inELs RFSAI Series Switch Unit with Input for External Button Instruction Manual

Contents

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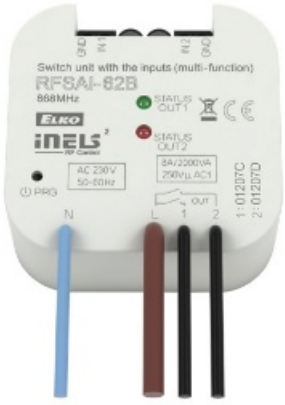


Switch unit with input for external button

Characteristics

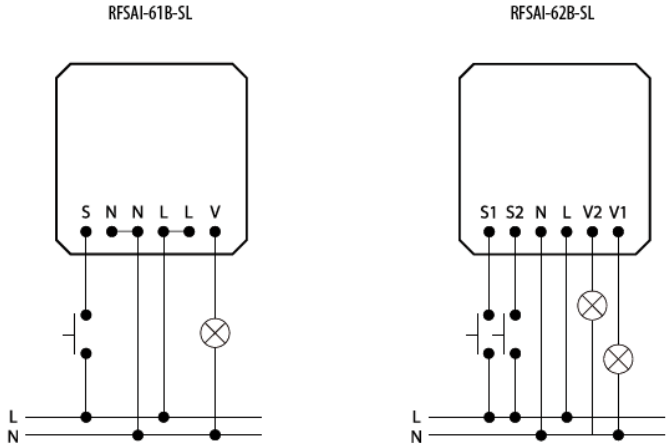
- The switching component with one/two output relays is used to control appliances and lights. Switches/buttons connected to the wiring can be used for control.
- They can be combined with Detectors, Controllers or iNELS RF Control System Components.
- The BOX version off ers installed directly in the 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 a 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, or application.
- Range up to 200 m (outdoors), in case of insufficient signal between the controller and the device, use the RFRP-20 signal repeater or component with the RFIO2 protocol that supports this function.
- Communication with bidirectional RFIO2 protocol.
- The contact material of the AgSnO2 relay enables the switching of light ballasts.

Assembly

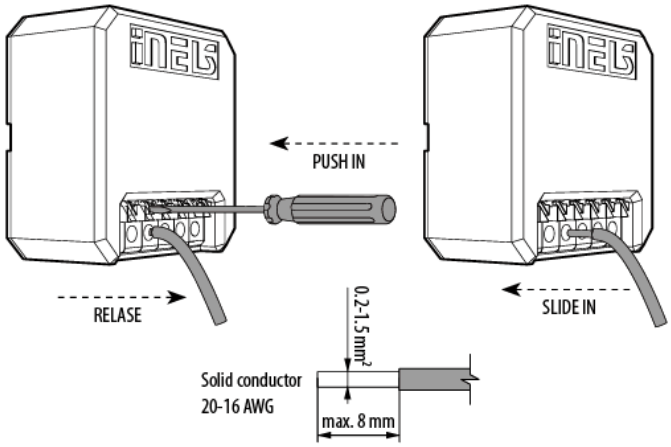
mounting in an installation box /(even under the existing button/switch)

mounting into the light cover ceiling mounted

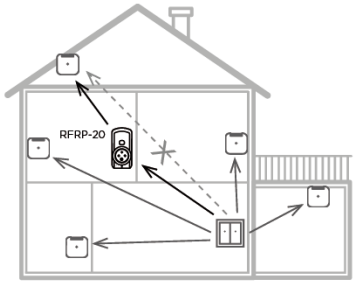
Connection



Screwless terminals

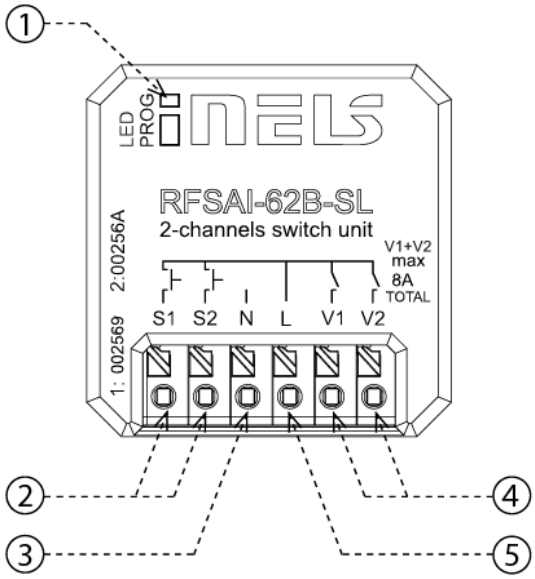


Radiofrequency signal penetration through various construction materials

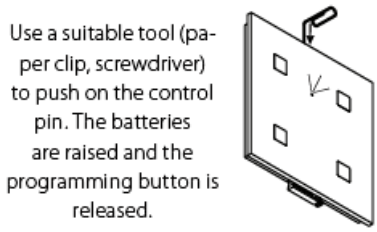


				
60 - 90 %	80 - 95 %	20 - 60 %	0 - 10 %	80- 90 %
brick walls	wooden structures with plaster boards	reinforced concrete	metal partitions	common glass
cihlové zdi	dřevěné konstrukce se sádrokart. deskami	vyztužený beton	kovové přepážky	běžné sklo

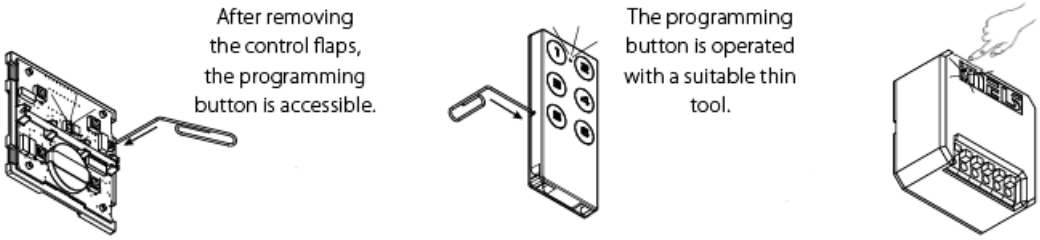
indication, manual control



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 in a long time.
2. Terminal block – connection for external button



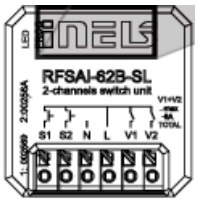
3. Terminal block – connecting the neutral conductor



4. Terminal block-load connection with the sum of the total current 8A (eg V1=6A, V2=2A)
5. Terminal block for connecting the phase conductor

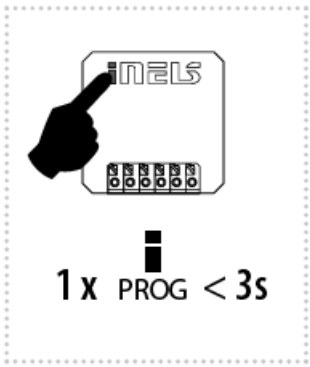
In the programming and operating mode, the LED on the component lights up at the same time each time the button is pressed – this indicates the incoming command. RFSAI-61B-SL: one output contact, status indication by red LED

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.

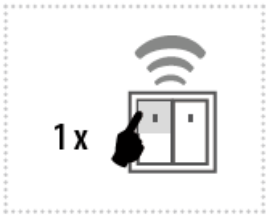
Channel selection



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 the button release, LED is fl ashing indicating the output channel: red (1) or green (2). All other signals are indicated by the corresponding color of the LED for each channel.

Functions and programming with RF transmitters

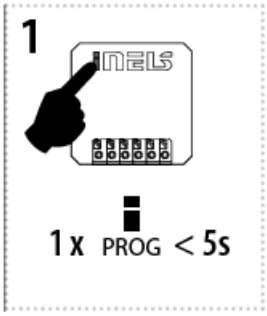
Function button



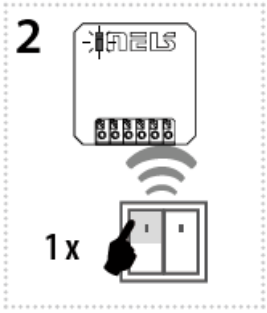
The output contact will be closed by pressing the button and opened by releasing the button. For the correct execution of individual commands (press = closing / releasing the button = opening), the time delay between these commands must be a min of. 1s (press – delay 1s – release).

Programming

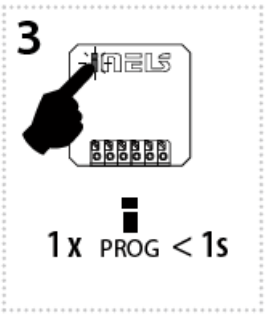
1. Pressing of the programming button on receiver RFSAI-62B for 3-5 s (RFSAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



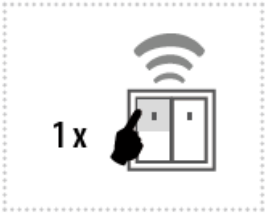
2. Select and press one button on the wireless switch, to this button will be assigned a function Button.



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



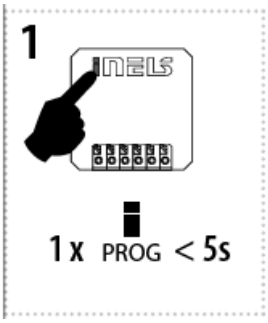
Function switch on



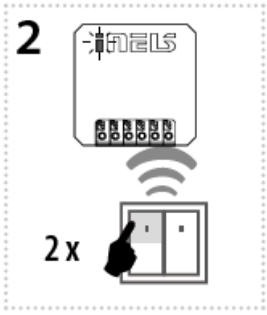
The output contact will be closed by pressing the button.

Programming

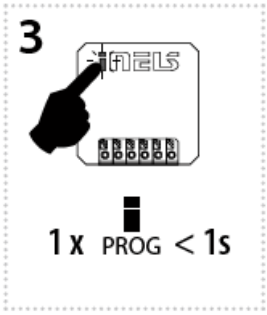
1. Pressing of the programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-11B-SL: press for more than 1s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



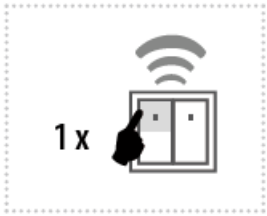
2. Two presses of your selected button on the RF transmitter assign the function switch on (must be a lapse of 1s between individual presses).



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

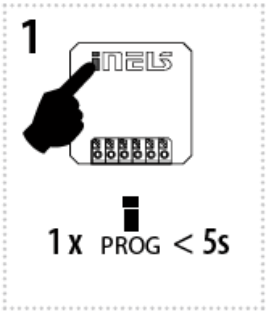


Function switch off
Description of switch off

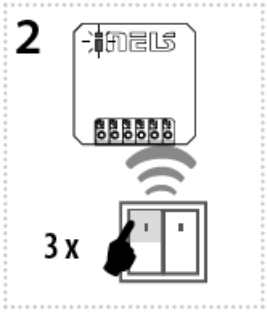


The output contact will be opened by pressing the button.

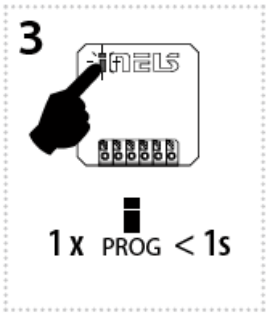
1. Press of the programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



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

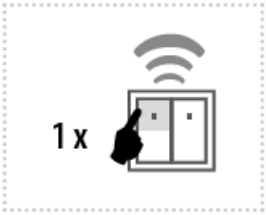


3. Pressing of the programming button on receiver RFSAI-62B shorter than 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

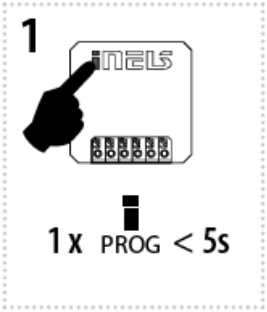


Description of impulse relay

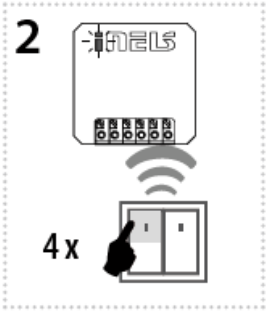
1. The output contact will be switched to the opposite position with each press of a button. If the contact was closed, it will be opened and vice versa.



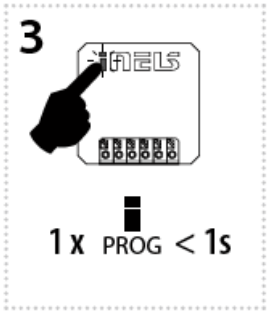
2. Pressing of the programming button on receiver RFSAI-62B for 3-5 s (RFSAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



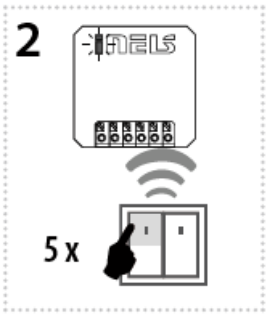
3. Four presses of your selected button on the RF transmitter as-signs the function impulse relay (must be a lapse of 1s between individual presses).



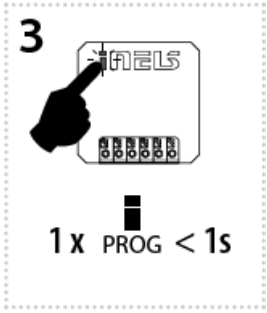
4. Pressing of the programming button on receiver RFSAI-62B shorter than 1 second will finish programming mode. The LED lights up according to the pre-set memory function.



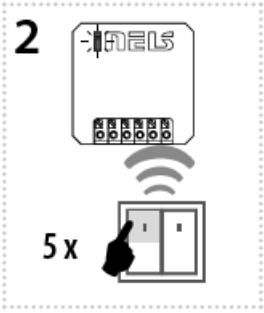
Description of delayed off
The output contact will be closed by pressing the button and opened after the set time interval has elapsed.



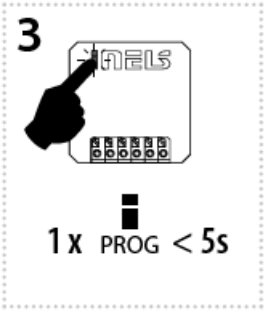
1. Pressing of the programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1 s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



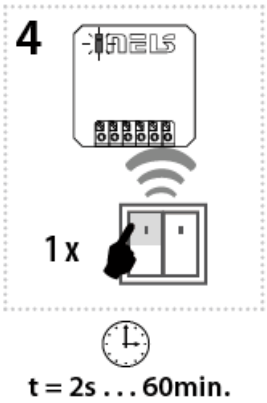
2. Assignment of the delayed off function is performed by fi ve presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).



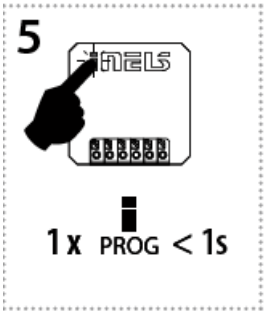
3. Pressing of the programming button longer than 5 seconds, will activate the actuator into timing mode. LED flashs 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



4. 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 in the actuator memory.

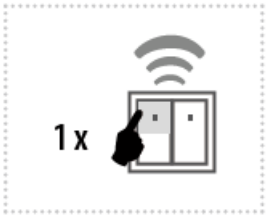


5. Pressing of the programming button on receiver RFSAI-62B shorter than 1 second will finish programming mode. The LED lights up according to the pre-set memory function.

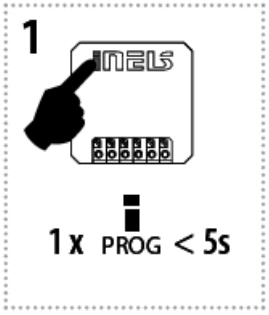


Function delayed on

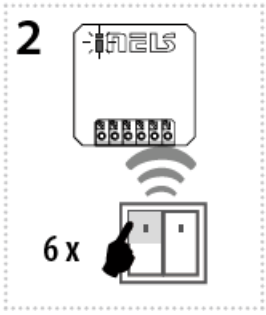
The output contact will be opened by pressing the button and closed after the set time interval has elapsed.



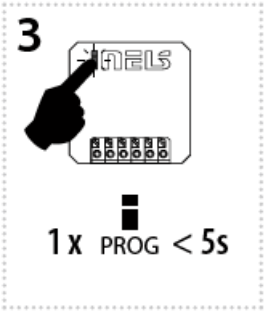
1. Press of the programming button on receiver RFSAI-62B for 3-5 s (RF-SAI-61B-SL: press for more than 1s) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s interval



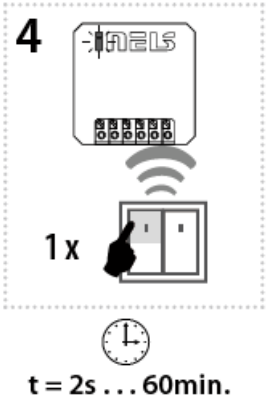
2. Assignment of the delayed on function is performed by six presses of the selected button on the RF transmitter (must be a lapse of 1s between individual presses).



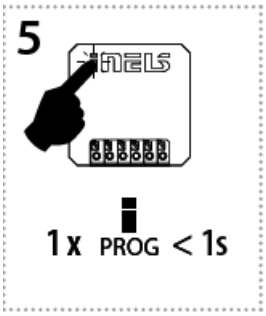
3. Pressing of the programming button for longer than 5 seconds will activate the actuator into timing mode. LED flashs 2x in each 1s interval. Upon releasing the button, the delayed return time starts counting.



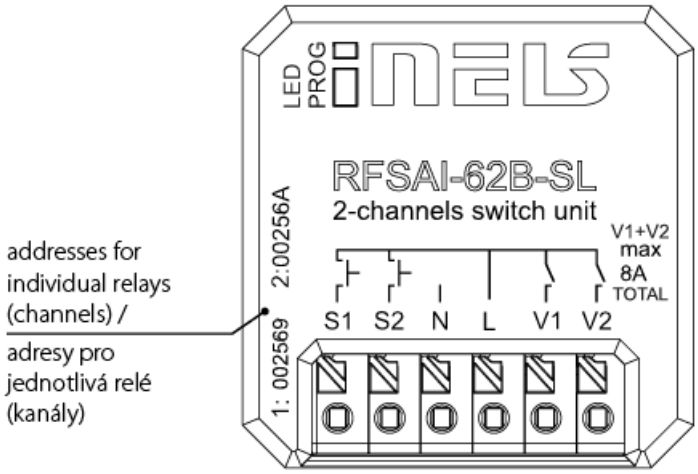
4. After the desired time has elapsed (range of 2s…60min), the timing mode ends by pressing the button on the RF transmitter, to which the delayed return function is assigned. This stores the set time interval in the actuator memory.



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

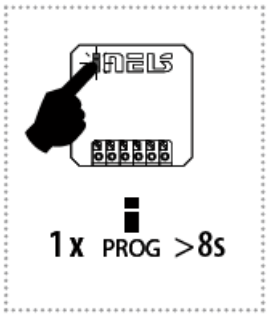


Programming with RF control units

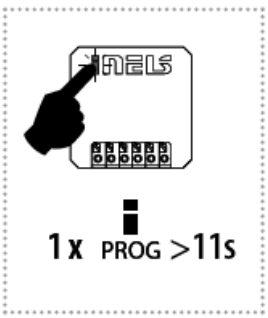


Addresses listed on the front side of the actuator are used for programming and controlling the actuator and individual RF channels by control units.

Delete actuator

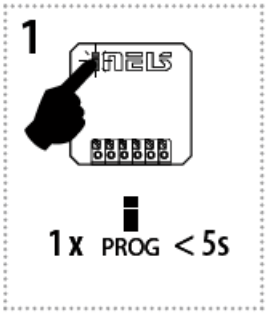


Pressing of the programming button on receiver RFSAI-62B for 3-5 seconds (RFSAI-61B-SL: press for 1 second) will activate receiver RFSAI-62B into programming mode. LED is fl ashing in 1s intervals.



Pressing the programming button on the RFSAI-62B 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

  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, and 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.

Technical parameters

Supply voltage:	Napájecí napětí:	230 V AC	
Supply voltage frequency:	Frekvence napájecího napětí:	50-60 Hz	
Apparent input:	Příkon zdánlivý:	7 VA / cos φ = 0.1	
Dissipated power:	Příkon ztrátový:	0.7 W	
Supply voltage tolerance:	Tolerance napájecího napětí:	+10 %; -15 %	
Output	Výstup		
Number of contacts:	Počet kontaktů:	1x switching / 1x spínací	2xswitching/ 2xspínací
Rated current:	Jmenovitý proud:	8 A / AC1	
Switching power:	Spínaný výkon:	2000 VA / AC1	
Peak current:	Špičkový proud:	10 A / <3 s	
Switching voltage:	Spínané napětí:	250 V AC1	
Mechanical service life:	Mechanická životnost:	1×107	
Electrical service life (AC1):	Elektrická životnost (AC1):	1×105	

Control	Ovládání			
Wireless:	Bezdrátově:	25-channels/ 25 kanálů		2 x 12-channels/ 2 x 12 kanály
Number of functions:	Počet funkcí:	1	6	6
Communication protocol:	Komunikační protokol:	RFIO2		
Frequency:	Frekvence:	866–922 MHz (for more information see p. 74)/ 866–922 MHz (viz str. 74)		
Repeater function:	Funkce repeater:	yes/ ano		
Manual control:	Manuální ovládání:	button PROG (ON/OFF)/ tlačítko PROG (ON/OFF)		
External button / switch: Range:	Externím tlačítkem:	yes/ ano		
Other data	Dosah:	in open space up to 200 m/ na volném prostranství až 200 m		
Operating temperature:	Další údaje			
Operating position:	Pracovní teplota:	-15 až + 50 °C		
Operating position:	Pracovní poloha:	any/ libovolná		
Mounting:	Upevnění:	free at lead-in wires/ volné na přívodních vodičích		
Protection:	Krytí:	IP40		
Overvoltage category:	Kategorie přepětí:	III.		
Contamination degree:	Stupeň znečištění:	2		
Connection:	Připojení:	screwless terminals/ bezšroubové svorky		
Connecting conductor:	Průřez připojovacích vodičů (mm2)	0.2-1.5 mm2 solid/flexible/ 0.2-1.5 mm2 pevný/pružný		
Dimensions:	Rozměr:	43 x 44 x 22 mm		
Weight:	Hmotnost:	31g		45 g
Related standards:	Související normy:	EN 60730, EN 63044, EN 300 220, EN 301 489		

The control button input is at the supply voltage potential.

Attention
When you install the iNELS RF Control system, you have to keep a minimum distance of 1 cm between each unit. 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 qualifi cation

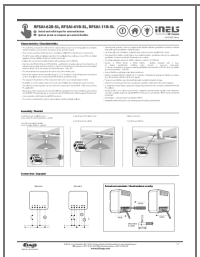
upon understanding this instruction manual and functions of the device, and while observing all valid regulations. The trouble-free function of the device also depends on transportation, storing, and handling. In case you notice any sign of damage, deformation, malfunction or missing part, do not install 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 the RF signal, observe the correct location of RF components in the building where the installation is taking place. RF Control is designated only for mounting in interiors. Devices are not designated for installation in 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. – the radiofrequency signal can be shielded by an obstruction, interfere, a battery of the transceiver can get fl at, etc., and thus disable the 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**
- ELKO EP, s.r.o., Palackého 493, 769 01 Holešov, Všetuly, Czech Republic
- Tel.: +420 573 514 211, e-mail: **elko@elkoep.com, www.elkoep.com**

Documents / Resources

	**inELs RFSAI Series Switch Unit with Input for External Button** [pdf] Instruction Manual RFSAI-62B-SL, RFSAI-61B-SL, RFSAI-11B-SL, RFSAI Series Switch Unit with Input for External Button, RFSAI Series, Switch Unit with Input for External Button, Switch Unit, Input for External Button, External Button Switch Unit, Switch

References

- **ELKO EP - Global relay manufacturer • ELKO EP**
- **ELKO EP - Výrobce elektronických přístrojů • ELKO EP s.r.o**