

1.1 m/2.2 m quicklink

WYW51xQ WYW52xQ This device is compliant to the R&TTE-Directive Safety instructions

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

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

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

Due to its detection behaviour the device is not suitable for use in burglary detection or alarm

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

Design of the device

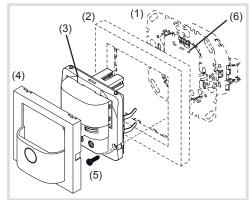


Figure 1: Design of the device (1) Insert (see "Accessories", not in scope of

- delivery) (2) Frame (not in scope of delivery)
- (3) Application module (4) Motion detector design cover
- (5) Screw for dismantling protection
- (6) Interface between application and power module insert/application module

Function

System information

time of 3 minutes if movements are detected in This device is a product of the quicklink system, in the detection area and the set brightness which installation devices communicate via radio threshold is undershot. Each additional movement in the detection area restarts the delay

quicklink stands for a configuration mode in which the function-related connection between transmitters and receivers is set on the device via pushbuttons and displays without further tools.

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

Radio motion detector comfort

1999/5/EG. The Declaration of Conformity and

further system information can be found on our

The device may be used in all EU and EFTA

heat motion and ambient brightness

Automatic switching of lighting depending on

Application module for switch insert, flush-

mounted dimmer or power supply for radio ap-

The device has been laid out for smaller appli-

cations in which a maximum of 20 devices are

quicklink functions to extend the detection area,

Integrated button for selecting operating modes

Operating modes - automatic mode, permanent

Adjustable detection angle for adaptation of the

Additional adjustment of the response bright-

Optional extension unit operation via installati-

The motion detector detects heat motion caused

On switch insert and flush-mounted dimmer with

- The light will be switched on for a fixed delay

The light will be switched off after 3 minutes if

no additional movements are detected.

function (see radio configuration quicklink):

On flush-mounted dimmer configured with time

Remote control via quicklink transmitter

ON, permanent OFF can be selected

Indication of operating modes via LED

homepage www.berker.de.

plication modules

spray water

Product characteristics

scenes, control circuits

and special functions

Lockable integrated button

ness and detection sensitivity

ness via Teach-In function

by persons, animals, or objects.

detection area

Party function

on button

Automatic mode

Presence simulation

level and will remain at this brightness level for 30 s (switch-off pre-warning). Each movement detected during the switch-off pre-warning restarts the delay time and restores the switch-on brightness level. The light will be switched off if no motion is detected any longer in the detection area and the

- The light will be switched on for the delay time,

if movements are detected in the detection area

and the set brightness threshold is undershot.

After the delay time elapses the lighting will be

dimmed to 50% of the switch-on brightness-

restarts the delay time

Each additional movement in the detection area

set delay time and the switch-off time have elansed

Performance after mains breakdown/return of mains supply

- Mains breakdown shorter than 0.2 s: The function is not impaired
- Mains breakdown longer than 0.2 s: There is no function during the mains breakdown. The current configuration is saved in non-volatile memory.
- Return of mains supply The application module executes an initialisation for approx. 5 s, during which the lighting will be switched on. Motion detection starts thereafter. If no motion is detected during the first 5 s, the lighting is switched off. The stored configuration is loaded from memory. During this period local operation via the button or extensi-

Operation

Only suitable for use in indoor areas, no drip or Operating concept

on unit can be used.

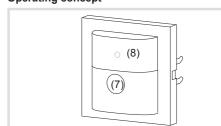


Fig. 2: Operating and display elements

- (7) Button
- (8) Status LED
- Potentiometer for adjusting the response bright- Operation is executed by pushing the button (7) on the motion detector:
 - A short press of the button switches the operating modes. The operating mode is displayed via the status LED behind the optics cover of the motion detector.
 - Keeping the button pressed activates special functions. Selection of the special functions is supported by the LED display (Fig. 3).

Selecting the operating mode

 Repeated short press on button until the desired operating mode is selected.

The status LED indicates the selected operating mode (see Table 1).

Switching the operating mode finishes the party function or presence simulation, if these functions were previously active.

Disabling/enabling operating mode selection via button

 Keep the button pressed for more than 15 seconds, until the status LED is flashing green (Fig. 3).

Selection of the operating mode via the button is disabled

or if the button is disabled:

brightness-level

• Keep the button pressed for more than 15 seconds, until the status LED is flashing green (Fig. 3).

Selection of the operating mode via the button is possible again. Switch on the lighting via push-button

Optionally the lighting can be switched on via a mechanical push-button extension unit (Table 2).

For extension unit operation, the lighting is swit-U ched on independently of the set brightness

extension unit or change the switch-on

When using the flush-mounted dimmers, the last set brightness level will be saved as the switch-on brightness-level.

Activating/interrupting party function

Keep the button pressed for more than 5

The party function switches the lighting on for 2 hours. During this time no extension unit or radio commands are executed.

seconds, until the status LED is flashing red The lighting is switched on for 2 hours. During

this time the status LED is flashing red. Upon elapse of 2 hours, the motion detector switches to Auto operation mode.

Short press on button.

The load is switched off.

The party function will be interrupted, the motion detector returns to Auto mode.

Setting response brightness via Teach-In function

The response brightness is the brightness value saved in the motion detector; when this value is undershot the motion detector switches the connected load if movements are detected. Via Teach-In function the current ambient brightness is saved as the response brightness.

 Keep the button pressed for more than 10 seconds, until the status LED is flashing orange (Fig. 3).

The motion detector detects the current ambient brightness and saves it as response brightness.

Setting of the response brightness via Teach-In If function and via the brightness potentiometer has the same priority. Teach-In overwrites the response brightness set on the brightness potentiometer. If the setting is made again via the potentiometer the Teach-In figure will be over-

Activating/deactivating presence simulation

During operation, the motion detector counts the motion detections in one full hour and saves the result. With active presence simulation at the beginning of the hour with the most detections saved the light will be switched on for the duration of the delay time, even no motion is detected.

During the presence simulation presence detection, extension unit and radio commands will continue to be executed normally.

 Keep the button pressed for more than 20 seconds, until the status LED is slowly flashing red (Fig. 3).

The presence simulation is active. During this time the status LED lights orange. The motion detector switches the lighting on at the saved

Short press on button.

The presence simulation will be disabled, the motion detector returns to **Auto** mode.

Setting the load

If the dimming and switching performance of loads is unsatisfactory after start-up, especially when circuited to energy-saving lamps and 230 V LED lamps, a load setting must be carried out for universal switch inserts or universal touch dimmers.

 Switch off load. • Keep the button pressed for more than 25

seconds, until the status LED is slowly flashing orange

The connected load blinks once. The device is in selection mode

- If there is no further operation within the next 10 seconds, the insert swiches to switching/ dimming operation.
- Repeated short press on button to activate the desired setting mode (Table 3). The load setting is executed.

2	Function		Teach-In	Keylock	Presence simulation	Load setting- mode 1)
	Hold time button	> 5 s	>10 s	> 15 s	> 20 s	> 25 s

Only on universal switch insert and universal flush-mounted dimme

Fig. 3: Selection of the special functions and LED display

LED display	Operating mode	Description
	Auto	Motion-dependent and brightness-dependent switch on/switch off of the load
green	Permanent ON	Load is permanently switched-on/switched-off.
red	Permanent OFF	Extension unit signals, as well as radio signals, will not be evaluated

Table 1: Display of operating modes

Dimming status	Operation button	Performance of the insert	
Motion detector applied on switch insert			
OFF	Short press	Load is switched on for the set delay time	
ON	Short press	Extension of switch-on time by the set delay time	
Motion detector applied on flush-mounted dimmer			
OFF	Short press	Load is switched on to the switch-on brightness-level for the set delay time	
ON	Short press	Extension of switch-on time by the set delay time at the same brightness	
OFF	Long press	Load is switched on to switch-on brightness-level, subsequent dimming in the opposite direction of the last dimming process. Thereafter the load remains switched on for the delay time	
ON	Long press	Changes the current brightness. Dimming takes place in the opposite direction of the last dimming process until maximum or minimum brightness. Subsequently the load remains switched on at the set brightness for the set delay time	

Table 2: Operation via push-button extension unit

Short press on button	Setting mode	Confirmation of the load setting	Notes
1 x	Load fine-setting	Load blinks 1 x after approx. 30 s and changes to switching/ dimming operation	Not suitable for ohmic loads (e.g. in- candescent, HV halogen lamps); use factory load setting.
			If the load fine-setting does not bring any improvement for energy-saving lamps or 230 V LED lamps, select the energy-saving lamp fine-setting or 230 V LED lamp universal setting.
2 x	Factory load setting	Load blinks 2 x after approx. 6 s and changes to switching/dimming operation	
3 x	Energy-saving lamp fine- setting in phase cut-on	Load blinks 3 x after 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 touc	th 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 switching/dimming operation	The universal setting contains standard values which enable the operation of typical dimmable 230 V LED lamps.
Universal touc	h dimmer from 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 blinks 5 x	The selected setting mode is not supported by the insert.

Table 3: Load setting mode

Information for electricians

Installation and electrical connection

Selecting installation location

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

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.

Mounting on or close to metal surfaces may cause impairment of the radio transmission

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 4: Material penetration

- Observe the motion orientation: a distinction is made between direct approach and transverse motion. Motions transverse to the motion detector can be detected better than motions toward the motion detector (Fig. 4).
- Select a installation location that is free of vibration. Vibrations can cause undesired switching.
- Avoid sources of interference in the detection area (Figure 6/7). Sources of interference, e.g. heating elements, ventilation systems, air conditioners and illuminants that are cooling down can cause undesired switching (Fig. 4).
- To avoid disturbing influences, the detection angle can be restricted (see Restriction of the detection area).

Assembly of the device (Figure 1)

[m] 12 8 4 0 4 8 12

Information on electrical connection are to be taken from the operating instruction of for the

• Attach the bottom part of the application modu- Setting the detection area As soon as voltage is supplied to the applicompatibility to the insert used.

le (3) together with frame (2) to a suitable insert The detection angle can be restricted for the right (1) and establish a connection between insert side and for the left side via each adjuster (Fig. 5, and the application module via the interface 10) between 45° ... 90°. Thus the detection angle between application and power module (6). can be between 90° and 180° (Fig. 8). Use the adjusters to set the detection angle for cation module, the status LED indicates the Setting the detection behaviour Status LED Meaning

each side.

Test mode must be used to test the detection

performance. In test mode, the motion detector

motion in the detection field, then sources of in-

terference (see Installation location) are present

If the motion detector switches on without

Reduce the sensitivity if necessary and blank

out sources of interference by adjusting the

• Check the detection area using a detection test

If the detection area is too small, it can be ex-

tended via motion detector extension units or

per radio via a master-slave configuration (see

or the sensitivity is set too high.

detection angle or removing them.

and adjust if necessary.

radio configuration).

LED blinks green (approx. 5 s until motion detection is ac- tive)	Compatible	works independent of brightness. Each detection switches the lighting and the status LED on for 3 seconds. Thereafter motion detection will be deactivated for 2 seconds. The motion detector is connected and ready for operation.	
LED blinks red for 5 s	Not compatible.		
LED blinks oran-	Compatible, but not configured to each other. For a new configuration, the application module must be reset to factory settings.	 Setting the test mode. To do so, set the response brightness potentiometer (Fig. 5, 13) to the T position. 	
ge for 5 s		Leave the detection area and observe the switching behaviour. If the matter detector switches are without.	

- If available, fix dismantling protection with screw (5).
- After radio configuration and start-up, click the design cover (4) into place on the application module (3).

Start-up

display

Overview of operation and adjustment

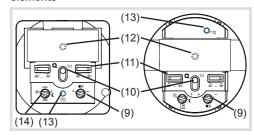


Fig. 5: Operating and adjustment elements of the bottom part of the application module

- (9) Sensitivity potentiometer
- (10) fct button
- (11) Detection angle adjuster
- (12) Status/fct LED (13) cfg button/LED

direct approach

Fig 6: Detection area of the radio motion detector 1,1 m

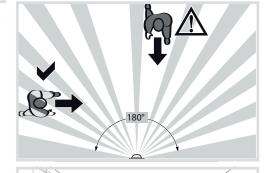
Fig 7: Detection area of the radio motion detector 2,2 m

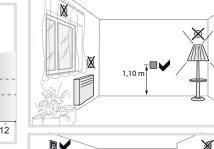
Detection area in case of:

(14) Response brightness potentiometer

transverse motion

10





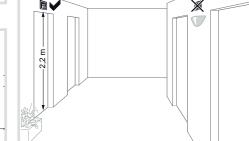


Fig 4: Installation location of the motion detectors

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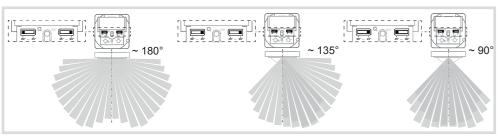


Fig. 8: Setting the detection angle

Setting the response brightness

The response brightness is the brightness value saved in the motion detector; when this value is undershot the motion detector switches the connected load if movements are detected. The response brightness can be set between approx. 5 (ℂ) over **150 Lux** to daytime operation (ು). The 🌣 symbol stands for brightness-independent switching. The response brightness can be set variably in the intermediate areas

- To control the lighting in stairwells in accordance with DIN EN12464-1, 2003-3, turn the potentiometer to the 150 Lux mark.
- Turn the response brightness potentiometer (Fig. 5, 14) to the desired position.
- To save the current ambient brightness as response brightness, use the Teach-In function (see Setting the response brightness via Teach-In function).

Setting the sensitivity

Detection is factory-set to maximum sensitivity. If there are frequent incorrect detections, the sensiti-

Turn the sensitivity potentiometer (Fig. 5, 9) to

fct LED | Configurable Function resulting from transmitter operation, display functions On switch insert On flush-mounted dimmer On/OFF ON/OFF, Short press on push-button: Switching ON/OFF dimming UP/ Long press on push-button: Dimming, reverse dim-DOWN 1 ming direction per actuation Short press on push-button: Switching ON dimmina Push and hold button: Dimming UP to maximum brightness-level OFF 1 OFF, Short press on push-button: Switching OFF Short press on push-button: Dimming DOWN to mini-DOWN 1 mum brightness-level Scene 1 Receivers are allocated to a scene due to the configuration of the function Short press on push-button: calling up the saved state Scene 2 1 of the connected load for the scene Switching ON for the set switch-on time Timer Factory setting 3 min ON/OFF Closing of the actuating contact switches the load (switch/push-button) ON, opening of the contact switches the load OFF. Switches the load with higher priority to the appropri-On Forced mode ON ate state. Execution of other commands is only pos-Forced mode OFF sible after resetting the forced command. 24: Presence-simulation ¹ Activates/deactivates execution of presence simulation (See activating/deactivating presence simulation). ■ Master-Slave ² Is used to extend the detection area. Receives switch-on commands in case of motion detection in the detection area of the transmitter (Slave). Switches the lighting ON for the set delay time. The brightness evaluation only takes place on the master, the slave only detects motion. Can only be configured between radio motion

- Execution of the receiver function and local motion detector function have the same priority If the transmitter was first switched on/off and then motion was detected afterwards, then the motion detector
- will override the transmitter command
- If motion was detected and thereafter during the delay time the system is switched on/off via the transmitter, then the transmitter will override the motion detector
- Only with radio motion detector on power supply for radio application module as transmitter

Table 5: Configurable functions

detectors

Assignment to transmitter is deleted

No function

Radio configuration - quicklink

The radio configuration sets the functional connection between commanding (transmitters) and function-executing (receivers) radio components. Thus 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
- Radio commands to control other receivers
- Functions that are executed when radio commands are received

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).

Configuration of radio motion detector as a

Configuration to control the load connected to the insert via reception of a radio command.

As an example the configuration of a wall-transmitter and a radio motion detector as receiver is described down below (Table 6).

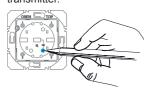
Configuration of motion detector as transmitter If the radio motion detector is operated as a transmitter, it can support the following functions for receivers. The specific function can vary depending on the receivers used:

ON/OFF (delay time) Pre-configured command in automatic mode: Motion detection at simultaneous undershooting of the brightness threshold switches the load ON, and after the delay time elapses actively OFF. The delay time elapses in the motion detector and is permanently set (3 min).

Result

Start configuration

 Short press on cfg button on the wall transmitter.



detector light up in red colour.

is automatically ended after 10 minutes.

ill fthere is no further operation, the configuration All receivers within radio range also indicate the configuration mode

The cfg LED on the wall transmitter blinks for 1 second.

If configured already, the fct LED of the motion detector

After each operation, the fct LED indicates the function.

If the transmitter button has already been configured

configured function is part of a group control, only this

function can be configured. To change a function, the

existing configuration must be deleted and the new

with a function in a different receiver and/or the

indicates the currently configured function.

one needs to be configured.

The cfg LEDs on the wall-transmitter and the radio motion

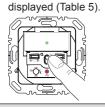
Select transmitter button

Short press on press-activation point on the wall-transmitter which should activate the function



Select function on receiver

 Repeated short press on fct button on the motion detector until the desired function is displayed (Table 5).



Confirming function on receiver

To confirm, keep the fct button pressed for more than than 2 seconds



The cfg LED blinks during the saving process (approx. 5 s). The fct LED confirms the function selection by displaying the corresponding colour



Rapid blinking of the cfg LED indicates an impossible combination or an error.

Finish configuration

 Short press on cfg button on the wall transmitter again.



The cfg LEDs on the wall-transmitter, on the motion detector and on all receivers within radio range go out. The

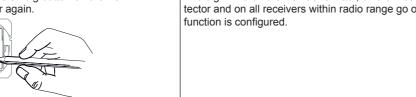


Table 6: Configuration of the function for the radio motion detector

Deleting a configuration

time elapse it switches the load OFF. The

switch-on time elapses in the receiver and

The radio motion detector must be attached to

a switch insert or flush-mounted dimmer. If the

supply for radio application modules, then it can

unit (slave) (see Executing a master-slave con-

only be configured as a transmitting extension

Down below there is an illustration of the configura

tion of the radio motion detector with receivers, for

which the supporting displays are executed via cfg

LED and fct LED (Table 7). Different configuration

displays, such as for receivers with display are

provided in the instructions for the receiver.

Executing the master-slave configuration

flush-mounted dimmer (Table 8).

determined by the master.

Start configuration

motion detector.

If the radio motion detector is attached to a power

supply for radio application modules, then it can

only be configured as a transmitting extension unit

The slave motion detector sends a pulse in case

of motion detection in its detection area. Upon

receiving this pulse, the master switches on for

the delay time, if the set brightness threshold is

Short press on cfg button on the radio

If there is no operation, configuration is

receiver to select the desired function (see

utomatically ended after 10 minutes.

the receiver operating instructions).

Select function on receiver

Confirming function on receiver

Finish configuration

motion detector.

To save the allocation of command and

pressed for more than 2 seconds.

Short press on cfg button on the radio

undershot. Delay time and brightness threshold are

(slave) to a radio motion sensor on switch insert or

figuration)

radio motion detector is mounted on a power

can be adjusted through configuration.

Motion detection at simultaneous To delete a configured receiver or the local operatiundershooting of the brightness threshold on, execute the configuration again. switches the load ON and after the switch-on

- Start configuration (see Configuration of radio motion detector as a receiver).
- If necessary, Select transmitter button.
- The step select transmitter button step does not apply for radio motion detectors as transmitters
- Select function on receiver: Select the function Delete on the receiver and confirm function on
- Finish configuration: Short press on cfg button

Configuration of group functions

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

- Start configuration (see Configuring radio motion detector as transmitter).
- Select function on receiver: Select the group function as described above on each receiver to be integrated and confirm function on the

The cfg LEDs on the radio motion detector and the

dio motion detector (transmitter) and receiver are in

If the radio motion detector has already been

configured with a function in a different receiver

control, only this function can be configured.

and/or the configured function is part of a group

To change a function, the existing configuration

must be deleted and the new one needs to be

The cfg LED blinks. After successful saving, the fct

The cfg LEDs on the motion detector and all recei-

vers within radio range go out. The radio command

for the radio motion detector has been configured.

Rapid blinking of the **cfg** LED indicates an

impossible combination or an error

configuration mode

Repeated short press on fct button on the After each operation, the fct LED indicates a function

Table 7: Configuration of motion detector as transmitter

function, keep the fct button on the receiver LED signals the saved function.

configured.

receivers within radio range light up in red colour. Ra-

• Finish configuration: Short press on cfg button on the transmitter

Setting of switch-on time for function "timer"

In order to realise the function Timer, the switchon time can be set on the receiver in stages. The factory setting is 3 min.

- Start configuration.
- If necessary select transmitter button: Select button with timer
- The step select transmitter button step does not apply for radio motion detectors as transmitters
- Select function on receiver: If the function **Timer** is indicated by the **fct** LED blinking red (Table 5), keep pressed the fct button on the receiver for more than 5 seconds until the cfg LED blinks briefly.

The blinking fct LED indicates the currently set switch-on time - 5 x for factory setting (Table 9).

- Each short press on **fct** button increases the switch-on time by one step.
- During the setting, the **fct** LED indicates the switchin-on time (Table 9) for orientation
- To accept the selected switch-on time, keep pressed the fct button for longer than 2 se-
- Finish configuration: Short press on cfg button on the transmitter.

of the fct LED

1	1 s
2	30 s
3	1 min
4	2 min
5	3 min
6	5 min
7	15 min
8	30 min
9	1 h
10	3 h

Table 9: Configurable switch-on times

Resetting the radio motion detector to factory

The device is not in configuration mode. • Keep the **cfg** button pressed for more than 10

- seconds until the cfg LED changes from a red lighting to blinking.
- Release the cfg button.

x-times flashing

The cfg LED blinks red rapidly. The device re-initialises itself. In the meantime the cfg LED lights Storage/transport temperature up in red colour. After that the LED goes out and Mounting orientation blinks 5 x to indicate the compatibility. The reset is made. The process lasts about 20 s.

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

Result

• Short press on **cfg** button on the radio motion detector on the power supply (transmitter, slave).



Start configuration

If there is no operation, configuration is automatically ended after 10 minutes.

Select function on receiver

detector on the switch insert or flush-mounted dimmer (master) to select the master-slave function



selected in this configuration Confirming function on receiver

pressed for more than 2 seconds.





configuration mode.

Short press on **cfg** button on the radio motion



Only the master-slave function or delete can be

 To save the allocation of command and function, keep the fct button on the receiver (master)

The cfg LED blinks. After successful saving, the **fct** LED signals the saved function. Rapid blinking of the cfg LED indicates an

Briefly activate the cfg button on the wall transmitter. | The cfg LEDs on the radio motion detectors



and all receivers within radio range go out. The master-slave configuration has been executed.

Table 8: Execution of the master-slave configuration

Switch-on time Technical data Connection Power supply

Appendix

Response brightness

Sensitivity approx. 10 ... 100 % Detection angle approx. 90 ... 180 Detection area (1.1 m) approx. 12 x 16 m Detection area (2.2 m) approx. 8 x 12 m 868 MHz Radio frequency KNX radio Radio protocol max. 20 transmitters/ Quicklink logic functions Receiver category < 1 % Transmitter duty cycle Protection type IP 20 0 ... 65 % Relative humidity (no condensation) -5 ... +45 °C Ambient temperature

Mounting on suitable inserts

approx. 5

... 1000 lux (∞)

-20 ... +60 °C

module on top

interface betweer

application and power

WUC35 Universal switch insert 1-gand WUC21 Touch dimmer (R, L) WUD86 Universal touch dimmer 1-gang WUD87 Power supply WUC18 for radio application module

The cfg LEDs on the radio motion detector (slave and master) light up in red colour.

All receivers within radio range also indicate the

