

Wireless switching/dimming top unit, 1-gang

Order No. : 5490 ..

Operating instructions**1 Safety instructions**

Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Danger of electric shock. Always disconnect before carrying out work on the device or load. In so doing, take all the circuit breakers into account, which support dangerous voltages to the device and or load.

Danger of electric shock. The device is not suitable for disconnection from supply voltage. Depending on the insert used, the load is not electrically isolated from the mains, even when the device is switched off.

These instructions are an integral part of the product, and must remain with the end customer.

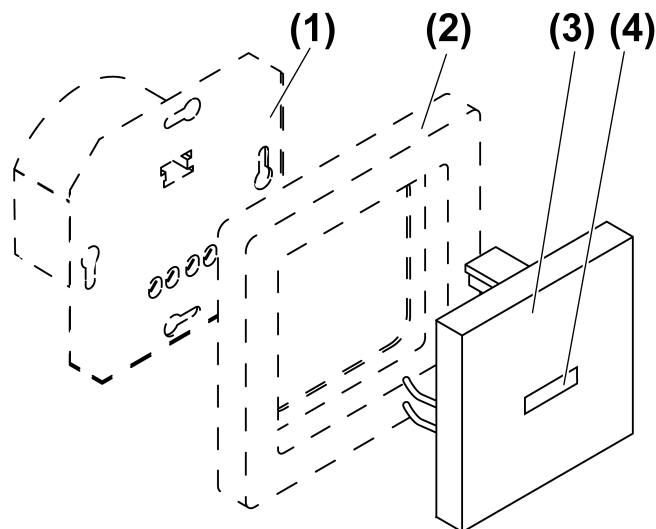
2 Device components

Figure 1: Device components

- (1) FM insert
- (2) Frame
- (3) Radio button
- (4) Status LED

3 Function**Intended use**

- Manual and radio-controlled operation of suitable flush-mounted inserts for switching or dimming (see accessories)
- Mounting on flush-mounted insert
- Operation with suitable radio transmitters

i No operation on pulse insert, 2-wire and 3-wire extension inserts possible.

Product characteristics

- Evaluation of extensions
- Scene operation possible
- Status indication with LED
- Status feedback to radio transmitter
- Switch-on brightness can be saved permanently when combined with flush-mounted inserts for dimming

Can be set with eNet server:

- Maximum brightness
- Minimum brightness
- Dimming speed
- Switch-on delay / switch-off delay
- Dim up/dim down ramp
- Switch-off warning
- Operation locks
- Continuous on, Continuous off
- Hotel function
- Run-on time
- Light control

Supplementary functions with eNet Server:

- Fully encrypted radio transmission (AES-CCM) from eNet Server software version 2.0
- Update of the device software
- Reading of error memory

Response after mains voltage return

The response after mains voltage return can be configured with the eNet Server. Default setting: Off.

4 Operation

- i** When operating with the eNet Server, operation and signalling could vary from what is described here.

Operation is performed directly on the device or on a connected extension.

- i** If operation takes place with radio transmitters, please observe the radio transmitter instructions.

Switch light

- Press button for less than 0.4 seconds.

The light is switched on or off. In combination with inserts for dimming, switch-on takes place at the saved switch-on brightness.

Status-LED (4) lights up: output is switched on.

Status-LED (4) off: output is switched off.

- i** In the case of the HVAC insert, only the output **Kanal 1** is switched, whilst the output **HLK** switches according to the output **Kanal 1** (see operation manual of the insert).

Adjust the brightness

Button is combined with an insert for dimming.

Light is switched on.

- Press top button for longer than 0.4 seconds.
The light gets brighter up to maximum brightness.
- Press bottom button for longer than 0.4 seconds.
Light gets darker to minimum brightness.

- i** Push-button: the light becomes brighter up to maximum brightness, remains there briefly and becomes dimmer down to minimum brightness, remains there briefly and becomes brighter again. This process repeats for as long as the push-button remains pressed.

Switch light on with minimum brightness

Button is combined with an insert for dimming.

- Press button at bottom for longer than 0.4 seconds.
Light is switched on at minimum brightness.
- i** If the button or 2-wire extension is pressed at the top or the push-button is pressed for longer than 0.4 seconds, then the light is switched on to minimum brightness and then brighter.

Save switch-on brightness

Button is combined with an insert for dimming.

- Set light to the required brightness.
- Press button over entire surface for longer than 4 seconds.
Switch-on brightness is saved. For confirmation the lighting switches off briefly and then on again to the saved switch-on brightness.
- i** An push-button cannot be used to save the switch-on brightness.

5 Information for electrically skilled persons

5.1 Fitting and electrical connection



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.

Connecting and fitting the device

To ensure good transmission quality, keep a sufficient distance from any possible sources of interference, e.g. metallic surfaces, microwave ovens, hi-fi and TV systems, ballasts or transformers.

The flush-mounted insert is correctly fitted and connected (see instructions for flush-mounted insert).

- Fit radio button (3) and frame (2) on flush-mounted insert (1).
- Switch on mains voltage.
- Carry out commissioning (see Commissioning chapter).

5.2 Commissioning



DANGER!

Electrical shock when live parts are touched.

Electrical shocks can be fatal.

During commissioning, cover the parts carrying voltage on radio transmitters and actuators and in their surrounding area.

- i** The button can also be commissioned with eNet server as an alternative to the commissioning described here.

Connecting with radio transmitter

Load is switched off.

- Press button over entire surface for longer than 4 seconds.

- i** Switch inserts switch the load on until the Status LED flashes.

The status LED (4) flashes after 4 seconds. The button is in programming mode for approx. 1 minute.

- Switch radio transmitter to programming mode as well (see radio transmitter instructions).
- Trigger telegram on the radio transmitter (see instructions of the radio transmitter).
The status LED lights up for 5 seconds.

The button is connected to the radio transmitter. The button and radio transmitter exit the programming mode automatically.

- i** If the status LED of the button flashes 3 times at 1-second intervals for approx. 5 seconds, then the programming operation was not successful. All the memory locations in the button or radio transmitter are occupied.
- i** All On and All Off buttons of a radio transmitter are connected to the actuator automatically as soon as the first connection to a radio transmitter takes place. Scene buttons must be connected separately.

Disconnecting connection to a radio transmitter

- Carry out the same steps as when connecting (see Connecting to radio transmitter).
The status LED (4) flashes quickly for 5 seconds. The button is disconnected from the radio transmitter. The button and radio transmitter exit the programming mode automatically.
- i** If there several connections or scene buttons for a radio transmitter, all connections must be disconnected individually.
- i** All On and All Off buttons of a radio transmitter are disconnected automatically as soon as the last connection to the radio transmitter is disconnected. Manual disconnection is not possible.

Resetting button to the default setting

All connections to radio transmitters are disconnected and parameters are reset to default setting.

- i** The connections in the radio transmitters are preserved and must be deleted separately.
Load is switched off.
- Press button over the entire surface for at least 20 seconds.
- i** Switch inserts switch the load on until the Status LED flashes.
The status LED flashes after 4 seconds. After 20 seconds the status LED flashes faster.
- Release the button and press it briefly and fully once again within 10 seconds.
The status LED flashes more slowly for approx. 5 seconds.
The button is reset to default setting.

6 Appendix

6.1 Technical data

| | |
|----------------------------------|---------------------|
| Ambient temperature | -5 ... +45 °C |
| Radio frequency | 868.0 ... 868.6 MHz |
| Transmitting range in free field | typ. 100 m |
| Transmission capacity | max. 20 mW |
| Receiver category | 2 |

6.2 Parameter list

The device parameters can be changed with the eNet server:

Device and channels

| Parameters | Setting options, Basic setting | Explanations |
|------------|--------------------------------|--------------|
|------------|--------------------------------|--------------|

| | | |
|----------------|---|---|
| Function | Light (dimming), light (switching), switching, unused Basic setting: Light (dimming) | Light (dimming) The channel is integrated for the "Lighting" central function in the eNet SMART HOME app . Use the setting in combination with a dimming insert. Light (switching) The channel is integrated for the "Lighting" central function in the eNet SMART HOME app . Use the setting in combination with a switching insert. Switching The channel is not integrated in any central function. Use the setting in combination with a switching insert. Unused The channel is not displayed in the eNet SMART HOME app and is disabled for use in the commissioning interface. |
| Operating mode | Normal operation Continuous on Continuous off Basic setting: Normal Operation | Normal operation The output can be operated with radio transmitters and the Prog button. Continuous on The output switches to continuously "On". All operations of radio transmitters and the Prog button are ignored. Continuous off The output switches to continuously "Off". All operations of radio transmitters and the Prog button are ignored. |

Advanced device settings

| Parameters | Setting options, Basic setting | Explanations |
|--------------------------------|--------------------------------|---|
| Manual commissioning | On, Off Basic setting: On | Blocks manual commissioning for the device channel. Note: In the "Off" setting, the device cannot be reset to the factory setting. |
| Allow extension unit operation | On, Off Basic setting: On | Prevents operation via wired extensions. |

Channel settings "dimming"

| Parameters | Setting options, Basic setting | Explanations |
|------------|--------------------------------|--------------|
|------------|--------------------------------|--------------|

| | | |
|-------------------------|------------------------------------|--|
| Switch-on brightness | 1...100 % Basic setting: 100 % | During brief operation, the output switches on at the set switch-on brightness. Note: If the value is above the set maximum brightness or below the minimum brightness, then the system will switch to the appropriate limit value. |
| Minimum brightness | 1...67 % Basic setting: 5 % | Specifies the minimum settable brightness. Note: If parameters or scene values are set to a level lower than the minimum brightness, then the system will dim to minimum brightness. |
| Maximum brightness | 75...100 % Basic setting: 100 % | Specifies the maximum settable brightness. Note: If parameters or scene values are set to a level higher than the maximum brightness, then the system will dim to maximum brightness. |
| Dimming adjustment time | 1...60 s Basic setting: 4 s | Time from minimum brightness until reaching maximum brightness (dimming speed). |
| Switch-on delay | 0 s ... 24 h Basic setting: 0 s | The load switches on after a delay. Repeated switch-on commands restart the delay time. If the load has not yet been switched on due to the delay when a switch-off command comes, then the load will remain off. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Switch-off delay | 0 s ... 24 h Basic setting: 0 s | The load switches off after a delay. Repeated switch-off commands restart the delay time. If the load has not yet been switched off due to the delay when a switch-on command comes, then the load will remain on. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |

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| Dim up ramp | 0 s ... 24 h Basic setting: 0 s | Time between switch-on and reaching switch-on brightness. The light is switched on at minimum brightness and then dimmed to the switch-on brightness. Only applies to switch-on with transmitters (short operation). If scenes are recalled or switching uses logic modules, the switch-on brightness is approached using so-called soft dimming (not configurable). |
| Dim down ramp | 0 s ... 24 h Basic setting: 0 s | Time until reaching minimum brightness. The light is dimmed to minimum brightness and then switched off. Only applies to switch-off with transmitters (short operation). If scenes are recalled or switching uses logic modules, the system switches off directly. |
| Run-on time | 0 s ... 24 h Basic setting: 0 s | As soon as a run-on time has been entered, the actuator will no longer remain on permanently, but only for the length of the run-on time. The run-on time is restarted if actuation is repeated. This parameter is directly connected to the "Manual switch-off of run-on time" parameter. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Manual switch-off of the run-on time | On, Off Basic setting: Off | Allows manual switch-off of a running run-on time. If the parameter is switched off, then a switch-off command will also switch the actuator on. Only visible if a run-on time was set. |
| Operating hours | 0...65535 Basic setting: Current value | The time is counted during which the load is physically switched on. This parameter can be reset to "0", for example after exchanging the load. The Reset button is used to reset the meter to "0". The device must be programmed to apply the change. |

Extended channel settings "dimming"

| Parameters | Setting options, Basic setting | Explanations |
|---|--|---|
| Operating mode | Normal operation Continuous on Continuous off Basic setting: Normal Operation | see Device and channels |
| Manual commissioning | On, Off Basic setting: On | Blocks manual commissioning for the device channel. Note: In the "Off" setting, the device cannot be reset to the factory setting. |
| Local Operation | On, Off Basic setting: On | Blocks the output for operation using the Prog button. |
| Behaviour on voltage return | On Off Last value Configured brightness Basic setting: Off | Defines the behaviour of the output after voltage return. |
| Brightness on voltage return | 0...100 % Basic setting: 100 % | Brightness value, set by the output after voltage return (mains voltage). The parameter "Behaviour after voltage return" must be set to "Configured brightness". Note: If the value is above the set maximum brightness or below the minimum brightness, then the system will switch to the appropriate limit value. |
| Behaviour after the end of the disabling function | On Off no change Last value Basic setting: No change | Behaviour of the output when a block is removed. |
| Manual saving of the scene values | On, Off Basic setting: On | Disables the saving of the current brightness value as scene value in an actuator for a command via a transmitter. |

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| Switch-off warning | On, Off Basic setting: Off | If the switch-off warning is active, then, during switch-off, the systems dims to minimum brightness within 30 seconds and only then switches off. If the parameter "Dim down ramp" is configured as longer than 30 s, then the length of the dim down ramp is applied. If, during the dim down operation, another command is given, e.g. switch on or scene recall, then the switch-off warning stops and the command is executed. A switch-off command restarts the time for the switch-off warning. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Priority, lock-out protection | 0...4 Basic setting: 1 | Specifies the priority for recalling and removing a scene of type Lock-out protection for the channel. Note: 1 is the highest priority and 4 the lowest. 0 means no priority. |
| Activate lock-out protection brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on activating the lock-out protection. |
| Deactivate lock-out protection brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on deactivating the lock-out protection. Only visible when the priority for the lock-out protection is 0. |
| Priority, restraint | 0...4 Basic setting: 2 | Specifies the priority for recalling and removing a scene of type Restraint for the channel. |
| Activate forced operation brightness value | 0...100 % Basic setting: 100 % | Defines the behaviour of the output on activating the forced operation. |
| Deactivate forced operation brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on deactivating the forced operation. Only visible when the priority for the forced operation is 0. |
| Priority, wind alarm | 0...4 Basic setting: 3 | Specifies the priority for recalling and removing a scene of type Wind alarm for the channel. |
| Activate wind alarm brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on activating the wind alarm. |

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| Deactivate wind alarm brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on deactivating the wind alarm. Only visible when the priority for the wind alarm is 0. |
| Priority, sun protection | 0...4 Basic setting: 0 | Specifies the priority for recalling and removing a scene of type Sun protection for the channel. |
| Activate sun protection brightness value | 0...100 % Basic setting: 100 % | Defines the behaviour of the output on activating the sun protection. |
| Deactivate sun protection brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on deactivating the sun protection. Only visible when the priority for the sun protection is 0. |
| Priority, twilight | 0...4 Basic setting: 0 | Specifies the priority for recalling and removing a scene of type Twilight for the channel. |
| Activate twilight brightness value | 0...100 % Basic setting: 100 % | Defines the behaviour of the output on activating the twilight function. |
| Deactivate twilight brightness value | 0...100 % Basic setting: 0 % | Defines the behaviour of the output on deactivating the twilight function. Only visible when the priority for the twilight function is 0. |
| Switch off brightness overshoot | On, Off Basic setting: On | Allows automatic switch-off according to the brightness. If the parameter is On, then the light controller switches off automatically when the brightness setpoint is greatly exceeded. Note: This parameter is not yet active, as a light controller has not yet been implemented. |
| Switch on brightness undershoot | On, Off Basic setting: Off | Allows automatic switch-on according to the brightness. If the parameter is On, then the light controller switches on automatically when the brightness setpoint is greatly undershot. We recommend only using the parameter in connection with the parameter "Switch-off on brightness overshoot". Note: This parameter is not yet active, as a light controller has not yet been implemented. |

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| Hotel function | On, Off Basic setting: Off | If the hotel function is activated, the system will dim to 20 % brightness when a switch-off command is made. Switch-off is only possible with a forced position command. Note: If the minimum brightness is set to greater than 20 %, then the system dims to the set minimum brightness when the hotel function is activated. |
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Channel settings "switching"

| Parameters | Setting options, Basic setting | Explanations |
|------------------|------------------------------------|--|
| Switch-on delay | 0 s ... 24 h Basic setting: 0 s | The load switches on after a delay. Repeated switch-on commands restart the delay time. If the load has not yet been switched on due to the delay when a switch-off command comes, then the load will remain off. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Switch-off delay | 0 s ... 24 h Basic setting: 0 s | The load switches off after a delay. Repeated switch-off commands restart the delay time. If the load has not yet been switched off due to the delay when a switch-on command comes, then the load will remain on. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Run-on time | 0 s ... 24 h Basic setting: 0 s | As soon as a run-on time has been entered, the actuator will no longer remain on permanently, but only for the length of the run-on time. The run-on time is restarted if actuation is repeated. This parameter is directly connected to the "Manual switch-off of run-on time" parameter. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |

| | | |
|--------------------------------------|---|--|
| Manual switch-off of the run-on time | On, Off Basic setting: Off | Allows manual switch-off of a running run-on time. If the parameter is switched off, then a switch-off command will also switch the actuator on. Only visible if a run-on time was set. |
| Operating hours | 0...65535 Basic setting: Current value | The time is counted during which the load is physically switched on. This parameter can be reset to "0", for example after exchanging the load. The Reset button is used to reset the meter to "0". The device must be programmed to apply the change. |

Extended channel settings "switching"

| Parameters | Setting options, Basic setting | Explanations |
|---|--|---|
| Operating mode | Normal operation Continuous on Continuous off Basic setting: Normal Operation | see Device and channels |
| Manual commissioning | On, Off Basic setting: On | Blocks manual commissioning for the device channel. Note: In the "Off" setting, the device cannot be reset to the factory setting. |
| Local Operation | On, Off Basic setting: On | Blocks the output for operation using the Prog button. |
| Behaviour on voltage return | On Off Last value Basic setting: Off | Defines the behaviour of the output after voltage return. |
| Behaviour after the end of the disabling function | On Off no change Last value Basic setting: No change | Behaviour of the output when a block is removed. |
| Manual saving of the scene values | On, Off Basic setting: On | Disables the saving of the current brightness value as scene value in an actuator for a command via a transmitter. |

| | | |
|--|-------------------------------|--|
| Switch-off warning | On, Off Basic setting: Off | If the switch-off warning is active, then, during switch-off, the systems dims to minimum brightness within 30 seconds and only then switches off. If the parameter "Dim down ramp" is configured as longer than 30 s, then the length of the dim down ramp is applied. If, during the dim down operation, another command is given, e.g. switch on or scene recall, then the switch-off warning stops and the command is executed. A switch-off command restarts the time for the switch-off warning. Note: The set time apply to operation using radio transmitters. The device is switched immediately when the Prog button is pressed. |
| Priority, lock-out protection | 0...4 Basic setting: 1 | Specifies the priority for recalling and removing a scene of type Lock-out protection for the channel. Note: 1 is the highest priority and 4 the lowest. 0 means no priority. |
| Activate lock-out protection switching state | On, Off Basic setting: Off | Defines the behaviour of the output on activating the lock-out protection. |
| Deactivate lock-out protection switching state | On, Off Basic setting: Off | Defines the behaviour of the output on deactivating the lock-out protection. Only visible when the priority for the lock-out protection is 0. |
| Priority, restraint | 0...4 Basic setting: 2 | Specifies the priority for recalling and removing a scene of type Restraint for the channel. |
| Activate forced operation switching state | On, Off Basic setting: On | Defines the behaviour of the output on activating the forced operation. |
| Deactivate forced operation switching state | On, Off Basic setting: Off | Defines the behaviour of the output on deactivating the forced operation. Only visible when the priority for the forced operation is 0. |
| Priority, wind alarm | 0...4 Basic setting: 3 | Specifies the priority for recalling and removing a scene of type Wind alarm for the channel. |
| Activate wind alarm switching state | On, Off Basic setting: Off | Defines the behaviour of the output on activating the wind alarm. |

| | | |
|---|-------------------------------|---|
| Deactivate wind alarm switching state | On, Off Basic setting: Off | Defines the behaviour of the output on deactivating the wind alarm. Only visible when the priority for the wind alarm is 0. |
| Priority, sun protection | 0...4 Basic setting: 0 | Specifies the priority for recalling and removing a scene of type Sun protection for the channel. |
| Activate sun protection switching state | On, Off Basic setting: On | Defines the behaviour of the output on activating the sun protection. |
| Deactivate sun protection switching state | On, Off Basic setting: Off | Defines the behaviour of the output on deactivating the sun protection. Only visible when the priority for the sun protection is 0. |
| Priority, twilight | 0...4 Basic setting: 0 | Specifies the priority for recalling and removing a scene of type Twilight for the channel. |
| Activate twilight brightness value | On, Off Basic setting: On | Defines the behaviour of the output on activating the twilight function. |
| Deactivate twilight switching state | On, Off Basic setting: Off | Defines the behaviour of the output on deactivating the twilight function. Only visible when the priority for the twilight function is 0. |

Information window

In the Information window, the load can be controlled and the information about the device can be displays.

Channel control/channel information

| Display value | Explanations |
|-----------------------|--|
| Current dimming value | The load can be dimmed using the slider or a brightness value entry. Only when "Function" is set to "Light (Dimming)". |
| Load state | The load can be switched on or off. |
| Restraint | Display of forced position status. |
| Operating hours | Display of the operating hours since the last restart in the Settings window Einstellungen . |

6.3 Accessories

Operation with all System 2000 flush-mounted inserts for switching or dimming.

6.4 Conformity

Gira Giersiepen GmbH & Co. KG hereby declares that the radio system type Order No. 5490 ..

corresponds to the directive 2014/53/EU. You can find the full article number on the device. The complete text of the EU Declaration of Conformity is available under the Internet address: www.gira.de/konformitaet

6.5 Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

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