## theben

310454 02 ÄÄ

DIMAX 532 plus 5320001

GB Installation and operating instructions **Universal dimmer** 

## 1. Essential safety instructions

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Danger of death through electric shock or fire! Installation should only be carried out by a professional electrician!

• The dimmer is designed for installation on DIN top hat rails (in accordance with EN 60715)

#### **Designated use**

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- The universal dimmer corresponds to IEC/EN 60669-2-1; it switches and dims the brightness of different light elements such as incandescent lamps, halogen lamps, high-voltage lamps, low-voltage halogen lamps (conventional or with electronic transformer), dimmable compact light lamps (energysaving lamps) or dimmable LED lamps for 230 V. The brightness setting is made via the push buttons connected to the dimmer; use in enclosed rooms
- The universal dimmer has a lamp-friendly "soft" on and off system, automatic detection of the load type (not in the case of CFL 2 and LED2), overheating protection against overload as well as a short-circuit protection.

#### Disposal

Dispose of the dimmer in an environmentally sound manner (electronic waste)

### 2. Connection/installation

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Danger of death through electric shock!

- Disconnect power source!
- > Cover or shield any adjacent live components.
- > Ensure device cannot be switched on!
- Check power supply is disconnected!
- > Earth and bypass!
- > Mount the dimmer in the lower part of the distributor to avoid an excessively high temperature during use.
- $\succ$  In the case of a service line of > 300 W keep an 8 mm distance to the right and left of the device.

- $\wedge$  > Always operate electronic and conventional transformers with the minimum load designated by the manufacturer.
  - > Only use dimmable compact fluorescent/LED lamps; normal compact fluorescent/LED lamps could be irreparably damaged.
  - > When replacing lamps, switch off the power supply (at the fuse box) to ensure that the automatic load detection can be reactivated.
  - > Do not connect dimmer load connections (L') in parallel.
  - > Do not bypass or short-circuit the dimmer.
  - > Do not install an isolation or adjustable transformer before the dimmer.
  - > Do not mix wound and electronic transformers in the installation.
  - > Do not mix wound transformers and compact fluorescent lamps/LEDs in the installation.
  - $\succ$  Do not connect push buttons with glow lamps.
  - Correct, automatic load detection is only possible possible with a connected load.
  - Only use transformers approved by the manufacturer for dimmer operation.



Push buttons A1/A2 On/Off/ Dim



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Performance upgrade (see technical data for DMB 1 T booster)



Booster DMB 1 T (4930279)

DMR 1 T

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## 4. Functions



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# Functions for dimmable compact fluorescent lamps (CFL)

- with adjustable switch-on brightness (preset 100 %)
  with dimming switch-on function
- 1 with automatic load recognition (ideal for lamps from Megaman, Philips); Start always with 100 %, so the CFLs go on; dimming down only possible after 3 s
- 2 No automatic load recognition (always with leading edge) (ideal for lamps from Osram, Philips); Start always with at least 50 %, so the CFL go on; dimming down possible after 2 s
- **3 Prog** Teach in minimum brightness (only for CFL)

#### Notes

With some compact fluorescent lamps disruptive flickering may occur when dimming in function 2.

- > In this case use function 1.
- > Only change settings with warm compact fluorescent lamps (after approx. 5 minutes).

Some compact fluorescent lamps can cause an overload in function 2, which automatically leads to the dimming down of the load.

 $\succ$  Select function 1 to avoid this.

### **Function for LEDs**

4 LED2 Function for LEDs; no automatic load recognition (always with leading edge) (ideal for dimming problems with LEDs)

#### Note

Some LED types can cause an overload in function 4, which automatically leads to the dimming down of the load. ➤ Select function 6 to avoid this.

#### -☆ LED1

#### Functions for standard lamps (e.g. incandescent lamps, halogen lamps, transformers, LEDs)

- **5 Prog** Teach in minimum brightness
- 6 Strd Standard function – with switch-on brightness (preset 100 %) – with dimming switch-on function
- 7 ON Dimmer is always on

## 5. Description

#### Dimmer is OFF (Input A1/A2)

-1 x short button press
 (< 1 s)</li>
 Switch-on brightness
 The dimmer starts with the taught in switch-on brightness (factory

set 100 %)

#### Teach switch-on brightness

- Set desired switch-on brightness.
- Press button on Input A1/A2 until a brightness change confirms that it has been learned. Afterwards it is set to the saved switch-on brightness.
- -1 x long button press (> 1 s)

**Dimming switch-on function** The dimmer switches on with minimum brightness and dims, until the button is released or the max. brightness is reached.

#### **Minimum brightness**

The preset minimum brightness is set in such a way that the lamps still light up.

#### Adapting minimum brightness

Set rotary switch to 5 (to 3 for compact fluorescent lamps).

The current minimum brightness is approached.

- Press push button at Input A1/A2 and dim up or down until the brightness value is obtained.
- Release push button; the brightness value is applied.
- Set rotary switch to desired function again.

Reason: If there is a drop below a specific brightness value, the compact fluorescent lamps/LEDs go out and no longer light up.

Tip: ➤ Switch on compact fluorescent lamp for 5 mins, then set minimum brightness.

#### Dimmer is ON (Input A1/A2)

-1 x short button press (< 1 s)	switch off	
-1 x long button press (> 1 s)	<ul> <li>Dimmer dims to or from</li> <li>Dimming stops at the minimum/maximum value</li> <li>When pushing the push button again the dimming direction is changed</li> </ul>	
-1 x long button press (> 10 s)	Dimmer dims to the minimum or maximum value. If the push button is pressed for > 10 s, the previous dimming value (start value) is saved as the switch-on brightness (confirmed by the change in brightness). Afterwards the saved switch-on brightness	

is set.

## 6. Technical data

	Trailing edge	Leading edge
Position of potentiometer	1, 6	2, 4
Operating voltage	230 V~, +10 %/-15 %	
Frequency	50 Hz	
Power consumption	type. 0,3 W	
Standby	type. 0,2 W	
Incandescent and halogen lamp load	400 W (up to 35 °C)* 330 W (up to 50 °C)*	
Dimmable compact fluorescent lamps (CFL)	400 W (up to 35 °C) 330 W (up to 50 °C)	80 W (up to 35 °C) 70 W (up to 50 °C)
Dimmable LEDs	400 W (up to 35 °C) 330 W (up to 50 °C)	60 W (up to 35 °C) 50 W (up to 50 °C)
Electronic transformers (C)	300 W (up to 50 °C)* 330 W (up to 50 °C)*	
Inductive transformers (L)		400 W (up to 35 °C)* 330 W (up to 50 °C)*
Max. line	length 100 m	
Minimum load	none	
Permissible ambient temperature	−30 °C +50 °C	
Protection class	Il subject to correct installation	
Protection rating	IP 20 in accordance with EN 60529 subject to correct installation	

\* In the case of a load of > 300 W keep an 8 mm ventilation distance to the right and left.

## Service address/Hotline

#### Service address

 Theben AG

 Hohenbergstr. 32

 72401 Haigerloch

 GERMANY

 Phone +49 7474 692-0

 Fax +49 7474 692-150

#### Hotline

Phone +49 7474 692-369 Fax +49 7474 692-207 hotline@theben.de Addresses, telephone numbers etc. www.theben.de