english

theben®

New products 2012

ENERGY SAVING IDEAS

theben


ENERGY SAVING IDEAS
theben

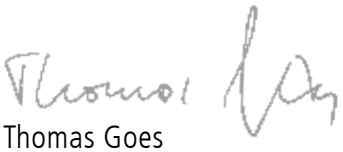
Energy-efficient building systems from Theben.

Dear clients and partners,
Are you planning a new building or are you involved in renovating an existing property? That means a lot of work and the need to meet the increasing demands in terms of energy efficiency, sustainability and service. By choosing Theben products, you are opting for "Made in Germany" quality and a system provider who will help you meet these demands.

You can look forward to these and many other new products from Theben:

- **DMG 2 T KNX universal lighting dimmer for the MIX2 range**
  We have extended our successful MIX2 range with the addition of the DMG 2 T KNX universal dimmer, with extension module and booster units with giving an output of up to 2000 W. Each channel of the universal dimmer can be operated during the construction phase using 4 push-buttons – without the KNX bus being connected. (0, 25, 50, 75 and 100%).
- **Meteodata 140 GPS KNX weather station**
  With a capacitive rain sensor, preset solar protection channels and transparent housing suitable for every facade, the new weather station can meet nearly all expectations.
- **TR 608 top2 and TR 609 top2 digital time switches**
  Minimum size and maximum functionality: a PC interface, text-based on-screen instructions plus 84 memory locations and much more – all on a 17.5 mm width.

Take advantage of our expertise in 2012 to ensure you can offer your customers the best possible advice and optimum solutions. Here at Theben, we all look forward to continuing our excellent and co-operative working relationship.



Thomas Goes
Chairman of the Board

Make your presence felt at your work place.

20 Years
PRESENCE DETECTOR INVENTED BY
thebenHTS®

Presence detectors from ThebenHTS. The original one.

Did you know the presence detector was developed in the Theben Laboratory for High Technology Systems at the start of the 1990s? We are celebrating 20 years of the ThebenHTS presence detector in 2012.

Their sophisticated, square detection area avoids blind spots and unnecessary overlapping in rooms. Their extremely sensitive sensors provide an outstanding detection quality, which is beyond compare.

ThebenHTS presence detectors clearly lead the market. The first flush-fitting PlanoCentro presence detector earned the "iF Award" for high-quality design. That's definitely not the last chapter in the success story that is the ThebenHTS presence detector...

More success stories and a wide variety of special solutions can be found at:

www.presence-detector.com

DALI presence detectors for simple constant light control

DALI presence detectors provide presence and constant light control in combination with up to 25 DALI electronic ballasts. This energy-efficient control is ideal for offices, classrooms, retail premises etc. manual switching or dimming is possible via external pushbutton. Up to 10 detectors can control a lighting group in Master/Slave mode. Several lighting groups can be controlled in Master/Master mode dependent on different ambient brightness levels. Square detection area of 7x7m at 3 m installation height. Brightness threshold, standby brightness level and switching delay can be set via potentiometer and the functions via DIP switches. Optional SendoPro 868-A remote control with text-based on-screen instructions. Easy to install as no programming of the DALI addresses is required.

Constant light control for max. 25 DALI electronic ballasts

Installation and user remote control

Detection area 7 x 7 m

compact office DALI

Description

- DALI presence detector (PIR)
- Automatic lighting control with constant light control
- Square detection area for accurate and easy planning
- DALI Master for up to 25 DALI ballasts
- Allocation of DALI participants not required
- Mixed light measurement suitable for fluorescent lamps (FL/PL/ESL), halogen/ incandescent lamps and LEDs
- Adjustable brightness threshold and self-learning switch-off delay
- Sensor option for manual control and dimming
- Fully or semi-automatic options
- Setting via potentiometer or via optional SendoPro service remote control
- Optional SendoClic user remote control
- Scene component with two built-in scenes
- Ready for immediate use due to factory preset
- Test mode for checking function and detection area
- Extension of detection area via Master/Slave or Master/Master switching, a maximum of 10 detectors can be operated in parallel with each other
- Ceiling installation in flush-mounted socket
- Ceiling installation also possible with surface-mounted frame

Product selection

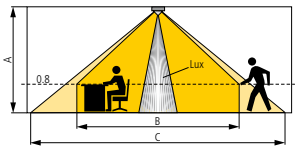
Installation type	Channel	Operating voltage	Colour	Type
Ceiling installation	Light	230 V AC	Pure white (similar to RAL 9010)	compact office DALI WH
			Black (similar to RAL 9005)	compact DALI office BK
			Silver (similar to RAL 9006)	compact office DALI SR
additional colours available on request				

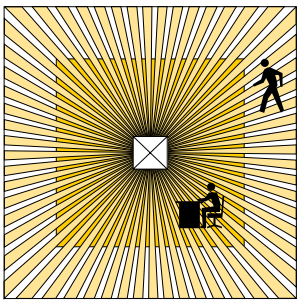
Technical data

	compact office DALI
Operating voltage	230 V AC
Frequency	50 Hz
Recommended installation height	2–3 m
Stand-by consumption	0.5 W
Brightness setting range	10-2000 lx
Switch-off delay time	10 s–60 mins
Stand-by time	0 sec.–60 mins/on
Stand-by brightness	1–25 %
Ambient temperature	+0 °C … +50 °C
Type of protection	IP 40

Detection area (square)

Installation height (A)	Sitting (B)	Walking (C)
2 m	9 m² | 3.0 m x 3.0 m	20 m² | 4.5 m x 4.5 m ± 0.5 m
2.5 m	16 m² | 4.0 m x 4.0 m	36 m² | 6.0 m x 6.0 m ± 0.5 m
3 m	20 m² | 4.5 m x 4.5 m	49 m² | 7.0 m x 7.0 m ± 1.0 m
3.5 m	–	64 m² | 8.0 m x 8.0 m ± 1.0 m





1-channel digital time switches TR 608 top2 and TR 609 top2 with PC interface

The ideal retrofit solution: digital time switches – 1 module width – with the ingenious text-based on-screen instructions for programming the weekly program with up to 84 memory locations. Alternatively, programming can be performed using the intuitive OBELISK top2 PC software. Data transmission is performed via the OBELISK top 2 memory card, which also enables insertion of a special program. Additionally, lights can be monitored using the integrated hour counter with reset function. The TR 609 top2 has pulse, cycle and 2 random programs plus an external input with 4 functions. DuoFix spring terminals and factory settings ensure quick installation. High operational security is guaranteed through 10 year power reserve and PIN coding.

Interface for plug-in programs and PC programming.

Text-based on-screen instructions e.g with copying option.

DuoFix spring terminals enable quick connection.

Digital time switches – DIN rail

TR 608 top2/TR 609 top2

Description

Common functions

- Digital time switch
- Weekly program
- 1 channel
- DuoFix spring terminals
- Text-based operator guidance in the display
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- ON-OFF switching times
- Switching preselection
- Permanent ON/OFF switching
- Integrated hour counter
- Holiday program
- PIN coding
- Automatic summer/winter time changeover

TR 608 top2

- 56 memory locations

TR 609 top2

- 84 memory locations
- External input
- Pulse program
- Cycle program
- Count-down timer
- 2 random programs

Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type
Weekly program	1	56	ON/OFF	230–240 V AC	TR 608 top2
	1	84	ON-OFF, pulse, cycle	230–240 V AC	TR 609 top2

Technical data

	TR 608 top2	TR 609 top2
Operating voltage/frequency	230–240 V AC/ 50–60 Hz	
Width	1 module	
Power reserve	10 years	
Switch load at 250 V AC, cos φ = 1	16 A	
Switch load at 250 V AC, cos φ = 0.6	4 A	
Halogen lamp load/energy-saving lamps	1000 W/40 W	
Time accuracy	≤ ± 0.5 s/day (Quartz)	
Stand-by consumption	0.4 W	
Type of protection	IP 20	
Protection class	II as per EN 60 730-1	

Accessories

OBELISK top2 PC set

- Art.No.: 9070409

OBELISK top2 memory card

- Art.No.: 9070404

Wall installation kit 17.5 mm

- Art.No.: 9070065

1 and 2 channel digital time switches TR 635 top2 and TR 636 top2 for wall installation

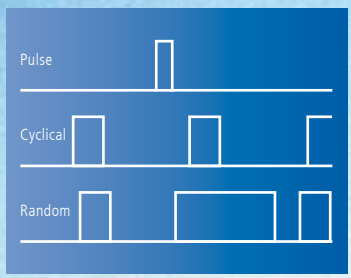
Digital time switches TR 635 top2 and TR 636 top2 with plug-in base and 72x72mm front frame. Easy text-based instructions on illuminated display. Device is programmed via key pad on device or via OBELISK top2 PC software and OBELISK top2 memory card. A choice of 84 programmable memory locations are available for the weekly program. Quick set up via preset time and date. Reliability is ensured thanks to a lithium battery with a 10 year power reserve. The integrated hour counter with reset function for monitoring operating hours is a new feature. Special functions such as pulse, cycle and holiday programs extend the available applications.

72 x 72 mm

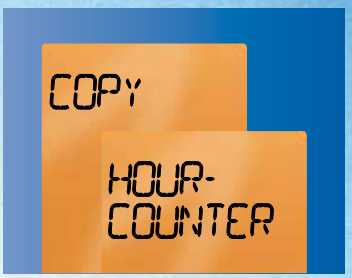
Program II

Program III

Optional intuitive program creation on PC.



Special programs for signal switching, flushing toilets or security lighting.



Text-based on-screen instructions e.g with copying option.

Digital time switches – Front panel installation/wall mounting

TR 635 top2/TR 636 top2

Description

Common functions

- Digital time switch
- 72 x 72 mm front frame
- Front panel or wall mounted with plug-in base
- Weekly program
- Text-based operator guidance in the display
- 84 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 10 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program
- Cycle program
- Switching preselection
- Permanent ON/OFF switching
- Count-down timer
- Integrated hour counter
- Holiday program
- 2 random programs
- Back lighting (can be turned off)
- PIN coding
- Automatic summer/winter time changeover

TR 635 top2

- 1 channel

TR 636 top2

- 2 channels

Product selection

Program	Number of channels	Memory locations	Program functions	Operating voltage	Type
Weekly program	1	84	ON-OFF, pulse, cycle	230–240 V AC	TR 635 top2
	2	84	ON-OFF, pulse, cycle	230–240 V AC	TR 636 top2

Technical data

	TR 635 top2	TR 636 top2
Operating voltage/frequency	230–240 V AC/50–60 Hz	
Power reserve	10 years	
Switch load at 250 V AC, cos φ = 1	16 A	6 A
Switch load at 250 V AC, cos φ = 0.6	10 A	6 A
Halogen lamp load/energy-saving lamps	2300 W/90 W	1200 W/90 W
Time accuracy	≤ ± 0.5 s/day (quartz)	
Stand-by consumption	0.9 W	1.1 W
Type of protection	IP 20	
Protection class	II as per EN 60 730-1	

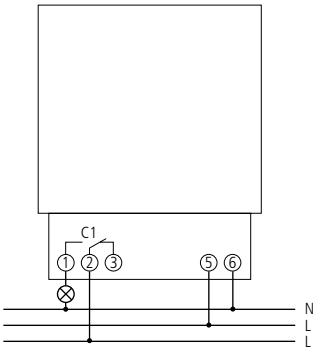
Accessories

OBELISK top2 PC set

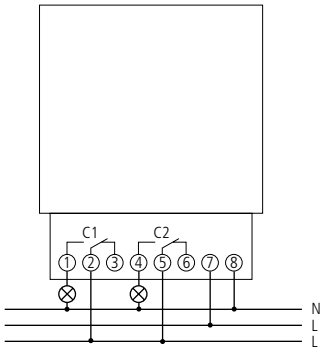
- Art.No.: 9070409

Connection examples

TR 635 top2



TR 636 top2



8-channel yearly time switch with astro program

The new TR 648 top2 RC KNX time switch with yearly and astronomical program is universally applicable. The 8-channel digital time switch is quartz controlled or can be synchronised via an external DCF77 or GPS antenna. The device is programmed using the push-buttons and on-screen text instructions, or alternatively with the OBELISK top2 PC software. Special functions such as pulse, cycle, holiday programs and hour counter extend the available applications. Also includes complete public holiday database with movable holidays adjustment (Easter, Whit...). 4 threshold channels for connection of external KNX sensors (e.g. temperature) and 6 logic channels are new. Switch channels enable linking of 6 logic inputs. The lithium battery with 8 years power reserve enables operation without mains or bus connection.

The KNX master timer for secondary timers and 8 time channels in combination with the 8-channel switch actuator RMG 8 S KNX.

PC programming via "drag and drop".

DCF antenna or GPS antenna with additional location data.

TR 648 top2 RC KNX

Description

- Digital KNX time switch with yearly and astronomical program
- Synchronisation via connection of external DCF or GPS antenna, plus GPS positioning for Astro program
- 8 channels
- DuoFix spring terminals for 2 conductors each
- Text-oriented user guidance in display
- 800 memory locations
- Interface for OBELISK top2 memory card (PC programming)
- 8 year power reserve (lithium battery)
- ON-OFF switching times
- Pulse program
- Cycle program
- Extensive yearly clock functions
- Astronomical switching function (automatic calculation of sunrise and sunset times for the whole year)
- Switching preselection
- Permanent switching ON/OFF
- Count-down timer
- Integrated hour counter
- Holiday program
- 2 random programs
- Display backlight (can be turned off)
- PIN coding
- Automatic summer/winter time changeover
- Time and date synchronisation of other bus participants

Product selection

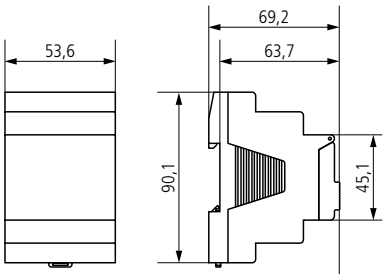
Type
TR 648 top2 RC KNX

Technical data

TR 648 top2 RC KNX			
Operating voltage KNX	Bus voltage, ≤10 mA	**Shortest switching time**	1 s
Operating voltage	110–240 V AC	**Display**	LCD
Width	3 module	**Ambient temperature**	–5°C … +45 °C
Number of channels	8	**Type of protection**	IP 20
Number of memory locations	800	**Protection class**	II as per EN 60 730-1
Time accuracy	≤ ± 0.5 s/day(Quartz) or DCF77/GPS		

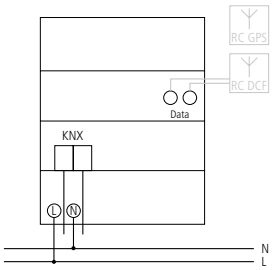
Dimensions

TR 648 top2 RC KNX



Connection example

TR 648 top2 RC KNX



Digital 10-channel KNX brightness sensor

The new LUNA 134 KNX brightness sensor can be used for various requirements thanks to its 10 universal channels. Up to 3 brightness sensors, e.g for several rooms or south, east or west building facades, can be connected.
Easy to set thanks to simple text-based instructions and individual channel caption in backlit matrix display. Thresholds can be set or changed via 4 push-buttons. Hysteresis and switching delay in the event of exceeding or falling below levels can by set channel by channel. 4 threshold channels for connection of external KNX sensors (e.g. temperature) and 6 logic channels are new.
The series-mounted housing has a width of 3 modules and has DuoFix spring terminals for bus and sensor connection. PIN coding possible.

3 brightness sensors can be connected.

Easy optimisation of thresholds via keyboard or ETS.

10 universal channels control different lighting groups with different thresholds.

LUNA 134 KNX

Description

- Twilight switch/lighting controller
- For brightness-dependent control
- 10 channels
- 4 threshold channels for connection of external KNX sensors (e.g. temperature)
- 6 logic channels
- Up to 3 digital brightness sensors can be connected
- Simple manual operation
- 4 push-buttons for input of threshold and delay times
- DuoFix spring terminals
- Back lighting (can be turned off)
- Thresholds can be displayed, retrieved and changed on screen
- PIN coding

Product selection

Type
LUNA 134 KNX

Technical data

LUNA 134 KNX			
Operating voltage KNX	Bus voltage, ≤10 mA	**Width**	3 modules
Operating voltage	110–240V AC	**Ambient temperature**	–5 °C … +45 °C
Frequency	50-60 Hz	**Type of protection**	IP 20
Stand-by consumption	0.8 W	**Protection class**	II as per EN 60 669-1
Brightness measuring range	1-100000 lx		

Accessories

Digital flush-mounted light sensor

- Art.No.: 9070456

Digital surface-mounted light sensor

- Art.No.: 9070415

2- to 6-channel KNX universal dimmer for energy-saving and LED lamps

The new MIX2 KNX dimmers DMG 2 T KNX, DME 2 T KNX and the dimming booster DMB 1 T can dim incandescent, halogen, LED or energy-saving lamps up to a maximum of 2000 W from 0-100%. The basic device can be upgraded to 6 channels via 2 add-on devices or combined with all the add-on devices in the MIX range. Varying dimming curves enable continuous adjustment of all lamp types from 5-400 W/VA per channel. 2 channels can be switched in parallel with large loads. Alternatively, the output can also be increased via the dimming booster DMB 1 T. Low-energy operation via minimal stand-by consumption. Function tests and manual switching 0, 25, 50, 75 and 100% are also possible without bus module or bus connection.

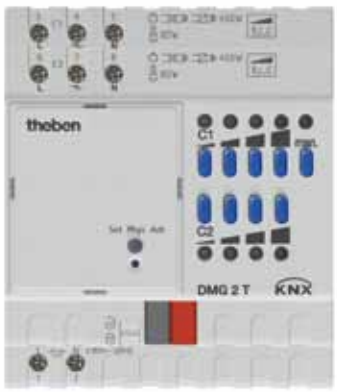
Maximum dimming output is achieved using boosters.

Can be upgraded to 6 dimmer channels.

Easy programming and installation via insertable bus module.

Universal dimming actuators 2- to 6-channels MIX2

DMG 2 T KNX



DME 2 T KNX

DMB 1 T

Description

Common functions

- Double universal dimming actuator MIX2
- Dimming range 0-100%
- For dimming suitable incandescent lamps, low voltage and high voltage halogen lamps, energy saving lamps and LED lamps
- Varying dimming curves enable continuous adjustment of all lamp types.
- Also suitable for controlling fans
- Up to 2 MIX or MIX2 upgrade modules can be connected to a basic module.
- Device and KNX bus module can be swapped independently of each other
- Manual operation 0, 25, 50, 75 and 100% or test also possible without bus module
- LED switching status indicator for each channel
- Dimming output: 2 x 400 W/VA or 1 x 800 W/VA
- Use of the DMB 1 T dimming booster can increase dimming output.
  Output of up to 2000 W/VA possible via max. 5 boosters per channel
- Automatic load recognition (option)

DMG 2 T KNX

- 2-channel basic module MIX2
- For upgrading to maximum of 6 channels

DME 2 T KNX

- 2-channel upgrade module MIX2
- For upgrading to maximum of 6 channels

DMB 1 T

- 1-channel dimming booster
- For increasing output of basic and upgrade modules of universal dimming actuators by 400 W of each booster. Output of up to 2000 W/VA possible via max. 5 boosters per channel

Product selection

Type
DMG 2 T KNX
DME 2 T KNX
DMB 1 T

Technical data

	DMG 2 T KNX	DME 2 T KNX	DMB 1 T
Operating voltage KNX	Bus voltage, ≤10 mA	–	
Operating voltage	230 V AC		
Stand-by consumption	0.9 W	0.6 W	0.2 W
Width	4 modules		1 module
Switching capacity	2 x 5–400 W/VA or 1 x 800 W/VA		Upgrade to 1 x 400 W/VA
Switching capacity energy saving lamps	max. 2 x 80 W		–
Protection class	II as per EN 60 669		

Theben weather station with sun position adjustment

The Meteodata 140 GPS KNX is an elegant weather station with brightness sensors for 3 facades with wind, temperature and precipitation measurement plus automatic sun position adjustment. The weather station has 3 light sensors protected against dirt in a transparent housing. A robust anemometer is fitted to the bottom for proven reliable and accurate wind measurement. For blinds control, the sun's position is automatically calculated for azimuth and elevation with the help of the data received via GPS. Other features include factory preset thresholds, simple plug-in installation and minimal standby power consumption.

Sun protection awnings are protected against wind, rain and frost.

Perfect glare shield through slat adjustment including at sunrise.

Reliable rain sensor via capacitive measurement with heated surface.

KNX weather stations

Description

Meteodata 140 KNX

- Combination sensor
- For fully automatic blinds and sun protection control plus protection against rain, storm and frost
- For measuring wind, rain, brightness and temperature
- Rain sensor with integrated heating
- Measurement and evaluation directly on device
- Sun protection for up to three facades via 3 integrated brightness sensors
- 4 additional threshold channels for connection of external KNX sensors
- 6 logic channels
- Display of weather data e.g. with VARIA 826 KNX multi-function display

Meteodata 140 GPS KNX

As Meteodata 140 KNX, but including:

- Integrated GPS receiver for automatic adjustment of blinds according to position of the sun
- Automatic calculation of elevation and azimuth
- With worldwide time synchronisation and identification of location via reception of GPS satellite signal, e.g. also for time switch Astro program

Product selection

Type
Meteodata 140 GPS KNX
Meteodata 140 KNX

Technical data

	Meteodata 140 GPS KNX	Meteodata 140 KNX
Operating voltage	110–230 V AC	
Operating voltage KNX	Bus voltage, ≤10 mA	
Wind measuring range	2–30 m/s	
Brightness measuring range	2–100000 lx	
Temperature range	–30 °C … +60 °C	
Ambient temperature	–20 °C … +55 °C	
Type of protection	IP 44	

DALI Gateway KNX for intelligent light management

The Gateway allows the DALI integration into the KNX building automation system. Up to 16 lighting groups with a total of 64 electronic DALI devices, e.g. electronic ballasts (EBs), can be controlled. DALI does not require 1-10 V technology with the associated rewiring. The entire lighting in a room can be controlled using just one gateway point. Lighting groups can be individually addressed or they can all be dimmed simultaneously. The DALI KNX gateway is particularly suitable for controlling coloured light scenes with LEDs, fluorescent lamps or halogen metal vapour lamps. The staircase light function with pre-warning and base brightness can be configured.

The device controls DALI devices (EBs, transformers etc.)

64 DALI devices can be connected and individually addressed and 14 lighting scenes can be programmed.

Configuration is completed via ETS and Dali programming via the software tool.

DALI Gateway KNX

Description

- The DALI Gateway KNX acts as an interface between the DALI system and the KNX BUS
- The group-oriented DALI Gateway controls devices with DALI interface (e.g. EBs, LED converters, transformers etc.)
- Up to 64 DALI participants can be connected to one DALI output. Each individual DALI participant automatically receives an unsorted DALI address via the Gateway
- The allocation of the individual DALI participants is achieved using a separate software tool. Each lighting group can be addressed and monitored via KNX

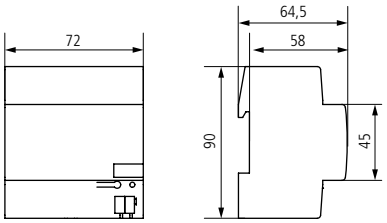
Product selection

Type	Article number
DALI Gateway KNX	9070722

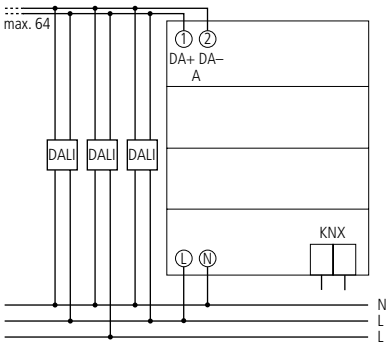
Technical data

DALI Gateway KNX			
Operating voltage KNX	Bus voltage, <10 mA	**Ambient temperature**	–5 °C … +45 °C
Operating voltage	110-240 V AC/DC	**Protection class**	II
Frequency	50-60 Hz	**Type of protection**	IP 20
Width	4 modules		

Scale drawing



Connection example



SPHINX 104-360/2 DIMplus

Presence detectors with 2-light channels for classrooms and conference rooms

The SPHINX 104-360/2 DIMplus ceiling-mounted presence detector has constant light control with 1-10V output plus switch-off relay for the EB. A second presence-dependent switch output controls on entry to the room, e.g. lighting the white board or works of art. Alternatively, the presence channel can also be used to control heating, ventilation or air conditioning as required. The detection area covers 24 m in diameter at an installation height of 3 m. Both channels can also be operated by manual switch/push-button via external inputs. The constant light output with 1000 W or 4A/230V AC plus the presence output with 400 W or 2A/250 AC switch output have zero cross switching.

Constant light control

External inputs for 2 push-buttons

1–10 V output for constant light control and switch output for presence-dependent lighting.

Large detection area with 24 m diameter at installation height of 3 m.

SPHINX 104-360/2 DIMplus

Description

- Presence detector (PIR)
- Lighting control with adjustable light threshold value and adjustable switch-off delay
- 2 channels for application in classrooms and conference rooms
- Channel 1 with constant lighting control (1-10 V)
- Channel 2 presence-dependent, e.g. for lighting blackboards with adjustable switch-off delay or for HVAC control
- Additional function available for combination e.g. with staircase time switches (ELPA), building automation
- Test function
- Zero cross switching
- Automatic lighting control based on presence and brightness
- Detection range can be limited using three enclosed segments
- Mixed light measurement suitable for the control of fluorescent, LED, incandescent and halogen lamps
- Factory preset
- Choice of fully or semi automatic operation: In "Semi-automatic" mode the light must be switched on manually and switches off automatically
- 2 external inputs for manual operation with push-button
- Flush-mounted version

Product selection

Installation type	Channel	Detection angle	Colour	Type
Ceiling installation	Light | Presence	360°	White	SPHINX 104-360/2 DIMplus

Technical data

SPHINX 104-360/2 DIMplus	chanel light	channel presence
Operating voltage	230 V AC	
Frequency	50-60 Hz	
Stand-by consumption	1 W	
Setting range brightness	5–2000 lx	
Detection angle	360°	
Detection range (mounting height 3,0 m) continuous transverse / frontal / sitting	Ø 24 m/Ø 10 m/Ø 6 m	
Recommended mounting height	2,5–3,5 m	
Ambient temperature	–10 °C … +55 °C	
Protection class	II	
Type of protection	IP 40	
Switching output	230 V (not potential free)	potential free/dry contact
Switch-off delay	1 s–20 min	1–120 min
Dimming output	1–10 V DC, max. 100 mA	–
Switching capacity	4 A (at 230 V CA, cos φ = 1)	2 A (cos φ = 1) µ, 30 V DC or 250 V AC
Incandescent lamp load	1000 W	400 W
energy saving lamps	4x7 W, 3x11 W, 3x15 W, 3x20 W, 3x23 W	2x7 W, 2x11 W, 1x15 W, 1x20 W, 1x23 W
Fluorescent lamp load (EVG)	400 VA	60 VA
Fluorescent lamp load (conventional) not corrected, series-corrected	900 VA	200 VA
Fluorescent lamp load (conventional) parallel-corrected	400 VA (42 µF)	60 VA (7 µF)

LED spotlight with motion detector – elegant and energy-efficient

The new LED spotlights LUXA 102-140 LED with motion detector are the ideal solution for the automatic lighting of garage entrances, gardens and entrance areas. One or two high-performance LED spotlights provide effective lighting with minimal energy consumption. The durability of the LEDs to frequent switching on and off enables a long service life of around 25,000 hours. Each LED spotlight, has the approximate light output of one 100 W halogen spotlight, and can be adjusted as required with a joint that can swivel and rotate. The optimum alignment is possible thanks to a sensor that can rotate by 180° with a detection angle of 90° at a maximum range of 10 m. At close range, the additional creep under protection with 140° coverage and 2 m radius for reliable lighting when leaving a property. Maximum energy saving with just 10/19 W power consumption and 0.3 Watt stand-by consumption.

Available in white or black housing.

Lux value and lighting duration are simple to set. Area limit via lens attachment.

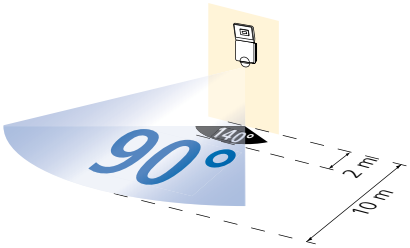
Quick to install thanks to ample wiring space in plug-in base.

LED spotlight with motion detector - wall installation

LUXA 102-140 LED 8W WH

LUXA 102-140 LED 16W BK

Detection area



Description

Common functions

- LED spotlight with motion detector (PIR)
- Suitable for outdoor use (IP 44)
- Automatic lighting control based on presence and brightness
- 90° detection angle with 10 m range
- Additional creep under protection with 140° at 2 m range
- Sensor can be turned horizontally by ± 90°
- Spotlight can be turned horizontally by ± 45° and swivelled down by 90°
- Area limit via lens attachment
- Single-handed plug-in installation
- Instant start-up possible via preset
- Adjustable lux value and switch-off delay
- Settings can be changed without tools
- Optional purely twilight-dependent control

LUXA 102-140 LED 8W

- 1 LED spotlight 8 W (equivalent approx. to 100 W halogen spotlight)
- Dimensions 8 x 18 x 6 cm

LUXA 102-140 LED 16W

- 2 LED spotlights 8 W each (equivalent approx. to 2 x 100 W halogen spotlight)
- Dimensions 17 x 18 x 6 cm

Product selection

Installation type	LED spotlight	Detection angle	Colour	Type
Wall installation	1	140°/90°	White	LUXA 102-140 LED 8W WH
			Black	LUXA 102-140 LED 8W BK
	2		White	LUXA 102-140 LED 16W WH
			Black	LUXA 102-140 LED 16W BK

Technical data

	LUXA 102-140 LED 8W	LUXA 102-140 LED 16W
Operating voltage/frequency	100–240 V AC / 50/60 Hz	
Stand-by consumption	0.3 W	
Consumption with light ON	10 W	19 W
LED output (lighting current)	8 W (430 Lm)	2 x 8 W (860 Lm)
Brightness setting range	5–200 lx or just presence dependent	
Detection angle	140°/ 90°	
Switch-off delay time	5 s–10 mins	
Ambient temperature	–20 °C … +40 °C, –20 °C … +55 °C LED off	

The ideal solution for 2 heaters with domestic hot water storage

The new RAMSES 856 top2 OT heating controller from Theben consists of a slim, elegant remote control device with 2-wire connection and a central device for the boiler room. It is designed for the cost-effective and needs-driven control of 2 heaters. The 7-channel controller makes it possible to control 2 heating circuits with the required circulation pumps and temperature sensors. Additionally, the hot water circuit is programmable with legionella protection function. The range of functions can be extended by connecting 2 OT boxes. Further features include quick set-up thanks to preset date and time plus 3 time programs with 5 temperature levels for sole occupants, families and shift workers. All programs are individually adjustable.

Remote control can be attached to control device, e.g. in boiler room.

Controls 2 heaters for multi-level heating system.

Optimised domestic hot water control with time-dependent programming of temperature.

RAMSES 856 top2 OT

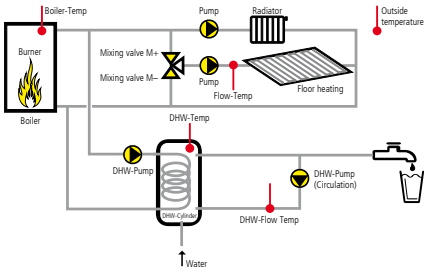
Description

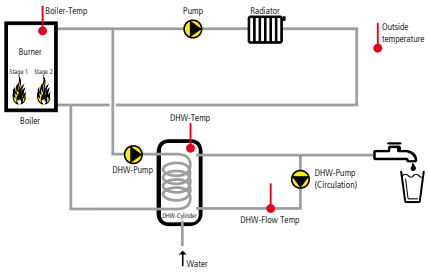
- Digital heating control for time-dependent monitoring and control of room temperature
- Open Therm heating controller for 2 or 3 point control, weather-dependent, service water and circulation control
- Automatic sensor recognition for weather- or room-dependent control; can be switched manually at any time
- 3 different weekly programs
- 3 comfort and 2 reduced temperatures can be allocated to each phase.
- INFO button for the most important data
- Additional switching program for domestic hot water utilisation times
- Adjustable service water storage temperature, programmable legionella protection
- Party/ECO program
- Chimney sweeping function with push button OT box
- Minimum boiler temperature can be set
- 2 heating curves can be set for 2 heating circuits
- 2-stage burner control option
- Holiday program with reduced temperature or date-controlled heating phase can be programmed e. g. for holiday homes
- Remote control option via USB interface for modem
- Automatic summer/winter time adjustment
- Boiler/feed temperature (control circuit 1) controlled by switching the burner
- Control of feed temperature (control circuit 2) via pump control or motor-controlled mixer
- 3-point controller with feed sensor
- Time- and temperature-dependent control of hot water circulation pump.
- Pump protection function
- Inputs: External sensor (contained in set), feed sensor heating circuit (contained in set), contact or immersion sensor for domestic hot water, contact sensor for circulation
- Elapsed-time counter for recording relay switching times e.g. burner operating time
- Adjustable reminder function for heater maintenance

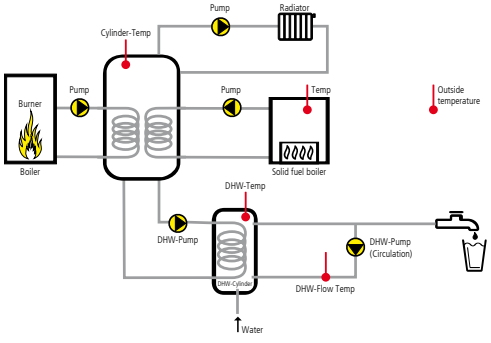
Product selection

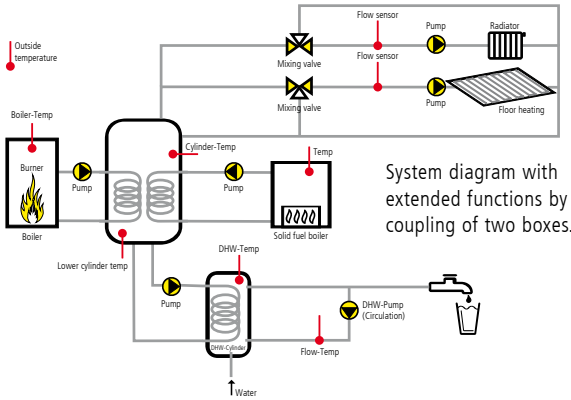
Connection type	Program	Switching capacity at 250 V AC	Temperature setting range	Operating voltage	Type
2-way wire (BUS)	Weekly program	5 x 5 (1) A (Relais), 2 x 1 (0,5) A (Triac)	+6 °C … +30 °C	230 V AC	RAMSES 856 top2 OT

Connection examples









System diagram with extended functions by coupling of two boxes.

theben®

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Subject to technical changes and improvements.
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