TECHNICAL DATA

Nominal supply voltage:	230 VAC 50/60 Hz
Nominal power consumption:	0,5 W
Transmission / Transmission way:	radio – ISM band 868 MHz / two-way transmission - 9600 bps
Coding:	algorithm based on 128-bit key
Operating range:	up to 250 m in the open area
Optical signalling of operation:	yes - LED green
Number of paired buttons:	maximum 96 pairs
Current receiver's mode information:	yes – in the EXTA LIFE mobile application (ON/OFF mode + % value of lighting luminous flux intensity)
Operating modes in cooperation with EXTA LIFE system transmitters:	single-button, two-button, time, comfort
Operating modes in cooperation with EXTA LIFE controller:	switching on, switching off, luminous flux intensity adjustment by means of a slide, time switching on, maximum 4 „favourite" settings
Number of external inputs:	1
Memory level:	yes
Cooperation with push-buttons*:	monostable (push-buttons), bistable
Functionality with monostable push-buttons:	• switching on the latest adjusted lighting level, • switching on the 100% brightness, • brightness adjustment, time switching on
Functionality with bistable push-buttons:	• switching on the latest adjusted lighting level, • switching on the 100% brightness, • switching off, time switching on in case of a bistable relay, each change of a push-button mode causes the input mode switches on to the opposite
Time adjustment range:	1 sec. ÷ 18 hrs.
Control element:	2 x MOSFET transistor
Control method:	„leading edge" – input switch on in „0"
Load support:	• incandescent and halogen 230 V lighting sources • 12 V lighting supplied by an electronic transformer (ELV) • 12 V lighting supplied by a magnetic transformer (MLV) • selected dimmable LEDs • selected dimmable CFL lamps
Number of output channels:	1
Maximum output load:	• 250 W for R loads – incandescent and halogen lighting sources • 200 VA for RC loads – electronic transformers, dimmable CFL lamps, dimmable LEDs • 200 VA for RL loads – magnetic transformers
Number of terminal clamps:	4 (wires with cross-section up to 2,5 mm2)
Casing mounting:	Ø60 mm junction box
Operating temperature range:	-10 do +55 °C
Protection degree:	IP20
Protection class:	II
Dimensions:	47,5 x 47,5 x 20 mm
Weight:	0,04 kg
Reference standards:	EN 60669, EN 60950, EN 61000 ETSI EN 300 220-1, ETSI EN 300 220-2

* switch type configured by means of exta life mobile application

** individually programmed time for radio receivers, for the external input, and for exta life application control

DESCRIPTION

RDP-21 radio dimmer is designed to adjust the luminous flux intensity of lighting fittings equipped with incandescent and halogen 230 V lighting, and with lighting sources supplied by electronic ad toroidal transformers. The lighting luminous flux intensity can be changed for selected dimmable LEDs and dimmable CFL lamps. Dimmer control can be carried out either in a wireless way (radio) by means of transmitters or EXTA LIFE controller, or wired by means of a monostable or bistable push-button. The IN input, configured in a mobile application, can be used in a wired control. Due to the two-way communication between a receiver and a controller, the current dimmer's mode is shown in the mobile application (the ON / OFF mode + luminous flux intensity level in%). This way of communication enables the receiver's parameterization and a remote adding of transmitters (without a physical access to the receiver). Frame encoding algorithm ensures the control security. RDP-21, apart from the controller, can be simultaneously operated by EXTA LIFE system transmitters. A larger number of transmitters can be added to a receiver which, in turns, enables an independent control from several places. The device is designed for (surface and flush) junction box installation. The receiver has an implemented function of a remote software update by means of the controller. The functionality of the dimmer is enhanced by programmable dimming and brightening times and adjusted minimum and maximum levels of lighting.

FEATURES

- compatible with a controller and EXTA LIFE system transmitters,
- two-way transmission – dimmer mode indication in the mobile application,
- control element: 2 x MOSFET transistor,
- dimming realised as „leading edge" – input switch on „0",
- cooperation with incandescent and halogen 230 V lighting sources,
- cooperation with lighting sources supplied by electronic or toroidal transformers,
- cooperation with selected dimmable LEDs and dimmable CFL lamps,
- programmable external input,
- connection possibility of a monostable or a bistable push-button,
- 4 operating modes in cooperation with transmitters (1 push-button, 2 push-button, time, comfort),
- 2 operating modes in cooperation with a controller (switching on / switching off + luminous flux intensity adjustment, time),
- the latest lighting level memory,
- adjustable brightening/dimming time,
- adjustable minimum and maximum lighting level,
- software update possibility,
- mounting in a Ø60 mm junction box.

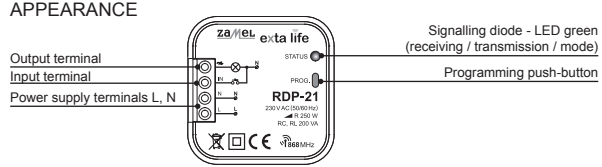
FUNCTIONALITY

1. The RDP-21 dimmer can be simultaneously controlled by:
   a. EXTA LIFE system transmitters:
   - switching on the lighting to the last adjusted level,
   - switching off the lighting,
   - lighting luminous flux intensity adjustment (longer pressing of the transmitter's push-button),
   - time switching on,
   - various operating modes (1 push-button, 2 push-button, time, comfort),

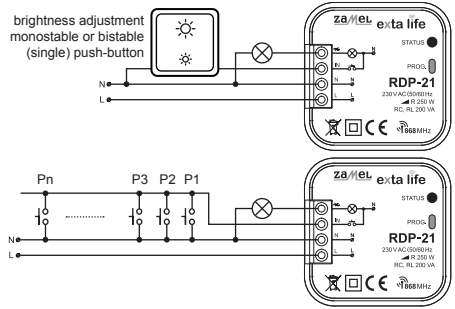
   b. EXTA LIFE mobile application, after pairing with a controller:
   - switching on the lighting to the last adjusted level,
   - switching off the lighting,
   - lighting luminous flux intensity adjustment by means of a slide (% luminous flux intensity value),
   - a possibility of switching on the dimmer for pre-set time,
   - a possibility of activation of 4 favourite settings (maximum),

   c. external input:
   - switching on the lighting to the last adjusted level,
   - switching off the lighting,
   - switching on the lighting to 100%,
   - lighting luminous flux intensity adjustment (only for monostable push-buttons - longer pressing of the transmitter's push-button),
   - time switching on.
2. Current dimmer mode (switched on / switched off) and current lighting luminous flux intensity are shown in the mobile application. The dimmer's mode is signalled by means of an icon and by a push-button position (ON / OFF).
3. It is possible to assign a larger number of push-buttons of EXTA LIFE radio transmitters to the RDP-21 device – maximum 96 pairs (e.g. 48 transmitters in the 2 push-button mode).
4. Transmitters' push-buttons can be assigned to the RDP-21 dimmer by means of the PROG push-button or „remotely" by means of the mobile application (without a direct access to a dimmer).
5. Few RDP-21 dimmers can cooperate with one transmitter – it enables to control a larger number of lighting fittings (CAUTION: in this case, the 2 push-button mode is recommended) or an independent control from different places.
6. A dimmer can be simultaneously paired only with one EXTA LIFE controller.
7. Push-buttons added to a dimmer can be selectively deleted.
8. There is a possibility to delete simultaneously all push-buttons added to a dimmer's memory (reset to default settings).
9. Basic RDP-21 parameters are configured by means of the mobile application.
10. A remote software update of a dimmer is also possible due to the mobile application (the EXTA LIFE controller must be connected to the Internet).

APPEARANCE



CONNECTION DIAGRAM



MOUNTING

The RDP-21 dimmer is designed to be mounted in a junction box. Its dimensions enable flush (Ø60 minimum) and surface mounting. In case of a flush junction box, a deepened box is recommended, as it makes mounting easy with a large number of wiring and a big cross-section of connection wires. The device is designed for single-phase installation and must be installed in accordance with standards valid in a particular country. The device should be connected according to the details included in this manual instruction. Installation, connection and control should be carried out by a qualified electrician staff, who act in accordance with the service manual and the device functions. In case of casing dismantling, the guarantee is lost and an electric shock may occur.

CAUTION: Before installation make sure the connection cables are not under voltage. The cruciform head screwdriver 3,5 mm should be used to install the device.

1. Disconnect power supply by the phase fuse, the circuit-breaker or the switch-disconnector combined to the proper circuit.
2. Check if there is no voltage on the connection cables by means of a special measuring equipment.
3. Connect the device cables with the terminals in accordance with the installing diagram.
4. Install RDP-21 in a junction box.
5. Switch on the power supply from the mains and check if the device operates properly.

CAUTION: After power supply has been applied, the dimmer will carry out service activities for about 5 seconds (it is signalled by a green STATUS LED, it will flash at an interval of 1 second). During this time the receiver's control is not possible.

In case of control by means of the EXTA LIFE system transmitters, it is necessary to programme transmitters and receivers earlier (see Programming transmitters). In case of dimmer cooperation with a controller, it is also necessary to pair it earlier (see Receivers' registration in the EXTA LIFE system). As for the (IN) local input, in the event of connection a monostable push-button, it is ready for an immediate operation.

DEFAULT SETTINGS

Parameter	Default settings	Configuration possibilities
dimmer's operation after power supply has been applied	• switched off input	• yes – mobile application
IN input	• single monostable push-button	• yes – mobile application
IN input operation mode	• bistable control mode • switching on to the last adjusted level • switching off • luminous flux intensity adjustment • switching on the lighting to 100%	• yes – mobile application
default time for time mode	• 10 s	• yes – mobile application, • PROG push-button

MOUNTING REMARKS

1. Do not mount dimmers in a close proximity to each other (if there is a possibility, keep a distance of minimum 15 cm between RDP-21 devices). Particularly, avoid installation of one dimmer over the another.
2. The RDP-21 receiver cooperates with incandescent light sources and halogen lamps 230 V AC, 12 V light sources supplied by an electronic transformer (ELV) or a magnetic transformer (MLV) and selected dimmable LEDs and fluorescent CFL lamps.
3. Do not connect loads greater than recommended.
4. Minimum load connected to the output of a dimmer is about 15 W.
5. In case a magnetic transformer is connected to a dimmer's output, then it is necessary to load at least 50% of the transformer's nominal power.
6. In case of a dimmer and magnetic transformer cooperation, a noisy operation of the transformer is noticeable at a certain degree of control (to a large extent it depends on the quality and power of the transformer). For this reason, the use of electronic transformers (ELV) is recommended.
7. It is not recommended to connect more than one transformer to the output of the RDP-21 dimmer (it refers to both electronic and magnetic transformers).
8. It is necessary to increase the minimum level of lighting while using dimmable fluorescent lamps (CFL). It is possible to change this parameter by means of a mobile application in cooperation with the EXTA LIFE controller. Increasing the minimum lighting level protects the fluorescent lamps (CFL) against switching off, if they are dimmed to a minimum (if the dimmer output voltage is too low). The same problem also applies to some LEDs.
9. In case of dimmable LEDs and compact fluorescent lamps, the effect of light incandescence or flicker of the switched off light source may occur. In some situations, a limited lighting luminous flux intensity adjustment can also occur. It depends on the structure of used light bulbs and their nominal power.
10. During mounting, make sure the receiver is not exposed to direct water and operation in an increased humidity environment. The mounting ambient temperature range should be within the range from -10 to + 55 °C.
11. The RDP-21 receiver is designed to be mounted indoor. In case the receiver is mounted outdoor, it must be placed in an additional hermetic casing.
12. Monostable or bistable push-buttons can be connected to the IN input. The dimmer cooperates only with monostable push-buttons. By default, the input is adapted to cooperate with monostable push-buttons. The use of bistable push-buttons requires a configuration change of the dimmer. The above is done by means of a mobile application in cooperation with the EXTA LIFE controller.
13. In case of monostable push-buttons, there is a connection possibility of several push-buttons to the IN input - it allows for an independent control of this device from several places.

OPERATION MODES

Functionality by control of extalife system transmitters.

- Lighting luminous flux intensity adjustment is possible only in case the dimmer's load is switched off.
- Brightening the lighting level from the minimum to the maximum is realised according to the adjusted 'brightening time'.
- Dimming the lighting level from the maximum to the minimum is realised according to the adjusted 'dimming time'.
- Brightening and dimming times can be configured in the range from 1 to 30 seconds by means of a mobile application in coordination with the EXTA LIFE controller. Default time is 1 second.
- The RDP-21 dimmer is equipped with level memory – the adjusted luminous flux intensity is remembered by the dimmer, after it has been switched off (in a typical configuration, it does not refer to a switch off due to a power supply failure).
- Particular push-buttons of extalife radio transmitters can be assigned to operate in four modes (see Programming push-buttons of EXTA LIFE radio transmitters):

2 PUSH-BUTTON MODE

Two push-buttons of a transmitter are always used in the 2 push-button mode to control a dimmer. Short pressing of one push-button always realises the "switch on" function, and short pressing of the second one always realises the "switch off" function. The lighting luminous flux intensity adjustment is realised by a longer pressing of an appropriate transmitter's push-button:

- longer (>2s) pressing of the "switch on" push-button realises the brightening function up to the maximum level
- longer (>2s) pressing of the "switch off" push-button realizes the dimming function up to the minimum level.

CAUTION: The 2 push-button mode is recommended to control a larger number of dimmers by means of one dimmer.

1 PUSH-BUTTON MODE

Only one push-button of a transmitter is used in the 1 push-button mode to control a dimmer. Short pressing of the push-button always realises the "switch on" and "switch off" functions, based on a cyclical change of the dimmer's output mode. The lighting luminous flux intensity adjustment is realised by a longer (>2 s) pressing of the transmitter's push-button. After the dimmer is switched on, pressing the push-button for a longer time realises the brightening function to the maximum. If, after reaching a certain lighting level, the push-button is released, then another longer pressing the push-button will realise the dimming function to the minimum level. If the transmitter's push-button is pressed all the time, then the lighting luminous intensity adjustment is carried out continuously in a brightening sequence to the maximum level - in a dimming sequence to the minimum level, etc.

CAUTION: 1 push-button mode enables an independent control of a larger number of receivers by means of one transmitter (e.g. by means P-457/4 remote control, it is possible to control four RDP-21 dimmers maximum).

In the 1 push-button mode, it is not recommended to assign the same push-button to few dimmers. During operation in such a configuration, a jitter may occur.

TIME MODE

Only one push-button of a transmitter is used in time mode to control a dimmer. After a short pressing of the button, the dimmer's output is switched on with a maximum value of the lighting luminous flux intensity and it switches off automatically after the programmed time tON1. Pressing the transmitter's push-button during the countdown results in earlier switching off the dimmer's output. The exception is in case the push-button is pressed during dimming - then the dimmer is not switched off, but the brightening starts and tON1 time is counted from the beginning (retriggered time). The tON1 switch on time is programmed in the range from 1 sec. to 18 hrs. In case of RDP-21 dimmer, it is possible to adjust an independent time for each push-button programmed in time mode, and for the local input IN, and for the control realised by means of an application.

CAUTION: Zone time or individual times for particular push-buttons can be programmed directly by a receiver (PROG. push-button) or by means of a mobile application in cooperation with the EXTA LIFE controller.

Time for the local input and time to control by means of the application can be programmed only by the application.

COMFORT MODE

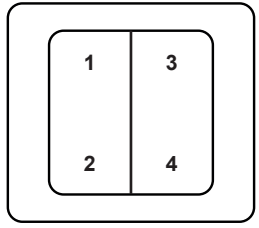
Comfort mode refers only to transmitters equipped with minimum four push-buttons (e.g. RNK-24, P-457/4). Functionality of the comfort mode will be presented on the example of RNK-24 transmitter (assuming that during programming push-buttons 1 and 2 were assigned in the first step and push-buttons 3 and 4 in the second step):

Push-button „1" – realises only the dimmer's switching on function to 100% brightness

Push-button „2" – realises only the dimmer's switching off function

Push-button „3" – short pressing switches on the dimmer to the memorised lighting level. Longer pressing (>2 s) realises the brightening function to the maximum level.

Push-button „4" – short pressing of the push-button switches off the dimmer. Longer pressing (>2 s) realises the dimming function to the minimum level.



- If the dimmer was switched on to 100 % by means of push-button "1", then pressing push-button "3" shortly causes the dimmers switches to the memorised level.
- If the dimmer was switched on to the memorised level by means of push-button "3", then pressing push-button "1" shortly causes the load switches on to 100% brightness.
- In case the dimmer is switched off, then pressing longer push-button "3" causes the dimmer switches on with a fluent brightening from the minimum level.

CAUTION: Functionality of particular buttons can differ – it depends on the sequence of assigning them to a dimmer during programming.

Functionality by means of external IN input control

MONOSTABLE 1 PUSH-BUTTON SWITCH (DEFAULT FOR IN INPUT)

- Switch on / switch off control with lighting luminous flux intensity adjustment (default for the IN input) – bistable mode (sequential mode change ON / OFF). Operation in accordance with 1 push-button mode for radio transmitters. Additionally, two quick input (IN) presses cause the load is switched on to 100% brightness.

- Time mode control.
  Operation in accordance with time mode for radio transmitters. This mode is configured by means of the EXTA LIFE mobile application in cooperation with a controller. Switching on time can be adjusted in the range from 1 sec. to 18 hrs. ("Time for input" parameter).

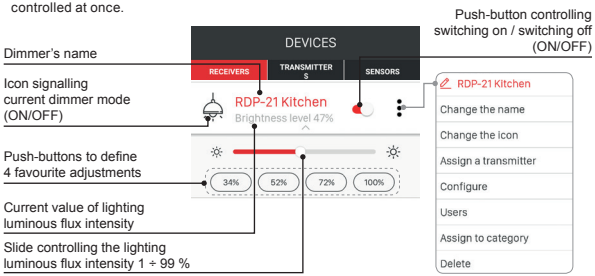
BISTABLE 1 PUSH-BUTTON SWITCH

- Switch on / switch off control to the last remembered level + switching on the light to 100% - bistable mode (sequential mode change ON / OFF).
  In case of a bistable switch control, each change of switch mode causes mode change on the dimmer's output. It is only possible to switch on and switch off the last remembered level. Two quick changes cause the load is switched on to 100% brightness.
  CAUTION: There is no possibility to adjust the lighting luminous flux intensity in cooperation with a bistable switch.

- Time mode control.
  Operation is in accordance with time mode control for monostable switches, except that switching on the dimmer's output for a defined time or its switching off is activated by a mode change on the input IN (switch position change).

Functionality control by means of the EXTA LIFE mobile application

- Control of the RDP-21 dimmer by means of a mobile application is possible only after it has been paired with the EXTA LIFE controller (see RDP-21 RECEIVER REGISTER (PAIRING) in EXTA LIFE SYSTEM).
- After pairing, the switch is visible on the receivers' list in the EXTA LIFE system and can be controlled at once.



- Clicking the "ON/OFF" control push-button switches on a dimmer to the last remembered level or switches it off. Current value of lighting luminous flux intensity is shown by the parameter "Brightness level" and by the slide position. Dimmer's mode is signalled by means of an icon and by a backlit control push-button.
- In case the "Switching on time" parameter is adjusted in dimmer's configuration options, then the dimmer operates in time mode in the application. After clicking the "ON/OFF" control push-button, the dimmer is switched on. After the adjusted time is over, it is switched off automatically.
- In case of slide control, move it to adjust the luminous flux intensity value. The adjustment is in the range from 1% to 99% where 1% is the defined minimum level and 99% is the defined maximum level (see Configuration Parameters). The percentage value adjusted on the slide is sent to the RDP-21 device continuously, and therefore the value changes are immediately shown on the dimmer's output.
- If a dimmer is switched off and the slide position is changed, it will result in switching on the dimmer to the current lighting luminous flux intensity shown by the slide.

Favourite settings:

- It is possible to define 4 favourite settings, understood as a percentage value of lighting luminous flux intensity, by means of a mobile application for each RDP-21 dimmer. To activate the settings by the application, use the i.e. favourite push-buttons.
- Initially the settings are not defined. It is signalled by the "-" symbol placed inside the button.
- In order to assign a favourite setting to a particular push-button, use a slide to adjust the luminous flux intensity value and press it for a longer time. The properly assigned value is shown inside the field.
- After a short pressing of the defined favourite push-button, it is backlit and the value defining the luminous flux intensity is sent to a particular dimmer. At the same time the slide moves to the position corresponding the selected favourite setting. By changing the slide position, the favourite setting is switched off.
- Favourite settings are assigned to a particular dimmer. They can be defined only by a user with administrator rights. The settings cannot be changed by standard users.

Caution! Favourite setting can be activated even if a dimmer is switched off (OFF). As a consequence, the dimmer is switched on with a luminous flux intensity value defined by the activated favourite setting.

PROGRAMMING EXTA LIFE RADIO TRANSMITTERS

- Green “STATUS” LED signals the programming procedure is ongoing.
- Successful completion of a particular activity is signalled by a flashing (3-times) green STATUS LED.
- During operation the STATUS LED signals transmission / receiving.

CAUTION! It is possible to assign up to 96 push-button pairs to the RDP-21 receiver’s memory in subsequent iterations during programming. It is for example:

- **up to 48 push-buttons in the 1 push-button or time mode,**
- **up to 48 push-buttons in the 2 push-button mode (with a division into 24 „ON” push-buttons and 24 “OFF” push-buttons),**
- **up to 12 (4 push-button) transmitters in comfort mode.**

- Push-buttons can be random (they must be within the same transmitter), which gives a huge flexibility during programming and then control. A receiver operates properly only with push-buttons assigned to it during the programming procedure.
- Push-buttons can be assigned to RDP-21 directly by means of the PROG push-button (the access to this receiver is required then) or remotely (without an access to the receiver) by means of a mobile application and exta life controller.

CAUTION!

1. „STATUS” LED signals receiving to all transmitters, including those not programmed with a dimmer. However, it is not possible to control the device by means of those transmitters.
2. The 2 push-button and comfort modes are recommended to control few dimmers at the same time by means of one transmitter only. **The 1 push-button mode should not be used, as it can jitter dimmer’s operation during control.**

DIRECT PROGRAMMING BY MEANS OF PROG. PUSH-BUTTON

To assign radio transmitters directly to a receiver, use the receiver’s PROG. push-button.

ASSIGNING PUSH-BUTTONS IN THE 1 PUSH-BUTTON MODE

(e.g. 2 push-button remote control P-457/2)

1. Press the PROG. push-button shortly (1s). in a receiver –STATUS LED switches on green.
2. In < 5 sec. press the button that should realise control in the 1 push-button mode (for example “1”).
3. STATUS LED switches off and switches on green again.
4. In < 5 sec. release the button that is assigned in the 1 push-button mode (for example “1”).
5. The STATUS LED flashes green (3 times) to signal the push-button has been assigned correctly.

ASSIGNING PUSH-BUTTONS IN THE 2 PUSH-BUTTON MODE

(e.g. 2 push-button remote control P-457/2)

1. Press PROG push-button shortly (1s). in a receiver –STATUS LED switches on green.
2. In < 5 sec. press the button that should realise the “switch on” function (for example “1”).
3. STATUS LED switches off and switches on green again.
4. In < 5 sec. press the button that should realize the “switch off” function (for example “2”).
5. STATUS LED switches off and switches on green again.
6. Wait for about 5 seconds to finish the programming procedure, which is signalled by the flashing STATUS LED green (3 times).

ASSIGNING PUSH-BUTTONS IN COMFORT MODE

This mode is available for transmitters with at least 4 push-buttons
(e.g. 4 push-button remote control P-457/4)

1. Press PROG push-button shortly (1s). in a receiver –STATUS LED switches on green.
2. In < 5 s press the button that should realise the “switch on dimmer to 100%” function (for example “1”).
3. STATUS LED switches off and switches on green again.
4. In < 5 sec. press the button that should realise the “switch off” function (for example “3”).
5. STATUS LED flashes and switches on green again.
6. In < 5 sec. press the button that should realize the “switch on dimmer to the last remembered level / brighten” function (for example “2”).
7. STATUS LED switches off and switches on green again.
8. In < 5 sec. press the button that should realise the “switch off /dim” function (for example “4”).
9. The STATUS LED flashes green (3 times) to signal the push-button has been assigned correctly.

ASSIGNING PUSH-BUTTONS IN TIME MODE

(e.g. 2 push-button remote control P-457/2)

1. Press PROG push-button shortly (1sec). in a receiver –STATUS LED switches on green.
2. In < 5 sec. press the button that should be assigned in time mode (for example “1”).
3. STATUS LED switches off and switches on green again.
4. In < 5 sec. press shortly this push-button that should be assigned in time mode (for example “1”).
5. The STATUS LED flashes green (3 times) to signal the push-button has been assigned correctly.

CAUTION!

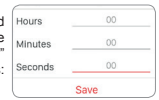
Each new push-button assigned to RDP-21 dimmer in time mode operates with the so-called Zone Time. The default Zone Time is 10 sec. A user can change its value in the range from 1 sec. to 18 hours.

ZONE TIME CHANGE

1. Press PROG push-button shortly (1sec.). in a receiver –STATUS LED switches on green.
2. Wait for about 5 seconds till STATUS LED flashes and switches on again.
3. In < 5 sec. press shortly the PROG. button again.
4. The STATUS LED switches on at intervals of 1 sec. – it means time is measured.
5. After the time, we want to set as the zone time, is over, press shortly the PROG. push-button again.
6. The STATUS LED switches off to signal time has been programmed correctly.

CAUTION! After time zone has been changed, the push-buttons assigned to a receiver in time mode should automatically operate with the new value of the zone time. The exception includes push-buttons with assigned individual times. After a receiver's memory is deleted, the zone time has a default setting again - 10 seconds.

Zone time can also be changed by means of a mobile application and in cooperation with the exta life controller. In order to do it, choose the "Configure" option from the dimmer's menu. Next, set the "Zone Time" parameter in the range from 1 sec. to 18 hrs. in the following form: hours: minutes: seconds: (xxh : xxm : xxs).



In case of RDP-21 dimmer, apart from the zone time, individual time can be assigned to each push-button added to its memory. Time is programmed in the range from 1 sec. to 18 hrs.

PROGRAMMIMNG TIME ASSIGNED TO A SELECTED PUSH-BUTTON IN TIME MODE

1. Press PROG push-button shortly (1sec.). in a receiver –STATUS LED switches on green.
2. Wait for about 5 seconds till STATUS LED flashes and switches on again.
3. In < 5 sec. press shortly the push-button that is assigned to a transmitter's memory in time mode, and that will have an individual time programmed.
4. The STATUS LED starts flashing green – it means time is measured.
5. After the time, we want to assign to the push-button, is over, press shortly the same push-button again.
6. The STATUS LED flashes green to signal time has been programmed correctly.

REMOTE TRANSMITTER PROGRAMMIMG BY MEANS OF EXTA LIFE APPLICATION

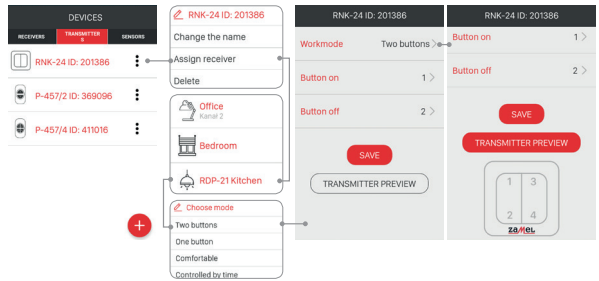
Remote programming allows for adding push-buttons of a transmitter to a selected RDP-21 dimmer without a physical access to it (without pressing the PROG. push-button). It is particularly comfortable, in case receivers are already mounted in a building and access to them is difficult.

Requirements regarding remote programming of transmitters with RDP-21 receiver:

- exta life controller must be installed in the system,
- receivers, the transmitter will be remotely assigned to, must be powered and paired with a controller,
- receivers must be located within the controller's range,
- transmitters we want to assign to receivers remotely, must be paired with a controller,
- during one step, it is possible to add only one transmitter to one RDP-21 dimmer.

In order to assign remotely selected push-buttons of a transmitter to the RDP-21 device, the following steps are required:

1. Pair the selected RDP-21 receiver with the controller.
2. Pair the controller with a transmitter, which buttons you want to assign remotely to a receiver.
3. Choose the "Assign a receiver" option by means of a transmitter.
4. From the list of all paired receivers, choose the RDP-21 receiver, the transmitter's push-buttons will be assigned to.
5. In the 'Operation mode' field, select the mode the transmitter should cooperate with a receiver. In case of RDP-21 the 1 push-button, 2 push-button, time and comfort modes are possible.
6. Choose the transmitter's push-buttons that will be assigned remotely to a receiver. The number of push-buttons depends on the selected operating mode. By pressing the "Transmitter preview", the transmitter with assigned numbers of push-buttons will be displayed.
7. By pressing the "Save" push-button, a transmitter is remotely programmed in a receiver. As a confirmation, the system displays the following message "Devices have been correctly paired".



It is also possible to assign remotely a transmitter to a receiver by means of a receiver. To do it choose the "Assign a transmitter" option in the receiver's menu.

RDP-21 MEMORY DELETION (restoring default settings)

After deleting the whole memory of a receiver, all added push-buttons of transmitters are deleted. Erasing (deleting) the memory includes the receiver is also unpaired with the exta life controller. If the receiver's memory included push-buttons assigned in time mode, then after memory deletion the individually assigned push-buttons are also deleted. The zone time has a default setting value - 10 sec. If a user switched off deliberately pairing with the controller (see Switching off pairing - Broadcast OFF), then deleting the receiver's memory switches on the possibility of pairing automatically (default setting).

1. Press the PROG. push-button for about 5 seconds –STATUS LED switches on green.
2. After STATUS LED switches off, release the PROG. push-button and in < 5 sec. press it again.
3. The STATUS LED flashes green (3 times) to signal the deleting has been completed.

DELETING SELECTIVE PUSH-BUTTON FROM RDP-21 MEMORY

In the exta life system receivers, there is a possibility to delete selectively push-buttons from a receiver's memory. It allows to delete selected buttons without deleting the whole memory of a receiver. Push-buttons can be deleted directly (by means of the PROG. push-button) or remotely by means of the exta life application.

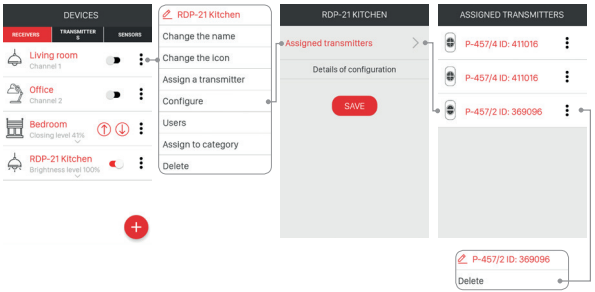
DELETING PUSH-BUTTONS BY MEANS OF PROG. PUSH-BUTTON

1. Press the PROG. push-button for about 5 seconds – STATUS LED switches on green and after 5 seconds switches off.
2. After STATUS LED switches off, release the PROG. push-button and next within < 5 sec. press shortly this push-button that will be deleted from the dimmer's memory. In case a pair of push-buttons (2 push-button mode) or 2 pairs of push-buttons (comfort mode) were assigned to a dimmer, then press shortly only one of the buttons (any).
3. The STATUS LED flashes green (3 times) to signal the procedure of selective deleting has been completed.

DELETING PUSH-BUTTONS BY MEANS OF EXTA LIFE APPLICATION

In case we want to delete remotely transmitter's push-buttons from a dimmer, it is required that the dimmer is paired with exta life controller. To do the above, the following steps must be carried out:

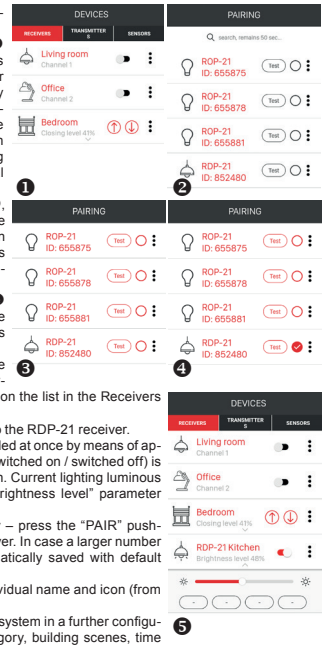
1. Choose the "Configure" option from the dimmer's menu.
2. Choose "Assigned transmitters" in the configuration menu to display a current list of transmitters added to its memory.
3. Press the transmitter's name to display details included in its memory (numbers of added push-buttons, operation modes, assigned time in time mode)
4. Choose the „Delete" option from the transmitter's menu to delete selected push-buttons from a receiver's memory. A transmitter can also be deleted by sliding the element to the right or left.



REGISTRATION (PAIRING) RDP-21 IN THE EXTA LIFE SYSTEM

In order to register RDP-21 in the system, it is necessary to connect the exta life controller and to install the exta life mobile application. The receivers must be connected to 230 V AC. They are remembered in the system only after they have been properly paired with a controller. To do it carry out the following steps:

1. Activate the application and enter the Device screen.
2. Choose the receiver tab and press „+" ❶ to start the searching process of receivers installed in the system. It lasts no longer than 60 seconds and can be stopped by means of the „Stop" push-button. All receivers located within the controller are automatically displayed in a list form with a default icon, default name including the receiver's name (RDP-21) + ID serial number assigned to this receiver ❷.
3. After searching has been completed ❸, press the 'TEST' button to quickly locate the receiver (after the TEST push-button has been pressed, the dimmer's output is switched on as long as the TEST push-button is pressed).
4. By marking fields next to the 'TEST' ❹ push-button, we choose receivers to be paired with the exta life controller. It is possible to mark more than one receiver.
5. Press the 'PAIR' push-button to pair the marked receivers. After a while the receivers are registered in the system and are on the list in the Receivers tab ❺.
6. After pairing, a default icon is assigned to the RDP-21 receiver.
7. The receivers after pairing can be controlled at once by means of application buttons. The receiver's mode (switched on / switched off) is signalled by an icon and a switch position. Current lighting luminous flux intensity value is defined by the "Brightness level" parameter given in %.
8. The receivers can be paired individually – press the "PAIR" push-button and assign a new name to a receiver. In case a larger number of receivers are paired, they are automatically saved with default names.
9. After pairing, it is possible to add an individual name and icon (from the icon base) to each RDP-21 receiver.
10. Only paired receivers can be used in the system in a further configuration process (assigning a user, a category, building scenes, time and logic functions).



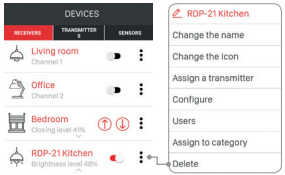
CAUTION: In order to register receivers successfully in the system (mainly if there is a larger number of receivers), it is necessary to activate the device pairing method several times and pair the ones that were found.

DELETING (UNPAIRING) RDP-21 FROM EXTA LFE SYSTEM

Each registered RDP-21 dimmer can be deleted from the system. Deleting means 'unpairing' a receiver from a controller.

In order to delete a receiver from the exta life system the following must be carried out:

1. Activate the application and enter the Device screen.
2. Select the receivers tab, next select the "Delete" option from the given RDP-21 receiver's menu.
3. After deletion, a receiver is automatically removed from the list of paired receivers.



SWITCHING ON / SWITCHING OFF PAIRING (BROADCAST OFF)

Switching off pairing (broadcast) is recommended, if a receiver operates in the EXTA LIFE system without a controller (e.g. only with radio transmitters). Switching off pairing causes a receiver is not visible in the search process carried out by means of a controller. The above protects against taking over control of a receiver by unauthorised users. This situation does not take place in case a receiver has been previously paired with a controller. In such a case, it is not visible for other controllers in the search process of receivers. Summarising, in order to protect correctly your system, the following must be carried out:

1. If there is no controller in the EXTA LIFE system – switch off pairing (Broadcast OFF) in all receivers.
2. If there is a controller in the EXTA LIFE system – pair each receiver with the controller.

Switching off pairing is a reversible process. It means, if the EXTA LIFE controller is installed in the system, pairing function must be switched on, so that receivers can be found in this system.

SWITCHING OFF PAIRING (BROADCAST OFF)

In order to switch off pairing the following must be carried out:

1. Disconnect power supply from the receiver.
2. Press the PROG. push-button on a receiver.
3. While the PROG. push-button is pressed, switch on power supply.
4. Keep the PROG. push-button pressed for about 5 seconds.
5. When STATUS LED starts flashing red release the PROG. push-button.
6. After the above steps were carried out, pairing is switched off.

SWITCHING ON PAIRING (BROADCAST ON)

In order to activate pairing, it is necessary to reset the receiver to default settings (see Deleting the whole memory of a receiver).

CAUTION: As a result of the above, all data (push-buttons, times) entered to a receiver's memory are deleted. They must be added again. The easiest way to do it is by means of the exta life mobile application, and just after the exta life controller has been installed.

IN INPUT FUNCTIONALITY

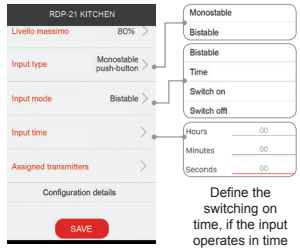
The IN input is used in a wired control of the RDP-21 dimmer. It is fully configured by means of the exta life mobile application. The configuration means choosing this type of switch that is connected to a dimmer's input, operation mode and time value in case of selecting time mode.

Default settings:

- Switch type: 1 push-button monostable switch
- Operation mode: bistable (sequential mode change + brightness control).
- The IN input is triggered only from the "L" line. The input operation is described in the "Functionality during IN external input control" chapter.

Input configuration change:

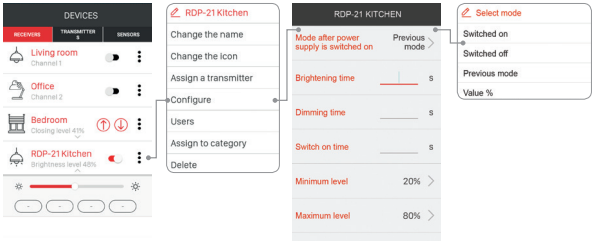
1. Activate the application and enter the Device screen.
2. Select the 'Configure' option from the RDP-21 dimmer's menu.
3. Expand the screen and:
   - define the switch type connected to the IN input in the 'Input type' field. Choose from 'monostable push-button' or 'bistable push-button',
   - define the IN input operation mode in the 'Input mode',
   - define the "Input time" parameter in case of time mode selection – it defines the dimmer's output switching on time after triggering the IN input in time mode. Time is defined in the range of 1 s. to 18 hrs.
4. Press the 'Save' button to save all settings – the settings are saved in the receiver.



Define the switching on time, if the input operates in time mode

RDP-21 MODE CONFIGURATION AFTER POWER SUPPLY SWITCH ON

In case of RDP-21 dimmer, it is possible to configure its input operation mode after power supply has been switched on. As a default setting, the dimmer's input is switched off (OFF).



Possible dimmer's output mode after power supply is switched on:

- switched off (OFF),
- switched on (ON),
- previous mode – after power supply failure, a dimmer switches on, with a mode operating before power supply failure occurred (refers to output mode ON/OFF and last adjusted lighting luminous flux intensity value),
- percentage value – dimmer's output is switched on with lighting luminous flux intensity % value adjusted during configuration.

COOPERATION AND OPERATING RANGE

	ROP-22	ROP-22	RDP-21	SRP-22	EFC-01
RNK-22	280 m	300 m	280 m	300 m	350 m
RNK-24	280 m	300 m	280 m	300 m	350 m
P-457/2	280 m	300 m	280 m	300 m	350 m
P-457/4	280 m	300 m	280 m	300 m	350 m
EFC-01	330 m	350 m	330 m	350 m	-

CAUTION! The given range concerns the open area - an ideal condition without any natural or artificial obstacles. If there are some obstacles between a transmitter and a receiver, it is advisable to decrease the range according to: bricks from 10 to 40 %, wood and plaster from 5 to 20 %, reinforced concrete from 40 to 80 %, metal from 90 to 100%, glass from 10 to 20 %. Over- and underground medium and high electrical power lines, radio and television transmitters, GSM transmitters set close to a device system have also a negative influence on the range.

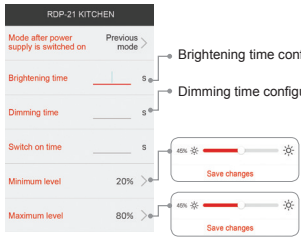
OTHER RDP-21 CONFIGURATION PARAMETERS

Brightening time – defines time from the minimum lighting luminous flux intensity level to the maximum one.
Default value: 1 sec.
Possible adjustment range: from 1 sec. to 30 sec.

Dimming time – defines time from the maximum lighting luminous flux intensity level to the minimum one.
Default value: 1 sec.
Possible adjustment range: from 1 sec. to 30 sec.

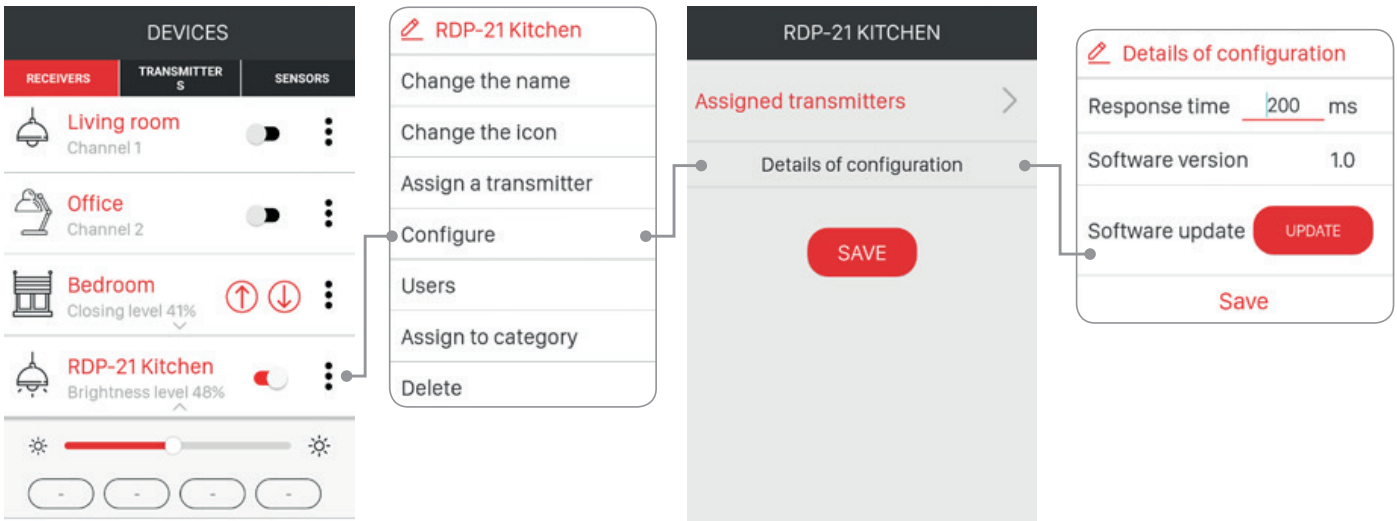
Minimum level – minimum lighting luminous flux intensity level.
Default value: 1 %
Possible adjustment range: from 1 to 98%

Maximum level - maximum lighting luminous flux intensity level.
Default value: 99 %
Possible adjustment range: from 2 to 99%



REMOTE SOFTWARE UPDATE

RDP-21 dimmer is equipped with a built-in bootloader, which allows for a remote software change by means of the exta life application. Software update is possible only in case of receivers paired with a controller and can be realised only by an authorised user (an administrator). It is required to connect the exta life controller to the Internet to carry out the update. The current RDP-21 dimmer software update is displayed in the “Configuration details” tab. The ‘Update’ push-button is backlit, in case there is a new software version. By pressing this push–button, information is sent to a controller, which enters the receiver into the software update mode (control and configuration of the receiver is not possible then). The latest software is sent to a receiver by means of a controller (it takes about 1 minute). If the update has been completed successfully, such a message is sent to a controller from a receiver and, additionally, is signalled in the mobile application.



If, for any reason, the software update has not completed successfully, then the receiver is marked as ‘a receiver with an update error’ by the controller. This receiver does not have its original functionality any more. Then, if the “Configure” option for this receiver is selected by means of an application, there is an immediate change to the “Configuration details” screen with a backlit ‘Update’ field. Software update starts just after pressing this button.