

EN Universal dimmer

DIMAX 542 plus

5420001

DIMAX 544 plus

5440001



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1. Basic safety information



WARNING

Danger of death through electric shock or fire!

- Installation should only be carried out by a qualified electrician!

- ① Due to increasing technical progress, conspicuous features in dimming behaviour or malfunctions cannot be ruled out for dimmed lamps (in particular LEDs)
- For installation in conventional flush-mounted boxes (according to DIN 49073-1)



2. Proper use

- The dimmer switches and dims the brightness of different lamps such as bulbs, high-voltage halogen lamps, low-voltage halogen lamps (conventional or with electronic transformer), dimmable compact fluorescent lamps (energy saving lamps) or dimmable lamps for 230 V as well as for fans
- The setting for brightness is carried out using the dimmer on the button connected
- The programming is carried out using the rotary switch of the dimmer or via the NFC and the Theben application
- For use in private and public buildings, in closed rooms
- Suitable for retrofitting

Disposal

- Dispose of device in environmentally sound manner

3. Installation and connection

Mounting the dimmer

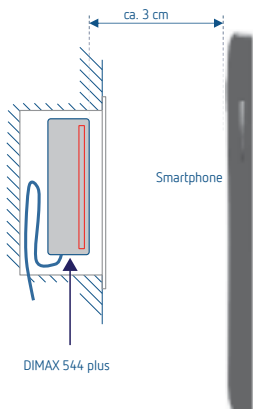


WARNING

Danger of death through electric shock or fire!

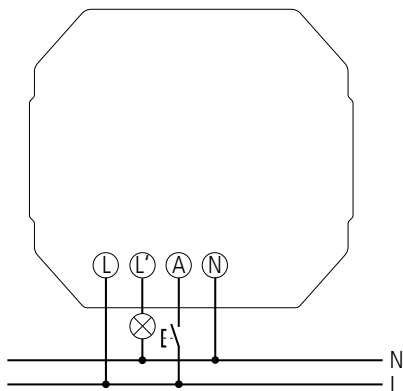
- Installation should only be carried out by a qualified electrician!

- Disconnect power source
 - Ensure device cannot be switched on
 - Check absence of voltage
 - Earth and bypass
 - Cover or shield any adjacent live components
- ① No NCF reception is possible when assembling behind a light switch.
- ① The programming via NFC (only for DIMAX 544 plus) can be carried out without power supply.



- Mount the dimmer in a flush-mounted box with the front side to the front

Connecting the dimmer



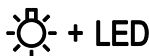
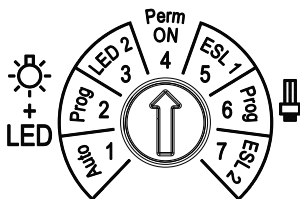
- Always operate electrical and conventional transformers with the minimum load specified by the manufacturer.
- Use only dimmable compact fluorescent lamps / LED lamps as normal compact fluorescent lamps / LED lamps may be destroyed.
- When changing the lamps, switch off the power supply (at the fuse box) so that the automatic load detection is reactivated.



- Do not connect dimmer load connections (L´) in parallel.
- Do not by-pass or short-circuit the dimmer.
- Do not install any isolating or variable transformers before the dimmer.
- Do not mix wound and electronic transformers in the installation.
- Do not install wound transformers and compact fluorescent lamps / LED lamps mixed.
- Do not connect push button with glow lamp.
- Correct, automatic load detection is only possible with a connected load.
- Only use transformers approved by the manufacturer for dimmer operation.

4. Description of functions

The dimmer is equipped with a rotary switch with 7 functions in order to set the operating mode:



Functions for standard lamps (e.g., bulbs, halogen lamps, transformer, LEDs)

Position 1: Auto 1 (default value)

with comfort function, with automatic load detection for the conventional lamp types

Position 2: Prog 2

Teach in the minimum brightness

Position 3: LED 2

Function for LEDs that have poor dimming properties in position 1 (Auto); no automatic load detection (always with **leading edge**)

- ① Several LED lamps may cause an overload in position 3 (LED 2) that automatically leads to the load dimming.
- Select position 1 (Auto) in order to avoid this

Position 4: Perm ON (test function)

with automatic load detection, dimmer is permanently on





Functions for dimmable compact fluorescent lamp (CFL) (ESL)

Position 5: ESL 1

with automatic load detection (usually **trailing edge**),

- always start with 100 % to ignite the CFL
- Dimming down only possible after 3 sec.

Position 6: Prog

Teach in the minimum brightness

Position 7: ESL 2

Function for compact fluorescent lamps that have poor dimming properties in position 5 (ESL 1); no automatic load detection (always with **leading edge**)

- always start with at least 50 % to ignite the CFL
- Dimming down only possible after 1 sec.

① With several compact fluorescent lamps, an annoying flickering may occur when dimming in position 5 (ESL 1).

➤ Use position 7 (ESL 2)

① Several compact fluorescent lamps may cause an overload in position 7 (LED 2) that automatically leads to the load dimming.

➤ Select position 5 (ESL 1) in order to avoid this



5. Setting the functions

1. Wake-up function (comfort function)

- active in position 1, 3, 5, 7

The dimmer dims from the minimum brightness up to the switch-on brightness taught-in within the set dimming time (presetting 5 min.; activation via double click).

2. Snooze function (comfort function)

- active in position 1, 3, 5, 7

The dimmer dims from the current dimming value up to the minimum brightness within the set dimming time and switches off (presetting 5 min.; activation via double click).

3. Dimming switch-on function

- applies for position 1, 3

The dimmer switches on with minimum brightness and dims until one releases the button again, or the maximum brightness has been reached (activation by pressing the button for longer).

4. Switch-on brightness

- applies for position 1, 3, 5, 7
- Switch-on brightness can be set (presetting 100 %)

Learning switch-on brightness

- Set the desired switch-on brightness via the button at input A in position 1 (or 3, 5, 7).
- Keep the button pressed (> 10 seconds) until the teach in is confirmed by a change in the brightness. Afterwards it is set to the saved switch-on brightness.



5. Minimum brightness

- applies for position 2, 6

Teach in the minimum brightness

The pre-set minimum brightness is set in such a manner that most lamps still light up.

- Move the rotary switch to 2 (to 6 for compact fluorescent lamps). The current minimum brightness is approached.
- Press the button at Input A and dim up or down until the desired minimum brightness value is reached.
- Let go of the button; the brightness value is taken over.
- Set the rotary switch back to the desired function.

Reason: if a certain brightness value is exceeded, certain compact fluorescent lamps / LEDs go out and no longer ignite.

- Carry out settings only with warm compact fluorescent lamps (e.g., switch on for approx. 5 minutes).



6. Operation

Light is OFF (with button: Input A)

1 x short keystroke	< 1 s	Switch-on brightness The dimmer starts with the switch-on brightness taught-in (ex-factory 100 %)
1 x long keystroke	> 1 s	Dimming switch-on function The dimmer switches on with minimum brightness and dims until one releases the button again, or the maximum brightness has been reached.
2 x short keystroke		Wake-up function The dimmer switches on with minimum brightness, then it is dimmed up using the set dimming time until the taught-in switch-on brightness.

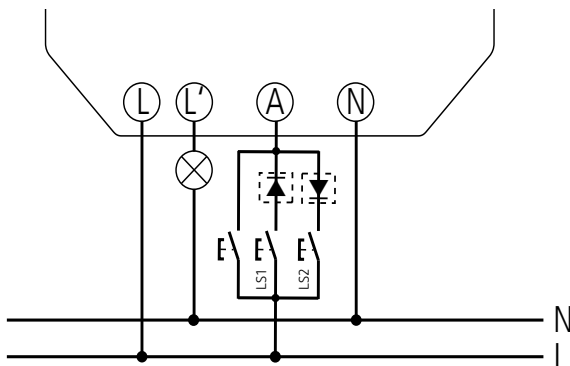
Light is ON (with button: Input A)

1 x short keystroke	< 1 s	Switch off
1 x long keystroke	> 1 s	Dimmer dims up or down Dimming stops at minimum or maximum value. The dimming direction is changed by pressing the button again.
1 x long keystroke	> 10 s	Dimmer dims to minimum or maximum value. If the button is pressed for > 10 seconds, the previous dimming value (start value) is saved as switch-on brightness (confirmed by the brightness changing). Then it is changed to the saved switch-on brightness.
2 x short keystroke		Snooze function The dimmer dims below the minimum brightness within the set dimming time and switches off



Light scenes

Connection with diode module



LS = Lighting scenario

2 lighting scenarios can be called up via additional buttons at Input A. The optional diode module (9070367) is required for this purpose.

Activating the lighting scenario

- Briefly press buttons LS1, LS2. The pre-set value is started up.

Learn the light scene using functions 1, 3, 5, 7

- Set the brightness value via button A (without diode module).
- Press buttons LS1, LS2 for longer than 10 seconds; the value is saved as lighting scenario (confirmed by the brightness changing). Following this, adjustments are made according to the saved brightness.



7. Settings made via the Theben Application




- ① You can only use an NFC capable smartphone with Android operating system.

- The application serves for programming and setting the functions (only for DIMAX 544 plus).
- The functions that are set on the rotary switch are over-written using the application.

① The front side of the dimmer must point to the front to ensure for the NFC reception (range is only a few centimetres)

- Download and install the application „Theben DIMAX“ from the Google Play Store.
- Hold the smartphone max. 3 cm away from the dimmer (the application opens).
- You can set the functions operating mode, brightness, lighting scenario, staircase light function, comfort function, and dimming curve. These are confirmed by an acoustic signal.

The set values are sent to the dimmer using the  button.



Menu „Operating mode“

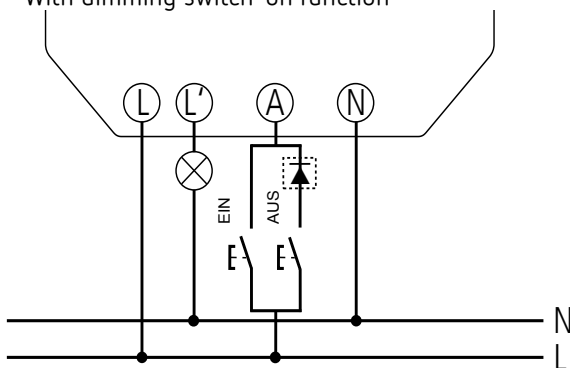
In the menu „Operating mode“, you can read, edit or save the current operating mode. The following operating modes appear in the display:

- Auto (identical with rotary switch position 1)
- LED 2 (identical with rotary switch position 3)
- Perm ON (identical with position 4) (Test function)
- LED 1 (identical with position 5)
- LED 2 (identical with position 7)
- 2-button function (can only be set via the application)
- Staircase light timer switch (can only be set via the application)

Setting the 2-button function

The 2-button function can **only** be activated using the Theben application; 2-button function via diode module (9070367) with dual button or rocker switch.

- Input A = Button input
- With switch-on brightness (when pressing the button > 10 seconds)
- With dimming switch-on function



Push button ON: Switch on / Dim up

Push button Off: Switch off / Dim down

„Brightness“ menu

- You can set the minimum brightness, the max. dimming value and the switch-on brightness in this menu.
- The dimmer uses the stored values.
- These values apply for all load types.

➤ Tap on the desired values and select the new values

„Lighting scenario“ menu

- ① The lighting scenarios can either be set using the Theben application in the menu „Lighting scenario“, or via the button input.

The dimmer uses the stored values for the lighting scenarios (default value lighting scenario 1: 35 %, lighting scenario 2: 65 %).

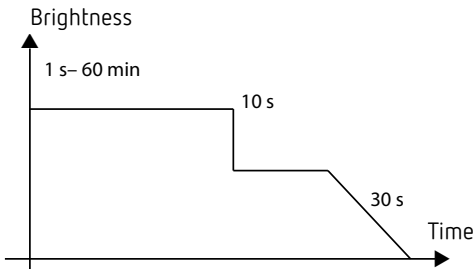
Teach in lighting scenario using the button

see „Connection with diode module“

„Staircase light function“ menu

- ① The staircase light function can **only** be activated using the Theben application.

You can select the staircase light time, the dimming level for the switch-off pre-warning and the behaviour when pressing the button again.



„Comfort functions“ menu

- ① The comfort functions (Snooze and Wake-up function) can be configured via the Theben application independent from one-another.
 - The time can be set individually for each comfort function.
 - The comfort function cannot be combined with the staircase light function as well as the 2-button function.

„Alternative Dimming curve“ menu

The use of an alternative dimming curve can be set using the Theben application.



8. Technical data

	Trailing edge	Leading edge
Potentiometer position	1, 5	3, 7
Operating voltage	230 V +10 % / -15 %	
Frequency	50 Hz	
Standby output	0.25 W	
load types	R/L/C	
Minimum load	5 W	
Incandescent and halogen lamp load	250 W (up to 25 °C) 200 W (up to 45 °C)	
Dimmable compact fluorescent lamps (CFL)	200 W (up to 25 °C) 180 W (up to 45 °C)	20 W (up to 25 °C) 20 W (up to 45 °C)
Dimmable LEDs	250 W (up to 25 °C) 200 W (up to 45 °C)	24 W (up to 25 °C) 12 W (up to 45 °C)
Electronic transformers (C)	250 W (up to 25 °C) 200 W (up to 45 °C)	
Inductive transformers (L)		200 W (up to 25 °C) 130 W (up to 45 °C)
FAN	—	50 W (DIMAX 544 plus only)
Line length	max. 50 m	
Cable cross-section	max. 4 mm ²	
Pollution degree	2	
Permissible ambient temperature	-25 °C ... +45 °C	
Protection class	II subject to designated installation	
Protection rating	IP 20 according to EN 60529 when assembled correctly	
Radio standard	NFC (DIMAX 544 plus)	
Transmission frequency	13.56 MHz (DIMAX 544 plus)	
Range	3 cm (DIMAX 544 plus)	

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