
Touch dimmer (R,L), universal touch dimmer 1gang/2gang

Order no.: 8542 11 0x / 8542 12 0x / 8542 21 0x

Operating instructions

1. Safety instructions

Electrical equipment may only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, guidelines, regulations, directives, safety and accident prevention regulations of the country.

Failure to comply with these instructions may result in damage to the device, fire or other hazards.

Hazard due to electric shock. Do not operate device without application module.

Hazard due to electric shock. The device is not suited for safe disconnection of the mains supply. Even when the device is switched off, the load is not galvanically separated from the mains supply.

Do not connect any non-dimmable lamps, their transformers or operating devices. Observe manufacturer's data.

Hazard of fire. During operation with conventional transformers, fuse each transformer on the primary side according to manufacturer's data. Use safety transformers that comply with EN 61558-2-6 (VDE 0570 Part 2-6) only.

These instructions are an integral component of the product and must be retained by the end user.

2. Design and layout of the device

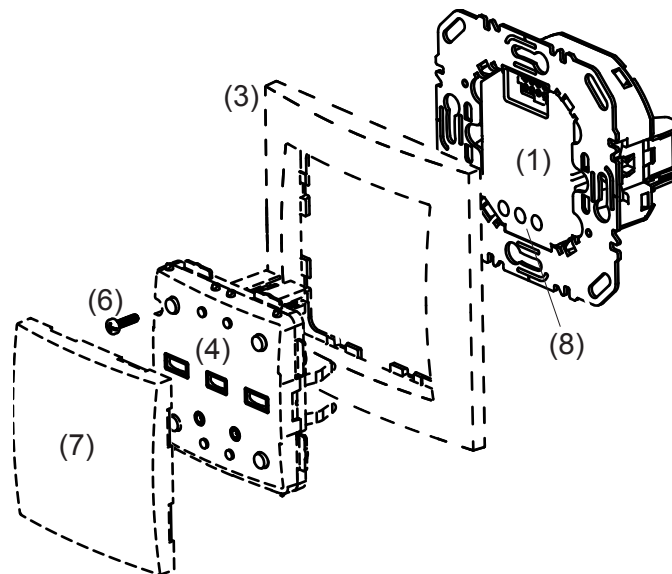


Figure 1: Touch dimmer 1gang

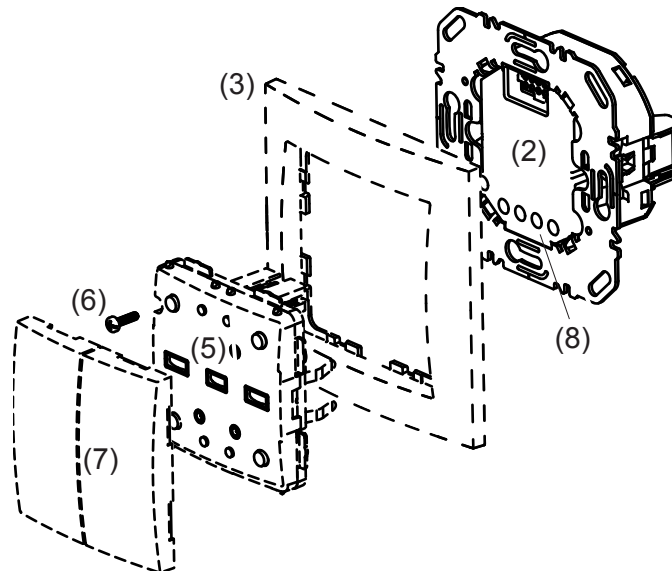



Figure 2: touch dimmer 2gang

- (1) Touch dimmer
- (2) Touch dimmer 2gang
- (3) Frames
- (4) Application module
- (5) Application module 2gang
- (6) Screw for dismantling protection (not R.1/R.3)
- (7) Button design cover
- (8) Connecting terminals

3. Function

Correct use

- Only suitable for use in indoor areas with no drip and no spray water
- Touch dimmer (R, L): Switching and dimming of incandescent lamps, HV halogen lamps and conventional transformers with low voltage halogen lamps
- Universal touch dimmer: Switching and dimming of incandescent lamps, HV halogen lamps, dimmable energy-saving and dimmable 230 V retrofit LED lamps; electronic and dual-mode transformers or conventional transformers with low voltage halogen lamps
- Installation into wall box according to DIN 49073 (recommended for touch dimmer 2gang, deep box)
- Operate with suitable application module (see "Accessories")
-  No mixed load operation of capacitive and inductive loads at the universal touch dimmer output.

Product characteristics





- Capacity extension via power boosters (except for touch dimmer 2gang, see catalogue)
- Touch dimmer (R, L): Phase cut-on dimming principle
- Universal touch dimmer: load-dependent, automatic setting of dimming principle and additional, optional settings via the application module e.g. for energy-saving lamps and 230 V retrofit LED lamps
- Soft start for bulb protection
- Electronic short circuit protection
- Electronic overload and overheating protection
- Electronic interference signal suppression e.g. for ripple control impulses
- Connection of extension unit push-button (NO contact)

Additional product characteristics, universal touch dimmer 2gang

- Different load types at each output possible
- Output wattage ratings independent from each other
- Possible to operate output 1 only
- Connection of extension unit push-button (NO contact) per each output possible


Dimming principles (table)

Loadtype	Electrical performance	Dimming principle, universal touch dimmer 1 / and 2gang	Dimming principle touch dimmer (R,L)
Incandescent lamps	ohmic	phase cut-off	phase cut-on
HV halogen lamps	ohmic	phase cut-off	phase cut-on
Electronic transformers and dual mode transformers with LV halogen lamps	capacitive	phase cut-off	-
Dimmable conventional transformers with LV halogen lamps	inductive	phase cut-on	phase cut-on
Dimmable energy-savings lamps	capacitive	Phase cut-on/cut-off depending on bulb manufacturer	-
Dimmable 230 V retrofit LED lamps	capacitive	Phase cut-on/cut-off depending on bulb manufacturer	-

-  Flickering of connected lamps possible due to falling below of the indicated minimum load, ripple control impulses (tariff signals) of power station or illuminant exchange of energy-savings lamps or 230 V retrofit LED lamps.
-  Short term flickering during load detection of ohmic loads possible for universal touch dimmers. No operation is possible during load detection. These are not defects of the device.
-  If the dimming performance of energy-saving lamps and 230 V LED lamps is unsatisfactory in factory setting, a load setting must be carried out. The load setting is described in the instructions of the respective application module.
-  When circuiting several loads to one output (parallel circuiting) optimise dimming performance via load setting if necessary.

4. Operation

These instructions describe the installation of the touch dimmer inserts. The operation is to be taken from the instructions of the respective application module.

-  The operation of extension units is only possible if an application module is attached to the touch dimmer.

5. Information for electricians

5.1 Installation and electrical connection



DANGER!

Touching live parts can result in an electric shock.

An electric shock can be lethal.

Disconnect the connecting cables before working on the device and cover all live parts in the area!



CAUTION!

Do not interconnect the outputs of universal touch dimmer 2gang.

Operating both outputs on a joint load will destroy the device.

Circuiting and mounting the touch dimmer

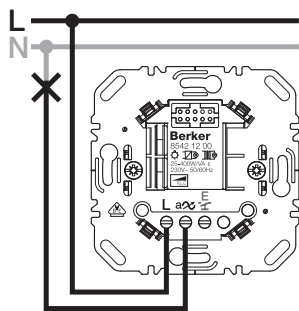


Figure 3: touch dimmer

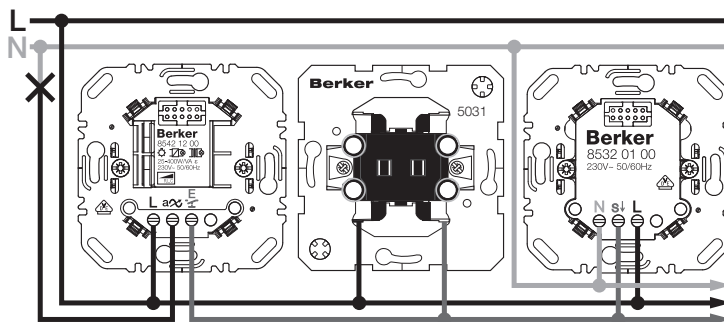


Figure 4: Touch dimmer with extension units

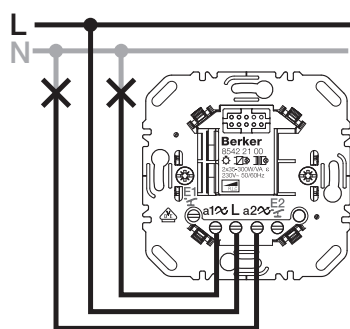


Figure 5: touch dimmer 2gang

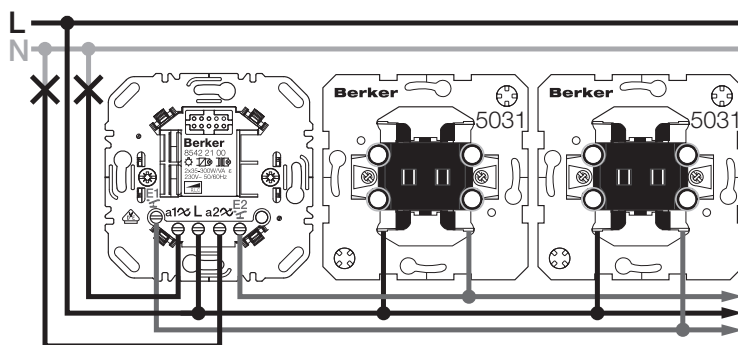


Figure 6: Touch dimmer 2gang with extension units

A MCB max. 16 A has been installed as device protection.

- Circuit touch dimmer and optional extension units according to the connection diagram (Figure 3 to 6).
- Mount the touch dimmer into a wall box. The connecting terminals must be at the bottom.
- Attach frame and application module (see instructions for application module).
- i A deep wall box is recommended for touch dimmer 2gang.
- i Illuminated mechanical push-buttons must be equipped with a separate N-terminal.
- i Motion detector extension units can only be used when the touch dimmer is operated with a motion detector application module.
- i Motion detector extension units are not suitable for the touch dimmer 2gang.
- i For power supply, a load must be connected to output 1 of the touch dimmer 2gang.

6. Appendix

6.1 Technical data

Rated voltage	AC 230 V~, + 10%/- 15%
Mains frequency	50/60 Hz
MCB	
max. 16 A	
Degree of protection	IP 20
Relative humidity	0 ... 65 % (no condensation)
Operating temperature	-5°C ... +45°C
Storage/transport temperature	-20°C ... +60°C
Number of extension units	unlimited
Extension unit cable length	max. 50 m
Number of motion detector extension units	unlimited

Cable length motion detector extension units	max. 50 m
Load cable length	max. 100 m
Connecting terminals	1 x 2.5 mm ² or 2 x 1.5 mm ²
Mounting orientation	Connecting terminals downwards
Installation depth	32 mm
Power reduction: per 5°C above 25°C	-20 %
Installation in wood or drywall as well as in multiple combinations	-25 %
Performance data including transformer power dissipation:	
Conventional transformers	20 %
electronic transformers, dual-mode transformers	10 %

Touch dimmer (R, L)



Standby power consumption	< 0.3 W
Incandescent lamps	25 ... 400 W
HV halogen lamps	25 ... 400 W
LV halogen lamps with conventional transformers	25 ... 400 VA
Mixed loads	to 400 W possible
Universal power boosters	max. 2



Universal touch dimmer

Standby power consumption	< 0.3 W
Incandescent lamps	25 ... 400 W
HV halogen lamps	25 ... 400 W
LV halogen lamps with electronic transformers or dual-mode transformers	25 ... 400 VA
LV halogen lamps with conventional transformers	25 ... 400 VA
Dimmable 230 V retrofit LED lamps	5 ... 70 W
Dimmable energy-savings lamps	13 ... 80 W
Mixed loads	possible to lowest maximum load
Universal power boosters	max. 2

Universal touch dimmer 2gang per output

Standby power consumption	
0.3 W channel 1 / 0.7 W channel 2	
Incandescent lamps	35 ... 300 W
HV halogen lamps	35 ... 300 W
LV halogen lamps with electronic transformers or dual-mode transformers	35 ... 300 VA
LV halogen lamps with conventional transformers	35 ... 300 VA
Dimmable 230 V retrofit LED lamps	12 ... 40 W
Dimmable energy-savings lamps	15 ... 54 W
Mixed loads	possible to lowest maximum load
Universal power boosters	none

-  Conventional transformers should be operated with at least 25 % nominal load. Nonetheless, 75 % is recommended because in individual cases, depending on the transformer, unstable dimming performance may occur.
-  Carry out loading of conventional, electronic and dual-mode transformers according to manufacturer's instructions.

-  Do not use non-dimmable energy-saving lamps or 230 V retrofit LED lamps.
-  For 230 V retrofit LED lamps, the power supply of the universal touch dimmer via the lamp, even when switched off, may cause weakened illumination of the lamp.

6.2 Troubleshooting

Device switches off and can no longer be switched on after a certain time.

Electronic overheating protection has triggered.

- Reduce connected load.
- Check the installation situation.

Device briefly switches off and on again.

Short circuit protection has triggered, but in the meantime there is no longer a fault.

Touch dimmer 2gang switches both outputs off.

Load at output 1 is defective and interrupts the power supply of the joint touch dimmer.

Repair load at output 1.

6.3 Accessories

Touch dimmer (R,L) and universal touch dimmer 1gang

Push-button 1 gang	8514 11 xx
KNX radio button 1gang quicklink	8514 51 xx
KNX radio button 4gang quicklink	8564 81 xx
Motion detector 1.1 m	8534 11 xx
Motion detector 2.2 m	8534 21 xx
IR Motion detector comfort 1.1 m	8534 12 xx
IR Motion detector comfort 2.2 m	8534 22 xx
KNX radio motion detector comfort 1.1 m quicklink	8534 21 xx
KNX radio motion detector comfort 2.2 m quicklink	8534 21 xx

Universal touch dimmer, 2gang

Push-button 2gang	8514 21 xx
KNX radio button 2gang quicklink	8514 61 xx
KNX radio button 4gang quicklink	8564 81 xx

6.4 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

