



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

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)

- The dimmer is designed for installation on DIN top hat rails (in accordance with EN 60715)
- It conforms with IEC/EN 60669-2-1 if correctly installed

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 universal dimmer has a lamp-friendly "soft" on and off system, automatic detection of the load type (not in the case of ESL2 and LED2), overheating protection against overload as well as a short-circuit protection.
- For use in private and public buildings, in closed rooms

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!

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.

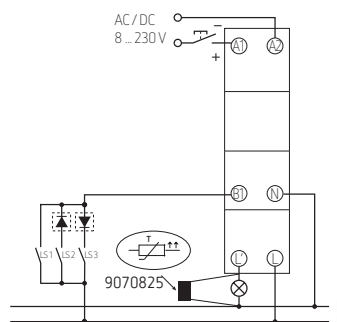
Connection with 8 ... 230 V

Push buttons A1 / A2 On/Off/Dim

LS 1 = Lighting scenario 1

LS 2 = Lighting scenario 2

LS 3 = Lighting scenario 3

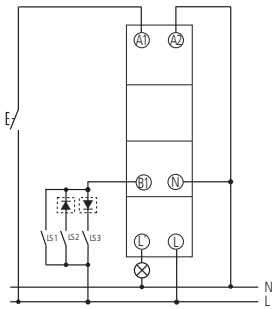


- Use compensation module 9070825 to prevent the LEDs from afterglow or flickering.
- Install the compensation module parallel to the consumer.

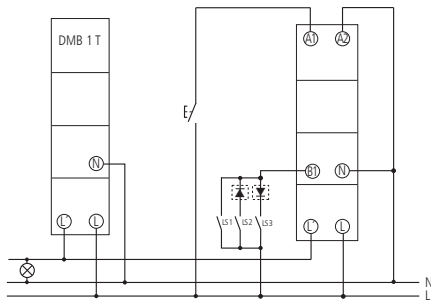


Component can get hot!

Connection with 230 V



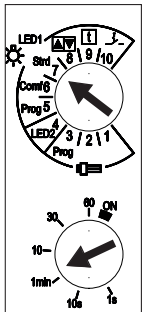
Connection with Booster DMB 1 T (4930279)



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

4. Description of functions

The dimmer is equipped with a rotary switch with 10 positions in order to set the operating mode:



- ① Rotary switch for setting 10 functions
- ② Potentiometer for setting the dimming time from 1 s to 60 min (for wake-up and snooze function, staircase time switch and switch function)
ON = Dimmer is always on



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

Position 1

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

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

Position 2

No automatic load detection (always with **leading edge**)

- Always start with at least 50% to ignite the CFL
- Dimming down only possible after 2 sec.

Position 3 Prog

Teach in light settings and minimum brightness (only for CFL)

- ① With several compact fluorescent lamps, an annoying flickering may occur when dimming in position 1.
- In this case, use position 2.
- Carry out settings only with warm compact fluorescent lamps (after approx. 5 minutes).
- ① Several compact fluorescent lamps may cause an overload in position 2 that automatically leads to the load dimming.
- Select position 1 in order to avoid this

Function for LEDs

Position 4: LED 2

No automatic load detection (always with leading edge) (ideal for dimming problems with LEDs)

- ① Several LED types may cause an overload in position 4 that automatically leads to the load dimming.
- Select position 6 or 7 in order to avoid this



LED1

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

Position 5 Prog

Teach in light settings and minimum brightness

Position 6 Comf

Comfort function

With automatic load detection for the conventional lamp types

Position 7 Strd

Standard function

With automatic load detection for the conventional lamp types

Position 8

2-push button function using diode module with double switch or rocker button

Position 9

Staircase time switch function

Position 10

Switch function (e.g., for presence and motion detector)

5. Setting the functions

1. Wake-up function (comfort function)

- active in position 1, 2, 4, 6, 10

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

2. Snooze function (comfort function)

- active in position 1, 2, 4, 6, 10

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

3. Dimming switch-on function

- applies for position 1, 2, 4, 6, 7, 8, 10

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, > 1 s).

4. Switch-on brightness

- applies for position 1, 2, 4, 6, 7, 8, 10
- Switch-on brightness can be set (presetting 100%) (activation by pressing the button, < 1 s)

Teach in switch-on brightness

- Set the desired switch-on brightness via the button at input A1/A2 in position 1 (or 2, 4, 6, 7, 8, 10).
- 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 3, 5

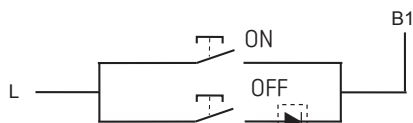
Teach in the minimum brightness

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

- Move the rotary switch to 5 (to 3 for compact fluorescent lamps). The current minimum brightness is approached.
- Press the button at Input A1/A2 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. 2-push button function using diode module with double switch or rocker switch

- input B1 = push button input
- with switch-on brightness
- with dimming switch-on function
- ON button: switch on / dim up
OFF button: switch off / dim down



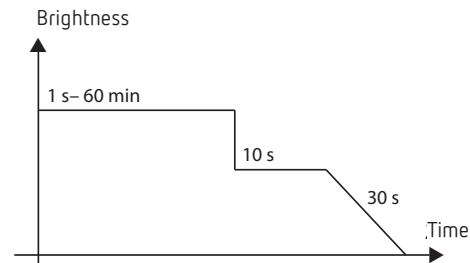
Diode module 9070367

7. Staircase time switch function

- Setting the time with potentiometer  (1 s – 60 min)

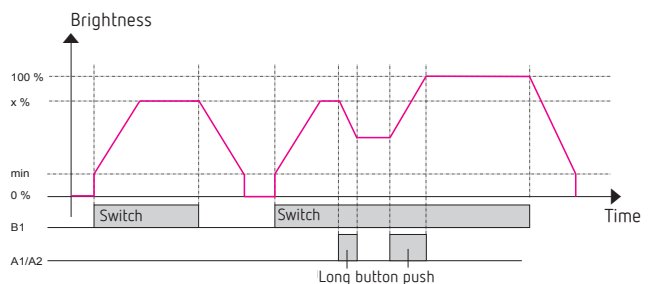
- Switch-off pre-warning: after expiry of the set time rapid dimming down to 50% of the switch-in value. After 10 s, slow dimming down to minimum brightness within 30 s.
- Long time function 60 mins: activation by pressing the button for longer (confirmed by change in brightness)

- ① Pressing the button again during the expiry time restarts the expiry time (resettable, cannot be prematurely switched off).



8. Switch function (e.g., for presence and motion detector)


- At Input B1: not defined as push button but as switch
- Use of the diode module possible, up to 3 light settings can be selected
- ON switch: slow dimming up; time can be set at potentiometer 2; setpoint value set with function 5
OFF switch: slow dimming down; time can be set at potentiometer 2 to minimum brightness, afterwards switch off



- At button A1/A2
 - with switch-on brightness (preset 100 %)
 - with dimming switch-on function
 - with wake-up and snooze function

6. Operation

Light is OFF (with button: input A1/A2)

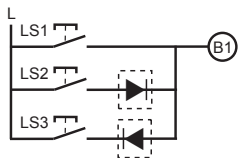
1 x short button press	< 1 s	Switch-on brightness The dimmer starts with the switch-on brightness taught-in (ex-factory 100 %)
1 x long button press	> 1 s	Dimming switch-on function The dimmer switches on with minimum brightness and dims until one releases the button again, or the maximum brightness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

Light is ON (with button: input A1/A2)

1 x short button press	< 1 s	Switch off
1 x long button press	> 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 button press	> 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 button press		Snooze function Dimmer dims within the set dimming time (potentiometer \odot) to the minimum brightness and switches off.

Lighting scenarios

Connection with diode module



LS = Lighting scenario

Up to 3 lighting scenarios can be selected using the push button at input B1. The enclosed diode module (9070367) is required for this purpose.

Activating the lighting scenario

- Briefly press push button at B1. The pre-set value is started up.

Teach in the lighting scenarios using functions 1, 4, 2, 6, 7

- Set brightness value using button at A1/A2.
- Press button B1 (for light setting LS1, LS2, LS3) for longer than 10 s; the value is saved as lighting scenario (confirmed by the difference in brightness). Following this, adjustments are made according to the saved brightness.

Teach in lighting scenario with switch B1 at function 10

- Set rotary switch to 5. The current minimum brightness is approached.
- Switch on switch at B1 (close); the lighting scenario is approached.
- Press button at Input A1/A2 to dim up or down.
- Release button at Input A1/A2 at desired value; the value is changed and applied for the activated lighting scenario.
- Switch off switch B1 (open).
- Set rotary switch to function 10 again.

Several light setting with diode module

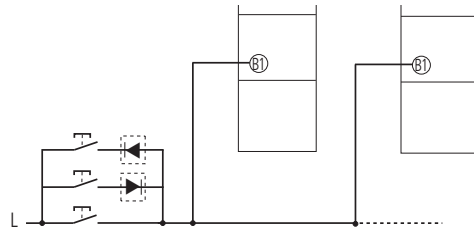
Connection with diode module to a dimmer



Diode module 9070367

Lighting scenario 1 can also be activated if buttons LS2 and LS3 are pressed simultaneously. This makes it possible to save using button LS1.

Connection with diode module to several dimmers



Examples

Central OFF: teach in all dimmers 0 %.
Central ON: teach in all dimmers 100 %.

Lighting scenario 1: teach in dimmer 1 20 %,
teach in dimmer 2 70 %, ...

Lighting scenario 2: teach in dimmer 1 50 %,
teach in dimmer 2 40 %, ...

7. Technical Data

	Trailing edge	Leading edge
Potentiometer position	1, 6, 7, 8, 9, 10	2, 4
Operating voltage	230 V +10 % / -15 %	
Frequency	50 Hz	
Standby output	typically 0.2 W	
Load types	R/L/C	
Minimum load:	-	
Incandescent/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)*	
Inductive transformers (L)		400 W (up to 50 °C)*
Line length	max. 100 m	
Cable cross-section	max. 4 mm ²	
Pollution degree:	2	
Permissible ambient temperature	-30 °C ... +50 °C	
Protection class	II subject to designated installation	
Protection rating	IP 20 according to EN 60529 when assembled correctly	

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

8. Contact

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