inELS RFSAI-61B-230V Wireless Switch Unit with Input Instruction Manual

Contents

inELS RFSAI-61B-230V Wireless Switch Unit with Input

Product Information

The RFSAI-61B is a wireless switch unit that can be mounted into a light cover or ceiling. It is available in three versions – 230V, 120V, and 24V. 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. It is compatible with brick walls, wooden structures with plasterboards, reinforced concrete, metal partitions, and common glass.

Product Usage Instructions

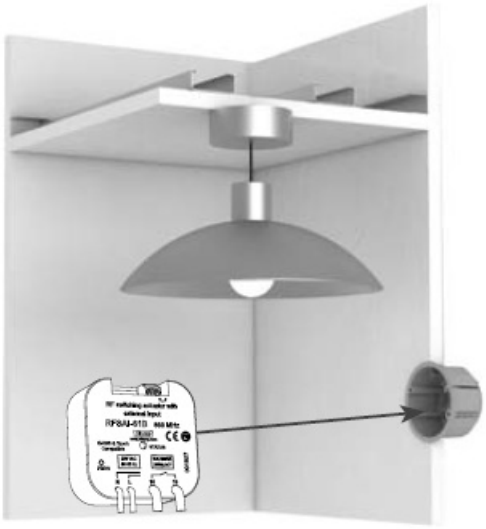
1. To activate the receiver RFSAI-61B into programming mode, press the programming button on the receiver for 1 second. The LED will flash in 1s intervals.
2. The output contact will be closed by pressing the button on the wireless switch. Select and press one button on the wireless switch to assign a function to that button.
3. To finish programming mode, press the programming button on the receiver RFSAI-61B shorter than 1 second. The LED will light up according to the preset memory function.
4. Two presses of your selected button on the RF transmitter assign the function switch on (must be a lapse of 1s between individual presses).
5. Three presses of your selected button on the RF transmitter assign the function switch off (must be a lapse of 1s between individual presses).
6. 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.
7. Four presses of your selected button on the RF transmitter assigns the function impulse relay (must be a lapse of 1s between individual presses).

Characteristics

- The switching unit with 1 output channel controls 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 a controlled appliance cover.
- It enables connection of the switched load up to 16A (4.000 W).
- Function: button, impulse relay and time function of a 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).

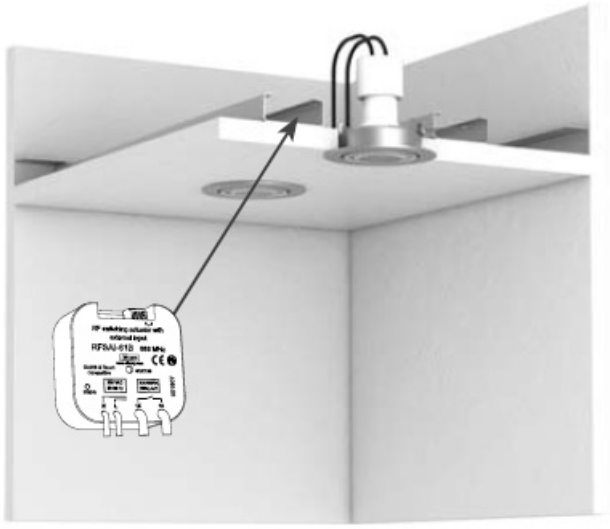
Assembly

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



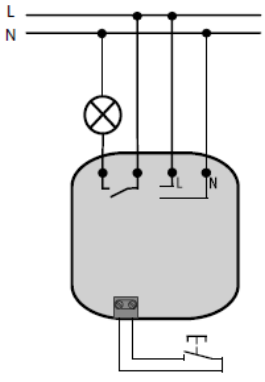
2. mounting into the light cover

3. ceiling mounted

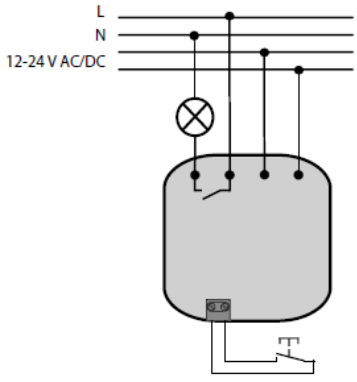


Connection

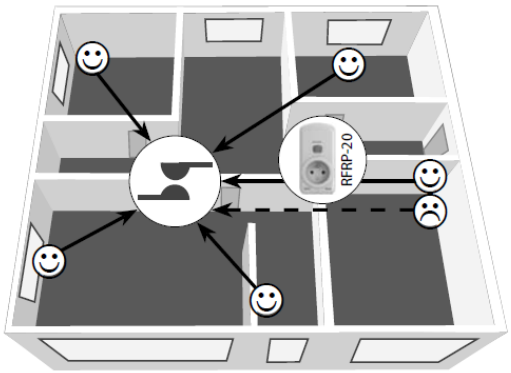
RFSAI-61B/230V
RFSAI-61B/120V

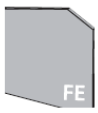


RFSAI-61B/24V



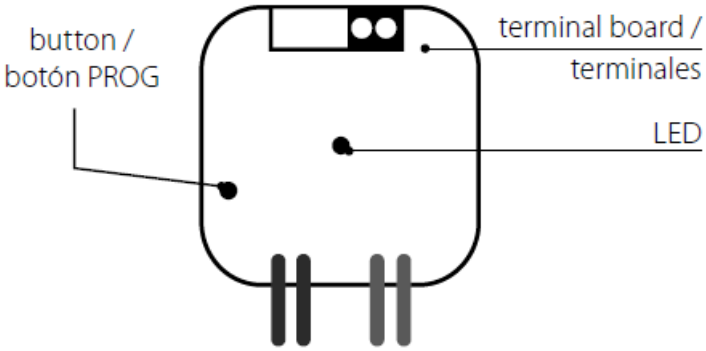
Radiofrequency signal penetration through various construction materials



				
60 - 90 %	80 - 95 %	20 - 60 %	0 - 10 %	80- 90 %
brick walls	wooden structures with plaster boards	reinforced concrete	metal partitions	common glass
pared de ladrillo	estructuras de madera con placas de yeso	hormigón armado	chapas metálicas	vidrio normal

For more information, see “Installation manual iNELS RF Control”: http://www.elkoep.com/catalogs-and-brochures

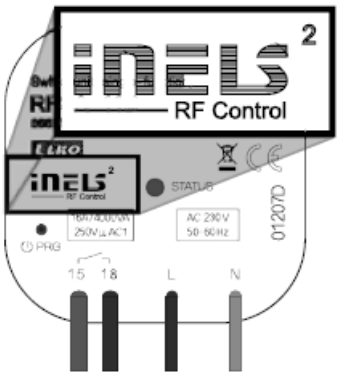
Indication, manual control



- Terminal board – connection for the external button.
- LED STATUS – an indication of the device status.
- Indicators of memory function:
  - On – LED blinks x 3.
  - Off – The LED lights up once in 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

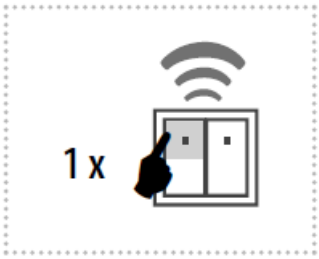
Compatibility



- 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.

Function button

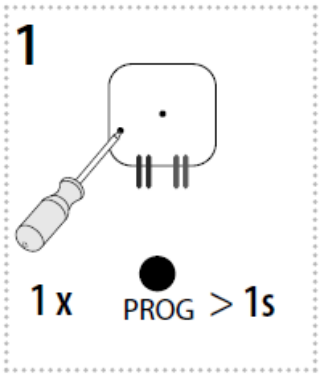
Description of button



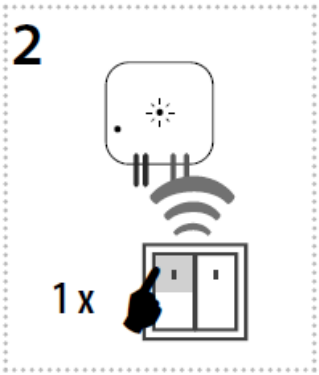
The output contact will be closed by pressing the button and opened by releasing the button

Programming

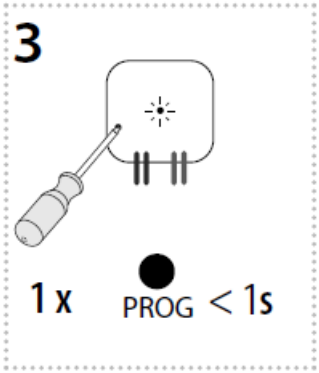
- Press of the programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is fl ashing in 1s interval.



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

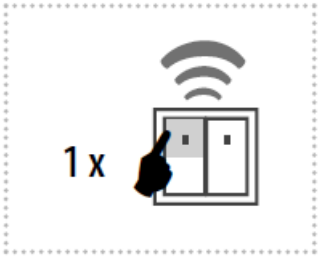


- Press of the programming button on receiver RFSAI-61B shorter than 1 second will fi nish programming mode. The LED lights up according to the preset memory function.



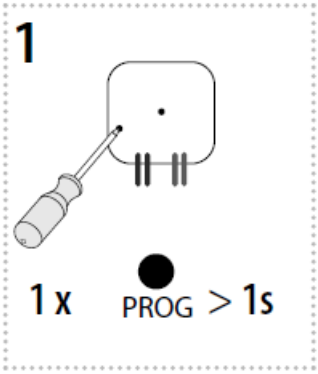
Function switch on

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

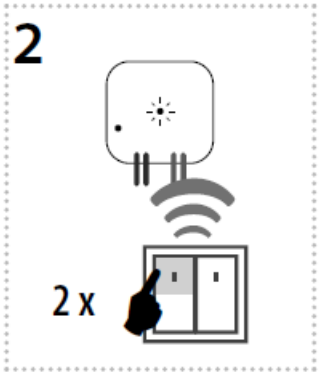


Programming

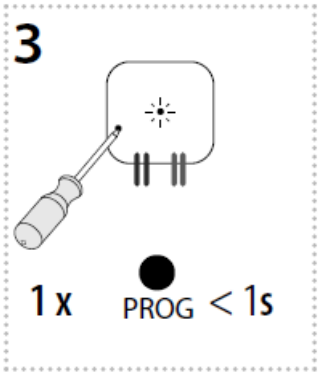
1. Press of the programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is fl ashing in 1s interval.



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

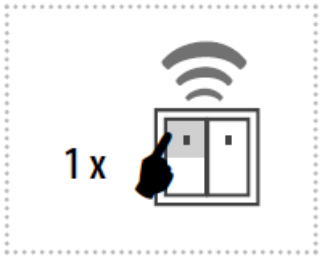


3. Press of the programming button on receiver RFSAI-61B shorter then 1 second will fi nish programming mode. The LED lights up according to the preset memory function.



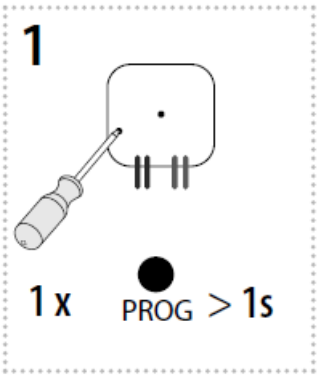
Function switch off

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

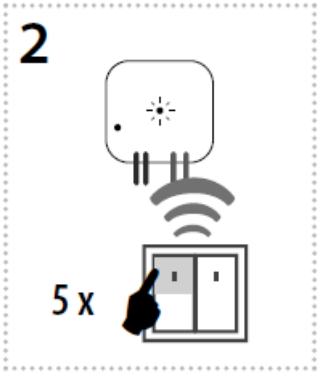


Programming

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

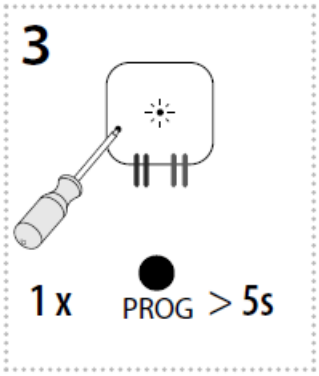


- Assignment of the delayed off function is performed by fi ve presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).

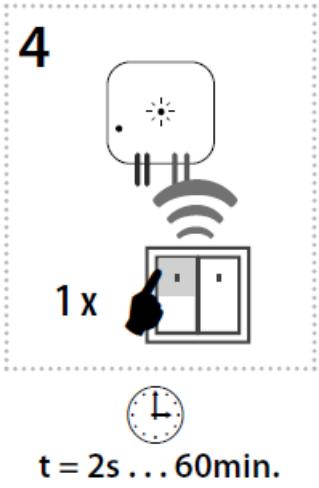


- Press of the programming button longer than 5 seconds, will activate the actuator into timing mode. LED

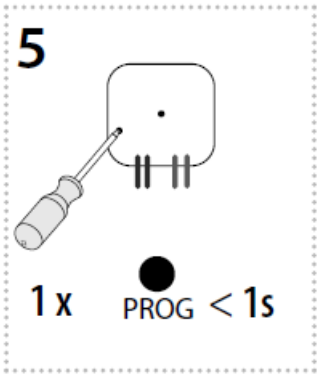
flashes 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



- 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.

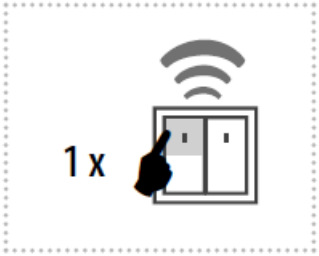


- Press of the programming button on receiver RFSAI-61B shorter then 1 second will finish programming mode. The LED lights up according to the pre-set memory function



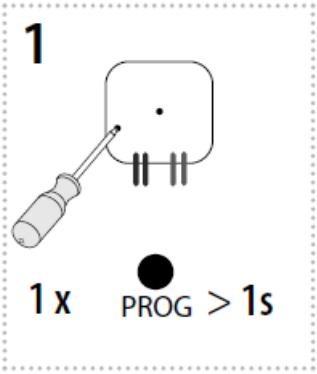
Function delayed on

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

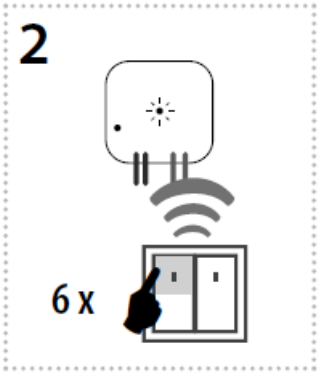


Programming

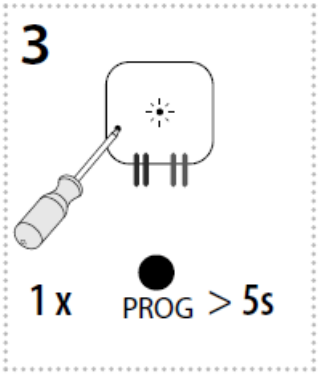
- Press of the programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is flashing in 1s intervals.



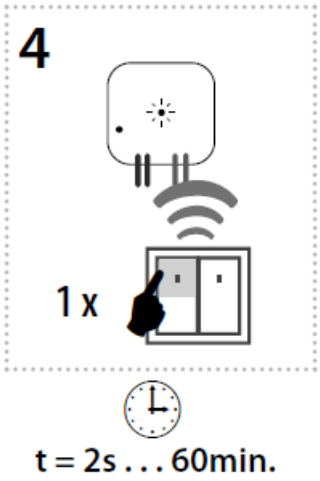
- Assignment of the delayed on function is performed by six presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).



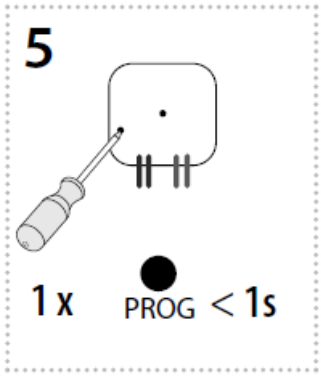
- Press of the programming button longer than 5 seconds, will activate the actuator into timing mode. LED flashes 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



- 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.

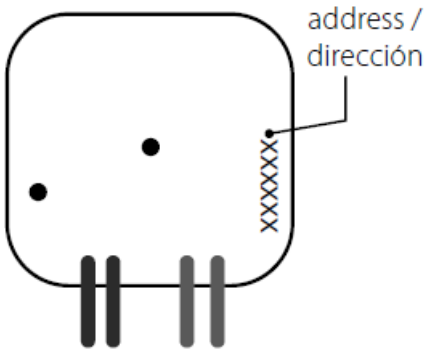


- Press of the programming button on receiver RFSAI-61B shorter than 1 second will finish programming mode. The LED lights up according to the pre-set memory function



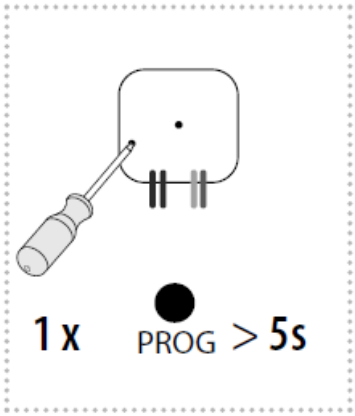
Programming with RF control units

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



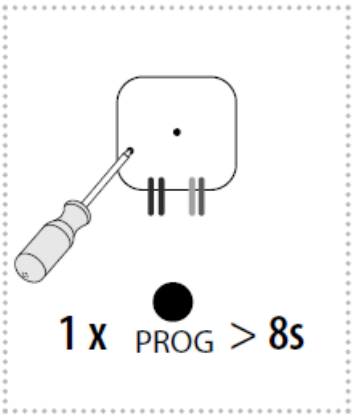
Delete actuator

Deleting one position of the transmitter



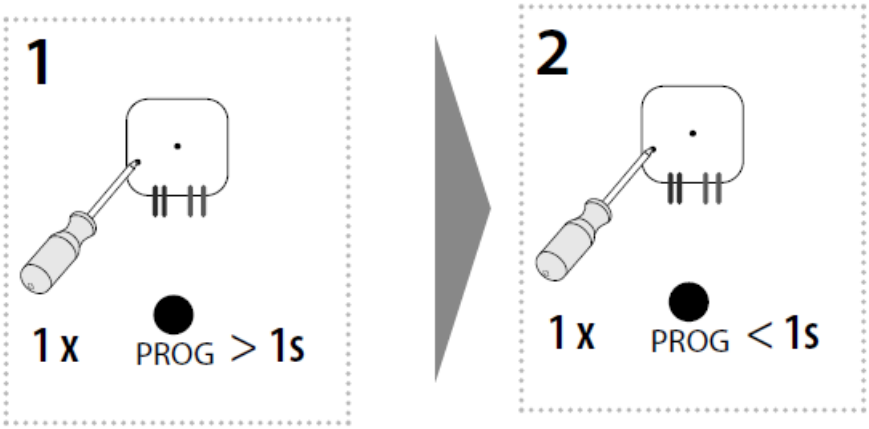
- By pressing the programming button on the actuator for 5 seconds, the deletion of one transmitter activates. LED flashs 4x in each 1s interval.
- Pressing the required button on the transmitter deletes it from the actuator’s memory.
- To confirm deletion, the LED will confirm with a flash long and 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 8 seconds, deletion occurs of the actuator’s entire memory. LED flashs 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 pre-set memory function

Selecting the memory function



1. Pressing of programming button on receiver RFSAI-61B for 1 second will activate receiver RFSAI-61B into programming mode. LED is flashing in 1s intervals.
2. Pressing the programming button on the RFSAI-61B receiver for less than 1 second will finish the programming mode, this will reverse the memory function. The LED lights up according to the current pre-set memory function. The set memory function is saved. Every other change is made in the same way.

Memory function on:

- For functions 1-4, 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 / NA ($AgSnO_2$)		
Rated current:	16 A / AC1		
Switching power:	4000 VA / AC1, 384 W / DC		
Peak current:	30 A / <3 s		
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 transmitter:	866 MHz, 868 MHz, 916 MHz
Manual control:	button PROG / botón PROG (ON/OFF)
External button:	max. 12 m cable / del cable
Range in open space:	up to / hasta 200 m
Other data	
Voltage of open contact:	3 V
Resist. of connection for closed contact:	<1 kΩ
Resist. of connection for open contact:	>10 kΩ
Galvanic isolation of input:	↯ no / no
Operating temperature:	-15 … + 50 °C
Working position:	any / cualquiera
Mounting:	free at lead-in wires / libre en los cables de conexión
Protection:	IP30
Overvoltage category:	III.
Contamination degree:	2
Terminals (CY wire, Cross-section):	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, Orde r. No 426/2000 Coll. (Directive 1999/EC)/ EN 60669, EN 30 0 220, EN 301 489 directiva RTTE, NVč.426/2000Sb (direc tiva 1999/ES)

The control button input is at the supply voltage potential.

Attention:
When you install the iNELS RF Control system, you have to keep a minimal distance 1 cm between each units. Between the individual commands must be an interval of at least 1s.

Warning

The instruction manual is designated for mounting and also for the 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 qualifications upon understanding this instruction manual and the functions of the device, and while observing all valid regulations. The 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 the 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 the transmissivity of RF signal, observe the 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. They must not be installed into metal switchboards and into plastic switchboards with metal doors – transmissivity of RF signal is then impossible. RF Control is not recommended for pulleys etc. – radiofrequency signal can be shielded by an obstruction, interfered, a battery of the transceiver can get fl at, etc. and thus disable the remote control.

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www.elkoep.es

Documents / Resources

	inELS RFSAI-61B-230V Wireless Switch Unit with Input [pdf] Instruction Manual RFSAI-61B-230V Wireless Switch Unit with Input, RFSAI-61B-230V, Wireless Switch Unit with I nput, Switch Unit with Input, Unit with Input, Input

References

- ELKO EP - Global relay manufacturer • ELKO EP
- Catalogs and brochures • ELKO EP
- ElkoEP - Fabricante de dispositivos electrónicos • ELKO EP ESPAÑA