Elko EP RFSAI-62B-SL Switch Unit With The Inputs For External Buttons

Elko EP RFSAI-62B-SL Switch Unit With The Inputs For External Buttons Instruction Manual

Contents

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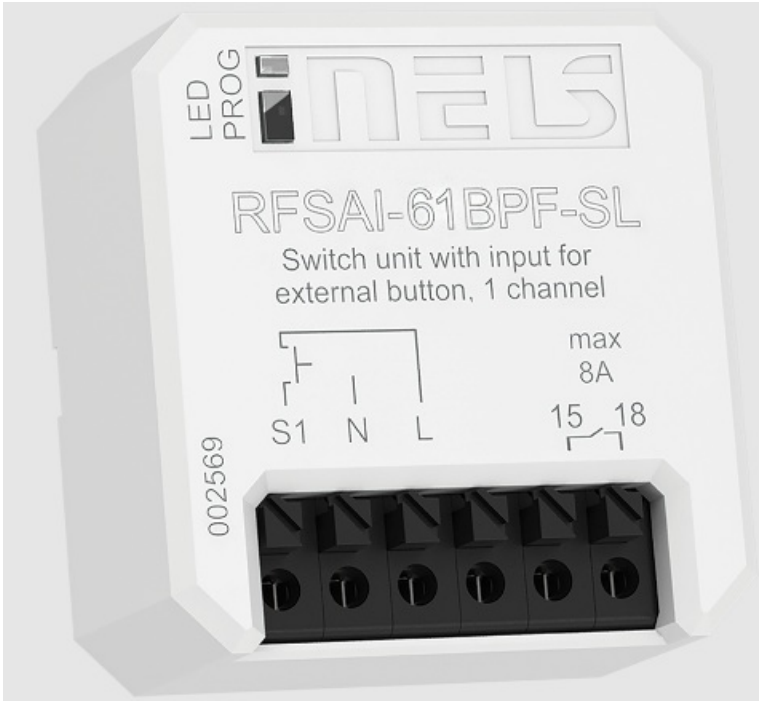


Product Specifications:

- Model Numbers: RFSAI-62B-SL, RFSAI-61B-SL, RFSAI-11B-SL, RFSAI-61BPF-SL
- Made in: Czech Republic
- Conductor Type: Solid conductor
- Conductor Size Range: 0.2-1.5 mm2 (RFSAI-62B-SL), 20-16 AWG max. 8 mm (RFSAI-62B-SL)
- Compatible with: Wooden structures with plaster boards, reinforced concrete, metal partitions, common glass

Product Usage Instructions

Memory Function Indicators:
On – LED blinks x 3. Off – The LED lights up once for a long time.

Pairing Instructions:

1. Press (1s) of the pairing button
2. Long press (1s >) of the PROG button to enter pairing mode
3. Short press (>1s) of the selected button on the controller (number of presses = function)
4. Short press (>1s) of the PROG button to exit the programming mode
5. To assign a controller without a pairing button, follow specific procedures

Pairing Modes:

- Fast flashing indicates pairing without compatibility mode
- Short double flashes indicate pairing in compatibility mode

Clearing Memory:

1. To clear an already paired channel to a button on the controller, press the PROG button on the device for 5 s or

7 s

2. To clear the memory of the whole device, press the PROG button on the device for 8/10/11 s according to the type of device

Frequently Asked Questions (FAQ):

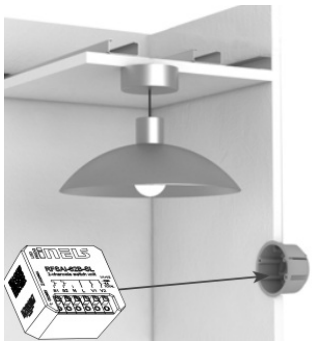
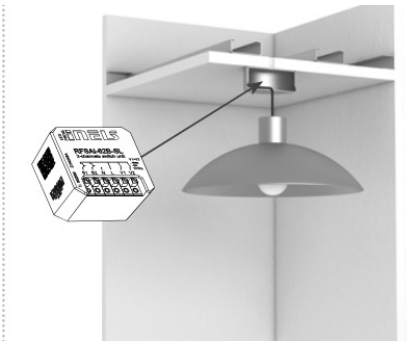
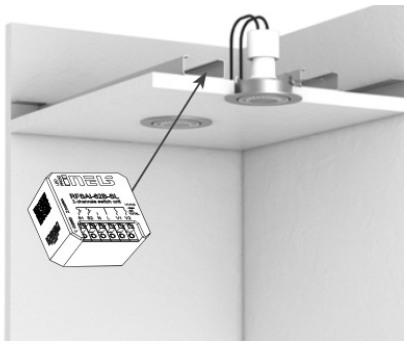
- **Q: What do the different LED indicators signify?**
  A: The LED blinking x 3 indicates the memory function is on, while a long solid LED light signifies it is off.
- **Q: How can I pair a controller without a pairing button?**
  A: Follow the specific procedures outlined in the user manual for assigning older controls to devices.

Characteristics

- The switching component with one/two output relays is used to control appliances and lights. Switches/buttons connected to the wiring can be used for control.
- They can be combined with Detectors, Controllers or iNELS RF Control System Components.
- The BOX version offers installation directly in the installation box, ceiling or cover of the controlled appliance. Easy installation thanks to screwless terminals.
- It allows the connection of switched loads with a total sum of 8 A (2000 W).
- Functions: for RFSAI 61B-SL and RFSAI 62B-SL – pushbutton, impulse relay and time functions of delayed start or return with time setting 2 s-60 min. Any function can be assigned to each output relay. For RFSAI-11B-SL, the button has a fixed function – ON / OFF.
- The external button is assigned in the same way as the wireless one.
- Each of the outputs can be controlled by up to 12/12 channels (1-channel represents one button on the controller). Up to 25 channels for RFSAI-61B-SL and RFSAI-11B-SL.
- The programming button on the component also serves as a manual output control.
- Possibility to set the output status memory in case of failure and subsequent power recovery.
- The elements of the repeater can be set for the components via the RFAF / USB service device, PC, application.
- Range up to 200 m (outdoors), in case of insufficient signal between the controller and the device, use the RFRP-20N signal repeater or component with the RFIO2 protocol that support this function.
- Communication with bidirectional RFIO2 protocol.
- The contact material of the AgSnO2 relay enables switching of light ballasts.

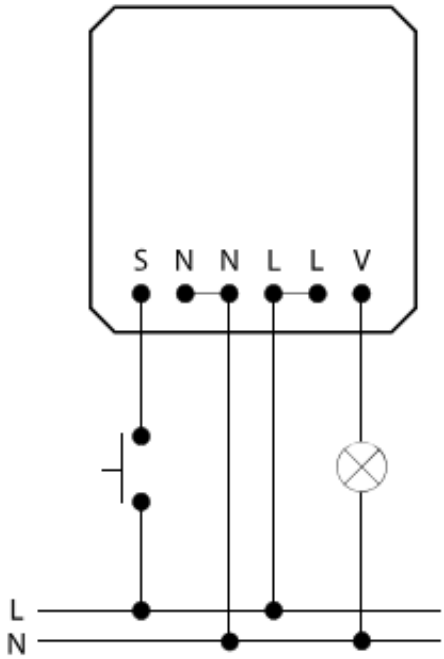
Assembly

- mounting in an installation box
- mounting into the light cover
- ceiling mounted

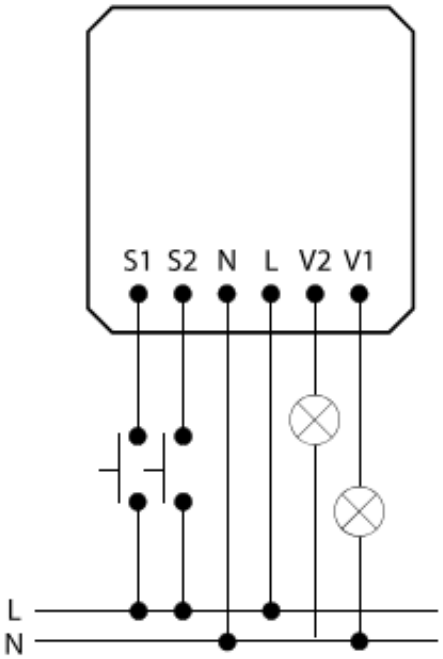




Connection

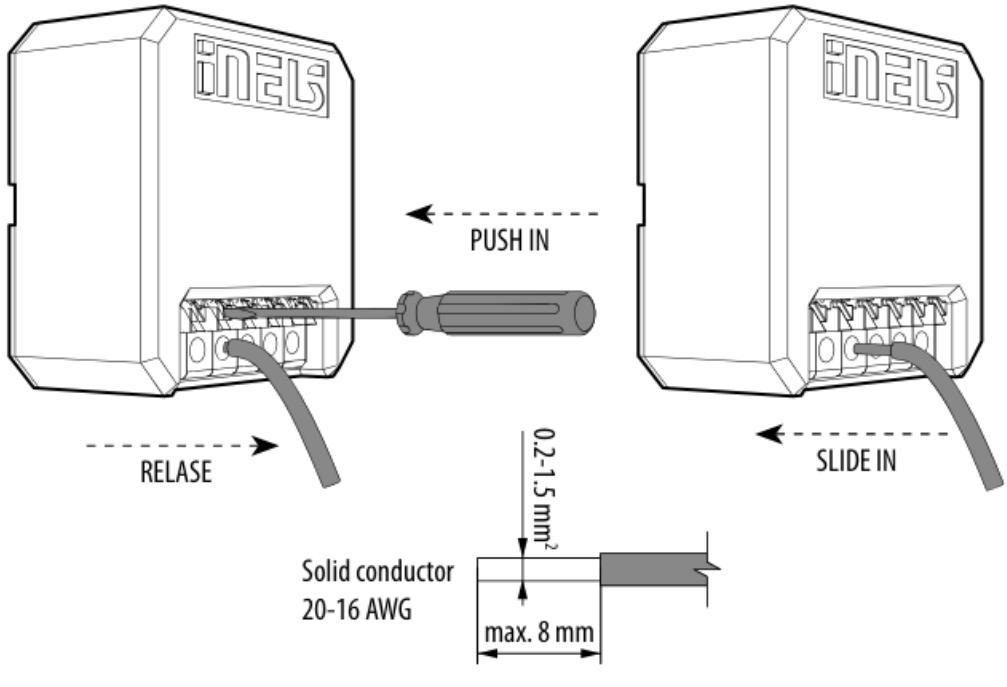
RFSAI-61B-SL



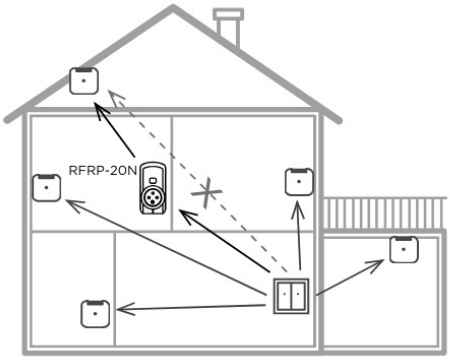
RFSAI-62B-SL

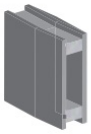


Screwless terminals

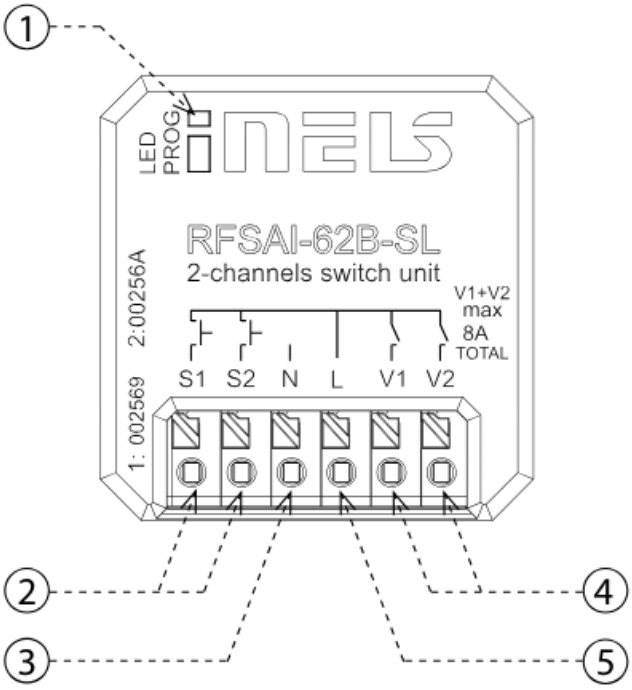


Radio frequency signal penetration through various construction materials



				
60 - 90 %	**80 - 95 %**	**20 - 60 %**	**0 - 10 %**	**80- 90 %**
brick walls	wooden structures with plaster boards	reinforced concrete	metal partitions	common glass
cihlové zdi	dřevěné konstrukce se sádrokart. deskami	vyztužený beton	kovové přepážky	běžné sklo

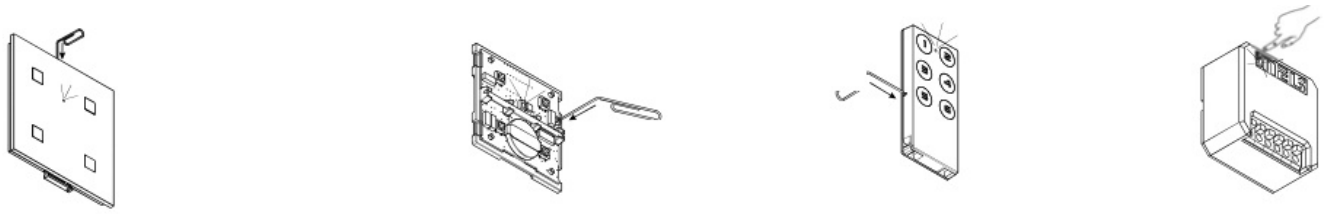
Indication, manual control



1. LED / PROG button
    - LED green V1 – device status indication for output 1
    - LED red V2 – device status indication for output 2. Indicators of memory function:
    - On – LED blinks x 3.
    - Off – The LED lights up once for a long time.
    - Manual control is performed by pressing the PROG button for<1s.
    - Programming is performed by pressing the PROG button for 3-5s.
2. Terminal block – connection for external button
3. Terminal block – connecting the neutral conductor
4. Terminal block – load connection with the sum of the total
5. Terminal block for connecting the phase conductor

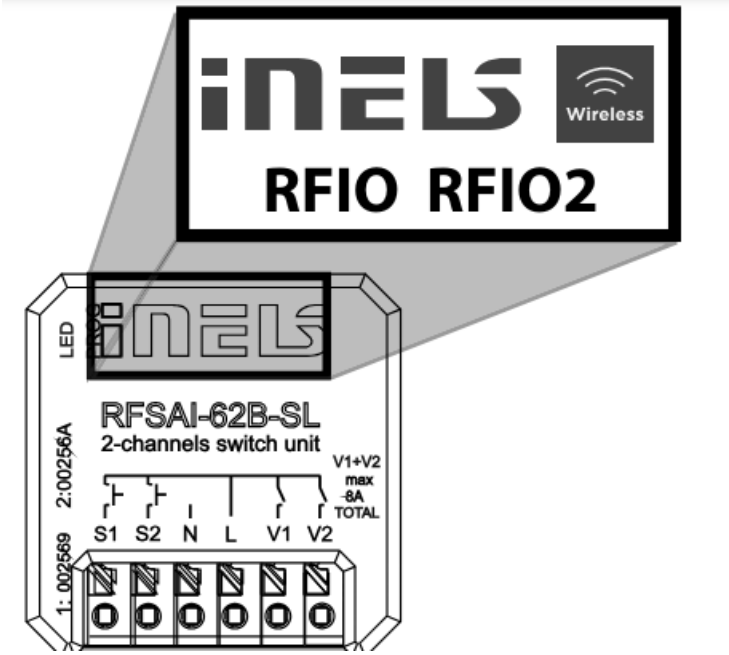
    In the programming and operating mode, the LED on the component lights up at the same time each time the button is pressed – this indicates the incoming command.

    RFSAI-61B-SL: one output contact, status indication by red LED



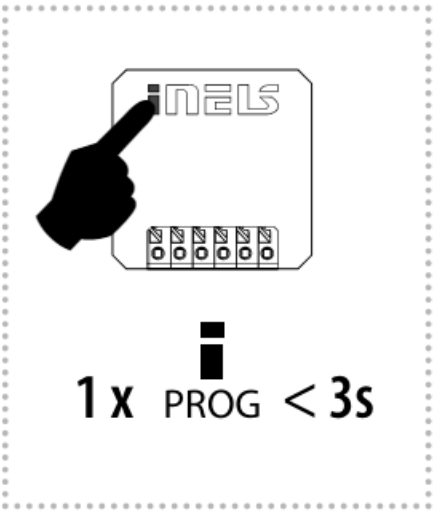
- Use a suitable tool (paper clip, screwdriver) to push on the control The batteries are raised and the programming button is released.
- After removing the control flaps, the programming button is accessible.
- The programming button is operated with a suitable thin tool.

Compatibility
The device can be combined with all system components, controls and devices of iNELS Wireless (RFIO, RFIO2).



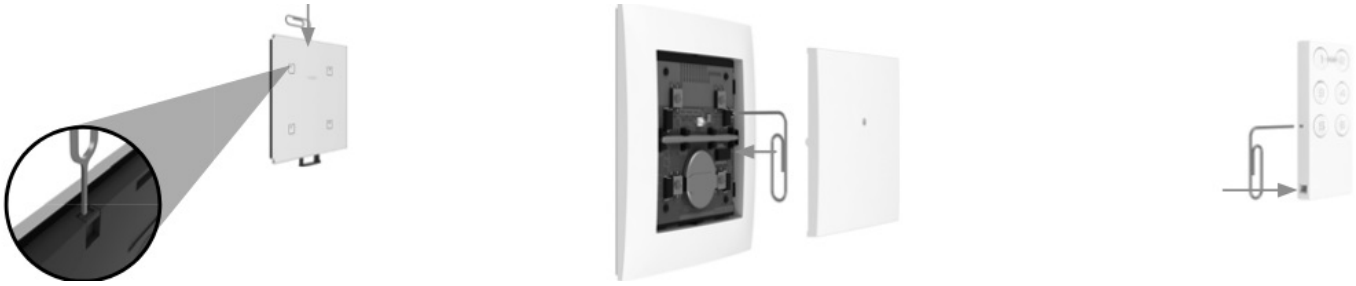
Channel selection

- Channel selection (RFSAI-62B-SL) is done by pressing the PROG buttons for 1-3s. RFSAI-61B-SL: press for more than 1 second.
- After button release, LED is flashing indicating the output channel: red (1) or green (2). All other signals are indicated by corresponding color of LED for each channel.



Manual paring controllers with iNELS Wireless devices
There are different types of pairing according to the factory version of the driver. Due to technological advances, which are inevitable even in our products, you can have controllers with or without a pairing button. You can identify the controller with the pairing button by the mark on the print on the back of the instrument panel and the physical presence of the pairing button on the controller.

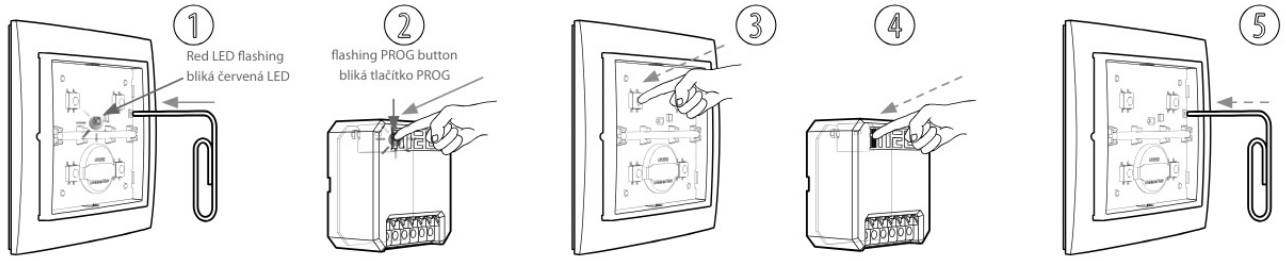
To position the pairing buttons on your controllers:



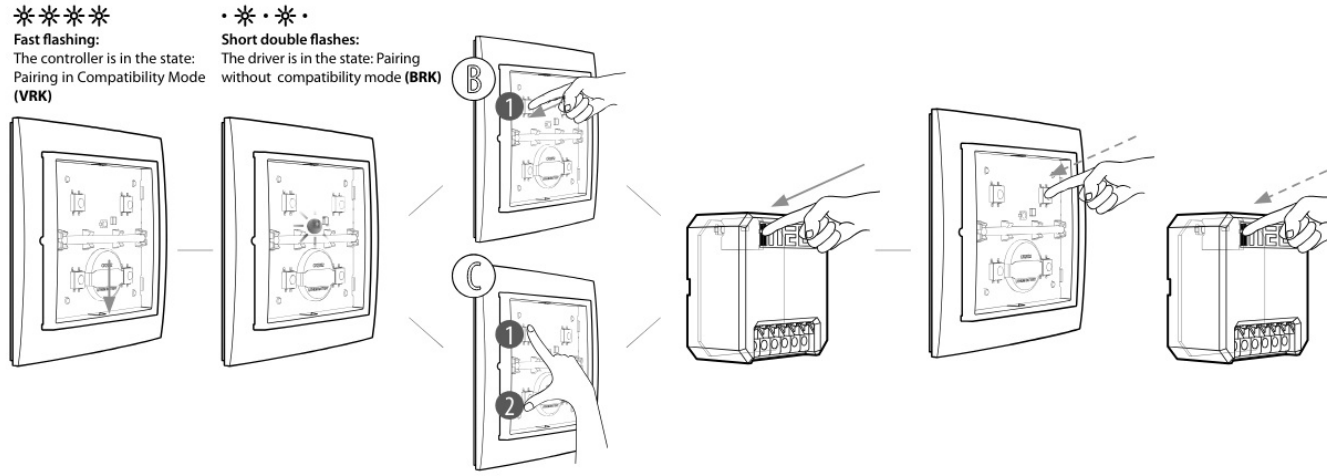
- **RFGB (both round and sharp versions):**
  Pressing on the upper control mandrel (paper clip, screwdriver) will eject the battery and the pairing button is released.
- **RFWB**:
  By removing the controller flap, the pairing button is accessed.
- **RF Key**
  It is located and the side near the button number 5.

To assign a controller using the pairing button

- Hold the pairing button for 1 second to put the controller into pairing mode – the red LED indicates with a short flash. Next, hold the PROG button on the device you want to control for 1s, 2 sec or 3s (see. Tab 1) PROG button modes) Next, continue setting the functions (1 to 6) by pressing the appropriate button on the controller with the appropriate number of presses (see Tab 2). Finish programming by briefly pressing the PROG button on the device and briefly pressing the pairing button on the controller. We recommend that you first enter the controller into pairing mode and then the device. Putting the controller and the device into pairing mode is signaled by a red LED with a short blink.
- Press (1s), Short press (>1s), Long press (1s >)



- Removing and inserting the battery to activate the default state
- Long press (1s >) of the PROG button (see. Tab 1)
- Short press (>1s) of the selected button on the controller (number of presses = function)
- Short press (>1s) of the PROG button to exit the programming mode.

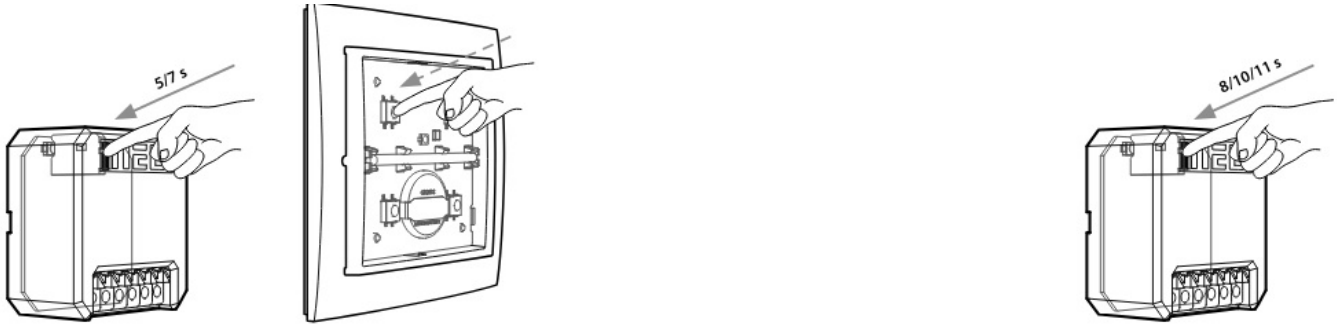


Pairing without compatibility mode

First, insert the battery into the controller. If the battery has already been inserted into the controller, remove it for at least 5 s to restore it to its default state. After inserting the battery, while the red LED is lit (3 s), press and hold 1 until the controller starts to indicate the driver mode by briefly flashing the LED. Then release the button to make the controller ready for pairing. Next, hold down the PROG button on the device you want to control for 1, 2 or 3 s (see. Tab 1) continue to set functions 1 to 6 by pressing the appropriate button on the controller with the appropriate number of presses (see Tab 2). Finish programming by briefly pressing the PROG button on the device and removing and reinserting the battery into the controller.

Table 1) Modes of the PROG button on the devices

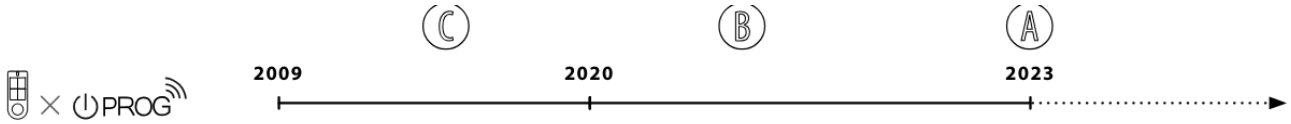
Applies to	Applies to: Entering pairing mode (Step 2)	Clearing channel/button memory	Clear the memory of an entire device
RFSA-11B, RFSAI-11B-SL, RFSA-61B, RFSA-61B-SL, RFSA-61M, RFSA-61MI, RFSA-66M, RFSA-66MI, RFSC-61, RFUS-61, RFDA-11B, RFDEL-71B, RFDEL-71M, RFDEL-76M, RFDALI-04B, RFDALI-32B, RFDA-73M/RGB, RFDSC-71N	1 s	5 s	8 s
RFSAI-62B-SL, RFSA-62B, RFSAI-62BRFSW-62, RFSW-262, RFDW-71, RFDW-271	3 s	7 s	11 s
RFDAC-71B	2 s	5 s	10 s



- To clear an already paired channel to a button on the controller, press the PROG on the device for a period of time of 5 s or 7 s (see. Tab 1). Clear the memory of the button and press the appropriate button on the

controller that you want to unpair. After this step, it returns to its working state.

- If you want to clear the memory of the whole device (unpair all buttons or delete all channels at once, press the PROG button on the device for 8/10/11 s according to the type of device (see. Tab 1). Clearing the memory of the entire device. The device remains in pairing mode.
- **DRIVER DEVELOPMENT AXIS**

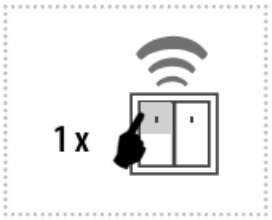


- **Please note:**
  If you are pairing older versions of drivers or features with each other, it is not possible to clearly determine whether you need to use Compatibility Mode for pairing or not. Therefore, you need to try both ways.
  RF Key/W and RF Key/B key fobs and other drivers of the oldest possible version can no longer be paired with devices that have radio wavelet markings on the PROG button. RFSAI-62-SL, RFSA-62B, RFSAI-62B and RFDAC-71B units have a different pairing method. Always follow the instructions for the devices.

Functions and programming with RF transmitters

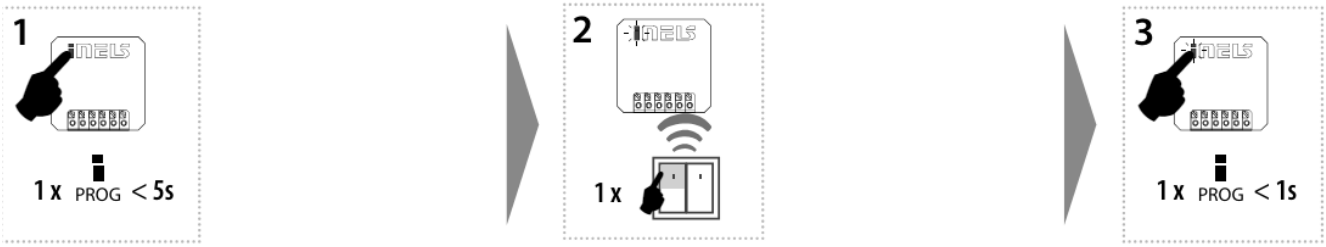
Function button
Description of button

- The output contact will be closed by pressing the button and opened by releasing the button.
- For the correct execution of individual commands (press = closing / releasing the button = opening), the time delay between these commands must be a min of . 1s (press – delay 1s – release).



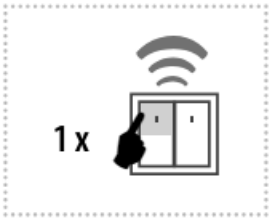
Programming

- Press of programming button on receiver RFSAI-62B for 3-5 s (RFSAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Press of programming button on receiver RFSAI-62B for 3-5 s (RFSAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

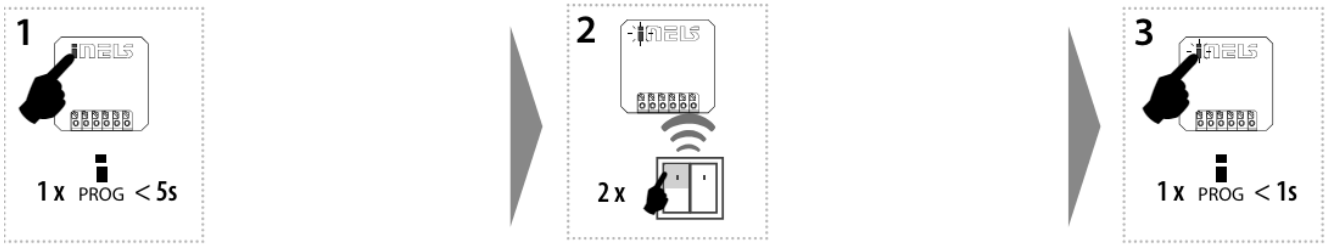


Function switch on

- Description of switch on
  The output contact will be closed by pressing the button.

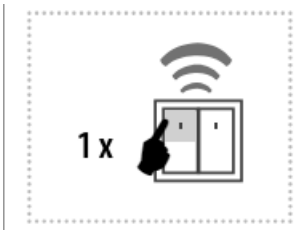


- Press of programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-11B-SL: press for more than 1s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Two presses of your selected button on the RF transmitter assigns the function switch on (must be a lapse of 1s between individual presses).
- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

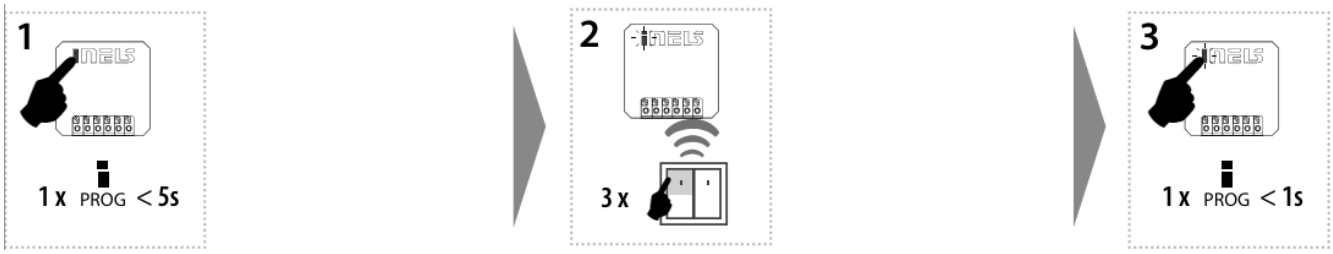


Function switch off

- **Description of switch off** /
- The output contact will be opened by pressing the button.

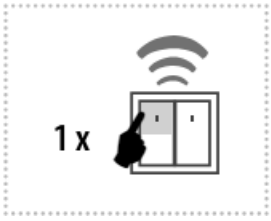


- Press of programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Three presses of your selected button on the RF transmitter assigns the function switch off (must be a lapse of 1s between individual presses).
- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.



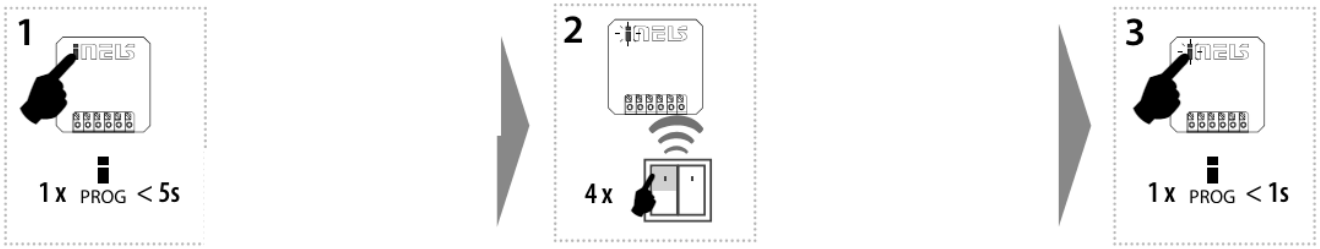
Function impulse relay

- The output contact will be switched to the opposite position by each press of the button. If the contact was closed, it will be opened and vice versa.



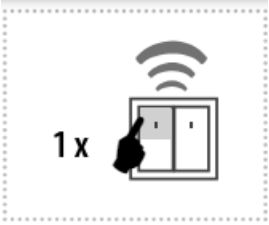
Programming

- Press of programming button on receiver RFSAI-62B for 3-5 s (RFSAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Four presses of your selected button on the RF transmitter as-signs the function impulse relay (must be a lapse of 1s between individual presses).
- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.



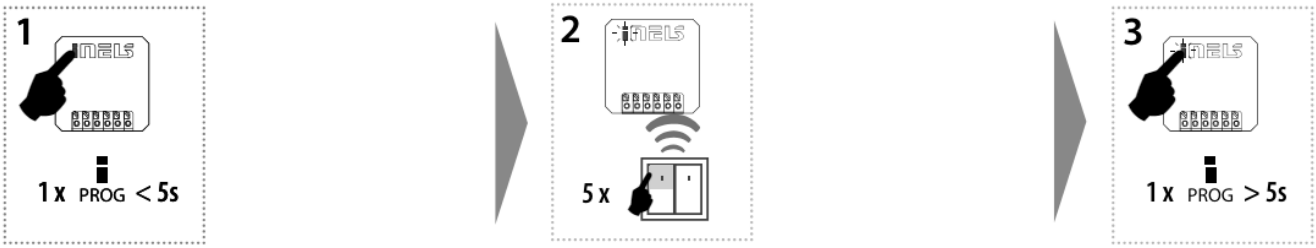
Function delayed off

- Description of delayed off
- The output contact will be closed by pressing the button and opened after the set time interval has elapsed.



Programming

- Press of programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Assignment of the delayed off function is performed by five presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).
- Press of programming button longer then 5 seconds, will activate actuator into timing mode. LED flashs 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.

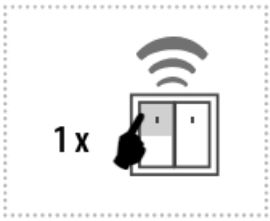


- After the desired time has elapsed (range of 2s…60min), the timing mode ends by pressing the button on the

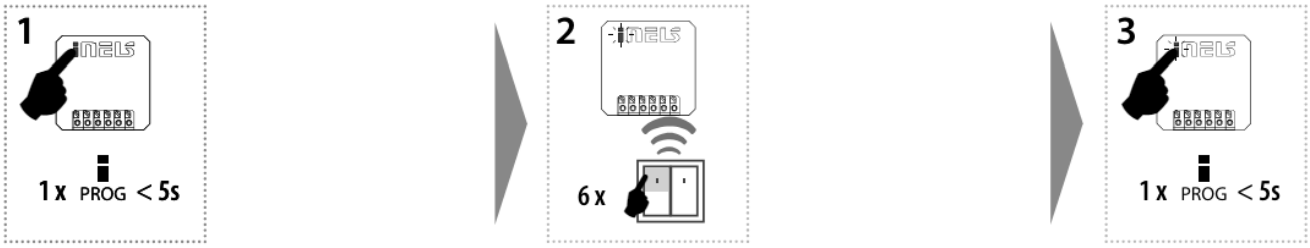
RF transmitter, to which the delayed return function is assigned. This stores the set time interval into the actuator memory.

- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

- The output contact will be opened by pressing the button and closed after the set time interval has elapsed.



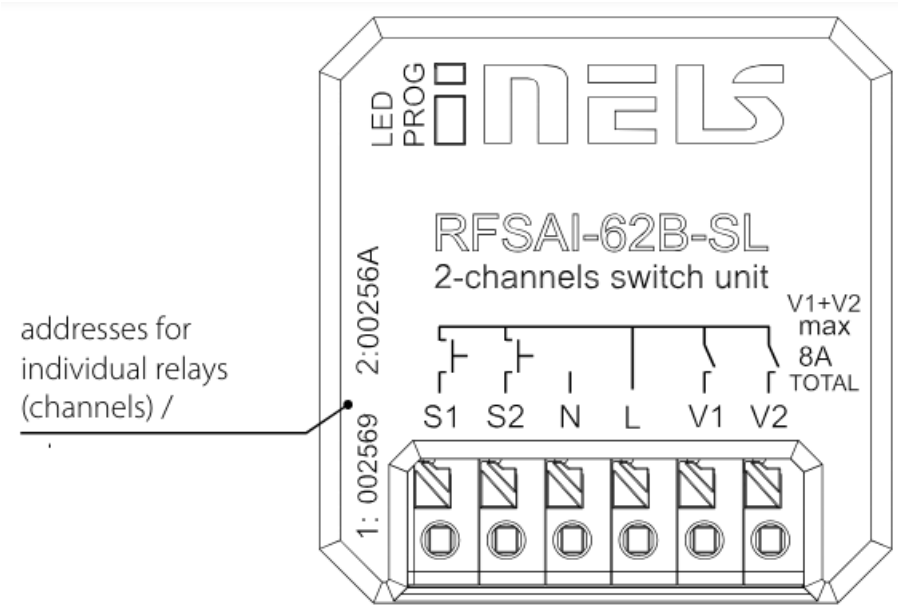
- Press of programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1s) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Assignment of the delayed on function is performed by six presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).
- Press of programming button longer then 5 seconds, will activate actuator into timing mode. LED flashs 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



- After the desired time has elapsed (range of 2s…60min), the timing mode ends by pressing the button on the RF transmitter, to which the delayed return function is assigned. This stores the set time interval into the actuator memory.
- Press of programming button on receiver RFSAI-62B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

Programming with RF control units

- Addresses listed on the front side of the actuator are used for programming and controlling the actuator and individual RF channels by control units.



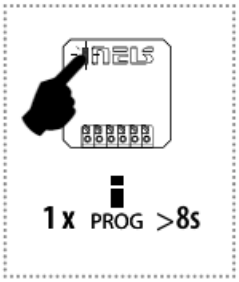
Delete actuator

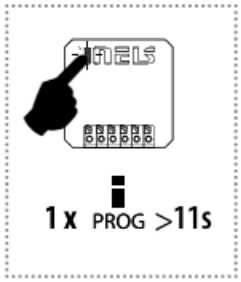
- Deleting one position of the transmitter
- By pressing the programming button on the actuator for 8 seconds (RFSAI-61B-SL: press for 5 second), deletion of one transmitter activates. LED fl ashs 4x in each 1s interval.
- Pressing the required button on the transmitter deletes it from the actuator's memory.
- To confirm deletion, the LED will confirm with a flash long and the component returns to the operating mode. The memory status is not indicated.
- Deletion does not affect the pre-set memory function.

Deleting the entire memory

- By pressing the programming button on the actuator for 11 seconds (RFSAI-61B-SL: press for more than 8 second), deletion occurs of the actuator's entire memory. LED fl ashs 4x in each 1s interval. The actuator goes into the programming mode, the LED flashes in 0.5s intervals (max. 4 min.).
  You can return to the operating mode by pressing the Prog button for less than 1s. The LED lights up according

to the pre-set memory function and the component returns to the operating mode. Deletion does not affect the preset memory function.





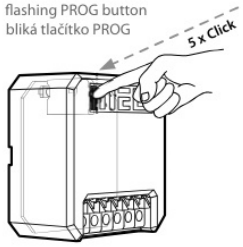
Selecting the memory function

- Press of programming button on receiver RFSAI-62B for 3-5 second (RFSAI-61B-SL: press for 1 second) will activate receiver RFSAI-62B into programming mode. LED is flashing in 1s interval.
- Every other change is made in the same way.
- **Memory function on:**
  - For functions 1-4, these are used to store the last state of the relay output before the supply voltage drops, the change of state of the output to the memory is recorded 15 seconds after the change.
  - For functions 5-6, the target state of the relay is immediately entered into the memory after the delay, after re-connecting the power, the relay is set to the target state.
- **Memory function off:**
- When the power supply is reconnected, the relay remains off.
- The external button RFSAI-62B-SL is programmed in the same way as for wireless. RFSAI-11B-SL it is not programmed, it has a fixed function.

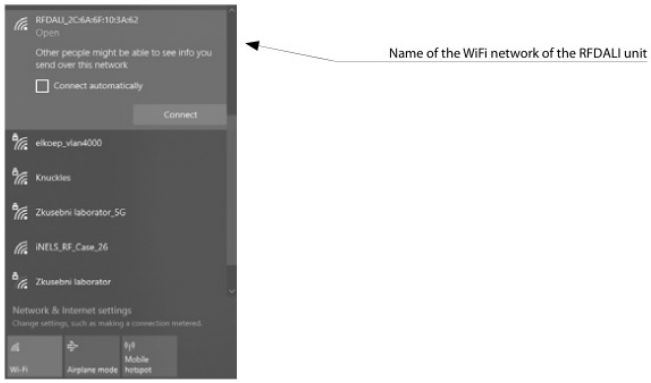
Pairing and configuration of RFDALI controller via the web Zinterface

- The basic advantage of pairing and configuration of RFDALI controller is the possibility of dividing the DALI device into individual control zones or groups and pairing the corresponding buttons of the controllers with them.
- Another advantage is the acceleration of pairing in the case of a large number of controllers that we want to pair with RFDALI.

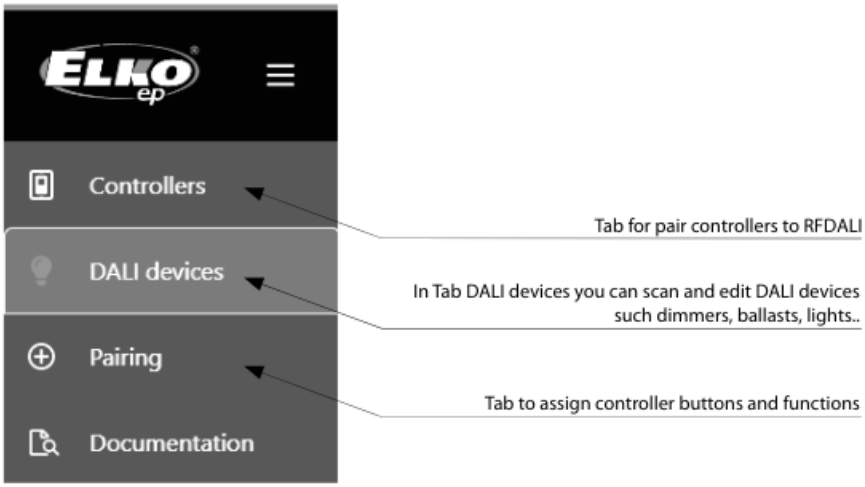
①



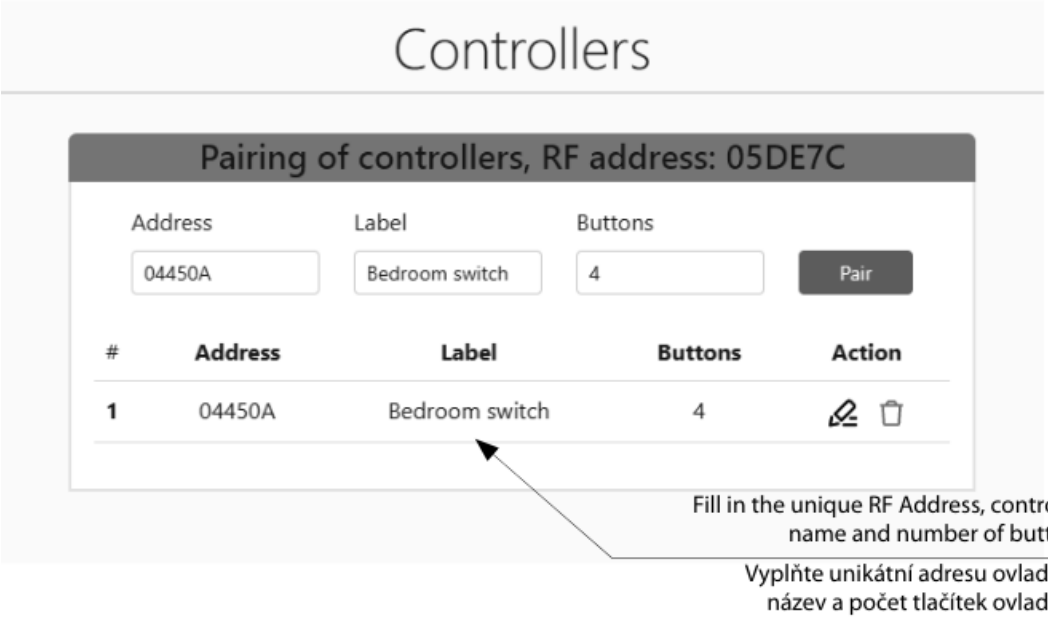
②



- **Login to the web interface**:
  It is possible to connect to the web interface within 2 minutes after applying power to the DALI Controller or it is possible to connect at any time when Wi-Fi communication is initiated on the unit by pressing the PROG button 5 times in 1 second intervals. The indicator LED of the PROG button flashes quickly when Wi-Fi communication is activated.
- After invoking wifi communication, search for the unit as a classic WI-Fi network with the help of a PC, smartphone or tablet. The network is labeled: RFDALI_ + its individual MAC address. Enter its network address in the browser: 192.168.1.1



- **Settings in the web interface**
  - In the web interface, the unit has 4 basic tabs for settings: CONTROLLERS, DALI DEVICES and PAIRING and a tab DOCUMENTATION

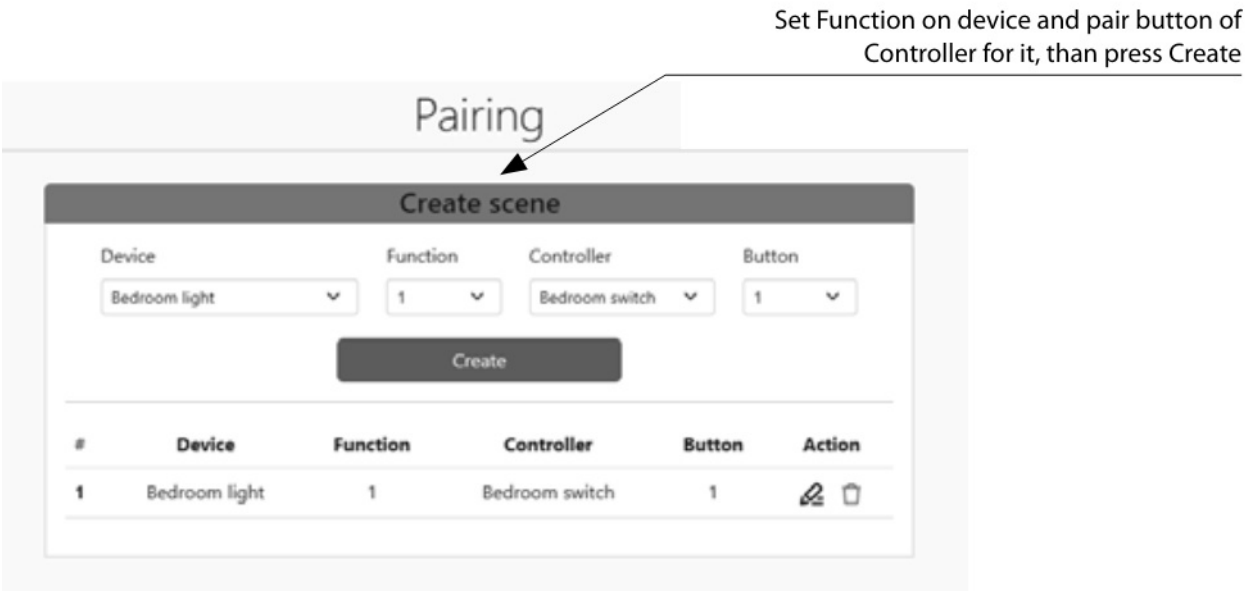


- **CONTROLLERS tab**
  - The CONTROLLERS tab is used to pair controllers to the RFDALI controller using its unique RF Addresses. This is similar to manual pairing, if you have previously paired drivers manually, you will see them in the list of paired addresses.
  - **Pairing:** we enter the RF address in the ADDRESS field, in the LABEL field we add the controller name in any format for easy orientation, in the BUTTONS field we enter the actual number of controller buttons. Press the
  - PAIR button to store the controller in memory. After pairing, the driver appears in the list and the user has the option to edit or delete the driver.
  - **Attention:** Controllers that have 6 buttons, such as RF KEY-60, consist of two addresses.

- **DALI DEVICES tab**
  - The SCAN THE BUS button activates the automatic search for DALI devices on the bus.
    Since the RFDALI controller searches for all devices on the DALI bus when connected for the first time and combines them into one address for control, always activate the search for DALI devices before you start assigning individual buttons to the selected devices.
  - Depending on the number of connected DALI devices, the search may take up to 5 minutes. The searched DALI devices will then appear in the list. Use the EDIT button to enter the name of the DALI device in the LABEL field. With the help of the button with the PLAY symbol, selected devices can be controlled manually in test mode. The button with the TRASH BASKET symbol deletes the searched DALI

device.

- **DOCUMENTATION tab**
  - The DOCUMENTATION tab contains a detailed manual for the device and its technical parameters.
- **Communication with the application**
  - The RFDALI controller can be controlled in the iNELS app. The assignment is made using the RF address on the device or in the web interface in CONTROLLERS tab in the yellow field.
  - Attention: The RFDALI controller can be controlled from the app as one control zone for all DALI addresses on bus.



- **PAIRING tab**
  - The PAIRING tab is used to manually assign individual controller buttons and functions to selected RFDALI devices. In the DEVICE field, select the RFDALI device. In the FUNCTION field, we assign one of the unit's preset functions, which are described in Functions and programming to the iNELS Wireless controllerc (1-7). In the CONTROLLERS field, I select the controller with which I want to control the device and in the BUTTON field I select the specific button of the controller with which I want to control it. Confirm the setting by pressing the CREATE button. My set pairings will then appear in the list below.
  - Attention: DALI devices and controller buttons that are paired in this way can no longer be deleted from the list in the DALI DEVICES and CONTROLLERS tabs. If you want to remove them, you must first delete all created pairings in which these devices or drivers are used.

Technical parameters

Supply voltage:	230 V AC
Supply voltage frequency:	50-60 Hz
Apparent input:	7 VA / cos φ = 0.1
Dissipated power:	0.7 W
Supply voltage tolerance:	+10 %; -15 %
Output	

Number of contacts:	1x switching / 1x spínací			2xswitching / 2x spínací
Rated current:	8 A / AC1			
Switching power:	2000 VA / AC1			
Peak current:	10 A / <3 s			
Switching voltage:	250 V AC1			
Mechanical service life:	1×107			
Electrical service life (AC 1):	1×105			
Control				
Wireless:	25-channels/ 25 kanálů			2 x 12-channels / kanály
Number of functions:	6	1	6	6
Communication protocol:	RFIO2			
Frequency:	866–922 MHz (for more information see p. 74)/ 866–922 MHz (viz str. 74)			
Repeater function:	yes/ ano			
Manual control:	button PROG (ON/OFF)/ tlačítko PROG (ON/OFF)			
External button / switch: Range:	yes/ ano			
Other data	in open space up to 200 m/ na volném prostranství až 200 m			
Operating temperature:				
Operating position:	-15 až + 50 °C			
Operating position:	any/ libovolná			
Mounting:	free at lead-in wires/ volné na přívodních vodičích			
Protection:	IP40			
Overvoltage category:	III.			
Contamination degree:	2			
Connection:	screwless terminals/ bezšroubové svorky			
Connecting conductor:	0.2-1.5 mm2 solid/flexible/ 0.2-1.5 mm2 pevný/pružný			
Dimensions:	43 x 44 x 22 mm			
Weight:	31g			45 g
Related standards:	EN 60730, EN 63044, EN 300 220, EN 301 489			

Control button input is at the supply voltage potential.

- **Attention:**
  When you install iNELS RF Control system, you have to keep minimal distance 1 cm between each units. Between the individual commands must be an interval of at least 1s.
- **Warning**
- Instruction manual is designated for mounting and also for user of the device. It is always a part of its packing. Installation and connection can be carried out only by a person with adequate professional qualification upon understanding this instruction manual and functions of the device, and while observing all valid regulations. Trouble-free function of the device also depends on transportation, storing and handling. In case you notice any sign of damage, deformation, malfunction or missing part, do not install this device and return it to its seller. It is necessary to treat this product and its parts as electronic waste after its lifetime is terminated. Before starting installation, make sure that all wires, connected parts or terminals are de-energized. While mounting and servicing observe safety regulations, norms, directives and professional, and export regulations for working with electrical devices. Do not touch parts of the device that are energized – life threat. Due to transmissivity of RF signal, observe correct location of RF components in a building where the installation is taking place. RF Control is designated only for mounting in interiors. Devices are not designated for installation into exteriors and humid spaces. The must not be installed into metal switchboards and into plastic switchboards with metal door – transmissivity of RF signal is then impossible. RF Control is not recommended for pulleys etc. – radiofrequency signal can be shielded by an obstruction, interered, battery of the transceiver can get fl at etc. and thus disable remote control.
- ELKO EP declares that the RFSAI-xxB-SL type of equipment complies with Directives 2014/53/EU, 2011/65/EU, 2015/863/EU and 2014/35/EU. The full EU Declaration of Conformity is at:
- https://www.elkoep.com/switching-units-with-inputs-for-external-buttons—-rfsai-11b-sl
- https://www.elkoep.com/switching-units-with-inputs-for-external-buttons—-rfsai-61b-sl
- https://www.elkoep.com/switching-units-with-inputs-for-external-buttons—rfsai-62b-sl
- https://www.elkoep.com/switch-unit-with-input-for-external-button-1-channel—-rfsai-61bpf-sl
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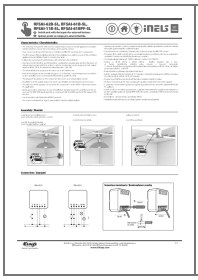
Documents / Resources

	Elko EP RFSAI-62B-SL Switch Unit With The Inputs For External Buttons [pdf] Instruction Manual RFSAI-62B-SL Switch Unit With The Inputs For External Buttons, RFSAI-62B-SL, Switch Unit With The Inputs For External Buttons, Unit With The Inputs For External Buttons, The Inputs For External Buttons, Inputs For External Buttons, External Buttons, Buttons

References

- User Manual