



## 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. 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 only.**

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

## Design and layout of the device (Figure 1)

- Modular supporting ring WXA45.. (not within scope of delivery)
- Dimmer module
- Touch rocker WXD07.. (not within scope of delivery)
- Frame WXP.. (not within scope of delivery)

## Function

### Bluetooth system information

The device has a Bluetooth interface. This interface enables operation, device setting and configuration by means of Hager Mood APP via mobile end devices like Smartphones and tablets that support this standard. The Hager Mood App supports Apple devices with iOS 8 (and higher) and Android devices from version 5.1. Compatible with Bluetooth version 4.2 or higher.

### Correct use

- Switching and dimming of incandescent lamps, HV halogen lamps, dimmable 230 V LED lamps, electronic dual-mode or conventional transformers with low voltage halogen lamps
- Only suitable for use in indoor areas with no drip and no spray water
- Installation into wall box with at least 40 mm depth
- Operation with suitable design cover (see Accessories)
- No mixed load operation of capacitive and inductive loads possible at the output of the dimmer.

### Product characteristics

- Automatic setting of load-dependent dimming principle and optional settings e.g. fine-setting of the minimum brightness
- Automatic saving of switch-on brightness level
- LED status display
- Soft start for bulb protection
- Electronic short circuit protection
- Electronic overload and overheating protection
- Allows connection of extension units (push-button NO contact, change-over switch)

### Extended function by using the Hager Mood app

- Commissioning/operation via mobile iOS or Android end devices
- Setting and calling up relative dimming values
- Light control via additional functions such as Astro
- Activating/deactivating orientation lighting via LED
- Creating and recalling scenes (group control)
- Presence simulation
- Week timer

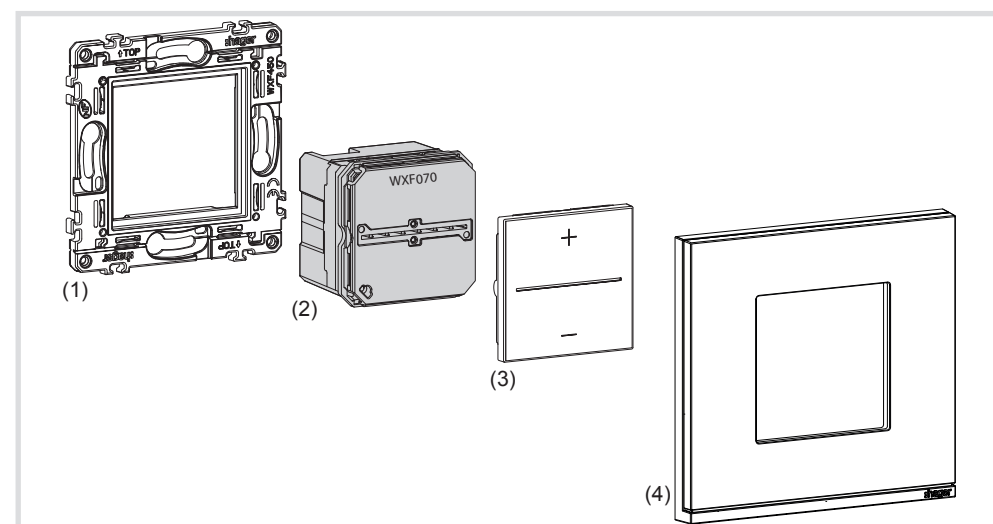


Figure 1: Device overview

## Performance after mains breakdown/return of mains supply

Mains breakdown longer than 0.5 s:

There is no function during the mains breakdown. Information on date and time are reset to factory settings.

Return of mains supply:

The light is restored to the last brightness level defined. To execute functions configured via the Hager App, date and time must be set again.

### Dimming principles

During commissioning, the dimmer performs automatic load detection and applies the correct dimming principle for the load connected (phase cut-on, phase cut-off).

**i** Flickering of connected lamps possible due to the load falling below the specified minimum level, ripple control impulses (tariff signals) from power stations, or replacement of 230 V LED lamps.

**i** Short term flickering during load detection possible. No operation is possible during load detection. These are not defects of the device.

**i** If the dimming performance of 230 V LED lamps is unsatisfactory in factory setting, a load setting must be carried out (see Setting the load).

**i** When circuiting several loads to one output (parallel circuiting) optimise dimming performance via load setting (see Setting the load) if necessary.

**i** After each exchange of the load (lamp) an automatic load detection must be carried out (see Setting the load).

Loadtype	Behaviour	Dimming principle
Incandescent lamps	ohmic	phase cut-off
HV halogen lamps	ohmic	phase cut-off
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
Dimmable 230 V LED lamps	capacitive	Phase cut-on/cut-off depending on bulb type

Table 1: Dimming principles

## Operation

### Operating concept

The operation of the top or bottom push-button operation area is validated differently for each button.

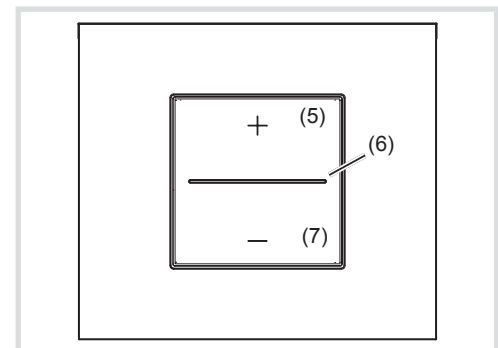


Figure 2: Operating elements

- Push-button operation area + for brighter dimming
- LED bar for status display
- Push-button operation area - for darker dimming

### Operating dimmer (Table 2)

#### Operation via extension unit: push-button (Table 3)

The extension unit input of the dimmer is configured for push-button operation (factory setting).

#### Operation via extension unit: change-over switch (Table 4)

The extension unit input of the dimmer is configured for change-over switch operation.

### Setting the load

If the dimming and switching performance of loads is unsatisfactory, especially when circuiting to 230 V LED lamps, a load setting must be carried out when dimming.

- Switch off load.
- Press and hold the lower push-button operation area for more than **10** and less than **15 seconds** until the LED bar flashes once.

The device is in load setting mode.

**i** If no further actions are performed within the next 10 seconds, the dimmer switches to normal operation.

- Briefly press the lower push-button operation area repeatedly to activate the desired mode (Table 5).

The load setting is executed.

### Fine setting of minimum brightness

To prevent poor switch-on behaviour or flickering of the load in the lower dimming range, the dimming angle for minimum brightness can be set individually for each load type.

- Switch off load.
- Press and hold the lower push-button operation area for more than **15** and less than **20 seconds** until the LED display flashes twice.

The load is dimmed to the maximum brightness. The device is now in fine-setting mode for the minimum brightness.

**i** If no further actions are performed within the next 10 seconds, the dimmer switches to normal operation.

- Briefly press the lower push-button operation area repeatedly to select one of the predefined brightness levels.

- Hold down the lower push-button operation area for more than **2** seconds but less than **5** seconds.

This saves the selected dimming angle for the minimum brightness. The LED display and the load flash 1 x.

### Resetting individual settings (Table 6)

Individually stored settings of the dimmer can be reset within 5 minutes after switching on the mains voltage.

**i** If the dimmer is in operation for longer than 5 minutes, the mains voltage must be interrupted briefly and switched on again.

Load status	Action	Push-button operation area	Result	LED bar
OFF	Short press of push-button (> 50 ms ... < 0.5 s)	+ or -	Switch <b>ON</b> with saved switch-on brightness level. <b>i</b> Factory setting: Save maximum brightness as switch-on brightness-level.	On
On	Short press of push-button (> 50 ms ... < 0.5 s)	+ or -	Switch <b>OFF</b> and save brightness as switch-on brightness level.	OFF
OFF	Long press of button	+	<b>DIMMING</b> to maximum brightness (0 ... 100 %)	On
On	Long press of button	+	Dimming from current brightness to maximum brightness	On
On	Long press of button	-	Dimming from current brightness to minimum brightness	On
OFF	Long press of push-button (> 10 s)	-	Calling up expanded settings	

Table 2: General operation and status display via LED bar

Load status	Operation push-button	Result	LED bar
OFF	Short press of push-button	Switch <b>ON</b> with saved switch-on brightness level.	On
On	Short press of push-button	Switch <b>OFF</b> and save brightness as switch-on brightness level.	OFF
On	Long press of button	Dimming to minimum/maximum brightness with alternating direction	On
OFF	Long press of button	<b>DIMMING</b> to maximum brightness (0 ... 100 %)	On

Table 3: Extension unit push-button, NO contact

Load status	Operation of switch	Result	LED bar
OFF	Switching	Switch <b>ON</b> with saved switch-on brightness level.	On
On	Switching	Switch <b>OFF</b> and save brightness as switch-on brightness level.	OFF

Table 4: Change-over switch extension unit

Press button	Setting mode	Push-button operation area	Confirmation of the load setting
1 x	Automatic	-	LED bar flashes 1x
2 x	230 V LED mode	-	LED bar flashes 2x

Table 5: Dimming principles

Load status	Action	Push-button operation area	Result	LED bar
OFF	Long press of push-button (> 25 s ... < 30 s)	-	<b>Bluetooth</b> settings are reset to factory settings.	Flashes 3 x after 25 s
OFF	Long press of push-button (> 30 s)	-	The stored minimum brightness and load setting are reset to <b>factory settings</b> .	Flashes 4 x after 30 s

Table 6: Resetting settings

## Configure operation for mobile end device (pairing)

The pairing process needs to be carried out for each device only the first time it is used. The mobile device must be in direct proximity (< 0.5 m) of the dimmer in order to establish a connection.

- Start app
- Carry out the search for compatible devices. Detected dimmers are displayed.
- Select the desired dimmer and follow further instructions in the Hager Mood App.

## 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!

### Connecting and installing Bluetooth Dimmer

**i** A permanent connection to the external conductor **L** must be established in order to supply the dimmer with mains voltage. This is done, for example, via a jumper in the change-over switch (9).

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

- Insert and snap dimmer module (2) into the supporting ring (1).
- Connect dimmer and optional extension units according to the connecting diagram (Figure 3 to 5).
- Mount the dimmer in a wall box. The connecting terminals must be at the bottom.
- Attach touch rocker (3) and frame (4).
- Illuminated mechanical push-buttons must be equipped with a separate N-terminal.

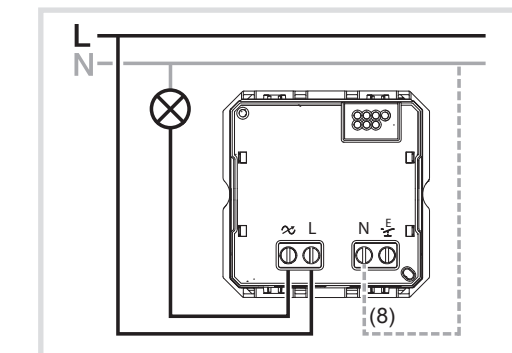


Figure 3: Connecting diagram (basic circuit)

(8) Optional: Connect neutral conductor **N** for improved dimming characteristics.

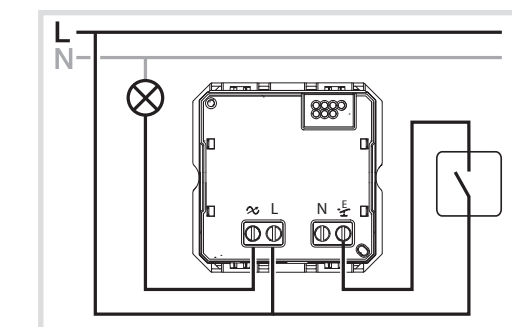


Figure 4: Connection diagram with push-button, NO contact as extension unit

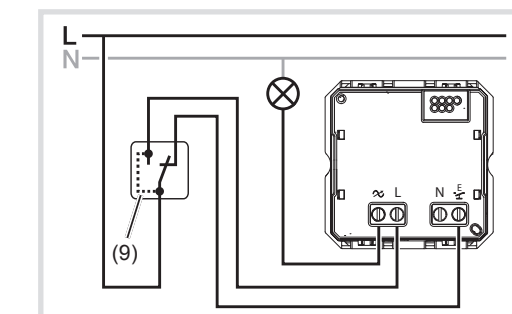


Figure 5: Connecting diagram with change-over switch as extension unit

## Remove touch rocker

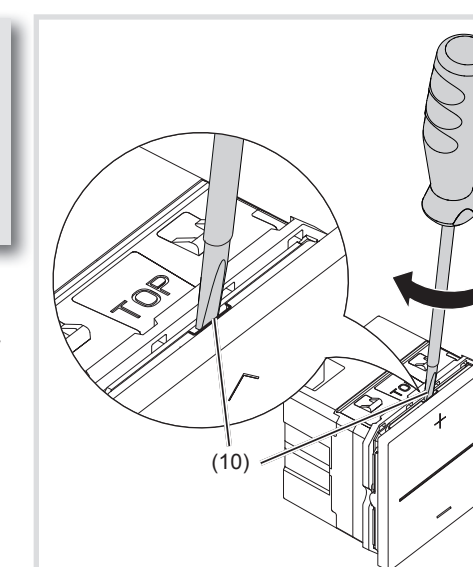


Figure 6: Remove touch rocker

- Insert the screwdriver into the opening (10) and lever off the touch rocker by slightly turning the screwdriver.

### Configuration of the extension unit input

The dimmer can be operated via the extension unit input using a push-button, NO contact or change-over switch. After initial start-up or after resetting the dimmer to the factory settings, an initialisation phase takes place. A switching operation must take place within this initialization so that the extension unit configuration for toggle switches is activated.

The dimmer Bluetooth is in the initialisation phase. Operation with **push-button, NO contact:** Factory setting, is configured automatically.

Operation with **change-over switch:**

- Switching contact must be closed longer than 10 s.

The configuration for change-over switch operation is activated. The load dims up and must not be switched off during this time.

**i** The setting of the minimum brightness and load is not possible via extension units.

## Appendix

### Technical data

Rated voltage	AC 230 V~, + 10%/- 15%
Mains frequency	50 Hz
MCB	max. 16 A
Standby power consumption	< 200 mW
230 V incandescent lamps and halogen lamps	20 ... 275 W
LV halogen lamps with electronic transformers or dual-mode transformers	20 ... 300 VA
LV halogen lamps with conventional transformers	20 ... 300 VA
Dimmable 230 V LED lamps (phase cut-on)	3 ... 55 W
Dimmable 230 V LED lamps (phase cut-off)	3 ... 200 W
Max. number of halogen lamps	15
Max. number of LED lamps	10
Degree of protection	IP21 with frame and cover
Relative humidity	10 ... 95 % (no condensation)
Operating temperature	-5 ... +45°C
Storage/transport temperature	-20°C ... +60°C

Number of extension units	unlimited
Extension unit cable length	max. 50 m
Connecting terminals conductor cross-sections	
- rigid	1 x 1.5 ... 2.5 mm <sup>2</sup>
- flexible	2 x 1.5 mm <sup>2</sup>
Mounting orientation downwards	Connecting terminals
Installation depth	32 mm
Transmission frequency Bluetooth	2.4 ... 2.483 GHz
Transmission power	10 mW
Radio send and / distance (Bluetooth) max.	10 m, depending on installation environment

### Operating conditions

Loadtype	Curve	Maximum output power in Watt (W)		
		25°C	35°C	45°C
Ohmic loads	A)	275	275	240
LV halogen with electronic transformers	B)	300	300	275
LV halogen lamps with conventional transformers	C)	300	275	250
LED lamps	D)	55	50	45

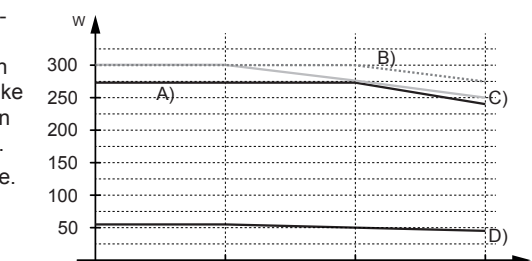


Diagram 1: Maximum output power against ambient temperature

**i** When connecting conventional transformers, connect the optional N-conductor, if present, to optimize the function. Conventional transformers should be operated with at least 50 % nominal load. Nonetheless, 75% is recommended because in individual cases, depending on the transformer, unstable dimming performance may occur.

**i** Carry out loading of conventional, electronic and dual-mode transformers according to manufacturer's instructions.

**i** Do not use non-dimmable 230 V LED lamps.

**i** In 230 V LED lamps, the power supply to the dimmer can cause the lamp to glow slightly even when it is switched off.

### Accessories

Supporting ring	WXA450
Frame	WXP..2
Touch rocker	WXD070..

Applicable in all Europe **CE** and in Switzerland  
Hereby, Hager Controls, declares that the Bluetooth devices are in compliance with the essential requirements and other relevant provisions of directive 2014/53/UE (from June 2017).  
The CE declaration of conformity can be consulted on the site hagergroup.com