ELKO EP RFSAI-61B Wireless Switch Unit Instruction Manual

ELKO EP RFSAI-61B Wireless Switch Unit Instruction Manual

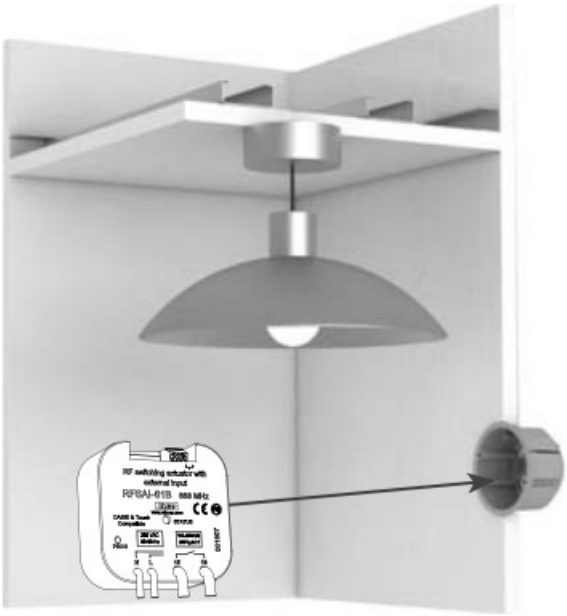
Contents

Characteristics

- The switching unit with 1 output channel is used for controlling appliances and lights. It is possible to connect the existing button to the internal terminal in the wiring.
- They can be combined with detectors, controllers, iNELS RF Control or system components..
- The BOX design lets you mount it right in an installation box, a ceiling or controlled appliance cover.
- It enables connection of the switched load up to 16A (4.000 W).
- Function: button, impulse relay and time function of delayed start or return with time setting range of 2s-60min.
- External button is programmed as a wireless button.
- Input is not galvanic isolated!
- The switching unit may be controlled by up to 25 channels (1 channel represents 1 button on the controller).
- The programming button on the unit is also used for manual control of the output.
- Memory status can be pre-set in the event of a power failure.
- For components labelled as iNELS RF Control2 (RFIO2), it is possible to set the repeater function via the RFAF/USB service device.
- Range up to 200 m (in open space), if the signal is insufficient between the controller and unit, use the signal repeater RFRP-20 or protocol component RFIO2 that support this feature.
- Communication frequency with bidirectional protocol iNELS RF Control (RFIO2).

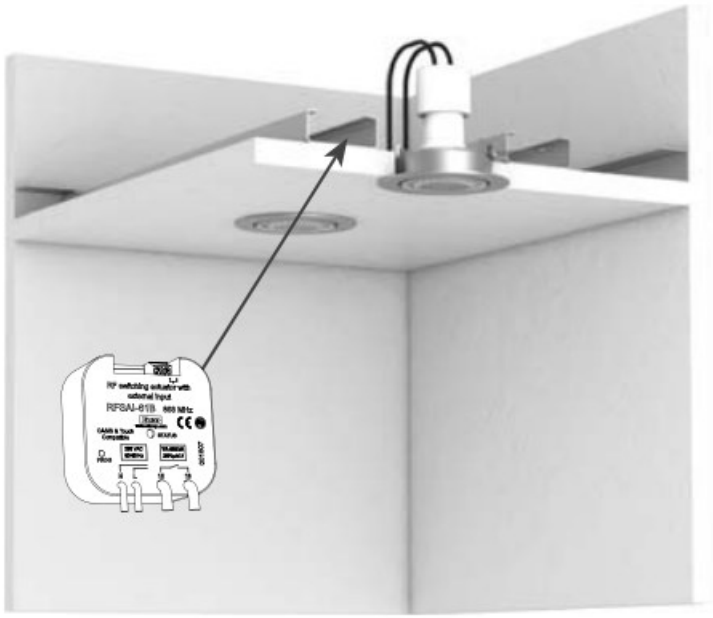
Assembly

mounting in an installation box (even under the existing button / switch)



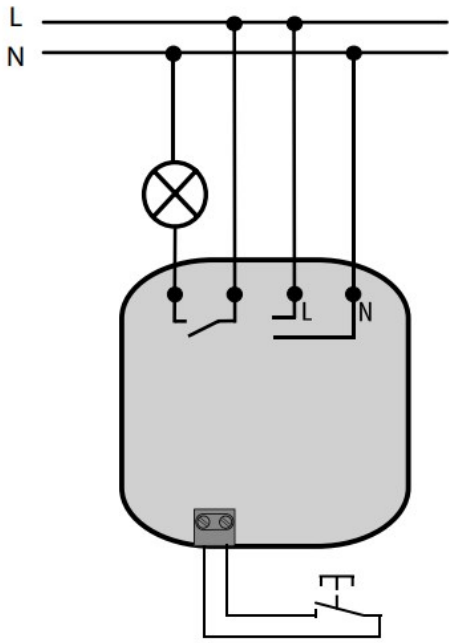
mounting into the light cover

ceiling mounted

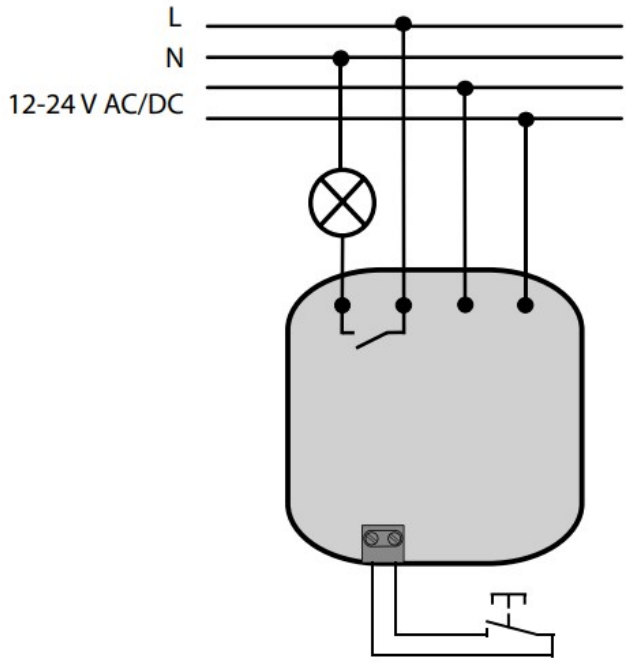


Connection

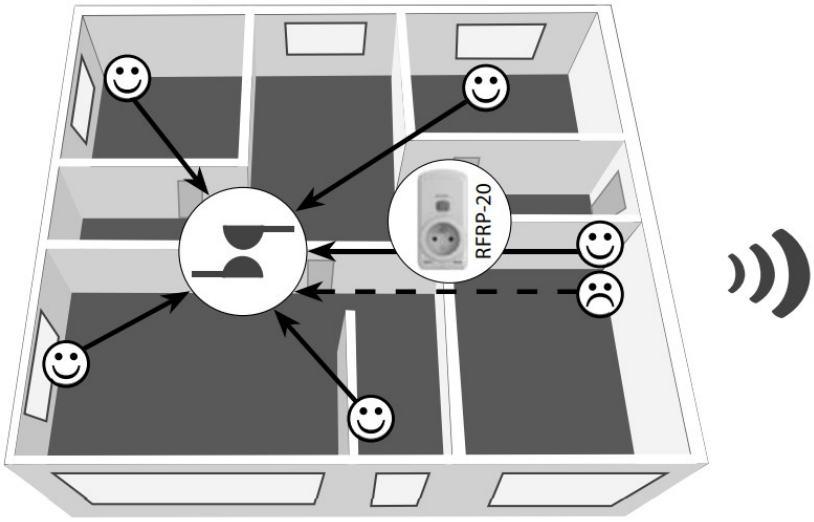
RFSAI-61B/230V
RFSAI-61B/120V

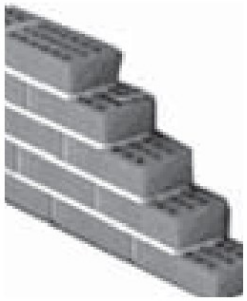
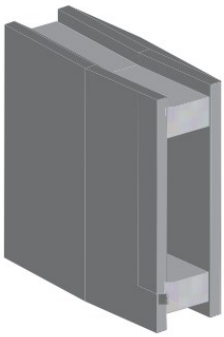
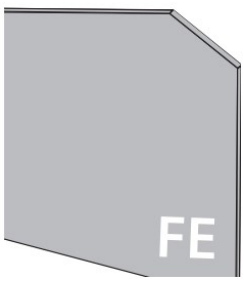


RFSAI-61B/24V

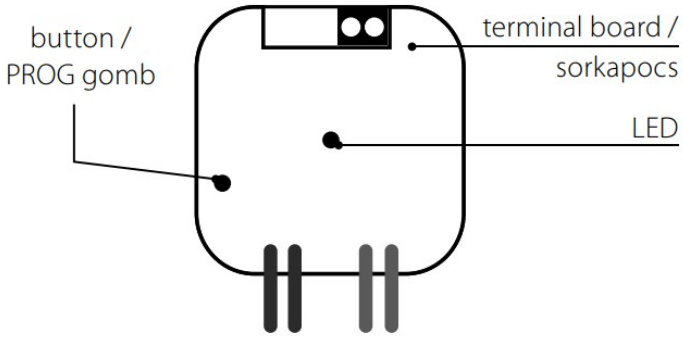


Radio frequency signal penetration through various construction materials



				
60 – 90 %	**80 – 95 %**	**20 – 60 %**	**0 – 10 %**	**80- 90 %**
brick walls	wooden structures with plaster boards	reinforced concrete	metal partitions	common glass

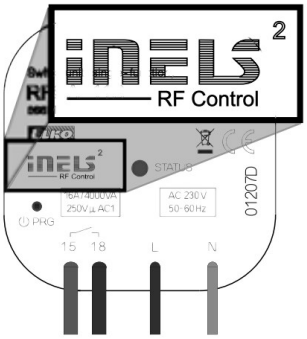
Indication, manual control



- Terminal board – connection for external button.
- LED STATUS – indication of the device status. 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 less than 1s.
- Programming is performed by pressing the PROG button for more than 1s.

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.

Compatibility



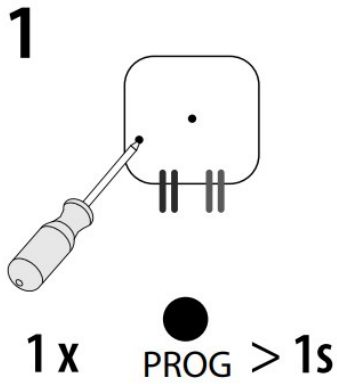
The device can be combined with all system components, controls and devices
of iNELS RF Control and iNELS RF Control2 . The detector can be assigned an iNELS RF Control2(RFIO2) communication protocol.

Functions and programming with RF transmitters

Function button

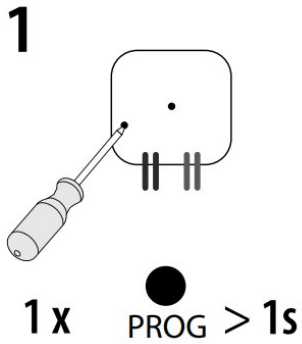
Description of button

The output contact will be closed by pressing the button and opened by releasing the button.

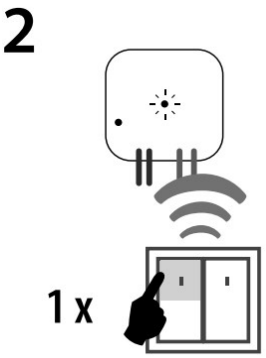


Programming

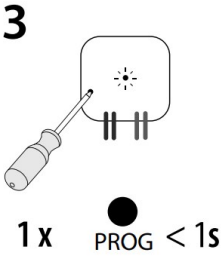
Press of programming button on receiver RFSAI-61B for1 second will activate receiver RFSAI-61B into programmingmode. LED is fl ashing in 1s interval.



Select and press one button on wireless switch, to this button will be assigned function Button



Press of programming button on receiver RFSAI-61B shorter then 1 second will fi nish programming mode. The LED lights up according to the preset memory function.



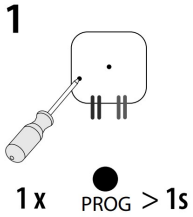
Function switch on

Description of switch on

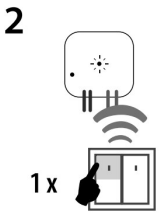
The output contact will be closed by pressing the button.

Programming

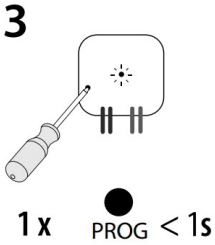
Press of programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is fl ashing in 1s interval.



Two presses of your selected button on the RF transmitterassigns the function switch on (must be a lapse of 1s between individual presses).



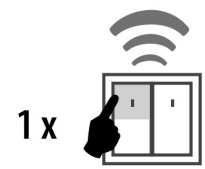
Press of programming button on receiver RFSAI-61B shorterthen 1 second will fi nish programming mode. The LED lights up according to the preset memory function.



Function switch of

Description of switch of

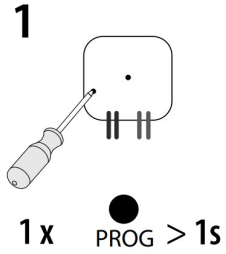
The output contact will be opened by pressing the button.



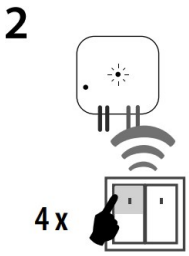
Programming

Press of programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into

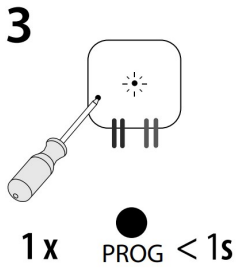
programming mode. LED is fl ashing in 1sinterval.



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-61B shorterthen 1 second will fi nish programming mode. The LED lights up according to the preset memory function.



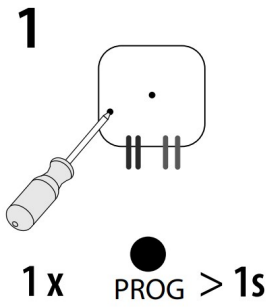
Function impulse relay

Description of impulse relay

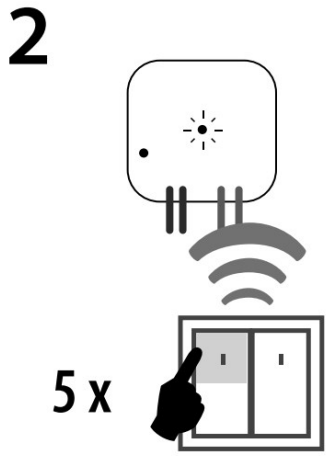
The output contact will be switched to the opposite position by each press of the button. If the contact was closed, it will be opened and vice versa.

Programming

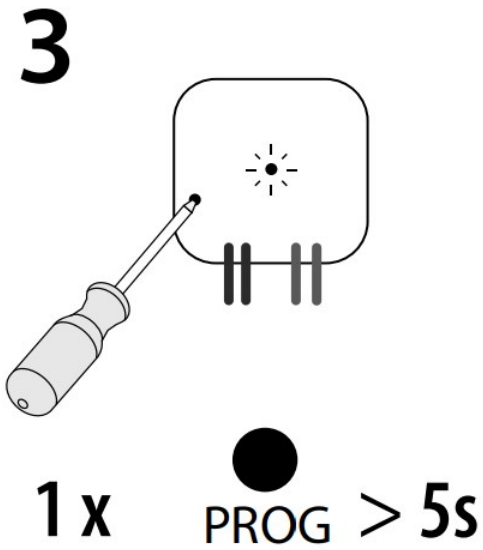
Press of programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is fl ashing in 1sinterval.



Four presses of your selected button on the RF transmitter assigns the function impulse relay (must be a lapse of 1s between individual presses).



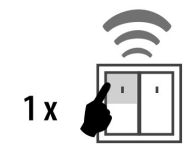
Press of programming button on receiver RFSAI-61B shorter then 1 second will fi nish programming mode. The LEDlights up according to the preset memory function.



Funcion delayed of

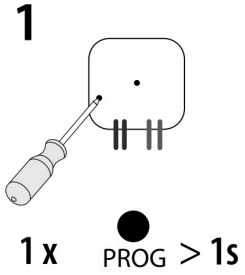
Description of delayed of

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

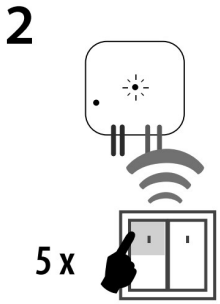


Programming

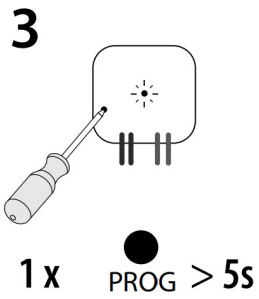
Press of programming button on receiver RFSAI-61B for
1 second will activate receiver RFSAI-61B into programmingmode. LED is fl ashing in 1s interval.



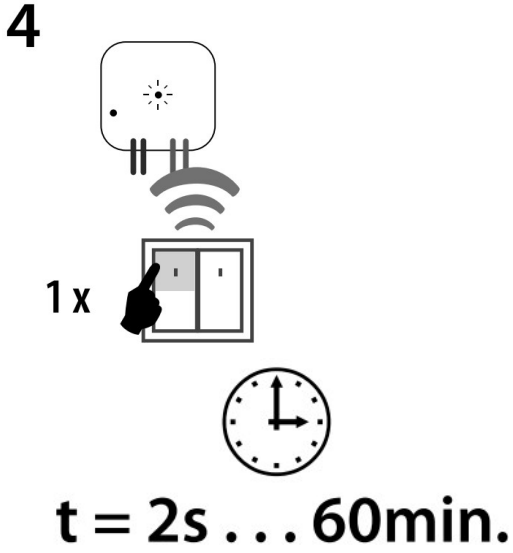
Assignment of the delayed off function is performed by fi ve presses of the selected button on the RF transmitter (must be a lapse of 1s between individualpresses).



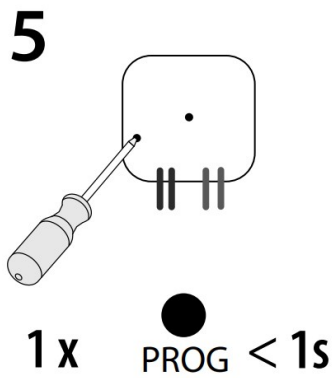
Press of programming button longer then 5 seconds, will activate actuator into timing mode. LED fl ashs 2x in each 1s interval. Upon releasing thebutton, the delayed return time starts counting.



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-61B shorterthen 1 second will fi nish programming mode. The LED lights up according to the pre-set memory function.



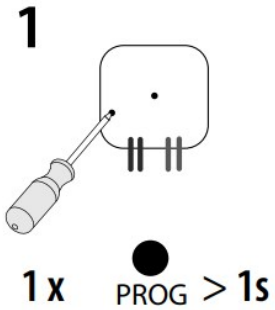
Function delayed on

Description of delayed on

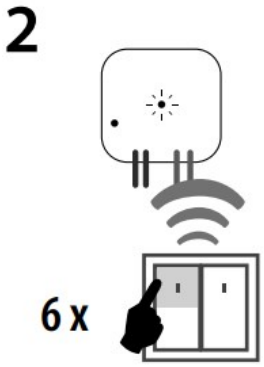
The output contact will be opened by pressing the button and closed after the set time interval has elapsed.

Programming

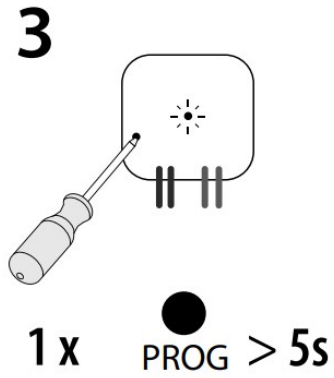
Press of programming button on receiver RFSAI-61B for 1 second will activate receiverRFSAI-61B into programming mode. LED is fl ashing in 1s interval



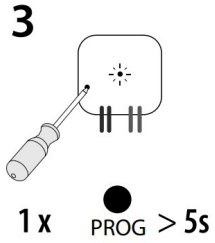
Assignment of the delayed on function is performed by six presses of the selected buttonon the RF transmitter (must be a lapse of 1s between individual presses).



Press of programming button longer then 5 seconds, will activate actuator into timing mode. LED fl ashs 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



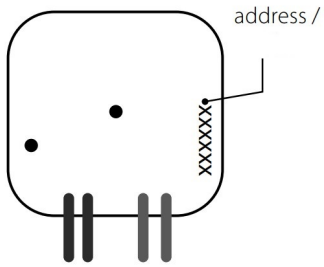
After the desired time has elapsed (range of 2s…60min), the timing mode ends bypressing the button on the RF transmitter, to which thedelayed return function is assigned. This stores the settime interval into the actuator memory.



Press of programming button on receiver RFSAI-61B shorter then 1 second will fi nish programming mode. The LED lightsup according to the pre-set memory function.

Programming with RF control units

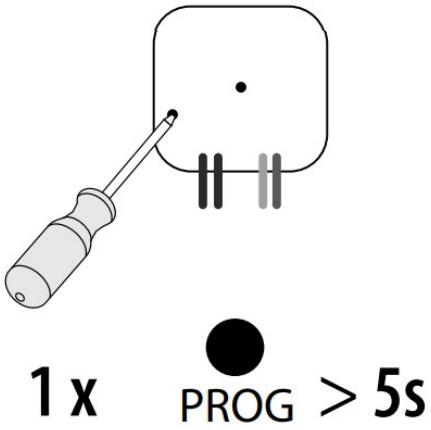
The address listed on the front of the actuator is used for programming and controlling actuators by RF control units.



Delete actuator

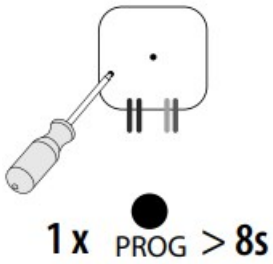
Deleting one position of the transmitter

By pressing the programming button on the actuator for 5 seconds, 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 confi rm deletion, the LED will confi rm with a fl ash long and the component returns to the operating mode. The memory status is not indicated. Deletion does not aff ect the pre-set memory function.



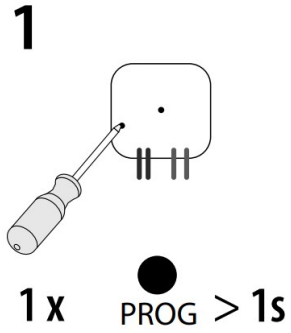
Deleting the entire memory

By pressing the programming button on the actuator for 8 seconds, 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 fl ashesin 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 aff ect the pre-set memory function.

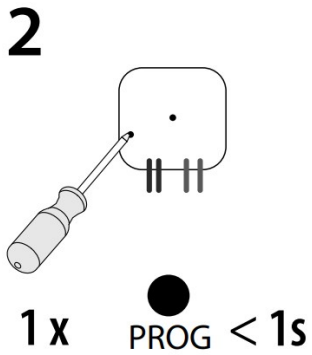


Selecting the memory function

Press of programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is fl ashing in 1s interval



Pressing the programming button on the RFSAI-61B receiver for less than 1 second will fi nish the programming mode, this will reverse the memory function. The LED lights up according to the current pre-set memory function. The set memory functionis saved. 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.

Technical parameters

Supply voltage:	230 V AC / 50 – 60 Hz	120 V AC / 60Hz	12-24 V AC/DC 50-60Hz
Apparent power:	7 VA / cos φ = 0.1	7 VA / cos φ = 0.1	–
Dissipated power:	0.7 W	0.7 W	0.7 W
Supply voltage tolerance:	+10 %; -15 %		
Output			
Number of contacts:	1x switching / záró ($AgSnO_2$)		
Rated current:	16 A / AC1		

Switching power:	4000 VA / AC1, 384 W / DC
Peak current:	30 A / < 3 s (mp)
Switching voltage:	250 V AC1 / 24 V DC
Min. switching power DC:	500 mW
Mechanical service life:	3×107
Electrical service life (AC1):	0.7×105
Controlling	
RF command from the transmit ter:	866 MHz, 868 MHz, 916 MHz
Manual control:	button PROG (ON/OFF) / “PROG” nyomógombbal (BE/KI)
External button:	max. 12 m cable / vezeték
Range in open space:	up to 200 m / 200 m-ig
Other data	
Voltage of open contact:	3 V

Resist. of connection for close d contact:	<1 kΩ
Resist. of connection for open contact:	>10 kΩ
Galvanic isolation of input:	↯ no / nem
Operating temperature:	-15 … + 50 °C
Working position:	any / tetszőleges
Mounting:	free at lead-in wires
Protection:	IP30
Overvoltage category:	III.
Contamination degree:	2
Terminals (CY wire, Cross-sect ion):	2x 0.75 mm2 , 2x 2.5 mm2
Terminal length:	90 mm
Dimensions:	49 x 49 x 21 mm

Weight:	46 g
Related standards:	EN 60669, EN 300220, EN 301489 R&TTE Directive, Order. No 426/2000 Coll . (Directive 1999/EC)/ EN 60669, EN 300 220, EN 301 48

Control button input is at the supply voltage potentialAttention:

When you instal 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 qualifi cation 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 Controlis designated only for mounting in interiors. Devices are not designated for installation into exteriors and humidspaces. 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, interfered, battery of the transceiver can get fl at etc. and thus disable remote control.

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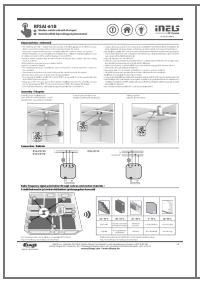
www.elkoep.com / **www.elkoep.hu**

Documents / Resources

	**ELKO EP RFSAI-61B Wireless Switch Unit** [pdf] Instruction Manual RFSAI-61B, Wireless Switch Unit, RFSAI-61B Wireless Switch Unit, Switch Unit

References

- **ELKO EP - Global relay manufacturer • ELKO EP**

- Catalogs and brochures • ELKO EP
- Kezdőlap • ELKO EP Hungary