theben **100** YEARS building automation

theben
energy saving comfort

Highlights 02|2021
Flexible. Obvious. Legendary.

thePixa P360 KNX
Optical presence detector

theRonda S360 KNX UP
Presence detector

OKTO Latching relay
ELPA Staircase time switch

SAFETY+

theben-timer 26 safety-plus
Plug-in timer

100 years Theben
100 years Building Automation

1930

The first ELPA automatic time switch with pendulum and mercury tube contact goes into mass production. This marks the beginning of an incredible success story: more than 30 million units are sold, making the ELPA synonymous with staircase light timer switches. A lot of rumours have grown up around this name since then: Are those the initials of his two children, Ellen and Paul? Or is it the abbreviation for „Electrical pendulum automatic device"?
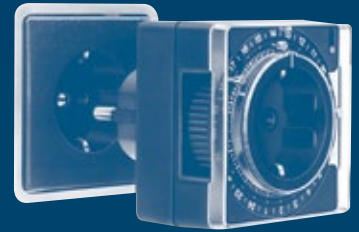
1977

Theben files the patent for its „rotary switching disc", which can be used in analogue time switches and clock thermostats (such as the RAMSES 782) for direct changeover between daily and weekly programs. A patent for the „socket timer" is filed in the same year (more than 30 million units have been sold to date).

1944

Paul Schwenk falls seriously ill in the autumn of 1943 and passes away in March 1944. The company is managed by engineer W. Schröder and by Wilhelm Weckerle until the founder's son, Paul Eberhard Schwenk, takes charge in April 1945.

1921

Our entire story starts in 1921 with the introduction of the first swivel time switch for staircases – developed by company founder Paul Schwenk to stop lights in staircases being left on all the time. And so Theben's first ever energy-saving product is born.

1958

The Haus Rose (a converted restaurant) gradually runs out of space and so, in 1958, work starts on a new building on Hohenberg-straße. The component production areas (press, drilling and turning shops) move in first, followed by other production areas once the new building has been extended. By 1970, the entire Theben workforce is finally accommodated under one roof in the large and modern complex on Hohenbergstraße.

1941

Paul Schwenk is a democrat through and through, and is opposed to the Third Reich. To escape the attentions of the Gestapo in Stuttgart, he looks for a suitable house in the country. He strikes gold in Haigerloch. The former Rose restaurant undergoes an extensive conversion to become the new company headquarters.

1992

KNX®

It has been almost 30 years since Theben began collaborating on the development of EIB technology (now KNX) and started manufacturing the first BUS-capable time switches and twilight switches. We have been a member of the KNX Association since 1995, working in conjunction with other leading manufacturers to make KNX a worldwide standard.

1999

The new production building is constructed on the Madertal industrial estate in Haigerloch and the whole of production is relocated there from Hohenbergstraße. With a floor space of more than 6000 m², the new facility is responsible for producing time switches, room and clock thermostats, and KNX components. The headquarters now boast a total floor space of over 25,000 m².

100 YEARS building automation

2021

This year, we celebrate 100 years of building automation together. The automation of buildings has been part of our company's DNA right from the start. The aim? – To improve comfort for everyone while reducing energy consumption. Our motto is „Energy at the right time". Both today and tomorrow.

1994

Theben launches the LUXOR living comfort control. This system is to be regarded as „The mother of all smart home systems" and offers a whole host of handy and convenient functions: scenes, presence simulation, central OFF. And you don't even need a smartphone! It is programmed by adjusting potentiometers with a screwdriver.

2016

Paul Sebastian Schwenk, the great-grandson of the company's founder takes up his position on the board on 1 September. Together with company partner Nikolas Herl (Head of Finance and Accounting) and board member Thomas Sell he heads up various f3 projects to get Theben „fit for the future".

2020

The CONEXA 3.0 Performance Smart Meter Gateway is certified by the German Federal Office for Information Security. With CONEXA, Theben is helping to achieve the energy transition and plenty more besides.

You can find out curious, exciting and moving stories from 100 years of Theben at

100.theben.co.uk

We are Theben.
Family. Authenticity. Innovation.

Contents

More information is
available at
www.theben.de / en

We are a family company to our very core – founded almost 100 years ago and now run by the fourth generation. But these aren't just empty words; we really live this ethos every single day.

Here at Theben, our day-to-day is all about coming up with creative and innovative building automation solutions. It all started with the ELPA, which has been switching lights off safely since our company was first established back in 1921 and is today synonymous with the staircase light timer switch.

Innovation is woven into Theben's very DNA and it is what has resulted in our latest interoperable product: the CONEXA 3.0 Performance.
Smart Meter Gateway is our way of taking the energy transition up a notch. Or how about the LUXORliving smart home system: based on KNX, it offers customers unrivalled security of investment. It is programmed without ETS and is fast, easy and straightforward to start up.

But for all our love of technical wizardry, we haven't lost sight of the design – independent panels have attested to this, several times over.

Paul Sebastian Schwenk
Chairman of the Board of Management at Theben AG and
fourth generation of the company's founding family
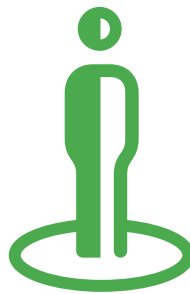on the roof of our administration building in Haigerloch.

TOP 100
top100.de
Top-Innovator
2020

GERMAN INNOVATION AWARD '21 GOLD

GERMAN DESIGN AWARD SPECIAL 2019

iF DESIGN AWARD 2017

iF DESIGN AWARD 2015

GERMAN DESIGN AWARD SPECIAL 2017

german brand award 16 winner

PLUS X AWARD ausgezeichnet als: BESTES PRODUKT 2017

PLUS X AWARD theben INNOVATIVSTE MARKE DES JAHRES 2015

GOOD DESIGN

Diversified
Our business areas

Building automation & smart home

Since 1992

Weather station

Actuator technology

Operating controls

Smart homes

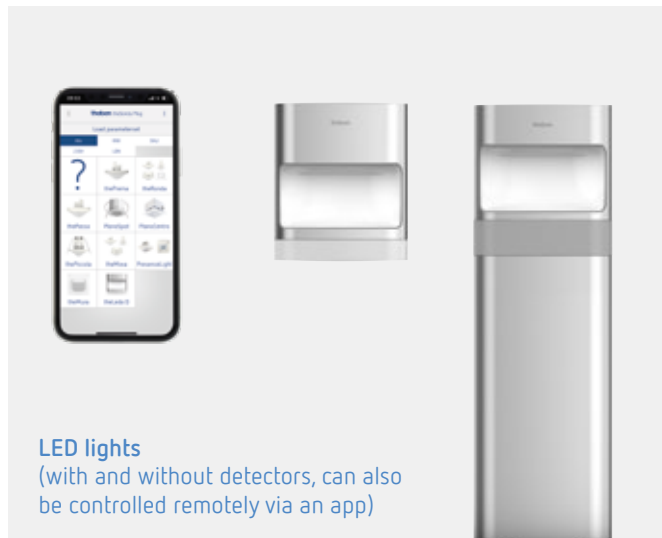## Presence & motion detectors, lighting

Since 2007

Motion detectors
(230 V, KNX)

Presence detectors
(230 V, KNX, DALI)
Presence sensors
(DALI-2)

LED lights
(with and without detectors, can also
be controlled remotely via an app)

Time, light
& climate control
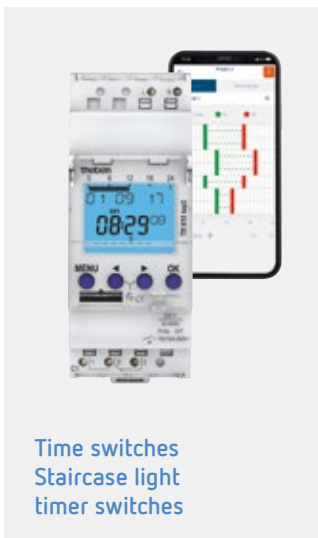
Since 1921

Time switches
Staircase light
timer switches

Twilight switches

Dimmers

Thermostats

Smart metering
& smart grid

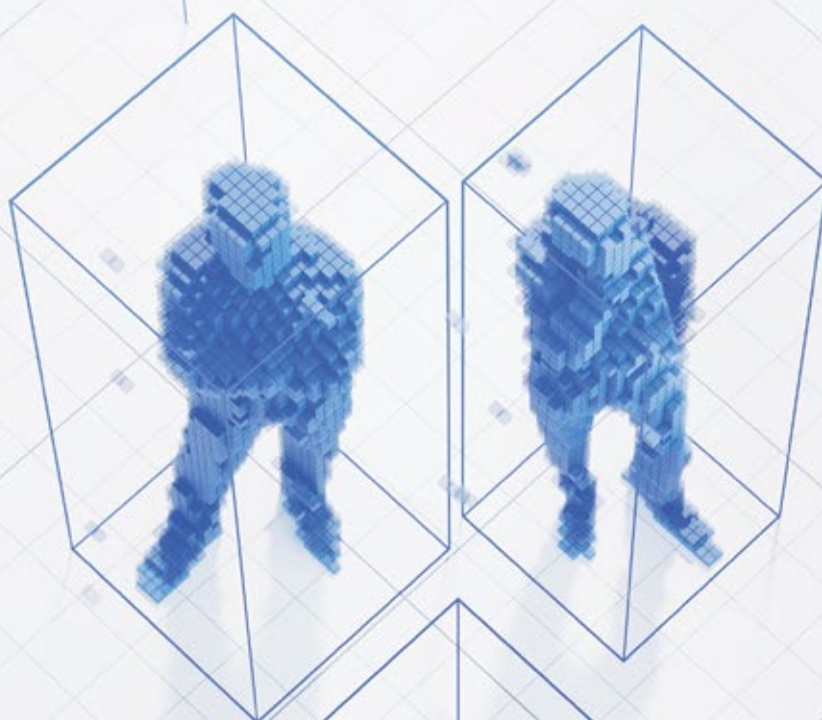Since 2010

Smart meter gateway
(with added-value module)
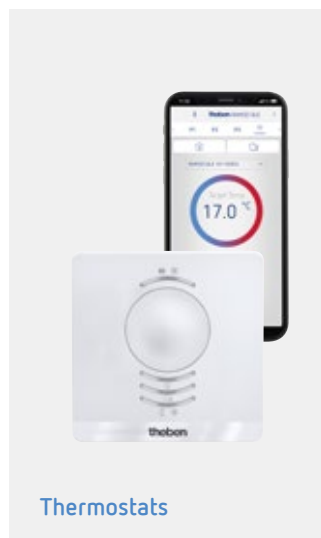
Control box

Your new plus in flexibility inside the building can do more

→ Pixel-based detection technology
→ Detecting and counting objects/persons
→ 100 % GDPR compliant
→ Easy start-up via app programming
→ Triggering KNX building automation actions
→ Added value for building operators
→ Flexible detection zones
→ Tamper-proof thanks to KNX Data Secure

The presence detector **thePixa** has been checked by **DEKRA*** for compliance with **GDPR!** ✔

KNX Data Secure

Giving you flexibility
Optical presence detector thePixa KNX

The optical presence detector thePixa now opens up further applications with significant added value thanks to its pixel-based detection technology. These go far beyond the possibilities of PIR presence detectors. The optical presence detector thePixa detects how many people are in a room and where they are. This information is used to trigger predefined actions in the KNX building control system. However, not just the building automation features stand to gain. There are completely new benefits, especially for building operators. For example, flexible options for configuring desk-sharing
or for optimising room occupancy and building cleaning activities.

The visualisation of detected areas by means of the heat map offers you, as a building operator, a variety of added values. Product presentations in department stores can be optimised by identifying which products customers stop to look at most often and show the greatest interest in.

Valuable information can also be obtained in office facilities: by identifying which workstations are used more or less often, it is possible to open up advantages such as efficient desk-sharing management. This allows for a flexible response to peak workloads. Operating and energy costs for buildings can be reduced.

Easy programming
Via thePixa Plug app

Via thePixa Plug app, you can divide the detected area into up to 6 zones if desired and programme them freely. The precise subdivision of the detection area, with dimensions up to 11 x 15.5 m, enables accurate lighting control in larger rooms. False switching operations are effectively prevented.

The high installation costs that are often incurred after conversion or room restructuring are completely eliminated. It is easy to create new zones within the detection area in the app. The settings programmed in the app are then simply transferred from a smartphone or tablet to thePixa via Bluetooth.

Heat map and occupancy statistics
Visualisation and evaluation of the recorded motions as well as the degree and density of movements over a defined period of time allow conclusions to be drawn and open up a variety of added values.

Always the right
presence detector in the portfolio

The Theben presence detector product range is growing and offers a wide range of diversified product for almost every application.

The new presence detector theRonda S360 KNX UP is used where an 8 meter detector is sufficient. It fits seamlessly into the consistent design language. theRonda S360 KNX UP clearly scores as a cheaper variant of the higher-end performance range.

With the LUXA S360-200-24 DE-UP, the portfolio is expanded to include a 2-channel detector. 2 channels can be switched based upon 2 independent light measurements. A high switching capacity for LED lamps at a good price-performance ratio speaks for itself.

Simple and efficient
Presence detector
theRonda S360 KNX UP

KNX presence detector for standard applications wherever a flush-mounted box is set in concrete, e.g. in stairwells, offices, Schools and sanitary facilities

→ **Increase in convenience** through automation, e.g. the lighting control

→ **Consistent ETS application**

→ **Detection range:** max. Ø 9 m (going tangentially)

→ **Protection IP 54** when installed
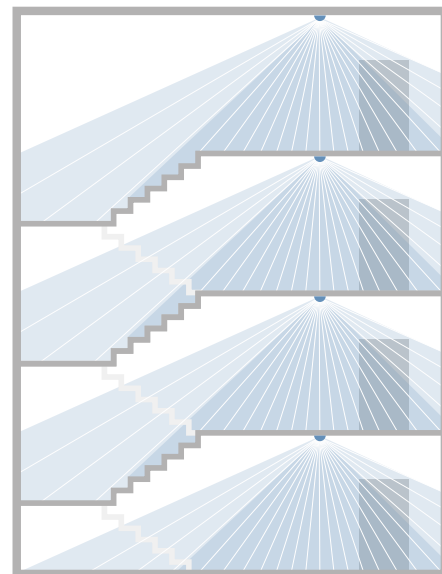
Application example for an automatic lighting of the windowless stairwell in a parking garage.

Simple and resilient
Presence detector
LUXA 104 S360-200-24 DE-UP

IDEAL FOR LED

Two-channel presence detector for ceiling mounting and applications in which 2 lighting groups are required in switching mode, e.g. in stairwells, offices, schools and sanitary facilities.

→ **High switching capacity** for LED lamps with 600 W.

→ **Simple comparison of the brightness measurement**

→ **Adjustable** sensitivity

→ **Short-term presence**

→ **Master-master parallel connection** to expand the detection area

→ **Protection IP 54** for surface mounting

Intelligent lighting control
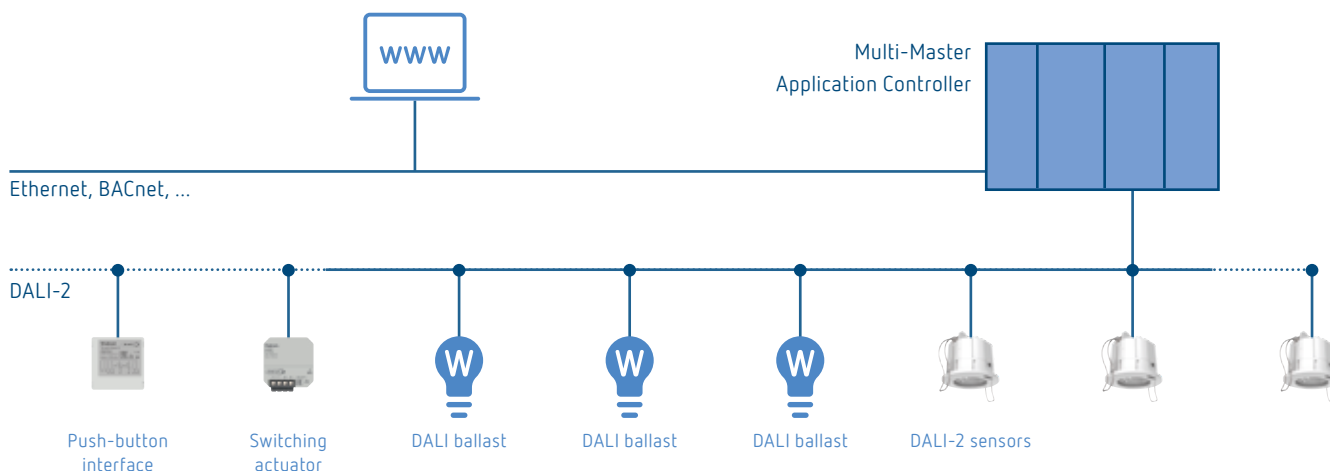## With DALI-2 technologies

Theben offers you a wide range of DALI-2 presence detectors and presence sensors for al-
most every need. DALI-2 broadcast presence detectors enable high-quality standard solutions
with simple commissioning, a lighting group with constant light control and orientation light.
In addition, an external DALI-2 relay can be integrated without any problems, for example for
HVAC applications.

Addressable DALI-2 presence detectors allow the flexible assignment of up to three lighting
groups on a DALI line with constant light control and orientation light. The devices offer 2- or
3-channel mixed light measurement. In addition, the buttons can be conveniently assigned to
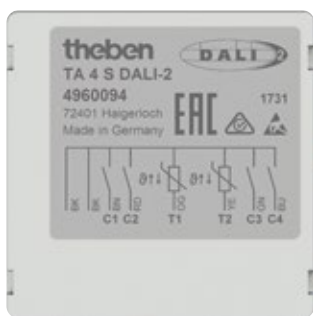the individual lighting groups by remote control.

Theben DALI-2 presence sensors can be operated with any multimaster application controller
that complies with IEC 62386 parts 101/104. In this way, you can also connect your DALI-2
light management to the higher-level control of a building management system. And the
DALI gateway KNX plus enables intelligent building automation with efficient lighting control
from a single source.

| www | | Multi-Master Application Controller |

Ethernet, BACnet, ...

DALI-2

| Push-button interface | Switching actuator | DALI ballast | DALI ballast | DALI ballast | DALI-2 sensors |

DALI-2 components
Push-button interface and switching actuator

TA 4 S DALI-2 push-button interface

The DALI push button interface is a compact and flat flush-mounted DALI-2 control device with 4 inputs for connecting potential-free buttons and 2 inputs for connecting variable resistors, e.g. B. slider, potentiometer or various Theben temperature sensors.

→ DALI-2 certified
→ Concealed installation
→ 4 inputs for connecting potential-free buttons
→ 2 inputs for connecting variable resistors

SU 1 DALI-2 switching actuator

The DALI switch actuator is a compact and flat flush-mounted DALI-2 operating device for controlling a relay contact via the DALI bus. It can switch with mains voltage devices such as lamps, fans or pumps directly. Also applications with extra low voltage and switching of loads such as HVAC etc. The powerful relay is suitable for loads with high inrush currents such as LED lights.

→ DALI-2 certified
→ Flush mounting
→ 1-way switching actuator

The legend lives on
theben-timer 26 safety-plus

The first and so far only socket-outlet timer with manual switching on the market that complies with the new DIN VDE 0620 safety + requirement. The standard is valid from 6/30/21 and no timers with increased contact protection may be sold that do not comply with this standard.

In timers marked "Safety Plus", the shutter ensures more safety. All other normal openings in the timer are secured in such a way that they prevent objects other than the plug from being inserted when used as intended.

The theben-timer 26 safety-plus thus ensures increased protection against accidental contact in the best possible way and reduces the risk of people coming into contact with live parts of the socket and possibly receiving an electric shock as a result.

SAFETY➕

For the company's hundredth birthday, Theben is presenting an anniversary edition of the legendary theben-timer 26 in three attractive special colours: yellow, light blue and salmon red. The analogue plug-in time switch was developed as early as 1977. Since then, with over 33 million devices sold worldwide, it has become a bestseller in Theben's product range.

100
100-YEAR
GUARANTEE*

No joke: we're giving a 100-year guarantee!
We are fully convinced of the qualities of our theben-timer. That is why we give you a whopping 100-year guarantee on the special edition devices. These are manufactured at the company's headquarters in Haigerloch, Swabia, and are therefore "Made in Haigerloch".

*You can find out more about the extended warranty at www.theben.de/theben-timer
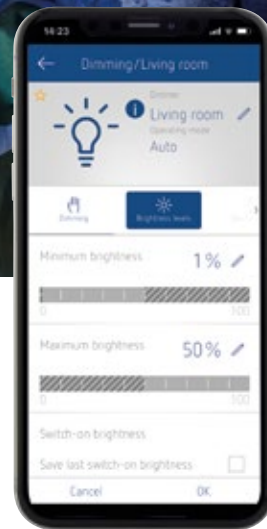
Smart and compact DIMAX 545 plus P flush-mounted universal dimmer

Thanks to the compact housing, the flush-mounting of the new DIMAX 545 plus P universal dimmer is considerably simplified. The integrated Bluetooth technology means that it can be conveniently operated using the MAXplus app for tablets and smartphones (iOS, Android). What's more, the flush-mounted dimmers have been optimised to dim LEDs.

→ **Easy installation:** Thanks to highly compact housing
→ **App control:** For convenient setting of lighting scenarios, brightness values, staircase light and snooze functions
→ **Astro function:** Astro-controlled, predefined switch-on brightness (depending on location)
→ **Night limitation:** Switch-on brightness can be restricted in terms of time
→ **Wake-up light:** Light brightness gradually increased using a smartphone
→ **Perfect for LEDs:** Configuration of minimum/maximum brightness, switch-on brightness and dimming response
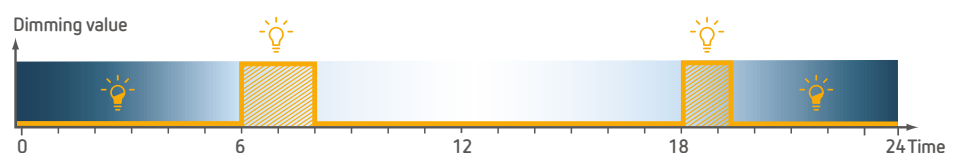
Example for setting the night limitation.

Central control made easy
TC 649 C control box

Would you like to be able to respond remotely in order to – for example – change the opening times of a car park or modify a lighting time? Thanks to the Theben TC 649 control box, you can now manage these challenges from a central location. The control box is a weekly timer which can be integrated into the LAN and provides Astro functions and special programs incl. yearly functions. This allows you to transfer light control programs and functions from your company control centre to defined device groups. The ability to control each relay remotely is a great advantage.It couldn't be easier, quicker or more efficient.

Secure remote access (via cloud)
TC 649 C control box

The cloud-enabled version of the control box allows you to access your systems via Theben cloud (server located in Germany). The connection is established via GSM router.

Proven quality
Simple installation

OKTO ES
Electronic impulse switch

Electronic OKTO impulse switches are equipped with zero-cross switching for optimum LED switching. This protects the relay contact and extends the lamp's service life. The OKTO impulse switches ES12-230 and ES12-UC can be used with illuminated buttons up to a load of 100 mA. After a power failure, the last switching status is automatically restored.

Reliable: install and forget

Optimised for LEDs

Quality "Made in Germany"

OKTO S
Electromechanical impulse switch

OKTO electromechanical impulse switches offer a bistable mechanism, which maintains the last switch position without consuming any power until the next pulse is received. This reduces dissipation loss and energy consumption to great effect. In the event of a power failure, the last switch position is held mechanically.

0 Watt — 0 W standby power

Reliable: install and forget

ELPA 7
Staircase light timer switch

The ELPA 7 electronic staircase light timer switch is perfect for energy-efficient lighting control in stairwells as well as garages and patios, Zero-cross switching ensures optimum LED switching, protects the relay contacts and extends the service life of the lamp. ELPA 7 staircase light timer switches can be installed in existing or new systems thanks to the automatic 3- or 4-conductor detection.

Optimised for LEDs

Zero-cross switching

Caution step!

Quality "Made in Germany"

ELPA
Efficient and flexible

With its legendary, multi-million-selling ELPA staircase light timer switches, Theben has been setting the bar for functionality, reliability and durability for many decades. We have now transferred these uniquely Theben attributes to our new OKTO impulse switches. And all for an appealing price.

OKTO
Simple. Practical. Efficient.

☑ Convenient lighting control for any number of buttons

☑ Simple and low-cost electrical installation

☑ Quick installation on DIN-rail

☑ Electromechanical or electronic designs

☑ Ideal for use in corridors

Everything at a glance
Overview

Presence detector KNX and 230 V (see page 22-27 for more information)

Type	Description	Item no.	Available from
theRonda S360 KNX UP WH	PKNX Passive infrared presence detector for ceiling installation, circular detection area 360°	2089520	October 2021
thePixa P360 KNX UP WH	Optical presence detector for ceiling installation, rectangular detection area	2269200	Available
LUXA 104 S360-200-24 DE-UP WH	Passive infrared presence detector for ceiling installation (flush-mounted or in false ceilings), circular detection area 360°	1040200	October 2021
AP-Rahmen 100A WH	Surface frame for LUXA 104 S360-200-24 DE-UP WH	9070819	October 2021

DALI-2 components (see page 28-29 for more information)

Type	Description	Item no.	Available from
SU 1 DALI-2	1-way DALI-2 switching actuator flush-mounted, for the control of loads with 230 V AC mains voltage	4940091	Available
TA 4 S DALI-2	4-way DALI-2 push-button interface flush-mounted, 4 inputs for connection of potential-free push-buttons, 2 additional inputs for the connection of variable resistors	4960094	Available

Analogue and digital time switches (see page 30-31 for more information)

Type	Description	Item no.	Available from
theben-timer 26 safety-plus (White)	Analogue plug-in timer with increased touch protection, daily program, 1 channel	0260833	October 2021
theben-timer 26 BL (Light blue)	Special edition 100 years Theben, analogue plug-in timer, daily program, 1 channel	0260021	Available
theben-timer 26 RD (Salmon red)		0260022	Available
theben-timer 26 YE (Yellow)		0260023	Available
TC 649 C	Digital time switch / astro time switch with weekly program and annual program	6490430	Available

UP-Dimmer (see page 32 for more information)

Type	Description	Item no.	Available from
DIMAX 545 plus P	Universal dimmer for R, L and C loads with automatic load detection, App control and clock	5450130	October 2021

Staircase time switch and latching relays (see page 33-35 for more information)

Type	Description	Item no.	Available from
ELPA 7	Staircase time switch, electronical, switch-off pre-warning to avoid sudden darkness	0070002	Available
OKTO S12-230	Electro-mechanical latching relay, comfortable lighting control of one common consumer with several push-buttons possible, 1 channel	3120120	Available
OKTO S22-230	Electro-mechanical latching relay, comfortable lighting control of one common consumer with several push-buttons possible, 2 channels	3120122	Available
OKTO ES12-230	Electronic latching relay, comfortable lighting control of one common consumer with several push-buttons possible	3120130	Available
OKTO ES12-UC	Electronic latching relay, comfortable lighting control of one common consumer with several push-buttons possible, potential-free multi-voltage input	3120131	Available

Presence detectors
KNX

theRonda S360 KNX UP WH

Description

- KNX Passive infrared presence detector for ceiling installation
- Circular detection area 360°, up to Ø 9 m (64 m²)
- Automatic presence- and brightness-dependent control for lighting and HVAC
- Mixed light measurement suitable for fluorescent (FL/PL/ESL), halogen/incandescent lamps and LEDs
- 2 light channels C1, C2
- Switching operation or constant light control with standby function (orientation light)
- Switching mode with dimmable lighting
- Choice of fully or semi-automatic
- Brightness switching value or set point value can be set in lux by using parameters, the object or via remote control
- Teach-in of the brightness switching value or the set point value
- Reduction of time delay when present briefly (short-term presence)

- Manual override by telegram or remote control
- 2 presence channels C4, C5, individually configurable
- Switch-on delay and time delay configurable
- Setting the room correction factor for brightness measurement comparison
- Adjustable sensitivity
- Test mode for checking function and detection area
- Scenes
- Parallel switching of multiple presence detectors (Master/Slave or Master/Master)
- Ceiling installation in flush-mounted socket
- Ceiling installation also possible with surface-mounted frame
- User remote control «theSenda S» (option)
- Management remote control «theSenda B» (option)
- Installation remote control «theSenda P» (option)

Product selection

Installation type	Channels	Colour	Type	Article number
Ceiling installation	2 x Light I 2 x Presence	White	theRonda S360 KNX UP WH	2089520
		Other colours with accessories possible		

Technical data

	theRonda S360 KNX UP
Operating voltage KNX	Bus voltage, approx. 8 mA (9 mA LED on)
Installation height	2–4 m (min. 1,7 m)
Setting range brightness	10–3000 lx/measuring off
Light switch-off delay	30 s–60 min
Stand-by dimming value	1–25 % of the lamp output
Stand-by time	30 s–60 min/inactive/permanently on
Presence switch-off delay	10 s–120 min
Presence switch-on delay	10 s–30 min/inactive
Ambient temperature	−15 °C ... +50 °C
Type of protection	IP 54 (when fitted)

Detection range (Round)

Mounting height (A)	Walking diagonally (T)	Walking head on to (R)	Sitting (S)
2 m	38 m² | 7 m	5 m² | 2,5 m	5 m² | 2,5 m
2,5 m	38 m² | 7 m	7 m² | 3 m	7 m² | 3 m
3 m	50 m² | 8 m	13 m² | 4 m	13 m² | 4 m
3,5 m	50 m² | 8 m	13 m² | 4 m	-
4 m	64 m² | 9 m	13 m² | 4 m	-
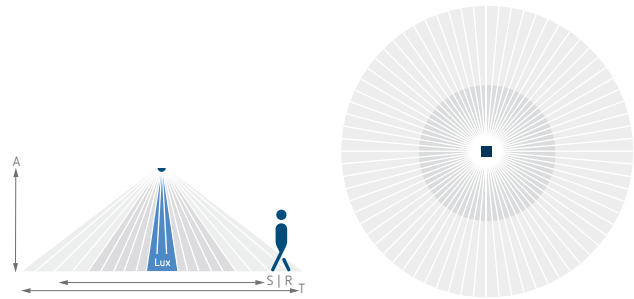
Accessories

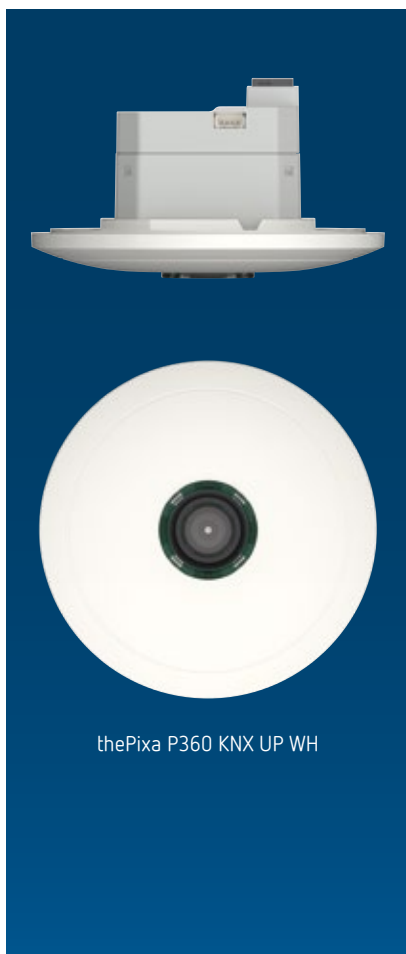| theSenda B	theSenda P	theSenda S
↳ Art.No.: 9070985	↳ Art.No.: 9070910	↳ Art.No.: 9070911

QuickSafe

Surface frame 110A WH

Ceiling installation box 68A

Masking clip

Cover 110 GR

Scale drawings
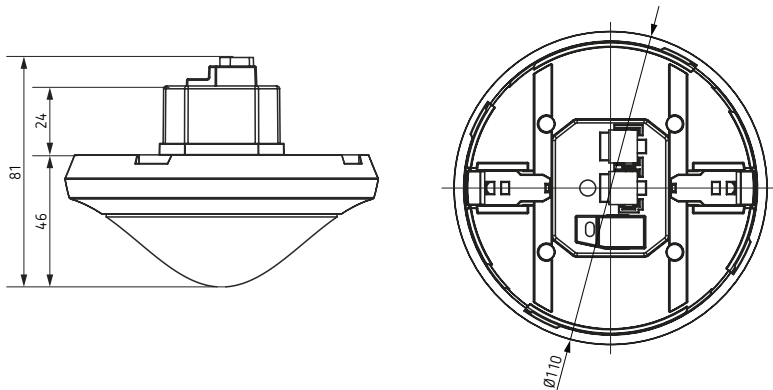
Optical presence detector
KNX

Description

- Optical presence detector for ceiling installation
- KNX Data Secure
- Rectangular detection area with up to 6 flexible detection zones (Total area 17,5 x 11,5 m (79 m²) at 3 m installation height)
- Restriction of the detection area via app (thePixa Plug)
- Automatic presence and brightness-dependent control for lighting and HVAC
- Each detection zone has its own light measurement
- Adjustment of brightness measurements via thePixa Plug app
- Configurable sensitivity of sensor
- Distinction between motion and presence
- Parallel switching of multiple presence detectors (Master / Slave or Master / Master)
- Test mode for checking function and detection area via app (thePixa Plug)
- Output of occupancy rate and occupancy density via telegram
- Integrated temperature sensor
- Ceiling installation in flush-mounting box (2-point fixing)
- Surface mounting on ceilings possible with surface frame (option)
- thePixa Plug app for settings and evaluations (iOS / Android)
- KNX firmware update possible (ETS app)
- Sensor firmware update possible (thePixa Plug app)
- 6 channels light, Z1 light − Z6 light:
- Switching or constant lighting control with 6 independent control systems and standby function (orientation light)
- Switching mode with dimmable lighting
- Free switch object with configuration type switching
- Fully or semi-automatic device
- Brightness switching value configurable in lux by using parameters
- Brightness switching value configurable in lux by using parameters and telegram
- Light time delay configurable by using parameters
- Aura effect for better orientation and greater safety
- Manual override by telegram
- 6 channels HKL, Z1 HKL − Z6 HKL:
- Configurable switch-on delay and time delay
- Sending of operating mode
- Separate block telegram
- 6 channels room occupancy, Z1 room occupancy − Z6 room occupancy:
- Output of number of persons
- Control of a fan with up to 3 stages
- 3 configurable thresholds (threshold switch)

thePixa P360 KNX UP WH

Product selection

Installation type	Colour	Type	Article number
Ceiling installation	White	thePixa P360 KNX UP WH	2269200

Technical data

	thePixa P360 KNX UP WH
Operating voltage	230 − 240 V AC
Frequency	50 Hz
Operating voltage KNX	Bus voltage, approx. 10 mA
Installation height	2,5 − 4,5 m (min. 1,7 m)
Setting range brightness	5 − 3000 lx, inactive
Light switch-off delay	0 s − 60 min
Standby light	0 s − 60 min, on, inactive
Nachlaufzeit HKL	0 s − 120 min
Presence switch-off delay	0 s − 120 min / inactive
Ambient temperature	− 15 °C ... +60 °C
Type of protection	IP 20

Detection range (Round)

Mounting height (A)	Walking (r/t)	Sitting (s)
2,5 m	54 m² | 6,0 m x 9,0 m	54 m² | 4,0 m x 5,5 m
3 m	79 m² | 7,5 m x 10,5 m	35 m² | 5,0 m x 7 m
3,5 m	102 m² | 8,5 m x 12,0 m	51 m² | 6,0 m x 8,5 m
4 m	128 m² | 9,5 m x 13,5 m	79 m² | 7,5 m x 10,5 m
4,5 m	171 m² | 11,0 m x 15,5 m	102 m² | 8,5 m x 12,0 m
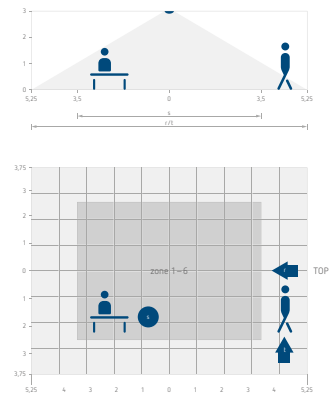
Accessories

Surface frame thePixa WH
↳ Art.No.: 9070816

Ceiling installation box 68A
↳ Art.No.: 9070992

Scale drawings

Ø 86

51,9

36,4

12

Presence detector
230 V

LUXA 104 S360-200-24 DE-UP WH
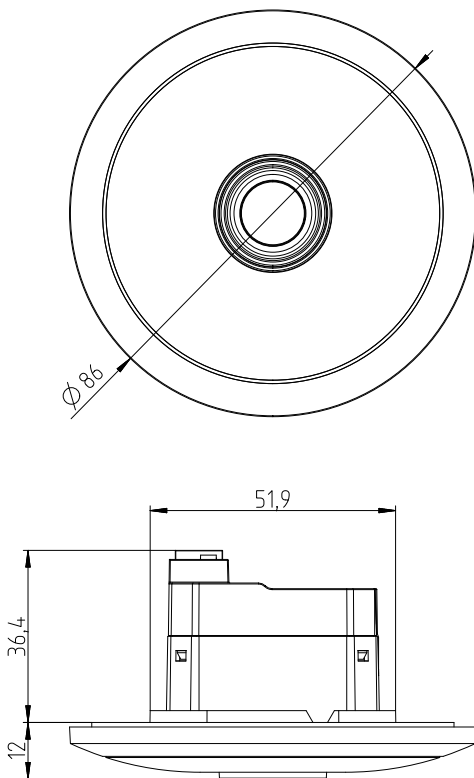
Description

- Passive infrared presence detector for ceiling installation (flush-mounted or in false ceilings)
- Circular detection area 360°, up to Ø 24 m (452 m2) at mounting height 3 m
- 2 channels light with 2 light measurements (Relay 230 V)
- Automatic presence- and brightness-dependent control for lighting
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/incandescent lamps and LEDs
- Choice of fully or semi-automatic operation
- Adjustable brightness switching value
- Teach-in function
- Reduction of switch-off delay time in the event of short presence (brief-presence)
- Connection option for push-button
- Pulse function for staircase light time switch

- Detection area can be limited using cover clip
- Sensitivity adjustable
- Extension of detection area via Master/Slave or Master/Master switching, a maximum of 10 detectors can be switched in parallel with each other
- Ceiling installation also possible with surface-mounted frame
- Ready for immediate use due to factory preset
- User remote control theSenda S, service remote control theSenda P or remote control with app theSenda B available as accessory

Product selection

Installation type	Channels	Colour	Type	Article number
Ceiling installation	2 x Light	White	LUXA 104 S360-200-24 DE-UP WH	1040200

Technische Daten

	LUXA 104 S360-200-24 DE-UP WH
Operating voltage	230 V AC
Frequency	50 Hz
Installation height	2−5 m (min. 1,7 m)
Stand-by consumption	0,5 W
Setting range brightness	10−3000 lx
Light switch-off delay	10 s−60 min
Incandescent/halogen lamp load	2300 W
LED lamp < 2 W (typ.)	60 W
LED lamp > 2 W (typ.)	600 W
Ambient temperature	−15 °C … +45 °C
Type of protection	IP 54 (when fitted)

Detection range (Round)

Mounting height (A)	Walking diagonally (T)	Walking head on to (R)	Sitting (S)
2,5 m	452 m² | 24 m	28 m² | 6 m	28 m² | 6 m
3 m	452 m² | 24 m	13 m² | 4 m	13 m² | 4 m
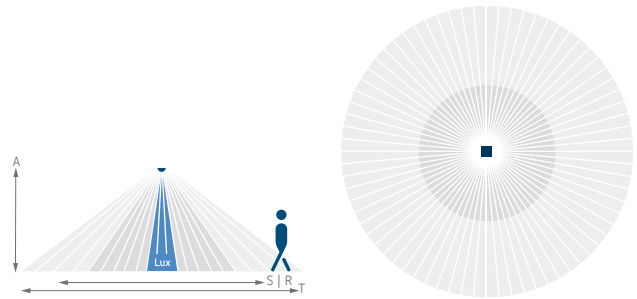
Accessories

theSenda B
↳ Art.No.: 9070985

theSenda P
↳ Art.No.: 9070910

theSenda S
↳ Art.No.: 9070911

Surface frame 100A WH
↳ Art.No.: 9070819

Scale drawings

ø 107,7

ø 65,8

43,5

21,7

44,4
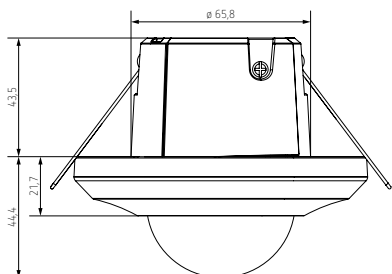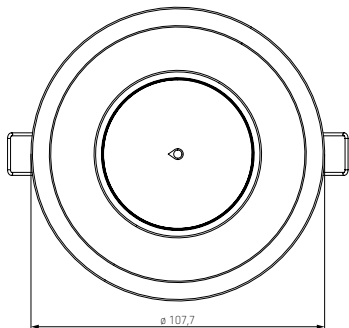
DALI-2
Switching actuator

SU 1 DALI-2

Description

- 1-way DALI-2 switching actuator flush-mounted
- For the control of loads with 230 V AC mains voltage such as lamps, fans, pumps, etc.
- Additionally suitable for applications with extra-low voltage or control of a higher-level control system (HVAC), etc.
- Compact relay module for direct control of loads via the DALI bus according to IEC 62386 part 208
- Powerful relay suitable for loads with high inrush current such as LED luminaires
- Adjustable switch-on level after bus voltage is removed

- The switching thresholds of the relay can be easily adjusted via the DALI bus
- One DALI bus device and can be addressed accordingly according to 62386 part 102
- Power supply via the DALI bus
- Simple installation in commercially available flush-mounted boxes

Product selection

Type	Article number
SU 1 DALI-2	4940091

Technical data

	SU 1 DALI-2
Operating voltage	DALI (according to IEC 62386-101): 10 − 22,5 V
Stand-by consumption	max. 10 mA
Type of contact	µ-contact, floating, NO contact
Switching capacity at 250 V AC	13 A
Incandescent / halogen lamp load	1500 W
Fluorescent lamp load (conventional) lead-lag circuit	650 W
Inrush current	max. 500 A / 200 µs
LED lamp < 2 W (typ.)	30 W
LED lamp > 2 W (typ.)	350 W
Type of protection	IP 20 (when fitted)
Protection class	II
Ambient temperature	−15 °C … +50 °C

Scale drawings
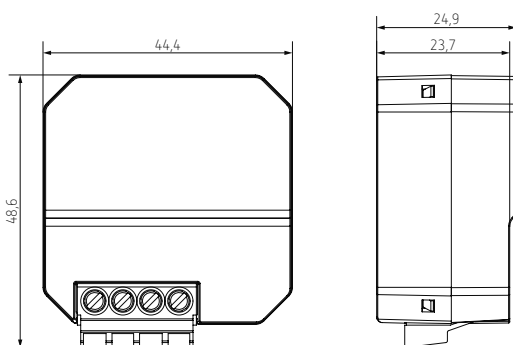
TA 4 S DALI-2

Description

- 4-way DALI-2 push-button interface flush-mounted
- 4 inputs for connection of potential-free push-buttons
- Push-buttons of the contact type „normally open" or „normally closed" can be used, the contact type is adjustable in the memory bank
- 2 additional inputs for the connection of variable resistors, e.g. sliders, potentiometers or various Theben temperature sensors according to the standard IEC 62386 part 302, the selection of the sensor is done in the memory bank

- The identification of the push-button interface is indicated via the LED
- One DALI bus device and can be addressed accordingly according to 62386 part 102
- Power supply via the DALI bus
- Simple installation in commercially available flush-mounted boxes

Product selection

Type	Article number
TA 4 S DALI-2	4960094

Technical data

	TA 4 S DALI-2
Operating voltage	DALI (according to IEC 62386-101): 10−22,5 V
Stand-by consumption	max. 10 mA
Type of contact	NO contact or opening contact
Contact voltage	5 V
Contact current	0,5 mA (5 mA peak)
Output voltage	5 V DC
Debounce time	50 ms
Resistance range	0 … 100 kΩ
Measuring range temperature	−25 °C … +75 °C / 0 °C … +85 °C
Type of protection	IP 20 (when fitted)
Protection class	II
Ambient temperature	−15 °C … +50 °C

Scale drawings
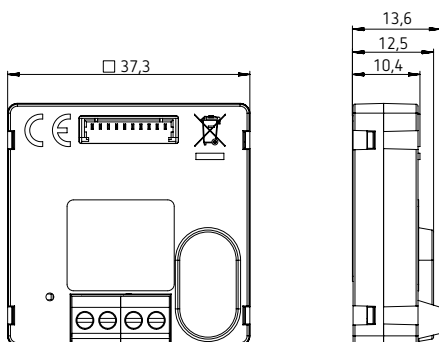
Accessories

External temperature sensor 1
↳ Art.No.: 9070191

Temperature sensor
↳ Art.No.: 9070321

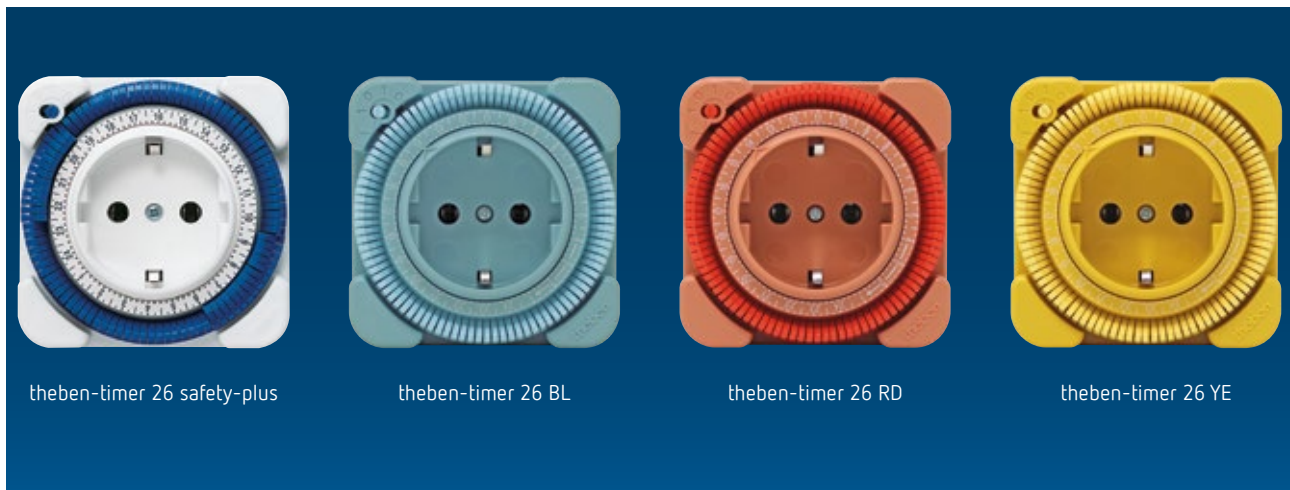**Temperature sensor RAMSES IP 65**
↳ Art.No.: 9070459

Temperature sensor
↳ Art.No.: 9070489

Flush-mounted temperature sensor
↳ Art.No.: 9070496

Analogue time switches
Plug-in timer

| theben-timer 26 safety-plus | theben-timer 26 BL | theben-timer 26 RD | theben-timer 26 YE |

Description

Common functions
- Analogue plug-in timer
- Daily program, 1 channel
- Synchronised with mains, without power reserve
- Use with earthed sockets
- Switching preselection and switching status display
- 96 switching segments
- Shortest switching time: 15 minutes

theben-timer 26 safety-plus
- With increased touch protection, reduces the risk of people coming into contact with live parts of the socket outlet contact with live parts of the socket and possibly receive an electric shock

theben-timer 26 BL
- Special edition 100 years Theben
- Housing colour light blue

theben-timer 26 RD
- Special edition 100 years Theben
- Housing colour salmon red

theben-timer 26 YE
- Special edition 100 years Theben
- Housing colour yellow

Product selection

Program	Shortest switching times	With increased touch protection	Colour	Type	Article number
Daily program	15 min	√	White	theben-timer 26 safety-plus	0260833
		-	Light blue	theben-timer 26 BL	0260021
			Salmon red	theben-timer 26 RD	0260022
			Yellow	theben-timer 26 YE	0260023

Technical data

	theben-timer 26
Operating voltage	230 V AC
Frequency	50 Hz
Installation type	Plug-in
Program	Daily program
Switching capacity at 250 V AC, cos φ = 1	16 A
Switching capacity at 250 V AC, cos φ = 0,6	4 A
LED lamp < 2 W (typ.)	40 W
LED lamp > 2 W (typ.)	400 W
Shortest switching times	15 min
Programmable every	15 min
Time accuracy at 25 °C	Synchronised with mains
Stand-by consumption	0,8 W
Type of protection	IP 20
Protection class	II according to EN 60 730-1
Ambient temperature	−40 °C … +55 °C

TC 649 C
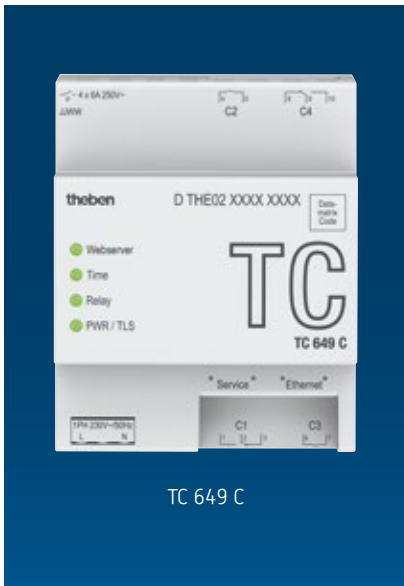
Description

- Digital time switch / astro time switch with weekly program and annual program
- With integrated web server, external operation via app possible via a cloud solution
- Time switching or astronomical programs can be sent to a single device via the cloud and direct switching can be performed via the cloud
- Via the cloud, the control box can be operated from any computer or smartphone and tablet with the Obelisk top3 app and internet access
- An additional network router or GSM, UMTS or LTE router is required to connect to the cloud
- 4 channels
- 800 memory programs

- Channel 1 to 4 can be switched over as time or astro time switch program
- 3 special programs per channel: switching program / astro program; Duration Off; Duration Each with year date function
- Local holidays, fixed date ranges, recurring date ranges and Easter-themed holidays
- Astro times with other night interruption / fixed ON circuit
- Permanent ON or OFF switching via LAN switchable
- Pulse program
- Automatic summer winter time changeover Europe; Canada; UNITED STATES; Iran, Australia and freely definable
- Deactivate summer / winter time change over
- Hour counter

Product selection

Type	Article number
TC 649 C	6490430

Technical data

	TC 649 E
Operating voltage	230 V AC
Frequency	50 – 60 Hz
Width	4 modules
Installation type	DIN rail
Switching capacity at 250 V AC, cos φ = 1	6 A
Stand-by consumption	3 W
Type of protection	IP 30
Protection class	II according to EN 60 730-1
Ambient temperature	− 25 °C ... +55 °C

Connection examples
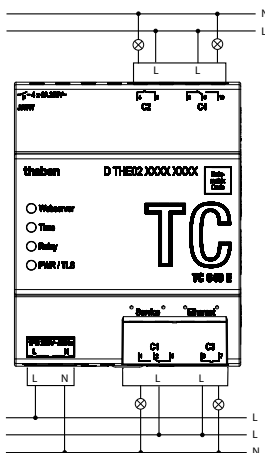
Dimmer
Flush-mounted

DIMAX 545 plus P

Description

- Universal dimmer for R, L and C loads with automatic load detection
- Operation by button or app via Bluetooth Low Energy
- Adjustable minimum brightness for LEDs
- Adjustable dimming response
- Adjustable staircase light function
- App for Android and iOS
- Time functions
- Astronomical functions
- Night break
- Optimised settings for LEDs, incandescent lamps
- Easy installation thanks to a highly compact housing
- Ideal for all dimmable LEDs and halogen lamps
- Memory function saves the most recently set light level value and then dims to this value the next time it is switched on
- Convenient snooze function
- Special load setting
- Sequential scenes
- Password protection possible
- „Gentle" lamp-conserving function for switching on and off
- Automatic detection of the load type
- Overheating protection against overload
- Short-circuit protection

Product selection

Load detction	Optimized for LED	Light scenes	Operation via App possible	Type	Article number
√	√	√	√	DIMAX 545 plus P	5450130

Technical data

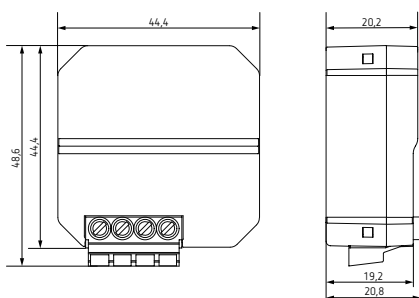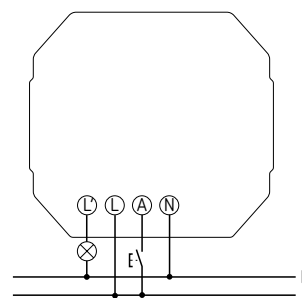|	DIMAX 545 plus P
Operating voltage	230 V AC
Frequency	50−60 Hz
Stand-by consumption	0,15 W
Incandescent / halogen lamp load	250 W
Transformer electronic (C)	250 W
LED lamp (typ.)	Trailing edge: 250 W
Ambient temperature	−25 °C … +45 °C

Accessories

Compensation module LED
↳ Art.No.: 9070825

Scale drawings

Connection examples

Description

- Staircase time switch, electronical
- Switch-off pre-warning to avoid sudden darkness
- Zero-cross switching for relay-saving switching and high lamp loads
- Immediate secondary switching
- Toggle switch for permanent light
- Terminal layout same as ELPA 8
- Extremely accurate
- Push button input with electronic overload protection
- Automatic 3 or 4 conductor detection (4 conductor with connection for floor lighting, 3 conductor no longer permitted for new systems)

ELPA 7

Product selection

Optimized for LED	Switch-off pre-warning	Zero-cross switching	Type	Article number
√	√	√	ELPA 7	0070002

Technical data

	ELPA 7
Operating voltage	230 V AC
Frequency	50 – 60 Hz
Stand-by consumption	0,3 W
Glow lamp load	100 mA
Setting range time	0,5 – 20 min
3 / 4-way conductors	Automatical
Type of contact	NO contact
Switching output	Not potential-free (230 V)
Incandescent / halogen lamp load	2600 W
Fluorescent lamp load (conventional) lead-lag circuit	1100 W
LED lamp < 2 W (typ.)	55 W
LED lamp > 2 W (typ.)	600 W
Switching capacity	16 A (at 230 V AC, cos φ = 1), 10 AX (at 230 V AC, cos φ = 0,3)
Ambient temperature	−10 °C ... +50 °C
Protection class	II
Type of protection	IP 20

Latching relays
DIN rail

| OKTO S12-230 | OKTO S22-230 | OKTO ES12-230 | OKTO ES12-UC |

Description

Common functions OKTO S

- Electro-mechanical latching relay
- Comfortable lighting control of one common consumer with several push-buttons possible
- Simple and inexpensive electrical installation with 2 wires per push-button
- Operation via integrated manual switch possible
- Potential-free with SELV
- LED switching load up to 200 W
- No closed-circuit current consumption

OKTO S12-230

- 1 channel/contact (normally open contact)

OKTO S22-230

- 1 channels/contacts (normally open contact)
- Electrically safe all-pole disconnection

Common functions OKTO ES

- Electronic latching relay
- Comfortable lighting control of one common consumer with several push-buttons possible
- Particularly quiet operation of the installation switch
- High glow lamp load up to 100 mA
- Automatic 3-/4-wire detection of the pulse switch
- Lamps-friendly due to zero-crossing switching for high LED loads (up to 600 W)
- Stand-by consumption of only 0.3 W

OKTO ES12-230

- 1 channel/contact (normally open contact)

OKTO ES12-UC

- 1 channel/contact (normally open contact)
- Potential-free multi-voltage input (8 V to 230 V)

Product selection

Function	Number of channels	Multi-voltage input	Type	Article numer
Electro-mecanical	1	–	OKTO S12-230	3120120
	2	–	OKTO S22-230	3120122
Electronical	1	–	OKTO ES12-230	3120130
		√	OKTO ES12-UC	3120131

Technical data

	OKTO S12-230	OKTO S22-230	OKTO ES12-230	OKTO ES12-230
Operating voltage	230 V AC			
Frequency	50 Hz		50–60 Hz	
Stand-by consumption	–		0,3 W	
Glow lamp load	3 mA		100 mA	
Type of contact	NO contact			
Incandescent/halogen lamp load	1800 W		2600 W	
LED lamp < 2 W (typ.)	–		55 W	
LED lamp > 2 W (typ.)	200 W		600 W	
Ambient temperature	−25 °C ... +60 °C		−25 °C ... +50 °C	
Protection class	II			
Type of protection	IP 20			

Accessories

Wall mounting kit 17,5 mm
↳ Art.No.: 9070065

Front panel kit
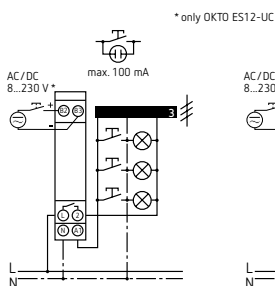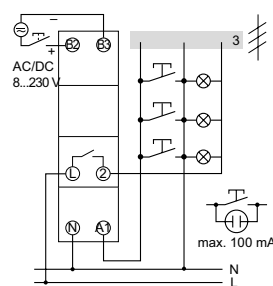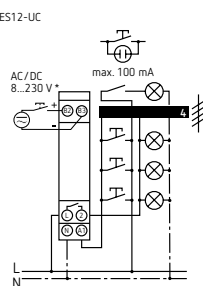↳ Art.No.: 9070001

Connection examples
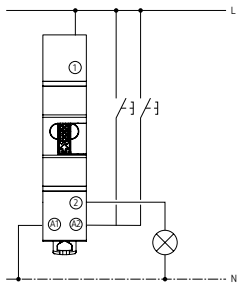
OKTO S12-230
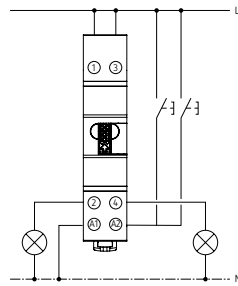
OKTO S22-230
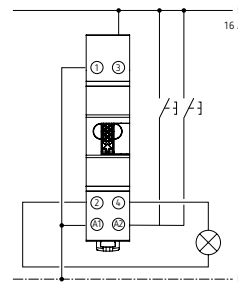
OKTO S22-230

OKTO ES12-230

OKTO ES12-UC

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Digital Illumination
Interface Alliance

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9900654   3321   Subject to technical changes and improvements.

4   003468   990704