Radio Push button 1gang quicklink Radio Push button 2gang quicklink Radio Push button 4gang guicklink

#### Safety instructions

Electrical equipment must only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, guidelines, regulations, directives to 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.

The radio transmission is not suitable for safety or alarm applications.

These instructions are a component part of the product and must be retained by the end user.

#### Design of the device



Figure 1: Design of the device

- (1) Insert (see "Accessories", not in scope of deliverv)
- (2) Frame (not in scope of delivery)
- (3) Application module 1-, 2- or 4gang
- (4) Screw for dismantling protection (not for design line R.1/R.3)
- (5) Button design cover
- (6) Design cover, 2gang button or 4gang button
- (7) Interface between application module and power module insert/application module

#### Function

#### System information

This device is a product of the quicklink system, in which installation devices communicate via radio signals.

Quicklink stands for a configuration mode in which the function-related connection between transmitters and receivers is set on the device through push-buttons and displays without further tools.

All devices configurable by quicklink can be operated together in one system.

This device is compliant to the R&TTE-Directive 1999/5/EG. The Declaration of Conformity and further system information can be found on our homepage www.berker.de

The device may be used in all EU and EFTA countries

#### Correct use

- For operation and remote control on a switch insert, on a flush-mounted dimmer or on a power

supply for RF application modules

- The device has been conceived for smaller applications in which a maximum of 20 devices are allocated
- Only suitable for use in indoor areas, no drip or sprav water
- The quicklink configuration of the devices must only be carried out by qualified electricians.

#### **Product characteristics**

- Functions for remote control, scenes, control switches via radio signals
- LED display of insert/application module compatibility
- Saving of switch-on brightness-level when operated on a dimming insert

#### Operation

#### **Operating concept**

The operation of the top or bottom push-button operation area is evaluated differently for each button. Pressing the top and bottom push-button operation areas simultaneously actuates special functions.

Operation on a switch insert (Table 1)

Operation on a flush-mounted dimmer (Table 2)

#### Operation on a power supply for RF application modules

The push-buttons are freely configurable; operation is dependent on the configuration (Table 7).

#### Setting the load

If the dimming and switching performance of loads is unsatisfactory after startup, especially when circuited to energy-saving lamps and 230 V LED lamps, a load setting must be carried out if the push-button has been applied on a universal switching insert or universal touch dimming insert.

- Switch-off load.
- Press push-button top area and bottom area simultaneously for longer than 10 seconds. The connected load flashes once. The device is in selection mode
- **i** If there is no further operation within the next 10 seconds, the insert switches back to switching/dimming operation.
- Press the button briefly several times to activate the desired setting mode (Table 3). The load setting is executed.

#### Operation via extension unit, push-button, NO contact

The switch-on brightness-level cannot be saved on an extension unit push-button.

Load status	Switching button, factory setting	Switch insert	Information for	
OFF	Press top or bottom	Switch ON load.	Overview of the e	
ON	Press top or bottom	Switch OFF load.	Overview of the op the design cover	

#### Table 1: Operation on a switch insert

Dimming status	Switching button, factory setting	Flush-mounted dimmer
OFF	Short press on top or bottom	Switch ON to saved switch-on brightness-level.
ON	Short press on top or bottom	Switch OFF.
ON	Simultaneous press on top and bottom > 5 s	Save current brightness level as switch-on brightness-level. As confirmation, the light briefly switches OFF and ON again. In delivery condition, the maximum brightness is saved as switch-on brightness.
ON/OFF	Long press on top	Dimming to maximum brightness-level
ON	Long press on bottom	Dimming to minimum brightness-level
OFF	Long press on bottom	Switching on with minimum brightness-level

Table 2: Operation on a flush-mounted dimmer

Press the button briefly	Setting mode	Confirmation of the load setting	Instructions
1 x	Load fine-setting	Load flashes 1 x af- ter approx. 30 s and changes to switching/ dimming operation	Not suitable for ohmic loads (e.g. incandescent, HV halogen lamps); use factory load setting. If the load fine-setting does not bring any impro- vement for energy-saving lamps or 230 V LED lamps, select the energy-saving lamp fine-setting or 230 V LED lamp universal setting. The load fine-setting is not available on 2gang universal inserts.
2 x	Factory load setting	Load flashes 2 x af- ter approx. 6 s and changes to switching/ dimming operation	
3 x	Energy-saving lamp fine-setting in phase cut-on	Load flashes 3 x af- ter approx. 30 s and changes to switching/ dimming operation	Energy-saving lamps are switched ON at a brightness level of at least 50 % brightness in order to ensure an ignition process.
Universal <sup>•</sup>	touch dimmer up	to version R0.x	·
4 x	230 V LED lamp universal setting in phase cut-on	Load blinks 4 x after approx. 5 s and changes to normal operation	The universal setting contains standard values which enable the operation of typical dimmable 230 V LED lamps.
Universal	touch dimmer from	m version R1.1	•
4 x	230 V LED lamp universal setting in phase cut-on or phase cut-off	Load blinks 4 x after approx. 5 s and changes to normal operation	The dimming principle and optimal switch-on brightness for the connected dimmable 230 V LED lamps are set automatically.
	For all setting modes	Load flashes 5 x	The selected setting mode is not supported by the insert.

Table 3: Load setting mode

Dimming status	Operation push- button	Switch insert	Flush-mounted dimmer
OFF	Press < 0.4 s	Switch ON	Switch on to saved switch-on brightness-level.
ON	Press < 0.4 s	Switch OFF	Switch-off
ON	Press > 0.4 s	Switch OFF	Dimming to minimum/maximum brightness level with alternating direction
OFF	Press > 0.4 s	Switch ON	Dimming from minimum to maximum brightness-level

Table 4: Operation via extension unit, push-button, NO contact

# Figure

- - (9) fct button with fct LED

# Mounting

# Selecting mounting location

A minimum distance between the transmitter and corresponding receiver of about 1 m must be maintained

A minimum distance to electronic devices which emit high frequency signals such as computers electronic transformers or microwave devices of approx. 0.5 m must be maintained.

malfunction

	Radio button 1gang	Radio but	ton 2gang	Radio but	ton 4gang
Switch insert 1gang	on			on off	((RF))
Switch insert 2gang		on off	on off	on off	on off
Flush-mounted dimmer 1gang	- 🛠			-Ķ	((RF))
Flush-mounted dimmer 2gang		- <u>Ç</u>	-Ķ	-Ķ	-Ķ.
Power supply for RF application modules	((RF))	((RF))	((RF))	((RF))	((RF))

- Switching (see operation on a switch insert)
- Not to be combined

(8)				
2b: O	pera	atir	ng ele radio	

- (8) Press-activation points of the push-button operation areas

(10) cfg button with cfg LED (11) fct2 button with fct2 LED





## Information for electricians

# Overview of the operating elements beneath



Figure 2a: Operating elements of the 1gang radio button



ents of the 2- and 4gang

Mounting on or close to metal surfaces may cause

Take material penetration into account. The range of the system can be optimised by selecting the best possible mounting location:

Material	Degree of material penetration
Wood, plaster, plaster- board, uncoated glass	ca. 90 %
Brick, press boards	ca. 70 %
Reinforced concrete, floor heating	ca. 30 %
Metal, metal grids, aluminium laminates, coated glass	ca. 10 %
Rain, snow	ca. 1 40 %

Table 5: Material penetration

#### Assembly of the device (Figure 1)

The insert is installed (see operating instructions for the insert).

Attach application module (3) together with frame (2) to a suitable insert (1) and establish a connection between the insert and the application and power module (7) via the interface.

As soon as the button is supplied with voltage, the cfg LED (Figure 2, 10) indicates whether the button and the insert are compatible with each other:

cfg LED display	Meaning
ED blinks in green colour or 5 s	Compatible
ED flashes ed for 5 s	Not compatible
ED flashes brange for 5 s	Compatible, but not configu- red to each other. For a new configuration, the application module must be reset to factory settings.

- Establish dismantling protection with screw (4), if applicable
- Click design cover (5 or 6) into place on application module (3).
- **i** If a configuration needs to be made or settings need to be changed, only attach the design cover afterwards.

#### Insert/cover combination and operation in factory setting

Depending on the insert used, the radio button in factory setting has the following function for local operation (Table 6).

Dimming (see operation on a flush-mounted dimmer)

Operation and installation instructions



### Radio Push button 1gang guicklink Order-No. 8514 51 .

Radio Push button 2gang quicklink Order-No. 8514 61 ...

Radio Push button 4gang guicklink Order-No. 8564 81 ...

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Table 6: Button operation in factory setting

#### Radio configuration - quicklink

The radio configuration sets the functional connection between commanding (transmitters) and function-executing (receivers) radio components. As such, wireless e.g. master, group, extension unit and time controls can be realised.

The following can be configured:

- The local operation of the load connected to the insert
- Radio commands to control other receivers
- Functions that are executed when radio commands are received
- The top and bottom push-button operation area can be configured differently.
- For configuration by means of Hager connection device TX100 or ETS, additional functions are available (see operating instructions for TX100 or application description for ETS).

#### Configuring the radio button as a receiver

Configuration to control the load connected to the insert (Table 7).

- via reception of a radio command
- via the local operation
- Local operation is a function that is pre-configured at the factory and can be changed.

As an example, the configuration of a wall-transmitter and the radio button as receiver is described down below (Table 8).

The button design cover is not attached.

# Configuring radio button as a transmitter

If the radio button is operated as a transmitter, then it can support the following functions for the receivers. The details of the function can vary depending on the receiver being used:

- <sup>on</sup> ON/OFF, single-surface operation
- ON ON
- off OFF
- ON/OFF, dimming UP/DOWN, singlesurface operation
- ON/OFF dimming UP
- ON/OFF dimming DOWN
- ul Scene 1
- 2 Scene 2
- Timer

- NO contact (contact duration)
- Move UP, stop
- Move DOWN, stop

As an example, configuring the radio button with receivers for which the supported displays occur through the **cfg** LED and **fct** LED is described here. Different configuration displays, such as for receivers with display, are to be taken from the receiver operating instructions.

#### Deleting a configuration

- To delete a configured receiver or the local operation, execute the configuration again.
- Start configuration (see configuring the radio button as a receiver).
- Select transmitter button.
- Select function on receiver: Select the function
   Delete on the receiver and confirm function on the receiver.
- Conclude configuration: Briefly press the cfg button on the transmitter.

#### **Configuring group functions**

By means of a group function, one transmitter controls several receivers. To do so, the same functions must be configured on all receivers.

- Start configuration (see configuring the radio button as a receiver).
- Select transmitter button.
- Select function on receiver: Select the group function as described above on each receiver to be integrated and confirm function on the receiver.
- Conclude configuration: Briefly press the cfg button on the transmitter.

#### **Configuration of scenes**

Individual settings for lighting and the position of blinds can be combined into scenes. Two different scenes can be created with quicklink and called up by pressing a button on the transmitter. A scene is created by configuring a push-button operation area of a transmitter (radio command) in the corresponding receivers with the scene function (Table 7).

- Start configuration.
- Select transmitter button: Select the button for the scene command.
- Select function on receiver: Select the scene function as described above on each receiver to be integrated and confirm function on the receiver.

fct LED display	Configurable functions				Function with transmitter actuation, Instructions
	On switch insert		On flush-mounted dimmer		
	on off	ON/OFF	÷Ķ.	ON/OFF, dimming UP/ DOWN	Briefly press button: Switching ON/OFF Push and hold button: Dimming, reverse dimming direction per actuation
	on	ON	+	ON, dimming UP	Briefly press button: Switching ON Push and hold button: Dimming UP to maxi- mum brightness-level
	off	OFF	-	OFF, dimming DOWN	Briefly press button: Switching OFF Push and hold button: Dimming DOWN to minimum brightness-level
-	<b></b> 1	Scene 1			Receivers are allocated to a scene by the configuration of the function.
	<b>44</b> 2	Scene 2			Briefer press of the push-button: Calling up the saved state of the connected load for the scene
	X	Timer			Switching ON for the set switch-on time
	~~	NO contact (contact duration)		1)	Switching ON when the switching contact is closed Switching OFF when the switching contact is opened
	×	Delete			No function Assignment to the transmitter is deleted

 Conclude configuration: Briefly press the cfg button on the transmitter.

#### Changing/saving scenes

Switching, dimming and blind statuses of the receiver in a scene can be changed and saved.

- The load status can be configured locally or by remote control on the receivers integrated into the scene, e.g. light 1 = 60 % brightness level, light 2 = 40 % brightness level, blind down.
- Hold the transmitter button belonging to the configured scene command pressed for longer than 5 seconds.

A brief status changeover of the receiver signals the successful saving of the scene.

#### Locking/unlocking scene changes

To prevent unwanted changes to a scene, the changing of the scene can be locked.

Start configuration

- Select transmitter button: Select the button for the scene command.
- Select function on receiver: When the function Scene 1 or Scene 2 is displayed by the fct LED flashing green, hold the fct button on the receiver longer than 5 seconds until the cfg LED flashes briefly.

Then the **fct** LED indicates the currently configured status by blinking: 1 x blinking: Possible to change and save scene

- 2 x blinking: Changing the scene is locked.
- Press the fct button and select the desired setting.

The setting changes each time the button is pressed.

- To accept the selected setting time, hold the **fct** button pressed longer than 2 seconds.
- *Conclude configuration:* Briefly press the **cfg** button on the transmitter.

	B #
Action step	Result
Start configuration	The effect ED are the well transmittee and the redie
Briefly press the <b>cfg</b> button on the wall trans- mitter.	The <b>cfg</b> LED on the wall-transmitter and the radio button light up red.
Unless there is another actuation, configuration is automatically ended after 10 minutes.	All receivers within radio range also indicate the configuration mode.
Select transmitter button	
Briefly press the press-activation point on the wall-transmitter which should activate the func-	The <b>cfg</b> LED on the wall transmitter flashes for 1 second.
	If it has already been configured, the <b>fct</b> LED of the radio button indicates the currently configured function.
Select function on receiver	1
Briefly press the fct button on the radio button until the desired function is displayed (Table 7).	<ul> <li>After each actuation, the fct LED indicates the function.</li> <li>If the transmitter button has already been configured with a function in a different receiver and/or the configured function is part of a group control, only this function can be configured. To change a function, the existing configuration needs to be deleted and the new one needs to be configured.</li> </ul>
Confirming function on receiver	
To confirm, hold the fct button pressed longer than 2 seconds.	The <b>cfg</b> LED flashes during the saving process (approx. 5 s). The fct LED confirms the function selection through the corresponding colour display.
	Rapid flashing of the <b>cfg</b> LED indicates a combination that is not possible or an error.
Finish configuration	The <b>efa</b>   EDs on the wall transmitter, the radia
Briefly press the <b>cfg</b> button on the wall transmit- ter again.	The <b>cfg</b> LEDs on the wall-transmitter, the radio button and all receivers within radio range go out. The function is configured.

#### Setting of switch-on time for timer

setting is 3 min

briefly

(Table 10).

Press the fct button.

for orientation

Start configuration.

the scene command

For the function **Timer**, the switching-on time can be set on the receiver in stages. The factory

Select transmitter button: Select the button for

Select function on receiver: When the function Timer is displayed by the fct LED blinking red (Table 7), hold the fct button on the receiver longer than 5 seconds until the cfg LED blinks

The fct LED indicates the currently set switching-on time - for factory setting, 5  $\mbox{x}$ 

Each brief actuation of the **fct** button increases the switching-on time by one step.

During the setting, the **fct** LED indicates the switching-on time (Table 10)

 To accept the selected switching-on time, hold the fct button pressed longer than 2 seconds.
 Conclude configuration: Briefly press the cfg button on the transmitter

x-times flashing of the fct LED		Switch-on time
1		1 s
2		30 s
3	111	1 min
4		2 min
5		3 min
6		5 min
7		15 min
8		30 min
9		1 h
10		3 h

Table 10: Configurable switch-on times

# Resetting the radio button to factory settings

The device is not in configuration mode.

- Hold the cfg button pressed for longer than 10 seconds until the cfg changes from a red light to blinking.
- Release the cfg button.

The **cfg** LED blinks red rapidly. The device reinitialises itself. Meanwhile the **cfg** LED lights up red. Then the LED goes out and flashes 5 x to indicate the compatibility. The reset follows. The process lasts about 20 s.

	Result
	The effect CDe on the matic butter and the sur-
tton on the radio button.	The <b>cfg</b> LEDs on the radio button and the receivers within radio range light up red.
eration, configuration is er 10 minutes.	
ush-button operation and should be configu-	The <b>cfg</b> LED on the radio button blinks for 1 se- cond. Afterwards the radio button (transmitter) and receiver are in configuration mode and the <b>cfg</b> LEDs light up. If already configured, the <b>fct</b> LED of the receiver indicates the current function configured with the button.
ne receiver again briefly notion (see the receiver	<ul> <li>After each actuation, the fct LED indicates a function.</li> <li>If the channel button has already been configured with a function in a different receiver and/or the configured function is part of a group control, only this function can be configured. To change a function, the existing configuration needs to be deleted and the new one needs to be configured.</li> </ul>
eiver	
f command and function, ne receiver down for	<ul> <li>The cfg LED flashes. After successful saving, the fct LED signals the saved function.</li> <li>Rapid flashing of the cfg LED indicates a combination that is not possible or an error.</li> </ul>
tton on the radio button.	The <b>cfg</b> LEDs on the radio button and all receivers within radio range go out. The radio command for the radio button has been configured.
<u> </u>	

This process deletes the complete configuration of the radio button. Settings on the insert (switch-on brightness-level, load setting) are not reset.

# Appendix

# **Technical data**

Transmission frequency	868-870 MHz
Emission Power	25mW
Radio protocol	KNX Radio RF1.M
Power supply	via insert, see accessories
Quicklink logic functions receivers	max. 20 transmitters/
Receiver category	2
Transmitter duty cycle	0.1 %
Protection type	IP 20
Relative humidity 0	65 % (no condensation)
Ambient temperature	-5 +45 °C
Storage/transport tempe	rature -20 +60 °C
Mounting orientation	interface between application and power module on top

# Accessories

### For Radio push button 1gang quicklink

Relay insert	8512 12 00
Universal switch insert 1gang	8512 11 00
Touch dimmer (R, L)	8542 11 00
Universal touch dimmer 1gang	8542 12 00
Power supply for radio application module	8502 01 00

### For Radio push button 2gang quicklink

Universal switch insert 2gang	8512 22 00
Universal touch dimmer 2gang	8542 21 00
Power supply for radio	
application module	8502 01 00

### For Radio push button 4gang quicklink

Relay insert	8512 12 00
Universal switch insert 1gang	8512 11 00
Touch dimmer (R, L)	8542 11 00
Universal touch dimmer 1gang	8542 12 00
Universal switch insert 2gang	8512 22 00
Universal touch dimmer 2gang	8542 21 00
Power supply for radio	
application module	8502 01 00

## 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.

Useble all in Europe **(** and in Switzerland. Hereby, Hager Controls declares this radio transmitter/ receiver is in compliance with Directive 2014/53/EU. The complete text of the EU declaration of conformity is available on the website www.hagergroup.com.

Table 9: Configuring the radio button as a transmitter