROOM AUTOMATION WITH KNX ACTUATORS

Product name		CU-C RCB KNX DALI WAGO	CU-DIN R 4-CH 16A KNX
GENERAL			
	Item no.	EC10430015	EC10430282
	Mains voltage	230 V / 50 Hz	–
	BUS voltage	DALI, KNX (29 V - 31 V)	KNX (29 V - 31 V)
	Installation type	Surface mounted (plaster)	DRA
	Power consumption (standby)	10 mA	< 150 mW
	Power consumption (operating)	20 mA	< 450 mW
	Switching contacts	2	4
	Switching capacity	16 A (cos phi = 0.80)	16 A
	Manual mode	–	●
	Screw-type terminal	–	●
	Max. inrush current IP	400 A (150 us)	600 A (120 us)
	DC switching capacity	16 A	16 A
	Halogen lamps	3500 W	3500 W
	Fluorescent lamps	2000 W	2000 W, 16 AX / 250 V (300 µF)
	Temperature monitoring	–	–
	Max. number of communication objects	148	90
	Dimming type	DALI	–
	Protection type	IP 20	IP 20
	Permissible ambient temperature	+ 5 °C…+ 45 °C	0 °C…+ 45 °C
	Status message/alarm message	–	–
	Short-circuit protection	–	–
	Threshold value control	●	●
	Status recovery	–	●
FEATURES			
Channels	Max. no. of independent switching channels	max. 2	max. 4
	Max. no. of independent dimming channels/groups	max. 4	–
	Manual operation independently of the bus	●	●
	Open and closed operation	–	●
Additional features per channel	Time functions	●	●
	Light scenes	●	●
	Comparator	●	●
	Blind	●	●
	Logic module	●	●
Dimming can be configured	Range of brightness	●	–
	Dimming characteristics	–	–
	Power-on behaviour	●	–
Feedback	Switching	●	●
	Level of brightness	●	–
	Delayed feedback possible	●	●
Logical linking objects per channel	AND	●	●
	OR	●	●
	XOR	●	●
	GATE	●	●
Time function per channel	Flashing	–	●
	Stairwell light/Switch-off warning	●	●
	Switch on and off delay	●	●
Integration into lighting scenes	Scenes per channel	6	max. 10
	General sequences	6	–
	Sequences per channel	6	–
Operating hour counter with limit value monitoring	Forward counter	–	●
	Limit value can be changed via the bus	●	●
	Switch counters per channel	–	●
Behaviour of each channel can be specified in the event that	Bus power supply fails	–	●
	Bus power supply is restored	–	●
Additional blinds function	Runtime during step operation	–	●
	Delay time for change of direction	–	●
	Travel time limits over time	–	●

	CU-DIN R 8-CH 16A KNX	CU-DIN R 12-CH 16A KNX	CU-DIN GW DALI KNX	CU-DIN DIM 4-CH 1.5A KNX	CU-DIN DIM 6-CH 0…10V KNX
	EC10430299	EC10430305	EC10430336	EC10430312	EC10430329
	–	–	230 V / 50 Hz	–	-
	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)
	DRA	DRA	DRA	DRA	DRA
	< 150 mW	< 150 mW	–	< 150 mW	< 150 mW
	< 450 mW	< 450 mW	–	< 450 mW	< 450 mW
	8	12	–	4	6
	16 A	16 A	–	1.5 A	10 A
	●	●	–	●	●
	●	●	●	●	●
	600 A (120 us)	600 A (120 us)	–	–	–
	16 A	16 A	–	–	10 A
	3500 W	3500 W	–	–	–
	2000 W, 16 AX / 250 V (300 µF)	2000 W, 16 AX / 250 V (300 µF)	–	–	–
	–	–	–	●	–
	170	250	–	90	130
	–	–	DALI	Leading / trailing edge phase control	0 - 10 V / 1 - 10 V
	IP 20	IP 20	IP 20	IP 20	IP 20
	0 °C…+ 45 °C	0 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C
	–	–	–	–	–
	–	–	●	–	–
	●	●	–	●	●
	●	●	●	●	●
	max. 8	max. 12	–	max. 4	max. 6
	–	–	–	max. 4	max. 6
	●	●	●	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	–	–	–	●	●
	–	–	–	●	●
	–	–	–	●	●
	●	●	–	●	●
	–	–	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	–	–
	●	●	–	● / –	● / –
	●	●	–	●	●
	max. 10	max. 10	–	max. 10	max. 10
	–	–	–	max. 4	max. 4
	–	–	–	max. 24	max. 24
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	●	●
	●	●	–	–	–
	●	●	–	–	–
	●	●	–	–	–

ROOM AUTOMATION WITH
KNX ACTUATORS

Product name		CU-DIN SB 2-CH 10A KNX	CU-DIN SB 4-CH 10A KNX	CU-DIN SB 6-CH 10A KNX
GENERAL				
	Item no.	EC10430343	EC10430350	EC10430367
	Mains voltage	–	–	–
	BUS voltage	DALI, KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)
	Installation type	DRA	DRA	DRA
	Power consumption (standby)	< 150 mW	< 150 mW	< 150 mW
	Power consumption (operating)	< 450 mW	< 450 mW	< 450 mW
	Switching contacts	2	4	6
	Switching capacity	10 A	10 A	10 A
	Manual mode	●	●	●
	Screw-type terminal	●	●	●
	Max. inrush current IP	600 A (120 uS)	600 A (120 uS)	600 A (120 uS)
	DC switching capacity	10 A	10 A	10 A
	Halogen lamps	3500 W	3500 W	3500 W
	Fluorescent lamps	2000 W	2000 W	2000 W
	Temperature monitoring	–	–	–
	Max. number of communication objects	70	130	190
	Protection type	IP 20	IP 20	IP 20
	Permissible ambient temperature	- 5 ℃…+ 45 ℃	- 5 ℃…+ 45 ℃	- 5 ℃…+ 45 ℃
	Status message/alarm message	●	●	●
	Status recovery	●	●	●
	Short-circuit protection	–	–	–
	Threshold value control	●	●	●
	Overload protection	–	–	–
FEATURES				
Channels	Independent operation of blind outputs	max. 2	max. 4	max. 6
	Manual operation independently of the bus	●	●	●
	Blind and roller blind operation possible	●	●	●
Entry	Hanging position directly controllable	●	●	●
	Louvres directly controllable	–	–	–
	Safety functions	●	●	●
	Automatic functions sun / heating / cooling	●	●	●
	Scenes per channel	max. 10	max. 10	max. 10
	Extension of raising time	●	●	●
Alarms	3 wind alarms	●	●	●
	1 rain alarm	●	●	●
	1 frost alarm	●	●	●
	Configurable forced position	●	●	●
Feedback	Hanging position	●	●	●
	Louvre position	●	●	●
	Delayed feedback possible	●	●	●
Integration of channels in light scenes	Scenes per channel	max. 10	max. 10	max. 10
	General sequences	–	–	–
	Sequences per channel	–	–	–
Behaviour of each channel can be specified in the event that	Bus power supply fails	●	●	●
	Bus power supply is restored	●	●	●
Time function per channel	Flashing	–	–	–
	Stairwell light/Switch-off warning	–	–	–
	Switch on and off delay	–	–	–
HVAC	2-controller systems / 4-controller systems	–	–	–
	Protection against overheating / excess cooling	–	–	–
	Heating valve (relay or 0 - 10 V)	–	–	–
	Cooling valve (relay or 0 - 10 V)	–	–	–
	Control of underfloor heating systems	–	–	–
	Temperature monitoring	–	–	–

CU-DIN HVAC KNX	CU-DIN IPRT KNX	CU-DIN LC KNX	CU-DIN USB KNX	CU-DIN PS 960	CU-DIN DRY 4-Z KNX
EC10430503	EC10430527	EC10430534	EC10430541	EC10430374	EC10430381
–	–	–	USB	110 / 230 V, 50 / 60 Hz	3 V ⎓
KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)	KNX (29 V - 31 V)
DRA	DRA	DRA	DRA	DRA	Built-in installation
< 150 mW	520 mW	–	–	< 4 W	5 mW / °C
< 600 mW	800 mW	–	–	–	5 mW / °C
7	–	–	–	–	4
10 A / 0 - 10 V 5 mA	–	–	–	960 mA	0.5 mA
–	–	–	–	–	–
●	–	–	–	●	●
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
3500 W	–	–	–	–	–
2000 W	–	–	–	–	–
–	–	–	–	●	–
230	–	–	–	–	122 - 150
IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
- 5 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C	- 5 °C…+ 45 °C
●	–	–	–	–	●
●	●	●	●	–	●
–	–	–	–	●	–
●	–	–	–	–	●
–	–	–	–	●	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	●
–	–	–	–	–	●
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	●
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–	–	–	–	–	–
–	–	–	–	–	●
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	–
–	–	–	–	–	max. 10
–	–	–	–	–	–
–	–	–	–	–	–
●	–	–	–	–	●
●	–	–	–	–	●
–	–	–	–	–	–
●	–	–	–	–	●
●	–	–	–	–	●
●	–	–	–	–	–
●	–	–	–	–	●
●	–	–	–	–	–
●	–	–	–	–	–
●	–	–	–	–	–
●	–	–	–	–	●

PRESENCE-CONTROLLED, UNIVERSAL ENERGY EFFICIENCY FOR PLC SYSTEMS

Our UC sensor range provides an optimal solution which allows system integrators to extend the functionality of PLC systems with high-quality sensors from ESYLUX and also increase energy efficiency and comfort in this area. The compatibility of the Universal Current (UC) with both DC and AC voltage and its coverage of the low voltage area from 12 - 36 V guarantees maximum compatibility with all current and future building management systems from all major manufacturers.
The external characteristics are equally versatile:
Four different design lines for all common mounting styles create additional customisability and enable the use in any environment. The UC detector switches completely silent, which benefits those with particularly sensitive ears.

EASY TO INSTALL

- **Spring clamp and locking ring mounting**
- **Generous wiring space**
- **Plug-in connections (Push terminals), 1.5 mm in diameter**

FUNCTIONAL

- **Silent switching by use of an electronic switch (no relay)**
- **Light level measurement and analogue light value output (0 V - 10 V) for dimming function**
- **LED display (recording) can be switched on and off**
- **Remote control capability for temporary change of settings**

FLEXIBLE

- **12 V - 36 V AC / DC**
- **Optional switching output reversal (NO or NC contact)**
- **Separate push-button input**

UNIVERSAL

- **All common installation types (recessed ceiling / recessed ceiling mounting and flush mounting)**
- **8 / 24 m range**
- **Cross-technology designs (also for KNX and 230 V)**
- **Floating switching output**
- **Same functions and setting options for all models**

DISCREET

- **Barely visible due to recessed ceiling mounting**

Interested?
You can find further details about the UC sensors in this brochure.

PD-C360i/8 UC

WITH THE PROVEN DESIGN OF THE COMPACT SERIES
FOR EASY INSTALLATION.

• Recessed ceiling mounting / surface ceiling mounting and flush mounting
• Presence detector with 360° field of detection
• 8 m range

PD-C360i/24 UC

WITH THE PROVEN DESIGN OF THE COMPACT SERIES
FOR EASY INSTALLATION.

• Recessed ceiling mounting / surface ceiling mounting and flush mounting
• Presence detector with 360° field of detection
• 24 m range

PD-C360i/8 mini UC

WHEN DISCREET AND UNOBTRUSIVE INSTALLATION IS REQUIRED.

• Recessed ceiling mounting
• Mini presence detector with 360° field of detection
• 8 m range
• Compact due to integrated sensor and power unit
• Fast installation with locking ring or spring clamp assembly

PD-CE360i/24 UC

FOR A PROFESSIONAL APPEARANCE, EVEN AT LONG RANGES.

• Recessed ceiling mounting
• Barely visible – only the lens can be seen
• Presence detector with 360° field of detection
• Complete device with integrated power section, double insulation
• Quick installation with spring clip mounting
 and 68 mm standard bore

PD-C180i/16 UC

FOR EASY RETROFITTING – SUITABLE FOR
ALL MAJOR SWITCHING PROGRAMS.

• Wall-mounted
• Subsequent surface mounting possible
• Presence detector with 180° field of detection
• Range up to 16 m in diameter
• Compatible with all major switching programs

ROOM AUTOMATION WITH PLC AND UC SENSORS
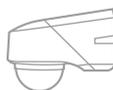
Product name	RC 230i UC	PD-C180i/16 UC	PD-C360i/8 UC
GENERAL			
Item no.	EM10015649	EP10427305	EP10427312
Technology	Infrared	Infrared	Infrared
Mains voltage	12 - 36 V ⎓ / 10 - 24 V ~	12 - 36 V UC (~/⎓)	12 - 36 V UC (~/⎓)
Switching capacity	12 - 36 V ⎓ / 12 - 24 V ~ 10 A (cos phi = 1), 5 A (cos phi = 0,5)	12 - 36 V UC (~/⎓), 2 A	12 - 36 V UC (~/⎓), 2 A
Field of detection	230°	180°	360°
Range (at recommended installation height)	Ø 20 m	Ø 16 m	Ø 8 m
Recommended installation height	2.50 m	1.10 m	3 m
Maximum installation height	–	2.20 m	5 m
Light switch contact (max. in-rush current)	1 (floating)	1 (floating)	1 (floating)
Analogue light value output 0—10 V	–	●	●
"Sensitivity" toggle	–	–	●
Additional light switch input	–	1	1
Toggle switch input "room = ON + OFF / hallway = ON"	–	–	●
Fully automatic / semi-automatic	–	● / ●	● / ●
Impulse feature	●	●	●
Mechanical range adjustment	●	–	–
Electronic range adjustment	●	–	–
Range adjustment per sensor (separately adjustable)	2 x 115 °	–	–
Range adjustment through covering clips/cap	●	–	–
Parallel connection of max. no. detectors	unlimited	–	–
Default settings	●	●	●
INSTALLATION TYPES			
Wall mounting	IP 54	●	–
Ceiling mounting	IP 54	–	●
Recessed ceiling mounting	–	–	● (1)
Flush-mounted	–	IP 20 / IP 44	IP 20
Surface mounted (plaster)	–	IP 20 / IP 44	IP 20 / IP 54 (2)
Recessed ceiling mounting with installation set (available as an accessory)	–	–	IP 20
Inner / outer corner installation	● with accessories	–	–
ACCESSORIES			
Remote control Mobil-PDi/MDi-universal	EP10433993	●	●	●
Remote control Mobil-PDi/MDi	EM10425509	–	●	●
Remote control Mobil-RCi	EM10016004	●	–	–
Remote control Mobil-RCi-M	EM10016011	●	●	–
Surface-mounted box-C IP 20 white	EP10425370	–	–	●
Surface-mounted box-C IP 20 silver	EP10425387	–	–	●
Surface-mounted box-C IP 54 white	EP10425905	–	–	●
Surface-mounted box-C IP 54 silver	EP10425912	–	–	●
Ceiling-mounted set-C	EP10425929	–	–	●
Cover set-C360/8 silver	EP10425936	–	–	●
Cover set-C360/24 silver	EP10425431	–	–	–
Spotlight adapter 51 / 20	EP10426384	–	–	–
Spotlight adapter 51 / 25	EP10426391	–	–	–
Cover IP 20 various colours		–	●	–
Cover IP 44 white	EM10055157	–	●	–
Surface-mounted box IP 20 / IP 44 white	EM10055164	–	●	–
RC corner bracket white	EM10016110	●	–	–
Basket guard 180 / 90	EM10425608	–	–	●
Basket guard 165 / 70	EM10425615	–	–	●

(1) recessed ceiling mounting possible with accessories
(2) surface mounting with accessories

blue mode	blue mode	blue mode
PD-C360i/8 mini UC	**PD-C360i/24 UC**	**PD-CE360i/24 UC**
EP10427343	EP10427329	EP10427336
Infrared	Infrared	Infrared
12 - 36 V UC (~/=)	12 - 36 V UC (~/=)	12 - 36 V UC (~/=)
12 - 36 V UC (~/=), 2 A	12 - 36 V UC (~/=), 2 A	12 - 36 V UC (~/=), 2 A
360°	360°	360°
Ø 8 m	Ø 24 m	Ø 24 m
3 m	3 m	3 m
5 m	10 m	5 m
1 (floating)	1 (floating)	1 (floating)
–	●	●
–	●	–
1	1	1
–	●	–
● / ●	● / ●	● / ●
●	●	●
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	–	–
●	●	●
–	–	–
–	●	–
IP 55	● (1)	IP 40
–	IP 20	–
–	IP 20 / IP 54 (2)	–
–	IP 20	–
–	–	–
●	●	●
●	●	●
–	–	–
●	–	●
–	●	–
–	●	–
–	●	–
–	●	–
–	●	–
–	–	–
–	●	–
–	–	–
●	–	–
–	–	–
–	–	–
–	–	–
–	–	–
–	●	–
–	●	●

THE ESYLUX SERVICE PROGRAMME

Take advantage of the wide range of additional product services and obtain advice on the topic of demand-dependent building control systems. We can help you to develop a customised individual or system solution to help your organization take a decisive step forward in terms of energy saving.

ESYLUX ACADEMY

Providing information and developing the skills of our employees and customers is just as important to us as developing energy-efficient products. The ESYLUX Academy informs planners, electrical installers and employees of electrical wholesalers several times a year in the principles, standards, current trends and new solutions for the planning and project planning of demand-dependent lighting controls.

PROJECT PLANNING SUPPORT

From the earliest stage of planning, our company's project department can provide advice and assistance: from selecting the best product to explaining the areas of application and providing expert help with positioning and functional planning.

Planning software such as DDS and Relux as well as light distribution curves (EULUMDAT files for our lighting products), complement the personalised advice.

We help you to identify and make use of potential energy savings, for example, with tools such as our web-based savings calculator.

TECHNICAL HOTLINE

Fast and professional help is available from our technical hotline by calling the phone number: 04102 / 489 489. Whether you have questions about the technical features, assembly or installation - we'll be happy to provide competent and friendly support right away.

COMMITMENT TO ENERGY EFFICIENCY

As a specialist in energy-efficiency solutions, we are committed to sustainability and building energy efficiency. ESYLUX is a member of the GEEA (*Allianz für Gebäude-Energie-Effizienz* – Alliance for Building Energy Efficiency), an initiative of dena (*Deutsche Energie-Agentur GmbH* – German Energy Agency). We are working with the German Sustainable Building Council to increase the importance of sustainable building in the sense of certified "Green Buildings".

The fastest way to the ESYLUX energy efficiency and energy saving calculator.

ESYLUX GmbH

An der Strusbek 40 | 22926 Ahrensburg | Germany
Postfach 1834 | 22908 Ahrensburg | Germany
t: +49 (0)4102 88880-0
f: +49 (0)4102 88880-441

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