



WIRELESS CONTROL SYSTEM



TECHNICAL CATALOGUE

iNELS[®]
RF Control



www.elkoep.com

ELKO EP COMPANY PRESENTATION

COMPLEX SOLUTIONS FROM A SINGLE MANUFACTURER!

The company ELKO EP, a Czech manufacturer of modular electronic devices, has been your partner in wired and wireless solutions for over two decades. Our product range has undergone dynamic development, from simple manufacture of modular devices to developing and implementing wireless solutions and sophisticated wired intelligent systems including multimedia control throughout your entire home.

In the past year, we also achieved great progress in getting our systems to communicate with each other, which brings you unlimited possibilities and variations of electrical installations custom-made for your home. A major advantage and founding pillar of our work is our own development capacities and facilities, enabling us to have immediate interaction between you - our customers - and ourselves.

We flexibly fine-tune all our products to satisfy not only strict standards, but especially their users in everyday life.

Right now, we are working intensively on interconnecting all of our systems, and we are designing wide-ranging solutions for both new home constructions and existing wiring schemes. We are all accustomed to different standards, and everybody has the chance to raise theirs a few notches higher. We also feature our rich portfolio of control elements, including the award-winning wireless device RF Touch, elegant switches and outlets in a unified and timeless design, and the option of control through security keypads, notebooks, smart phones or iPads. This is all possible, and at ELKO EP, it has now become a reality.



RELAYS - Modular electronic devices

www.elkoep.com

A wide range of electronic modular devices, which bring new possibilities to home and office control, monitoring and security, as well as to industrial process control: time relays, installation contactors, staircase automatic switches, time switches clocks, dimmers, thermostats, power supplies units, control and signalling devices, GSM gates, etc.



iNELS - Intelligent Electrical Installation System

www.inels.com

iNELS will transform your house into a timeless intelligent household. It will take charge of heating and air-conditioning regulation, lighting control and home appliance switching, while also providing perfect security for your home. Enjoy controlling your entire house via a TV screen thanks to iNELS Multimedia (iMM) or use the elegant iNELS Touch Panel (ITP).



iNELS RF Control - Wireless control

www.inels.com

A unique wireless control system providing you perfect control over your home! The RF Control system enables you to control functions such as heating, lighting, electrical appliances and window shutters, all with a single touch. No demolition work, fast and easy installation, exclusive design of wireless wall switch buttons and other components.

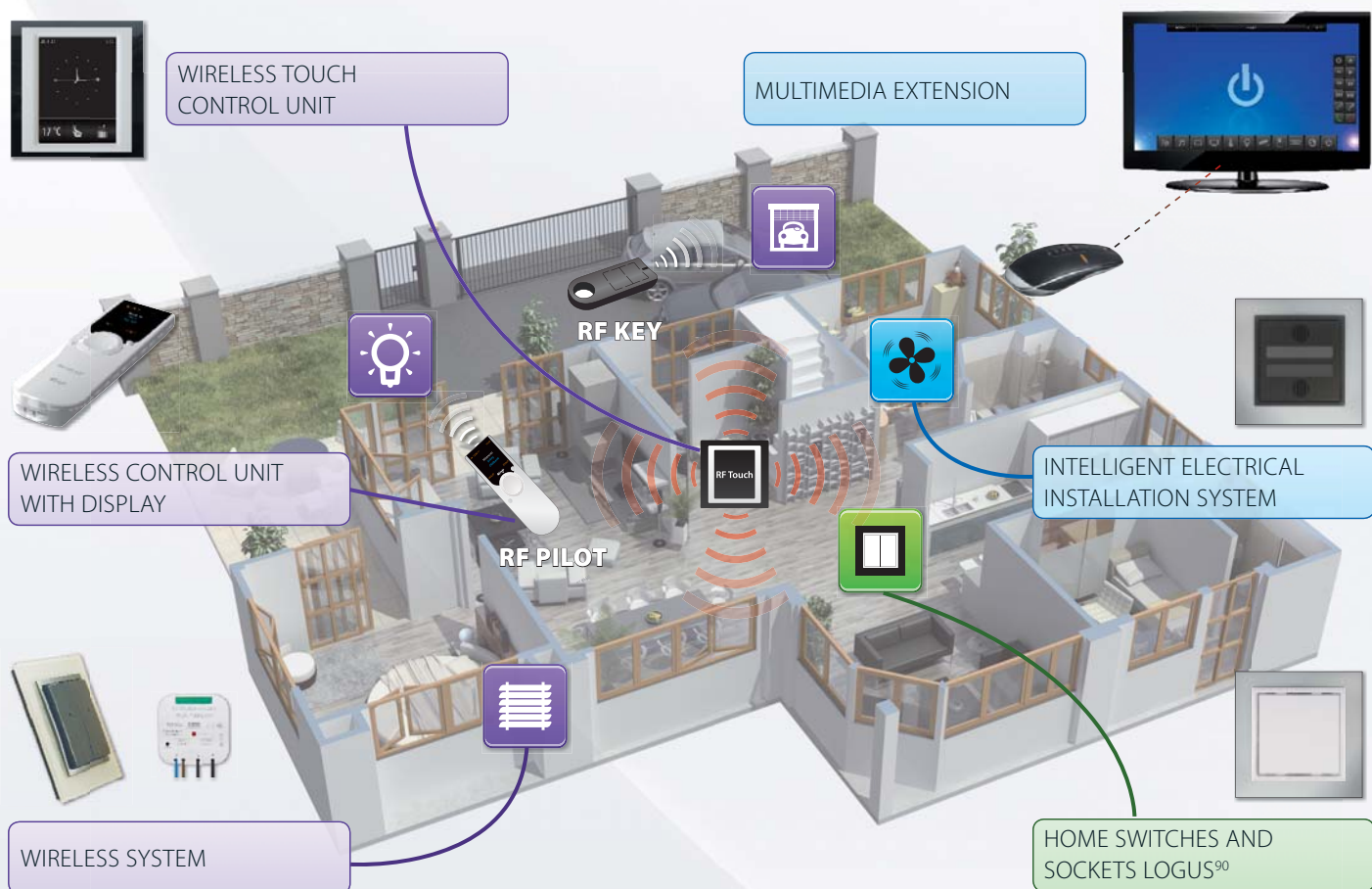


LOGUS⁹⁰ - Home switches and sockets

www.logus90.com

We offer you exclusive switches, sockets and accessories in a standard plastic or metallic finish. However, there are also charming luxury frames from purely natural materials such as genuine wood, metal, granite or hardened glass. Be exceptional!

SOLUTION FOR EVERYONE



MORE TIME FOR YOUR LOVED ONES

With an intelligent wired/wireless solution, you have more time available for truly important moments. You can set the heating regulation up to a week ahead of time. Your home will take care of itself. The so-called vacation mode assures that your house will not freeze in the winter, but will not heat excessively either. You will also value the arrival/departure functions - where after entering a code at the entrance door, the individual mode of the recognized user starts.



WE SEE TO YOUR SECURITY

The system contains an alarm that can be connected to a security agency. Select simple home access - under the code on the keypad or via chip card. You now no longer need to worry about losing your keys - just change the code from time to time. You can password-protect your home in many levels (ex. preventing child access for safety reasons). Your home will inform you by SMS on changes to the status of your home.



LIGHT AT YOUR SERVICE

You can centrally switch, dim or create light scenes for all lights both outside and inside the home. We can dim all light sources (energy-saving, LED or fluorescent lamps, RGB strips). The arrival/departure function relieves you of having to check the whole house to see if you have really turned everything off. And when you simply have to leave in a hurry, you have control over lights thanks to remote Internet access - you see that your lights are not needlessly wasting energy.



A NEW WAY TO LOOK AT TELEVISION

We offer you the possibility of controlling the entire house through the television screen (regulation of lighting, heating, blinds - i.e. all elements connected in the iNELS system). You can create the plan for the room, floor or entire home just the way you like. Thanks to IP cameras, you have a clear view of what's going on in front of the house, in the children's room, or garage. You can see what your kids are currently watching on TV in the other room. You can also open the door remotely for invited visitors.



iNELS SMART HOME SOLUTIONS

We present you iNELS smart home solutions - it is a new brand of electrical solutions, including wireless and bus wiring system. With regard to the new possibility of combination these two solutions, we decided to create a brand that captures the dynamism, versatility, flexibility and also intelligence.



CHOOSE FROM 20 REASONS THE ONES THAT MAKE YOUR LIFE EASIER!



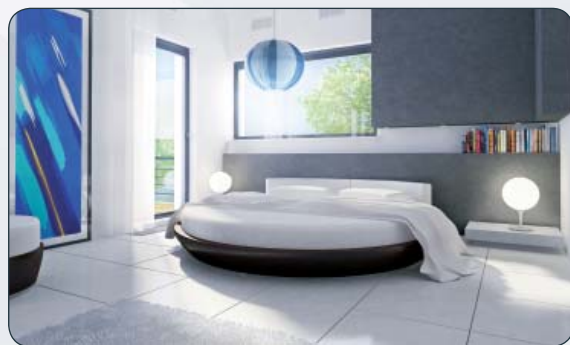
10 REASONS TO OPT FOR BUS SYSTEM

- 1) ideal solution for new buildings
- 2) two-wire bus
- 3) bus once stretched you can always expand
- 4) security system, combined with detectors
- 5) remote control (PC, mobile phone applications)
- 6) imitation of presence
- 7) regulation depending on the weather
- 8) ecology and energy saving
- 9) modern trends in controlling
- 10) media under control (can also be controlled via TV)



10 REASONS TO OPT FOR WIRELESS SYSTEM

- 1) installation without breaking the walls
- 2) could be moved any time - elements are not kept by wire but by the waves
- 3) any time expandable - actuators and drivers can increase exponentially
- 4) appropriate to existing installations
- 5) variable control - switch, keychain, remote control, touchscreen unit
- 6) centralized control - thanks to RF Touch
- 7) planning for the week ahead
- 8) combination with detectors - motion, smoke, opening windows/doors
- 9) controlling actuators as a group with a single touch
- 10) luxurious design



SYSTEM INFRASTRUCTURE

iNELS®
smart home solutions



CATALOGUE CONTENT

Wireless control system

INELS
RF Control

Wireless communication via RF system

Overview of RF Control wireless elements

RF transmitters

Controllers

- RF Touch-W - touch control unit for mounting on the surface
- RF Touch-B - touch control unit for mounting in an installation box
- RF Pilot- Remote Controller with display
- RFAP/USB - Flash drive with USB Virtual Touch **NEW!**
- RF INELS/USB - Flash drive **NEW!**
- RF KEY - 4-channel remote controller as a Keychain
- RFWB-20/G - 2-channel wireless wall switch button in LOGUS⁹⁰ design
- RFWB-40/G - 4-channel wireless wall switch button in LOGUS⁹⁰ design
- RFTC-10/G - Digital temperature regulator in LOGUS⁹⁰ design

Converters

- RFIM - 20B - Universal transmitter module under switch/button
- RFIM - 40B - Universal transmitter module under switch/button
- RFSG - 1M - universal transmitter module. Supply voltage 230V, 1-module design
- RFTI - 10B - wireless temperature sensor, MINI design
- Elan-RF-003- Converter Ethernet to RF signal **NEW!**
- RFSGM-220 - multifunction GSM communicator **NEW!**

Repeater

- RFRP - 20 - signal repeater in a wireless socket box

RF meter

- RFPM-1 - electricity meter **NEW!**

Detectors (see Overview of RF Control wireless elements, page 12)

RF receivers

Shutter actuators

- RFJA-12B /230VAC -2x switching 8A relay with protection
- RFJA-12B /24VDA - contactless switching

Dimming actuators

- RFDSC-11 - single-function dimming socket, button dimmer **NEW!**
- RFDSC-71 - multifunction dimming socket, 7 functions **NEW!**
- RFDA-11B - single-function dimming actuator, 1 light scene
- RFDA-71B - multifunctional dimming actuator, 7 functions
- RFDEL-71B - RF dimmer for LED lamps and dimmable energy-saving fluorescent tubes
- RFDA-73M/RGB - dimming actuator for dimming LED and RGB LED strips **NEW!**

Switching actuators

- RFSC-11 - single-function switched socket **NEW!**
- RFSC-61 - multifunction switched socket, 6 functions **NEW!**
- RFSA-11B - 1-channel single-function switching actuator
- RFSA-61B - 1-channel multifunction switching actuator
- RFSA-62B - 2-channel multifunction switching actuator
- RFSAI-61B - jednokanálový multifunkční spínací aktor s externím vstupem **NEW!**
- RFSA-61B - 1-channel multifunction switching actuator, module design
- RFSA-66M - 6-channel multifunction switching actuator, module design
- RFUS-11 - single-channel single-function switching actuator with enhanced IP65 protection **NEW!**
- RFUS-61 - single-channel multifunction switching actuator with enhanced IP65 protection **NEW!**

Temperature actuators

- RFSTI-11B - switching actuator with temperature sensor
- RFSTI-11/G - switching actuator with temperature sensor, LOGUS⁹⁰, manual control
- RFATV-1 - Wireless thermostat **NEW!**

Analog actuator

- RFDAC - 71B - actuator with analog output 0(1) – 10V

Accessories

- ALPHA AA 0-10V - Thermostat, DIML - dimmable control gear
- Temperature sensors, internal antenna, external antenna AN-E

Additional information

- RF SETS - transmitter and receiver combinations
- Easy and quick program setting
- Use instructions and product dimensions
- Product loadability
- Wireless solution for your electrical installation

8-11

12-13

14-15

14-15

16-17

18

18

19

20

20

21

22

22

23

24

25

26-27

28

29

30

30

31

31

32

32

33

34-35

36

36

37

37

37

38

39

39

40

40

41

41

42

43

44

45

46

47

48

49

50-51

WIRELESS SYSTEM

Your house at one touch

inELS[®]
RF Control

**WIRELESS TOUCH
SCREEN CONTROL UNIT**



**RF PILOT- REMOTE CONTROL
WITH DISPLAY**



RANGE 200 m

FREQUENCY 868 MHz



Switching
electrical
devices on/off



Light
dimming



Heating
regulation



Air-conditioning
control



Shutter
control



Detector
control

WIRELESS COMMUNICATION

What does wireless control bring you?

- Switching of appliances or electrical devices remotely
- Dimming lights, light scenes
- Controlling shutters, awnings, outdoor blinds and blinds between windows
- Controlling access gates, garage doors
- Manual or automatic control - according to set program
- Switching appliances in relation to reaction of employed detectors
- Reaction to (unwanted) opening of a window or door
- Reaction to movement of persons (wanted and unwanted)
- Energy savings due to regulation of lights and heating

- Installation is performed simply **without any holes or cutting into the wall**. Units (actuators) can be installed directly into a suitable installation cabinet, into a light cover, switchboard and anywhere the installation allows.
- **Flexible placement:** ideal for installing in existing buildings, for reconstructions and new constructions as well: with the iNELS RF Control, you are not bound to the location of the switch, ex. when rearranging furniture. **You can affix the wireless switch to glass, to a beam or just set it on the night stand and move it around wherever you like.**
- Controlling lights from the terrace or opening the garage? Keychain - the remote control that you **always have handy**.
- **The universal transmitting module converts** up to 4 potential free external inputs (buttons) **to an RF signal**, thereby enabling connection into the system of existing devices: home switches or buttons, fire alarm sensor (passive IR, smoke, door detector, etc.), doorbell, etc.
- **OASiS detectors can also be used for control**, which react to motion, door or window opening, temperature increase, etc.: it is thus possible for example to automatically switch on light when someone passes by, or switch off heating when a window is opened.
- **Protection of property and security.** A flood, temperature, fire detector or gas leak detector sends a command to the actuator, which shuts off the water or gas intake, starts the fans, etc.
- It enables controlling and setting of various **light scenes**, simulation of sunrise or sunset. It is also possible **to control blinds, shutters, awnings, gates or barriers** and switch appliances and electrical devices.
- These transmitters (wireless switch or keychain) do not need an external power supply (they are battery-powered).
- Receivers (actuators) are installed into an installation cabinet, under an existing switch, into a light cover, above a ceiling or DIN rail mounted into a switchboard.
- Elegant design of wall controller in **plastic, glass, wood, metal and granite**.
- **Wireless sockets** - simple solution for dimming lamps, lights and appliances connected in the socket (Use the switch to select the type of dimmed source: **R, L, C, LED, ESL**)

French, Schuko, and British plug design.



RF TOUCH FOR COMFORTABLE CONTROL WITH A SINGLE TOUCH

ILLUMINATION FROM ANY CHOSEN SPOT

CONTROL OF LIGHT SCENES

868 MHz

ILLUMINATION WHEN PASSING THROUGH

CHOOSE YOUR STYLE . . . *

Flat wireless switch for placing on glass, cladding, furniture, etc.
Quick change of location when moving, etc.

Simplicity, high-quality materials and modern design characterize the LOGUS⁹⁰ series. This series offers both the plastic design frame, as well as a luxury design in natural materials, noble metals, hardened glass, wood, granite. Besides wireless controllers, classic home switches and sockets are also available in this design.

* For controlling wall switches, you can connect existing controllers to the system (using universal input modules) or use flat wireless buttons in the LOGUS⁹⁰ design.

BY SYSTEM iNELS RF CONTROL

**CONTROL OF BLINDS
AND SHUTTERS**



**Range up to
200 m**

**SWITCHING ELECTRICAL
APPLIANCES AND
EQUIPMENT**



**DIMMING LAMPS
AND LIGHTS PLUG-
GED INTO A SOCKET**



**RF PILOT COMMUNICATES WITH
ALL WIRELESS ELEMENTS OF
THE iNELS RF CONTROL SYSTEM**



RF Touch control touch screen unit of the wireless iNELS RF Control

RF Touch brings comfortable control and a clear view from one location. Other RF units are thus connected into a single intelligent wireless system. You can set the heating, switching, dimming, and blinds control or adjust them to meet your needs and wishes. Setting and controlling the status of units is performed using the device touch screen display.

RF Pilot - remote control with display

RF Pilot communicates with all wireless elements of the iNELS RF Control system: it switches and dims lights in the whole house, it raises and lowers blinds, shutters and awnings, it enables group control of receivers (one press of a button performs multiple commands at once), as well as creation of your own menu and naming your controlled devices.

Transmitters

Wireless switches serve as transmitters to control receivers of the iNELS RF Control system.

Multifunction receiver - up to 7 programs

Receivers are produced according to their main function as switching actuators, dimming actuators and shutter actuators.

Switching receivers can switch up to 16A, a relay is used with an AgSnO2 contact, enabling switching of other bulb light sources as well. You can utilize the switch function in basic design - switch on / switch off, or in multifunction design, offering up to 6 functions: button, switch on / switch off, impulse relays, delayed return, delayed start. Switching actuators in module design are equipped with an antenna - different for assembly into plastic and metal switchboards.

Dimmers are designed as universal (RLC) with load type auto-detection. They enable dimming of ordinary bulbs, halogen lamps, low-voltage halogen lamps 12 V powered through an electronic and toroidal transformer. In its basic design, the dimmer offers the program "light scene" and OFF function - in multifunction up to 7 programs: 4 variations of light scenes, simulation of sunrise and sunset, function ON, OFF.

NEW!

You can easily connect the wireless system with multimedia to enjoy endless entertainment to the fullest!



AQUARELLA



ARBORE



PETRA



CRYSTAL



METAL



BASE

LOGUS⁹⁰

YOUR HOME IS UNDER CONTROL

MULTIFUNCTIONAL GSM COMMUNICATOR

The GSM communicator can be used in three ways for remote switching of heating, lights, barriers, gates and ascertaining the status of the RF Control actuator:

- independently
- with RF Control actuators
- with the RF Touch unit



RFGSM-220M

RF TOUCH SCREEN CONTROL UNIT



Is a touch screen control unit of the iNELS RF Control system, which keeps your home under control. It offers complete control over heating, switching electrical appliances and devices, dimming lights or controlling blinds. All this comes with the option of setting a weekly program, all automatically and wirelessly. Controlling is performed via the touch display in luxury design in the LOGUS⁹⁰ frame.

DIMMING ACTUATOR

Setting light functions ex.: dimming lights for creating atmosphere for watching TV, smooth run up or run down of light. Quick solution - dimming socket RFSC-11B, RFSC-61B.



RFDSC-11
RFDSC-71



RFDA-11B
RFDA-71B

ANALOG ACTUATOR

In combination with dimmable control gear for dimming fluorescent lights and setting light scenes, 1-10 V. In combination with thermostat for heating regulation, 0 - 10 V.



RFDAC-71B

DIMMING ACTUATOR

Serves for dimming an LED, LED strip and RGB. LED strip with power supply 12-24V DC. Enables setting of colored light scenes.



RFDA-73M /
RGB

WIRELESS DETECTORS

OASiS detectors can also be used for automatic control, which react to motion, opening of a window or door or drop in temperature (ex. motion sensor switches on the light, window detector blocks heating or air-conditioning).



JA-80P

WIRELESS ACTUATOR WITH TEMPERATURE SENSOR

It measures the temperature by internal or external sensor and switches a heater according to a set program or manually. In the LOGUS⁹⁰ design.



RFSTI-11/G

SHUTTER ACTUATOR

Driver for controlling blinds, awnings, shutters, garage doors, etc.



RFJA-12B

WIRELESS SWITCHES

They control switching and dimming lights, blinds, shutters, electrical appliances, etc. Their flat base enables you to place it anywhere - on glass, the wall, a beam, cladding, etc. In the LOGUS⁹⁰ design.



RFWB-20/G
RFWB-40/G



KEYCHAIN

Controlling garage doors, awnings, shutters and lights with the help of transmitter - keychain



RF KEY

TEMPERATURE SENSOR

It scans the current temperature at the installation site (on the balcony, terrace) and the values are displayed on the RF Touch display.



RFTI-10B

ELECTRICITY METER

Combination of remotely controlled socket and electricity meter.



RFPM-1

DIGITAL TEMPERATURE CONTROLLER

Digital temperature controller that you can use to simply and quickly adjust room temperature even outside the set program.



RFTC-10/G

UNIVERSAL TRANSMITTING MODULE

Universal module, which can make any switch wireless.



RFIM-20B
RFIM-40B

SWITCHING TEMP. SENSOR

It measures the temperature by internal or external sensor, then sends temp. information to RF Touch, which gives the signal to switch on heating.



RFSTI-11B

SWITCHING ACTUATOR

Actuators serve for switching appliances, sockets and electrical devices. Option of controlling by all transmitters. -RFSAI-61B for external control with a classic button. Quick solution - switched socket RFSC-11, RFSC-61. For installation in harsh environments RFUS-61.



RFSA-61B



RFSAI-61B



RFSC-61



IP65
RFUS-61

REMOTE RF CONTROLLER WITH DISPLAY

Combine remote control RF Pilot with RF Touch touch screen unit for maximum use of functions of the RF Control system.



RF PILOT

TRANSMITTERS

are elements of the iNELS RF Control system that are used to control receivers. Thanks to the battery power supply, you can place them anywhere.

RF Touch - Wireless touch unit



RF Touch-W
RF Touch-B

USB - Virtual Touch



RF PILOT

Remote control with display



RF KEY/B
RF KEY/W

Keychains



RFWB-20/G
RFWB-40/G

Wireless switches



RFTC-10/G

Digital temperature regulator



RFIM-20B
RFIM-40B

Universal transmitting module



RFSG-1M

Universal transmitting module



RFTI-10B

Temperature sensor



RFSP-20

Signal repeater in wireless socket box



JA-80P
JA-81M
JA-82M

Wireless detectors OASIS

RECEIVERS

are elements of the iNELS RF Control system. They control the required electrical device or appliance with the help of signal from the transmitter or according to the program set in the RF Touch unit.



Shutter receivers

RFJA-12B/230V RFJA-12B/24VDC

Dimming receivers



into wiring box
RFDA-11B
RFDA-71B

into a socket
RFDS-11
RFDS-71

RFDEL-71B



into switchboard
RFDA-73M/RGB

Switching receivers into a wiring box



RFSAI-61B RFSA-11B/61B RFSA-62B

into socket
RFSC-11 RFSC-61

into switchboard



RFSA-61M RFSA-66M

for harsh environments

IP65 IP65

RFUS-11 RFUS-61



RFSTI-11B RFSTI-11/G

Temperature sensors with switch and manual control



0/1-10V RFDAC-71B

Analog receivers
0-10V - drive regulation
1-10V - dimming fluorescent tubes



RFPM-1

Electricity meter

OVERVIEW OF iNELS RF CONTROL

TRANSMITTERS

Controllers



RF Touch-W

Wireless central RF Touch-W unit for surface mounting. 100–230V AC or a 12V DC adapter (external).



RF Touch-B

Wireless RF-Touch B control unit for mounting in an installation box. 100–230V AC.



RF Pilot

A wireless remote RF controller with a display



RF KEY

4-channel remote control in the keychain design.



RFWB-20/G

2-channel wireless wall switch button in the LOGUS® design.



RFWB-40/G

4-channel wireless wall switch button in the LOGUS® design.



RFTC-10/G

RF transmitter: Digital temperature regulator. 2 x 1.5V AAA-type battery. In the LOGUS® design.

Converters



RFIM-20B

Universal transmitter module to be mounted under a wall switch button in an installation box.



RFIM-40B

Universal transmitter module to be mounted in an installation box.



RFSG-1M

RF transmitter: a universal transmitter module. 230V AC.



RFTI-10B

RF transmitter: a wireless temperature sensor. 1 x 3V CR 2477 battery.



RFGSM-220

RF transmitter: The GSM communicator can be used for remote switching of heating, lights, barriers, gates and for ascertaining the status of the RF Control actuator (ON, OFF, temperature level) 2x switching 8A, 11–30V DC.



Elan-RF-003

Converts commands from LAN TCP/IP network to an RF signal for controlling RF actuator.

USB Flash drives



RFAP/USB

Control key with SW Virtual RF Touch.



RF iNELS/USB

Forms a communication interface and gateway between units.

Repeater



RFRP-20

Signal repeater in wireless socket box.

Electricity meter



RFBP-1

Wireless electricity meter 1x switching 16A, 230V AC.

Detectors



JA-80P

Infra-passive movement sensor JA-80P surveys space and indicates any movement of persons.



JA-81M

The product is used to detect door or window opening, etc. The detector is also designed to detect manipulation with an external shutters equipped with a ratchet sensor of shutter movement.



JA-82M

The product is designed to detect window (door) opening. An "invisible" magnetic sensor is mounted into plastic or wooden window frames and is completely inconspicuous.

WIRELESS ELEMENTS

RECEIVERS

Shutter actuators



RFJA-12B/230V

Shutter ACTUATOR.
2x switching 8A, relay with protection. 230V AC.



RFJA-12B/24V DC

Shutter ACTUATOR, contactless switching. 12-24V DC.

Dimming actuators



NEW



RFDSC-11(71)

RFDSC-11: Single-dimming socket.
Function - Touch dimmer. 230V AC.
RFDSC-71: Multi-dimming socket.
6 light function, ON/OFF.
230V AC / 250 VA.



RFDA-11B

Single-function dimming actuator,
1 light scene,
OFF function. 230V AC.



RFDA-71B

Multifunction dimming
actuator. 7 functions.
230V AC / 250 VA.

NEW



RFDA-73M/RGB

Used to dim LEDs, an LED strip and RGB LED strip with power supply 12-24V DC control is performed with RF Control wireless transmitters or signal 0-10V/1-10V, or iNELS DAC converter iNELS

Switching actuators



NEW



RFSC-11(61)

Switched socket
1x switching 16A. 230 V AC.
RFSC-11: singlefunction.
SWITCH ON/SWITCH OFF.
RFSC-61: multifunction - 6 functions.



RFSA-11B (61B)

1-channel singlefunction
(multifunction) switching
actuator.
1x switching 16A, 6 functions.
(multifunction), 230V AC.



RFSA-62B

2-channel multifunction switching
actuator. 2x switching 8A,
6 functions. 6 functions.
230V AC.

NEW



RFSAI-61B

Switching actuator with
external input
1x switching 16A. 230 V AC.



RFSA-61M

1-channel multifunction switching
actuator, 1x switching 16A.
6 functions.
230V AC.



RFSA-66M

6-channel multifunction switching
actuator, 3x switching 8A,
6 functions.
230V AC.



RFUS-11(61)

RF switching actuators with enhanced
IP 65 protection
1x switching 16A. 230V AC.

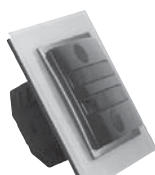
Accessories for RFSA-61M, RFSA-66M internal and external antennas see p. 45

Temperature actuators



RFSTI-11B

Wireless wall switch buttoning actuator
with a temperature sensor to be moun-
ted in an installation box. 230V AC.



RFSTI-11/G

Wireless wall switch buttoning actuator
with a temperature sensor in a luxury
LOGIS90 design, providing manual
control by buttons on the front side of
device. 230V AC.



RFATV-1

Used to measure the temperature in the
given zone and also for wireless control
of a radiator.
2x batteries AA 1.5V

Analog actuator



RFDAC-71B

RF receiver: an actuator with analog
output 0(1)-10V an 1x switching
16A contact. 7 functions. 230V AC.

0-10 V

1-10 V



ALPHA AA 0-10V

Thermo valve
for regulation of heating,
voltage 0-10V.

DIML

A dimmable DIML ballast to control the brightness
of fluorescent T8 tubes (26 mm in diameter).



**AWARDED
ZLATÝ AMPÉR**



RF Touch-B
for mounting in an installation box



RF Touch-W
unit for mounting on surfaces

EAN code

RF Touch-B: 8595188143738 (white frame, white intermediate frame)

RF Touch-W: 8595188131711 (white frame, white intermediate frame, white back cover)

Technical parameters	RF Touch-B	RF Touch-W
<u>Display</u>		
Type:	color TFT LCD	
Resolution:	320 x 240 pixels / 262,144 colors	
Side proportion :	3:4	
Visible surface:	52.5 x 70 mm	
Backlighting:	active (white LED)	
Touch area:	resistive 4-conductor	
Diagonal:	3.5"	
Control:	touch	
<u>Power supply</u>		
Supply voltage/rated current:	100 - 230 V AC	from the back 100–230VAC, from the side 12VDC*
Input power:	max. 5W	
Power supply terminals:	A1 - A2	
<u>Control</u>		
Range:	100 m	
	1m	
Frequency:	868 MHz	
<u>Connection</u>		
Connection:	terminal box	no-screw push-in terminal box or jack Ø2.1 mm jack connector
Cross-section of connecting wires:	max. 2.5 mm ² /1.5 mm ² with a hollow	
<u>Operating conditions:</u>		
Operating temperature:	0 to +50°C	
Storage temperature:	- 20 to +70°C	
Protection:	IP 20	
Overvoltage category:	III.	
Contamination degree:	2	
Operating position:	any	
Installation:	in a mounting box	anywhere indoor
Dimensions:	94 x 94 x 12 mm	94 x 94 x 24 mm
Weight:**	127 g	175 g
Related standards:	EN 60730-1	

* Adapter is included in the RF Touch-W unit package

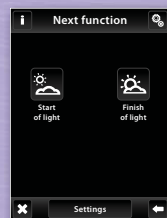
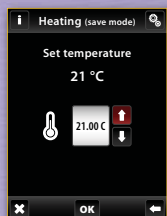
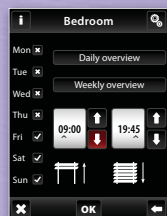
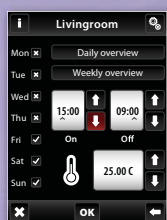
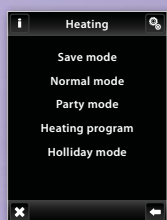
** Weight includes the plastic frame and the intermediate frame.

- RF Control wireless system touch control unit allows intelligent control of RF units
- it serves for:
 - central control of all units from one place
 - overall plan (visualisation) of the current status of units (appliances/devices)
- two-way communication:
 - sends commands to temperature, switching, dimming and roller blind/shutter actuators
 - receives commands from transmitters, controllers and temperature sensors
 - processes programs for heating and regulation
- 3.5" touch color display - no mechanical buttons
- RF Touch can control up to 40 RF Control system actuators and can receive information from up to 30 OASIS detectors.
- design:
 - RF Touch-B: for mounting in an installation box with 230V AC power supply
 - RF Touch-W: for mounting on surfaces with power supply from the back: 100–230V or from the side (via jack connector): 12V DC (adapter is included in the package)
- RF Touch colorways:
 - RF Touch frames in basic plastic design (white, black, red) and LOGUS⁹⁰ luxury design (glass, metal - aluminium, nickel, titanium)
 - intermediate frames - white, dark grey, metallic finish - aluminium, pearl, ice, grey
 - RF Touch-W back cover - white, ivory, light grey, dark grey
- RF Touch can be programmed together with actuators designated as OASIS & Touch Compatible



LOGUS⁹⁰





RF Pilot	RF KEY	RFWB-20/G (40/G)	RFTC-10/G	RFAP/USB RF INELS/USB	RFIM-20B (40B)	1 M	3 M	ELAN-RF-003	RFRP-20	RFPM-1	JA-80P JA-81M JA-82M

RFJA-12B/230V
(24V DC)

RFDSC-11(71)

RFDA-11B (71B)

RFDEL-71B

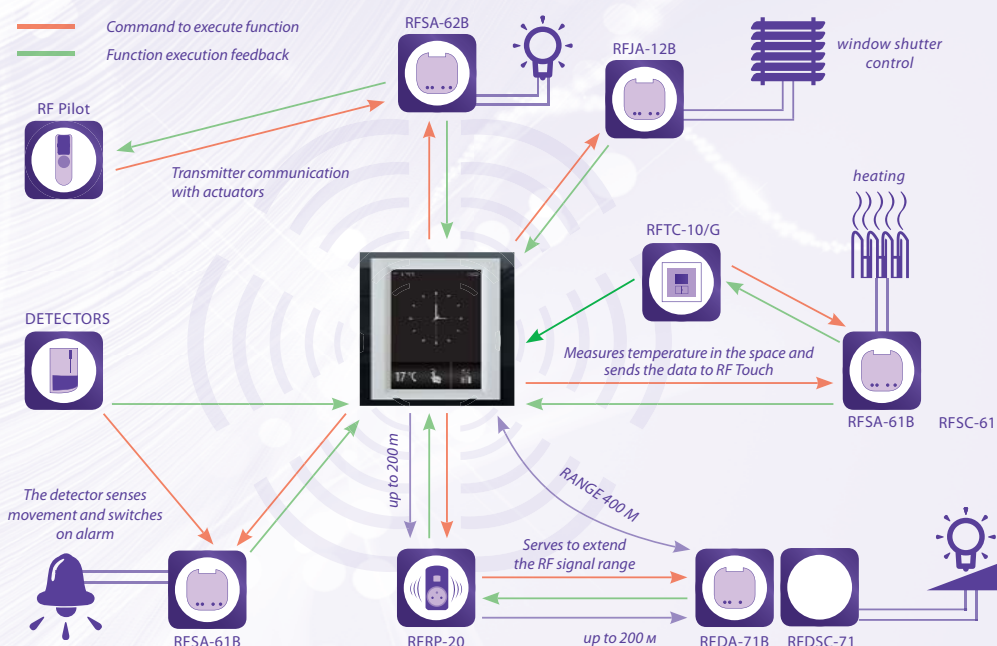
RFDA-73M/RGB
3M

RFSTI-11B

RFSTI-11/G

RFTI-10B

RFSC-11(61)	RFSA-11B(61B)	RFSA-62B	RFSAI-61	RFSA-61M	RFSA-66M	RFUS-11(61)	RFDAC-71B



- control of heating devices (boilers, thermo valve 0–10V...)
- temperature regulation in the entire house or in individual rooms
- information on outdoor temperature (wireless temperature sensor) - terraces ...
- possibility to set your own heating program for the whole week
- holiday mode will interrupt the heating program when you are away
- room temperature correction (during the heating program) is performed with a digital thermal regulator command



- the regulation of light intensity (light bulbs, halogen lights with electrical or coil transformer, fluorescent tubes with dimmable control gear 1–10V)
- customizable names of individual dimmed circuits (such as “lights living room”)
- “sunrise/sunset” imitation - light gradually goes on or off during the preset period between 2 seconds and 30 minutes



- RF Touch communicates with detectors - window, door, movement...
- possible to combine with switching actuators
- perfect overview of the whole house



- this function serves to switch on/off lights, sockets, electrical appliances and devices
- intuitive control thanks to customized name options
- switch clock enables you to switch appliances in real time, even during your absence (simulation of the presence of persons, etc.)
- switching actuator function selections: switch on/off, impulse relay, button, delayed start/return (time of delay from 2 seconds to 60 minutes)



- controlling window shutters, canopies, garage door, etc.
- window shutters are controlled separately or as a group
- setting an independent time schedule for pulling up/down
- the window shutter receivers are powered by either 230V or 24V DC (shutters between windows, etc.)



- serves to control actuators as a group with a single touch
- possibility to set up scenes; on activation, for example, window shutters are pulled down and lights are adjusted to required intensity



Combine the RF Pilot remote controller with the RF Touch control unit for maximum utilization of the RF Control system features.



EAN code

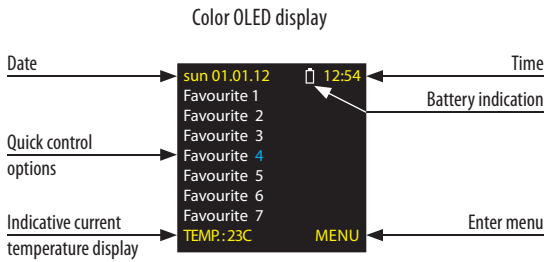
RF Pilot/W: 8595188143769 (white cover)

RF Pilot/A: 8595188145169 (anthracite cover)

Technical parameters		RF Pilot
Display		color OLED
Type:		128 x 128 pixels
Resolution:		1:1
Side ratio:		26 x 26 mm
Visible surface:		self-illuminating text
Backlighting:		1.5"
Diagonal:		direction button, control buttons
Control:		
Power supply		2 x 1.5V AAA batteries / R03
Power supply:		approx. 3 years, according to the frequency of use and battery type
Battery life:		
Control:		up to 200 m
Range in free space:		868 MHz
Frequency:		
Other data:		0 .. +55 °C
Operating temperature:		-20 ..+70 °C
Storage temperature:		IP20
Protection:		any
Operating position:		130 x 41 x 18 mm
Dimensions:		61 g
Weight:		EN 60730-1
Related standards:		

- wireless Remote Controller RF Pilot with elegant design and OLED display
- provides comfortable control and feedback about status of appliances and devices.
- RF Pilot can be programmed for up to 40 RF Control actuators
- RF Pilot measures and displays temperature in the surrounding area
- preset menu with customizable names of controlled devices
- the "Scene" mode enables you to control multiple receivers with a single touch
- you can include the most frequently used devices in your "Favourite" menu and control them immediately after the activation of the RF Pilot display
- range up to 200 m
- RF Pilot wireless control operates at the frequency of 868 MHz
- battery power supply 2xAAA with life cycle up to 3 years
- design: remote RF controller with RF Pilot/W display (white cover),
remote RF controller with RF Pilot/A display (anthracite cover)

Display description



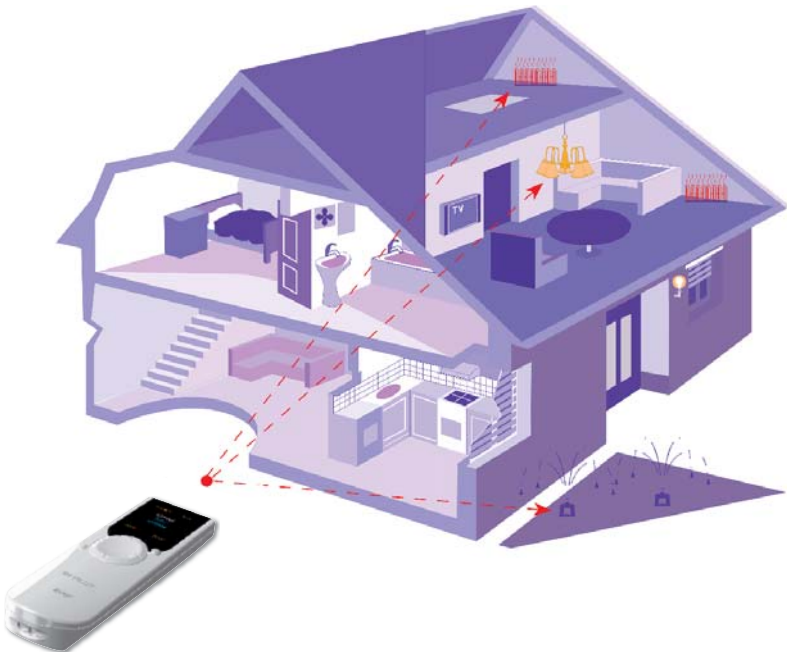
Settings Menu

sun 01.01.12 12:54
Type:
RFSA-11
RFSA-6x
RFJA-12
RFDA-71
RFDA-11
RFDA-71
EXIT ASSIGN

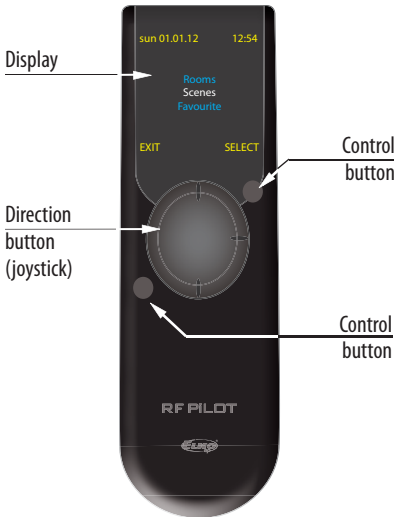
Memory:
1/40
Type/address:
RFSA11/012345
Room:
Not allocated
Name:
Actuator 1
EXIT ASSIGN

Memory:
1/40
Type/address:
Free position
Room:
Free position
Name:
Free position
EXIT

Example of use



Device description





sun 01.01.12 12:54
Lamp
Kitchen
Room
Bedrooms
Room
Children's Room
Living Room
TEMP.:23C MENU

sun 01.01.12 12:54
Rooms
Scenes
Favourite
EXIT SELECT

sun 01.01.12 12:54
Switch On
Button
Impuls
Delay On
Delay Off
Settings
BACK PROCEED

sun 01.01.12 12:54
Switch On
Switch Off
Brightness: 0%
BACK PROCEED

sun 01.01.12 12:54
Top
Down
Wind Up
Wind Down
Settings
BACK PROCEED

sun 01.01.12 12:54
Switch On
Switch Off
Brightness: 0%
Gradual switch ON
Gradual switch
BACK PROCEED

RECEIVERS

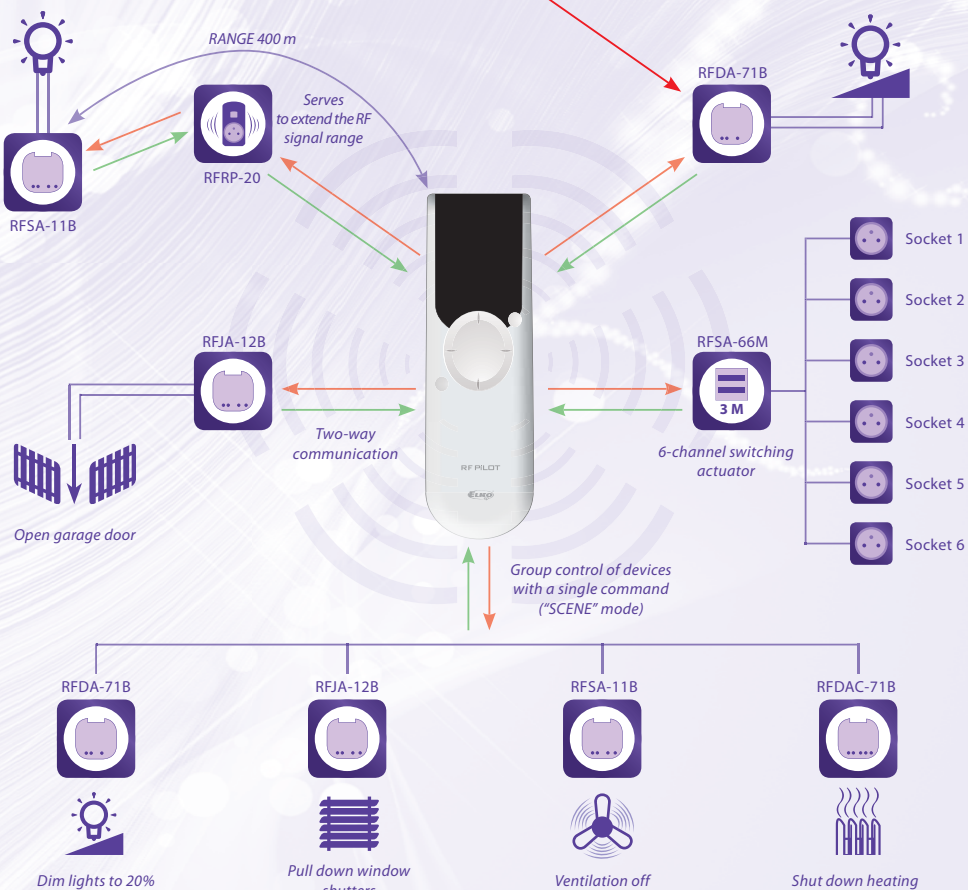
Roller Shutter actuators Dimming actuators

RFJA-12B/230V(24V DC) RFDSC-11(71) RFDA-11B (71B) RFDEL-71B RFDA-73M/RGB

Switching actuators

RFSA-11B (61B) RFSA-62B RFSAI-61
RFSA-61M RFSA-66M RFUS-11(61) RFDAC-71B
Analog actuator

— Command to execute function
— Function execution feedback



SCENES

- serves to control actuators as a group with a single touch
- possibility to set up scenes; on activation, for example, window shutters are pulled down and the light will adjust to the required brightness



WINDOW SHUTTERS

- controlling window shutters, canopies, garage door, etc.
- window shutters are controlled separately or as a group
- the window shutter receivers are powered by either 230V or 24V DC (shutters between windows)



FAVOURITE

- serves to select the most frequently used devices
- on display activation the "Favourite" menu pops up automatically to provide you with a quick access to controlling devices



SWITCHING

- this function serves to switch on/off lights, sockets, electrical appliances and devices
- intuitive control thanks to customized name options
- switching actuator function selections: switch on/off, impulse relay, button, delayed start/return (time of delay from 2 seconds to 60 minutes)



DIMMING

- the regulation of light intensity (light bulbs, halogen lights with electrical or coil transformer, fluorescent tubes with dimmable ballast 1-10V)
- customizable names of individual dimmed circuits (such as "lights" or "living room")
- "sunrise/sunset" imitation - light gradually goes on or off during the preset period between 2 seconds and 30 minutes



EAN code

RFAP/USB: 8595188145572

RF iNELS/USB: 8595188146234

Internal antenna AN-I: 8595188161862

EXTERNAL ANTENNA AN-E

Technical parameters	RFAP/USB	RF iNELS/USB
Power:		max. 1W
Interface:	USB 1.1 and higher, plug „A“	
Range:		100 m
Min. distance of RF Touch-actuator:		1m
Frequency:		868 MHz
Power supply indication:		green LED
RF communication indication:		red LED
<u>Operating conditions</u>		
Operating temperature:		0 up to +55°C
Storage temperature:		- 20 up to +70°C
Protection:		IP30
Contamination degree:		2
Work space:		any
Installation:		any
Dimensions:		22x85x15mm
Weight:		20 g
Related standards:		CS EN 60950-1

LEGEND:

- Command to perform function
- Feedback on performing function

RFAP/USB

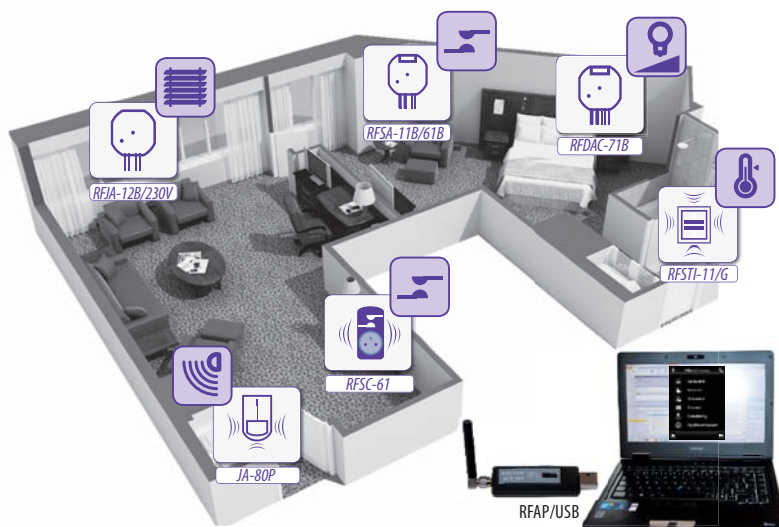
- RFAP/USB - forms a communication interface between units of the RF Control system and a PC with the Windows operating system or Linux with USB interface
- The SW application Virtual RF Touch simulates the function of the RF Touch touch screen unit (see page 14). The demo version is available for download at www.elkoep.com/download/
- RT Touch and RFAP/USB can be used simultaneously

RF iNELS/USB

- RF iNELS/USB - flash drive which forms a communication interface and gateway between units, elements
- installed into the iMM server
- any iMM Client can then control RF Control elements
- RF iNELS/USB and RFAP/USB is compatible with the version RF Touch & Oasis compatible
- two-way communication:
transmits commands to perform a function + receives information on performed command

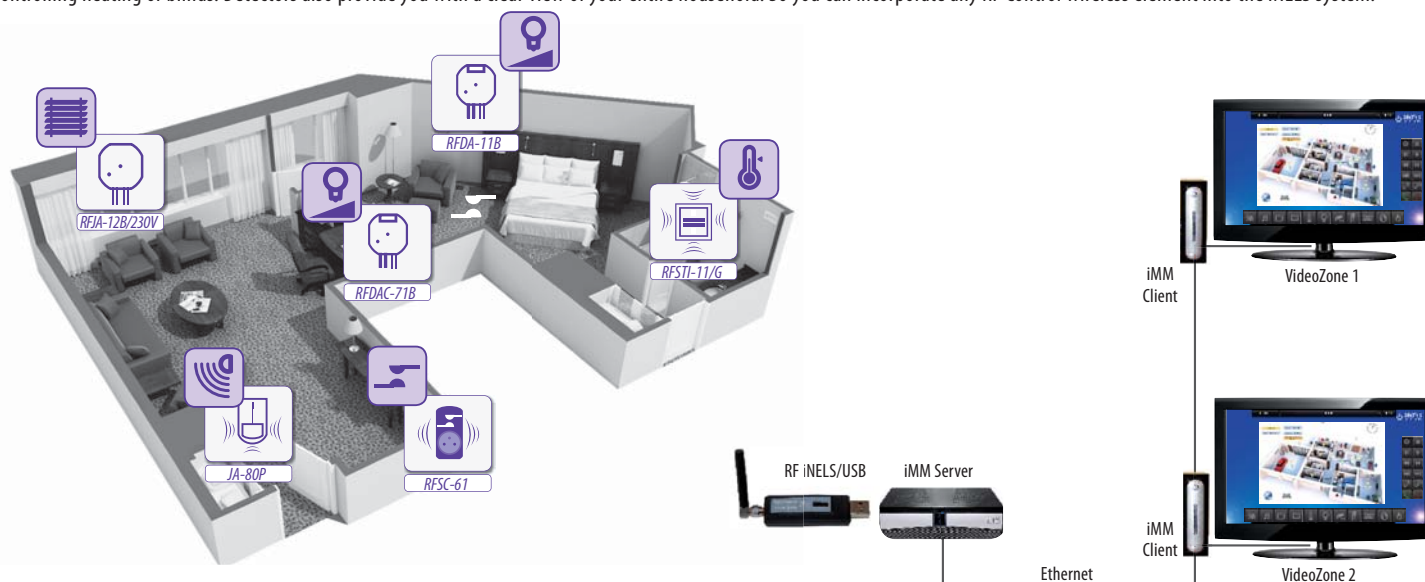
Example of use RFAP/USB

Connecting the RFAP/USB into a USB slot on your computer starts the application and installs Virtual Touch, which simulates the wireless RF Touch touch screen unit. This makes it completely mobile, and you have the option of controlling switching, dimming lights, controlling heating or air conditioning, and blinds. Detectors bring you security monitoring, ex. open windows, door, or movement of persons.



Examples of use of RF iNELS/USB

By connecting RF iNELS/USB into the iMM Server, you can control actuators of the RF Control system via your Videozone screen. You thus have command over switching, dimming lights, controlling heating or blinds. Detectors also provide you with a clear view of your entire household. So you can incorporate any RF Control wireless element into the iNELS system.



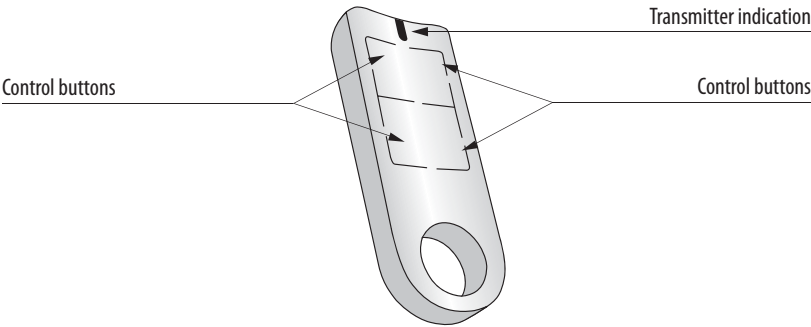


EAN code
RF KEY/W-white: 8595188143332
RF KEY/B-black: 8595188143752

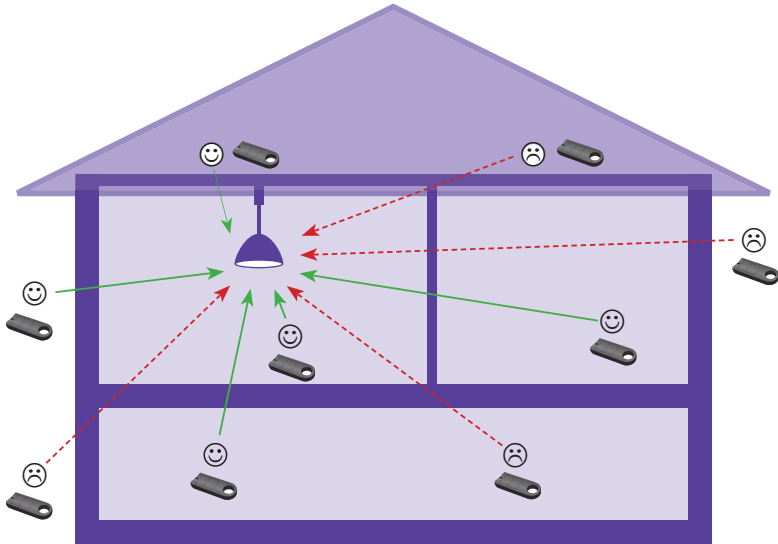
- RF Key is a portable transmitter used to control RF Control units
- it has a wide variety of use thanks to its small size; you can have it always on you, leave it in your car or wear it as a keyholder
- it is most often used to control garage doors and gates, to switch on lights in required areas, etc.
- signal is transmitted via wireless communication between the system units
- RF Key may simultaneously control an unlimited number of assigned actuators, which are within the range of the RF signal
- keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area
- wireless transmitters operates at the frequency of 868 MHz
- based on an impulse (pressing a button), the transmitter can send a radio signal with information to the receiver
- battery life is about 5 years, depending on the frequency of use
- colors: white, black

Technical parameters	RF KEY
Supply voltage:	3V CR 2032 battery
Transmission indication:	red LED
Number of buttons:	4
Transmitter frequency:	868 MHz
Signal transmission method:	unidirectionally addressed message
Range in free space:	up to 200 m
Other data	
Operating temperature:	-10 to +50 °C
Operating position:	any
Protection:	IP 20
Contamination degree:	2
Dimensions:	64 x 25 x 10 mm
Weight:	16 g
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE,Gov. Reg. No..426/2000Sb (Directives 1999/EC))

Device description



Element placement





RFWB-40/G

EAN code

RFWB-20/G: 8595188140379 (device, white cover, white frame)

RFWB-40/G: 8595188140607 (device, white cover, white frame)

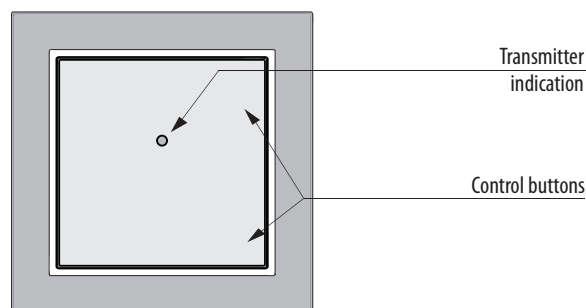
Technical parameters	RFWB-20/G	RFWB-40/G
Supply voltage:	3V CR 2032 battery	
Transmission indication:	red LED	
Number of buttons:	2	4
Transmitter frequency:	868 MHz	
Signal transmission method:	unidirectionally addressed message	
Range in free space:	up to 200 m	
Other data:		
Operating temperature:	-10 to +50 °C	
Operating position:	any	
Mounting:	glue / screws	
Protection:	IP 20	
Contamination degree:	2	
LOGUS [®]		
Dimensions:		
Frame - plastic	85 x 85 x 16 mm	
Frame - metal, glass, wood, granite	94 x 94 x 16 mm	
Weight*:	38g	39g
Related standards:	EN 60669, EN 300 220, EN 301 489	
	Directives RTTE, Gov. Reg. No. 426/2000Sb (Directives 1999/EC))	

*including standardly delivered plastic frame. No installation into multi-frames.

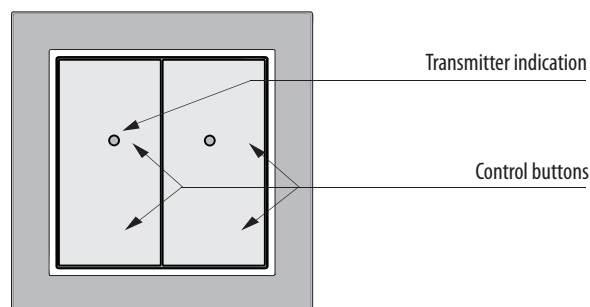
- wireless wall switch buttons serve as transmitters to control RF Control system receivers
- the flat design makes it ideal for easy and quick installation on any surface (glass, wood, wall...)
- the signal is transmitted via wireless communication between the system units
- wireless wall switch buttons may simultaneously control an unlimited number of assigned actuators within the range of the RF signal
- keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area
- based on an impulse (pressing a button), these switches can send a radio signal with information to the receiver
- the transmitters are battery-powered
- battery life is about 5 years (depending on the frequency of use)
- RFWB-20/G: 2-channel wireless wall switch button in LOGUS[®] design
- RFWB-40/G: 4-channel wireless wall switch button in LOGUS[®] design

Device description

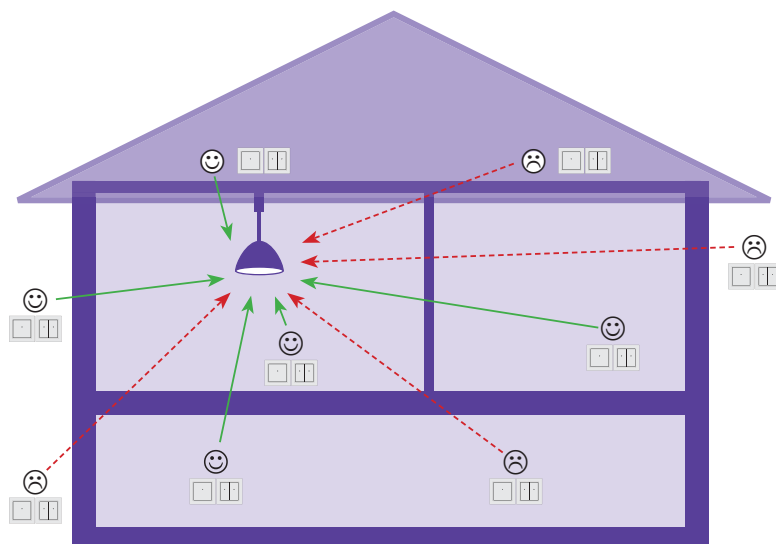
RFWB-20/G



RFWB-40/G

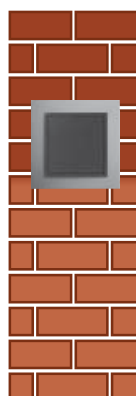


Element placement



Examples of element placement

On wall



On wood



On glass





Flat design - the depth of the device is only 20 mm!

EAN code

RFTC-10/G:	8595188142861 (device, white cover, white frame)
RFTC-10/G white:	8595188145329 (device, cover)
RFTC-10/G ivory:	8595188145336 (device, cover)
RFTC-10/G ice:	8595188145343 (device, cover)
RFTC-10/G pearl:	8595188145350 (device, cover)
RFTC-10/G aluminium:	8595188145367 (device, cover)
RFTC-10/G grey:	8595188145374 (device, cover)

Technical parameters	RFTC-10/G
Supply voltage:	2 x 1.5V AAA battery
Battery life:	1 year
Temperature offset:	2 buttons V / ^
Offset:	± 5 °C
Display:	LCD, characters / see Display description
Backlighting:	YES / active – blue
Transmission indication / function:	symbols
Temperature measurement input:	1x internal sensor
Temp. measurement range and accuracy:	0 to +55 °C; 0.3 °C of the range
Transmitter frequency:	868 MHz
Signal transmission method:	bidirectionally addressed message
Range in free space:	up to 100 m
Minimum control distance:	20 mm
Other data:	
Operating temperature:	0 to +55 °C
Operating position:	wall-mounted
Mounting:	glue / screws
Protection:	IP20
Contamination degree:	2
Dimensions:	
Frame - plastic	85 x 85 x 20 mm
Frame - metal, glass, wood, granite	94 x 94 x 20 mm
Weight:	66 g (without batteries)
Related standards:	EN 60669, EN 300 220, EN 301 489 RTTE Directive, Gov. Reg. No. 426/2000 Sb. (Directive 1999/EC)

- temperature regulator can be used in two ways:
 - with the RF Touch unit it is used for temporary temperature control (± 5 °C) during the set program in RF Touch unit
 - with RFSA-6x multifunction switching actuators, it serves to set temperature and subsequently switch on the connected device
- the temperature is measured by an internal sensor
- the temperature is controlled by buttons V/^ and it is shown on the backlit LCD display:
 - measured temperature
 - switching on the heating circuit (heating/not heating - only when paired with RFSA-6x actuators)
 - additional (signal strength, battery status)
- controller is powered by battery - 2 x AAA1.5V
- the flat rear side of the device (see picture) provides an easy installation on any place where you want to measure temperature
- the luxury design of LOGUS⁹⁰ frames (glass, wood, stone, metal) enables placement in multiple frames

Communication with the RF Touch central unit

LEGEND: Supplying by battery allows to place RFTC-10/G regulator anywhere indoors.

Room A

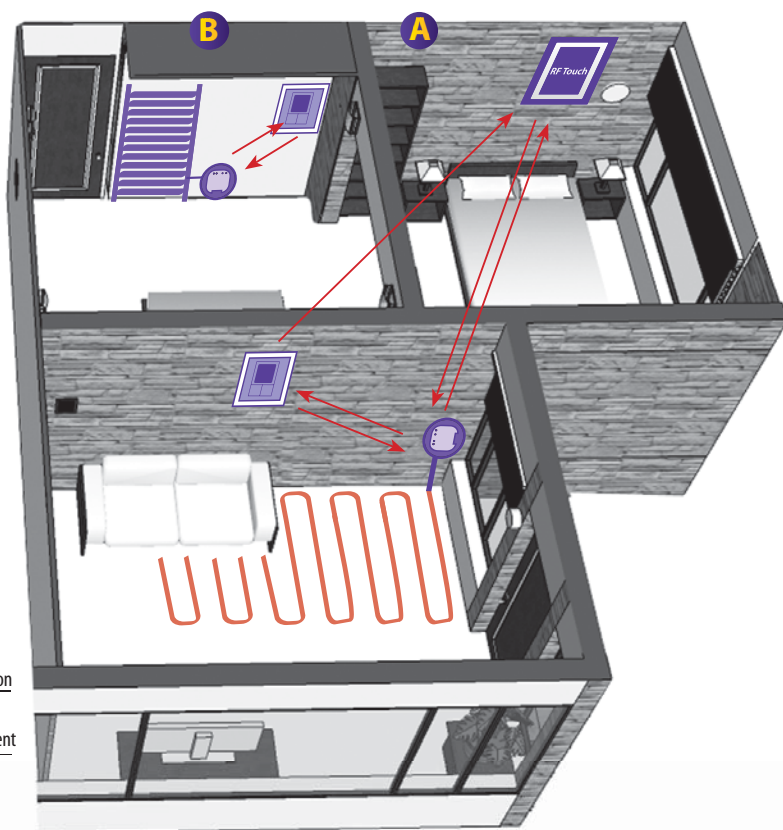
RFTC-10/G

Internal sensor measures room temperature. In the event of temperature correction, RFTC-10/G will send the information to RF Touch, which will switch on the heating device.

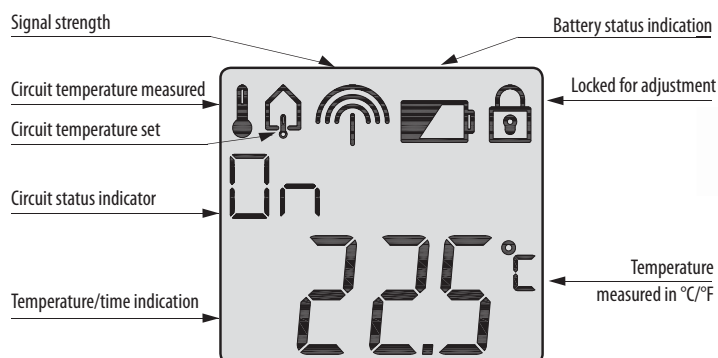
Room B

RFTC-10/G

Internal sensor measures room temperature and will directly switch on the heating device when the room temperature changes.



Display description





RFIM-20B



RFIM-40B

EAN code

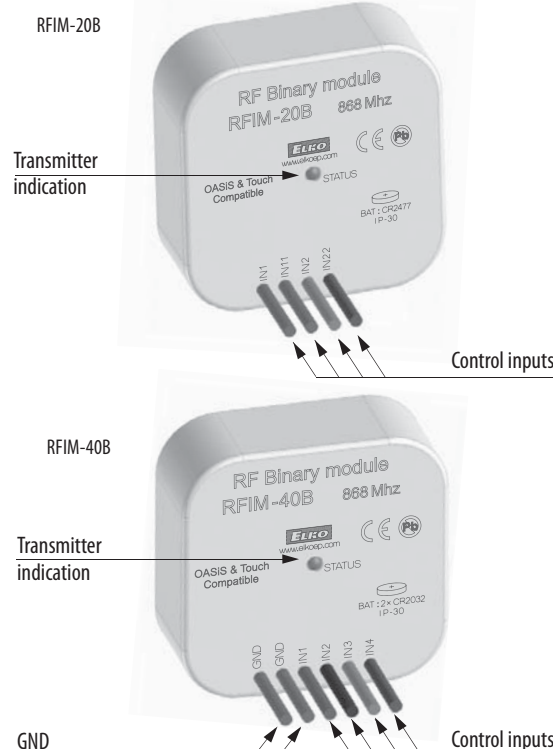
RFIM-20B: 8595188139274

RFIM-40B: 8595188137188

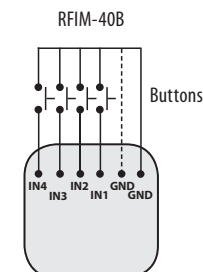
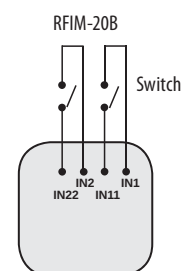
- universal transmitters are designed for mounting under your existing switch, easily transforming it into a wireless one!
- **RFIM-20B**: 2 inputs, intended for switching with button or impulse, and also for permanent contact = switch
- **RFIM-40B**: 4 inputs, intended for switching with button or impulse
- possibility of connection into application where it is necessary to transmit information about status of sensor, detector, button or logical output
- the signal is transmitted via wireless communication between the system units
- does not need an external power supply (battery-powered)
- transmitters may simultaneously control an unlimited number of assigned actuators, which are within the range of the RF signal
- dimensions allow mounting in an installation box (e.g. KU-68), directly under a wall switch button, without any other external power supply
- can be assigned to RF Control receivers
- keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area
- battery life up to 5 years

Technical parameters	RFIM-20B	RFIM-40B
Supply voltage	1 x 3V baterie CR 2477	2 x 3V baterie CR 2032
Battery life:	5 years	
Transmission indication / function:	orange LED	red LED
Number of inputs:	2	4
Transmitter frequency:	868 MHz	
Signal transmission method:	unidirectionally addressed message	
Range in free space:	up to 200 m	
Other data:		
Operating temperature:	-10 to +50 °C	
Operating position:	any	
Terminals (CY wire, cross-section):	4 x 0.75 mm ²	6 x 0.75 mm ²
Length of terminals:	90 mm	
Resist. of connection between terminals		
- for switched on button:	< 300 Ω	
- for disconnected contact:	> 10 kΩ	
Mounting:	free at lead-in wires	
Protection:	IP30	
Contamination degree:	2	
Dimensions:	49 x 49 x 13 mm	
Weight:	45 g	50 g
Open contact voltage:	pulse 12 V	3 V
Length of cable to contact:	max. 100 m of parallel lines	max. 5 m
Related standards:	EN 60669, EN 300 220, EN 301 489 RTTE Directives, Gov. Reg. No.426/2000 Sb. (Directive 1999/EC)	

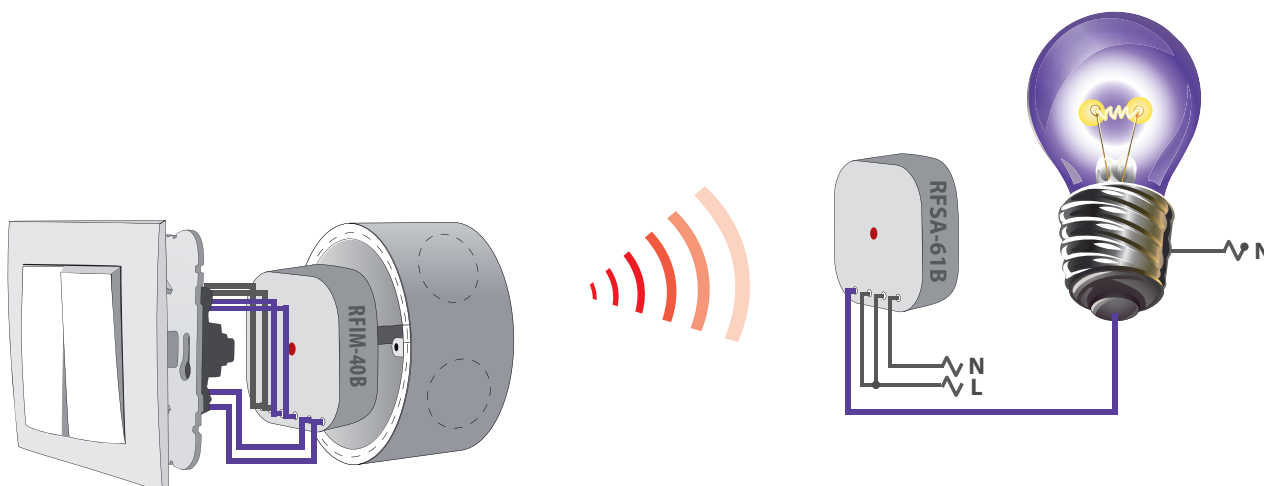
Device description



Wiring



Example of use



For more information, see p. 48



EXTERNAL ANTENNA AN-E

- module transmitter serves for wireless transmission of a command from a device / technology
- with regard to 230V power supply, it is particularly intended for frequent signal transmission
- it is suitable for:
 - switching HDO (low/ high tariff)
 - wireless transmission of appliance and electrical device switching
- when connected to input terminals S - S, it periodically transmits the "switch on" signal at 10-minute intervals
- when disconnected, it transmits the "switch off" signal
- transmission indication with a LED on the front panel
- possibility to assign to the RF Control system (particularly suitable for switching receivers)
- transmitters may simultaneously control an unlimited number of assigned actuators, which are within the range of the RF signal
- galvanically isolated power supply
- in the 1-MODULE design with an internal antenna or external antenna, mounted to a DIN rail
- intended for mounting into switchboard
- an internal antenna is included in the standard package, external antenna is available on request only

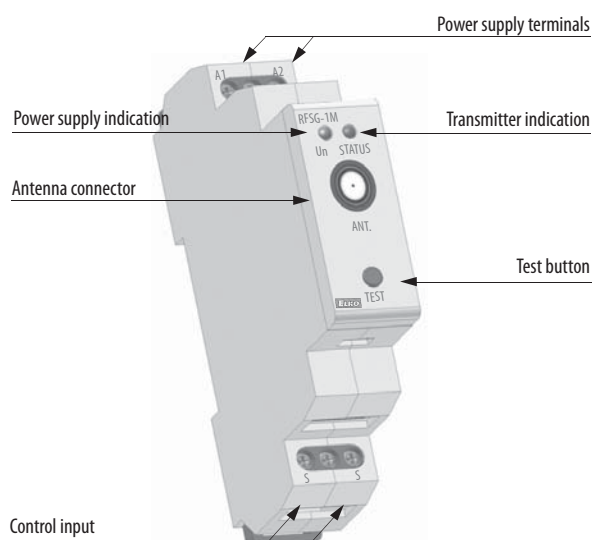
EAN code

RFSG-1M: 8595188142847

External antenna AN-E: 859415759012

Technical parameters	RFSG-1M
Supply voltage:	110 - 230 V AC / 50 - 60 Hz
Apparent input:	2 VA
Dissipated power:	0.2 W
Supply voltage tolerance:	+10 % / -25 %
Power supply indication:	green LED
Input	
Control voltage:	AC 12-230V / DC 12-230V
Control input power:	AC 0.025VA / DC 0.1W
Control terminals:	S - S
The length of control impulse:	min. 25ms (max. unlimited)
Transmission indication / function:	red LED
Transmitter frequency:	868 MHz
Signal transmission method:	unidirectionally addressed message
Range in free space:	up to 160 m
Minimum control distance:	20 mm
Other data:	
Operating temperature:	-15 to +50 °C
Operating position:	any *
Mounting:	DIN rail support EN 60715
Protection:	IP20 from the front panel
Overvoltage category:	III.
Contamination degree:	2
Connecting conductor cross-section: (mm²):	max. 1x2.5, max. 2x1.5 / with a hollow max. 1x2.5
Dimensions:	90 x 17.5 x 64 mm
Weight:	62 g
Related standards:	EN 60669, EN 300 220, EN 301 489 RTTE Directives, Gov. Reg. No.426/2000 Sb. (Directive 1999/EC)

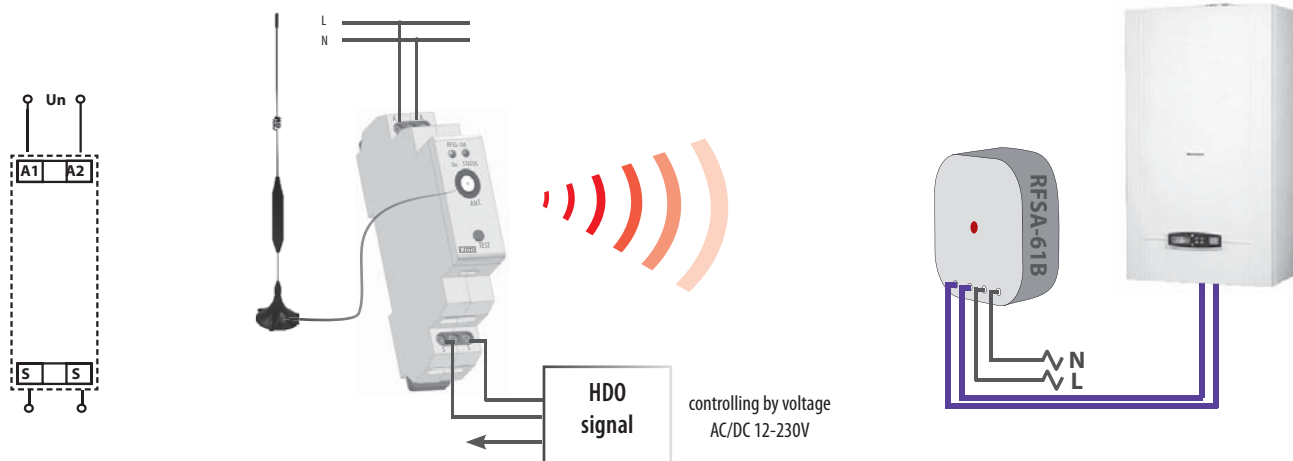
Device description



* For more information, see p. 48

Wiring

Example of use



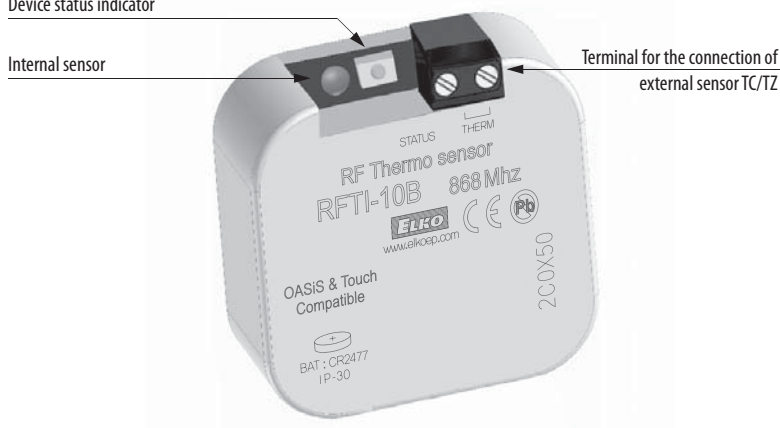


- serves as a temperature sensor that sends data at regular intervals to RF Touch, which can send a signal for switching on the heating device located in other areas
- contains an internal sensor for measuring ambient temperature and a terminal for the connection of an external sensor measuring temperature of outdoor areas, floors, etc.
- possible use of both sensors simultaneously
- does not require an external power supply (battery-powered) for its operation, so it is also suitable for safe water temperature measurement (e.g. in swimming pools)
- LED indicator of RF signal transmission
- dimensions allow mounting in an installation box (e.g. KU-68) without any other external power supply
- possible assignment of the transmitter to the RF Touch control unit

RFTI-10B: 8595188131759

Technical parameters	RFTI-10B
Supply voltage:	1 x 3V CR 2477 battery
Battery life:	1 year
Transmission indication / function:	red LED
Temperature measurement	1x internal NTC thermistor 1x external TZ/TC temperature sensor input (see Accessories)
Temp. measurement range and accuracy:	-20 to +50°C ; 0.5 °C in the range
Transmitter frequency:	868 MHz
Signal transmission method:	unidirectionally addressed message
Range in free space:	up to 160 m
<u>Other data:</u>	
Operating temperature:	-10 to +50 °C
Operating position:	any
Mounting:	glued / free-standing
Protection:	IP30
Contamination degree:	2
Dimensions:	49 x 49 x 13 mm
Weight:	45 g
Related standards:	EN 60669, EN 300 220, EN 301 489 RTTE Directives, Gov. Reg. No.426/2000 Sb. (Directive 1999/EC)

Device status indicator



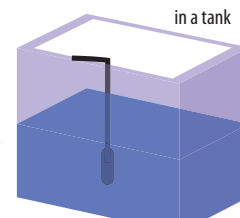
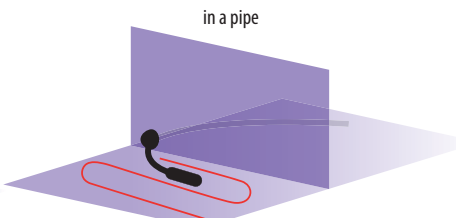
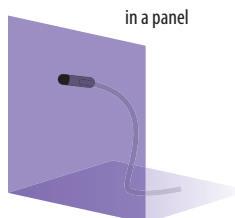
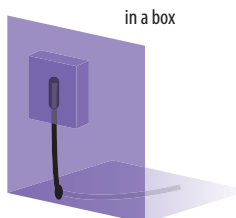
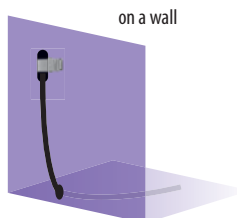
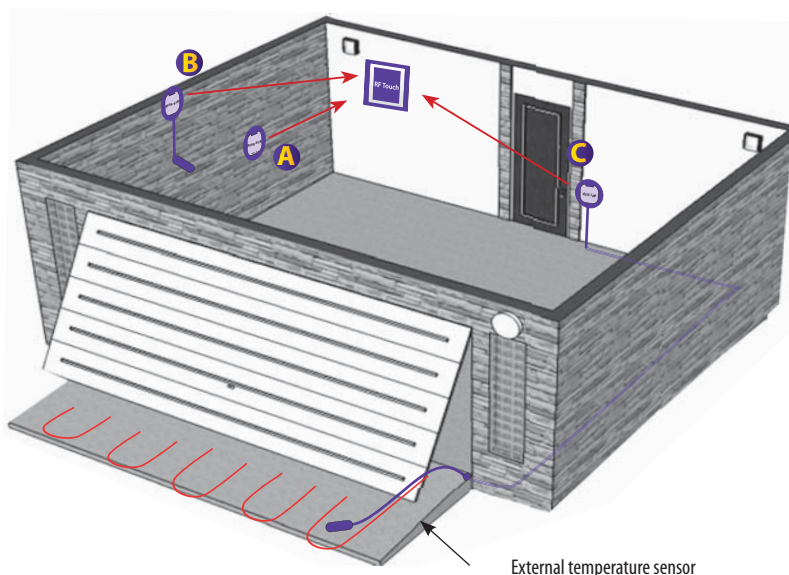
LEGEND:

RTFI-10B measures temperature (balcony, terrace, cellar, ...) and sends the data to RF Touch at regular intervals. Using RF Touch it can be programmed to work with a switching actuator which then switches heating on/off.

- A** RFTI-10B measures temperature with internal sensor
- B** RFTI-10B measures temperature with external sensor
- C = A + B** RFTI-10B measures temperature with both internal and external sensors

see p. 45

Sensor location:





EAN code

Elan-RF-003: 8595188146845

External antenna AN-E: 859415759012

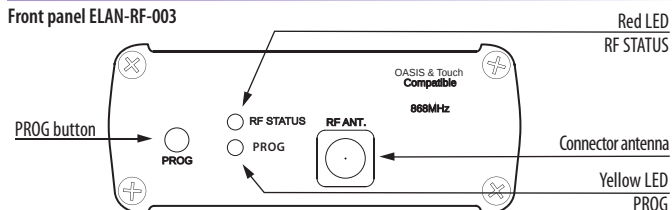
Internal antenna AN-I: 8595188161862

Technical parameters	Elan-RF-003
<u>Interface RF Control</u>	
Communication protocol:	Oasis & RF Touch Compatible
Broadcasting frequency	868 MHz
Signal transfer method:	two-way addressed message
Output for antenna:	RSMA connector
Antenna:	1 dB (part of supply)
Activation of teaching mode:	PROG button
Teaching mode indicator:	1 x green PROG LED
RF communication indicator:	1 x red RF com. LED
Range in open space:	up to 100m
<u>Ethernet interface</u>	
ETH operating status indicator:	green LED
ETH communication indicator:	yellow LED
Communications interface:	10/100 Mbps (RJ45)
Preset IP address:	192.168.1.1
<u>Power</u>	
Supply voltage/current:	10-27 V DC / 200 mA
Power:	adapter with connector Jack Ø 2.1 mm (part of supply) or connector USB-B
Supply voltage indication:	green LED POWER
<u>Other</u>	
Indication:	yellow USB status LED
RESET button:	reset defaults
Power source:	230 VAC / 12 V DC part of supply of device
Operating temperature:	-20 .. +55 °C
Storage temperature:	-25 .. +70 °C
Protection:	IP 20
Contamination degree:	2
Working position:	any
Installation:	free
Design:	installation box
Dimensions:	90 x 52 x 65 mm
Weight:	136 g

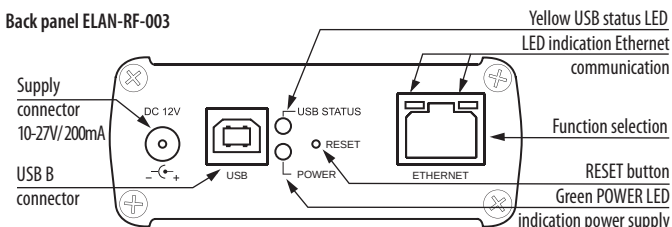
- converter Elan-RF-003 converts commands from LAN TCP/IP network to an RF signal for controlling RF actuator, enables two-way communication between the RF and Ethernet systems
 - can be used to extend the range of the RF signal along the UTP cable (Ethernet network) or WiFi (between individual floors in your house)
 - option of controlling and reading variables from the RF actuator (temperature, status ON/OFF) controlling the RF actuator can be performed in three ways:
 - a) via the IMM Server (image 3)
 - b) via the application Virtual Touch for PC (image 3)
 - c) via the RF Control transmitters (RF Pilot, RFWB, RF KEY) (image 1 and image 2)
 - programming the ELAN-RF-003 is performed:
 - 1) via IMM server
 - 2) via SW virtual touch for PC
 - 3) by pressing the PROG button on the front panel of the device
 - 4) via web interface
 - package includes: internal antenna AN-I
 - optional accessory: external antenna AN-E
- More information on p. 45

Connection

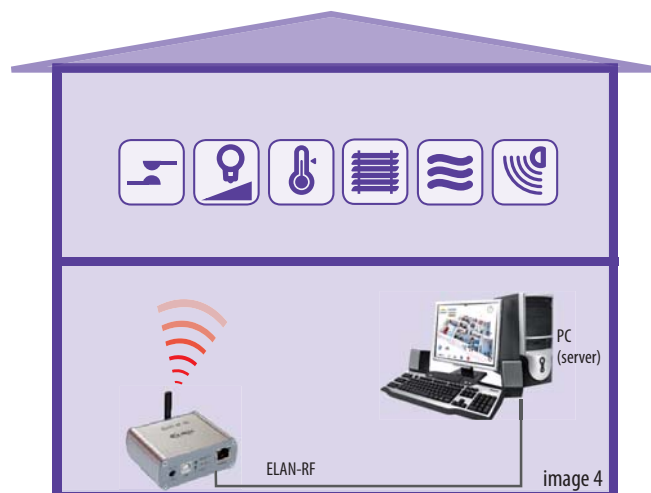
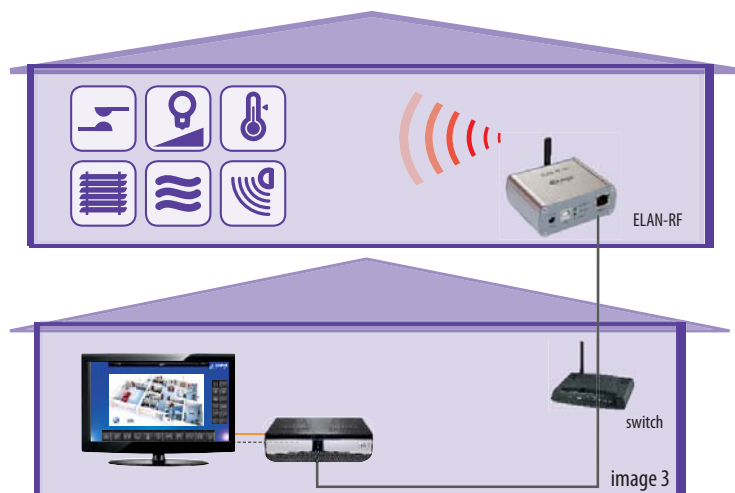
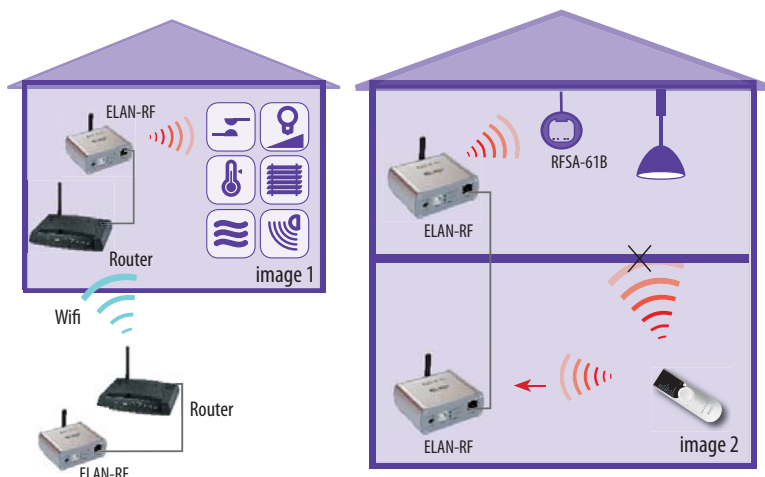
Front panel ELAN-RF-003



Back panel ELAN-RF-003

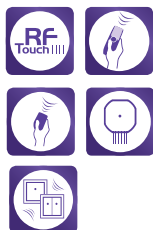


Example of use





CONTROL ELEMENTS



EAN code

RFGSM-220M:8595188146043

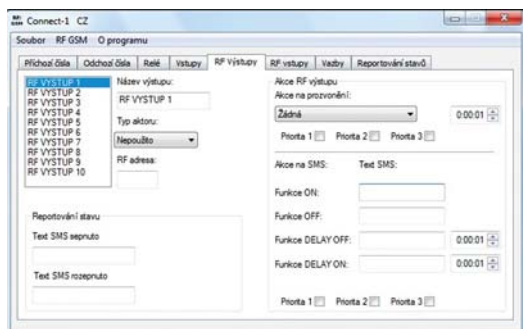
External antenna AN-E: 859415759012

Internal antenna AN-I: 8595188161862

Technical parameters	RFGSM-220M
Power	
Supply voltage:	11-30V DC; backup power supply LI-ION batteries
Current consumption:	90 mA AC1 / 12 V DC
Consumption during communication:	max. 500mA AC1 / 12 V DC
Working band of GSM module:	850/900/1800/1900 MHz
Transmitter output power:	2W pro GSM 900, 1W for GSM 1800
Inputs IN1, IN2, IN3, IN4	
Control voltage:	AC 12-230V or DC 12-230V (separated optocoupler)
Control input power:	AC 0.025 VA/ DC 0.1W
Length of control impulse:	min. 25ms/ max. unlimited
Inputs RF:	one-way/two-way addressed message 868 MHz
Outputs	
Number of contacts:	2x Switches (AgSnO ₂)
Rated current:	8 A / AC1
Switching power:	2500VA, 240 W
Min. switching power DC:	500 mW
Mechanical service life (AC1):	1x10 ⁷
Electrical service life:	1x10 ⁵
RF outputs:	two-way addressed message 868 MHz
Further data	
Operating system PC:	MS Windows XP a higher
Range of RF module:	up to 150 m
Operating temperature:	- 15 up to + 50°C
Operating position:	any
Mounting:	DIN rail EN 60715
Protection:	IP 20 from front panel
Contamination degree:	2
Cross-section of connecting wires (mm ²)	max. 1x2.5; max.2x1.5/ with a hollow max 1x2.5
Dimensions:	90 x 52 x 65
Weight:	198 g
Related standards:	EN 60730-1

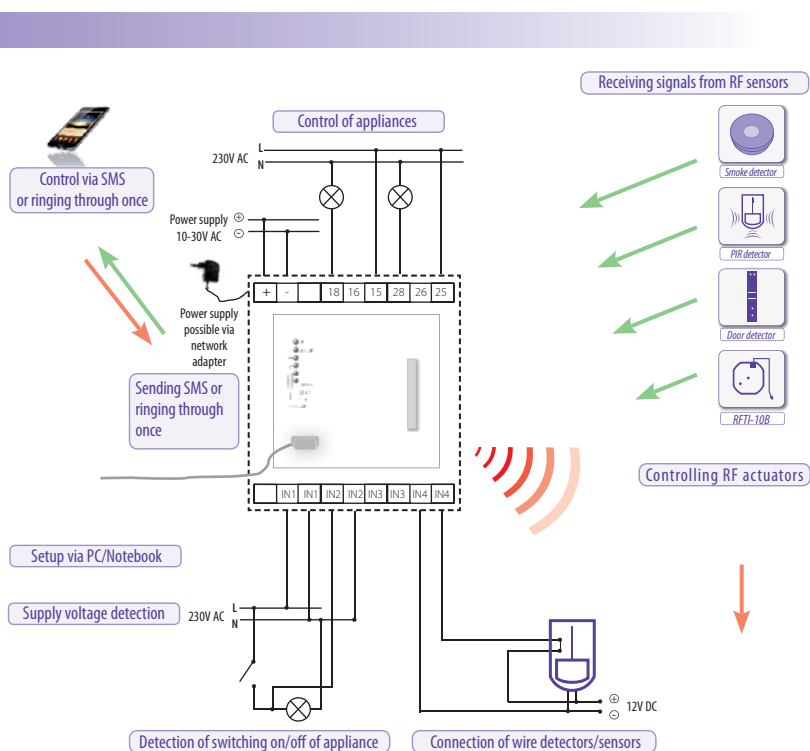
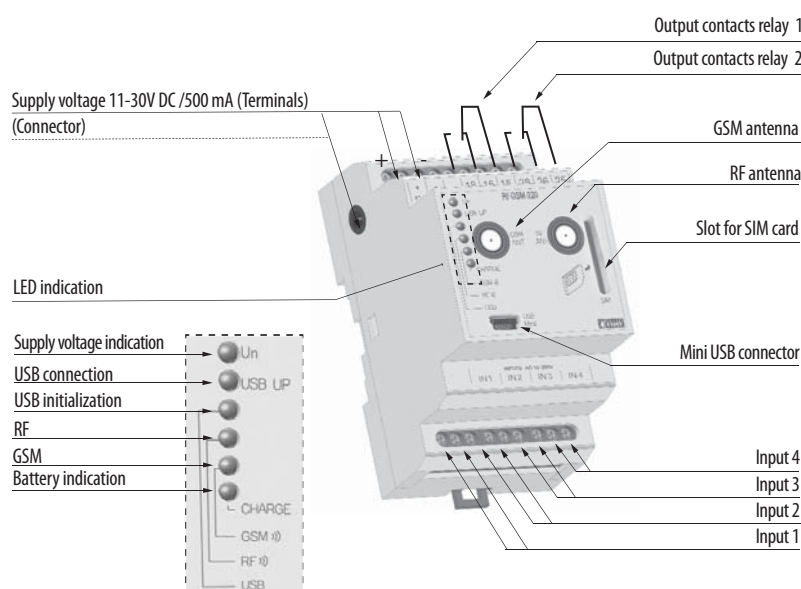
SW Connect1 for configuration of GSM gate

Available for download at www.elkoep.com/download/



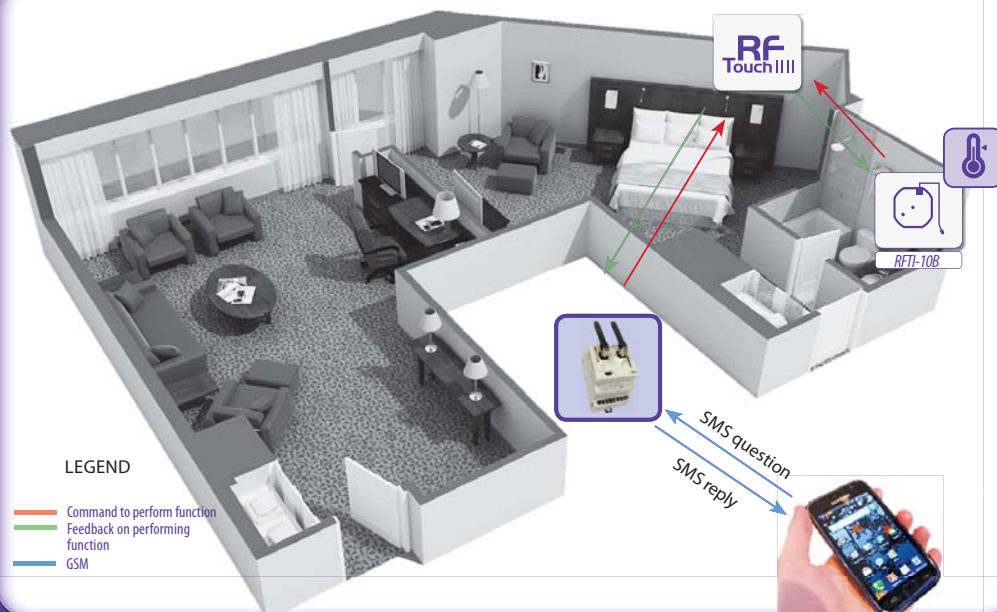
- The GSM communicator can be used for remote switching of heating, lights, barriers, gates and for ascertaining the status of the RF Control actuator (ON, OFF, temperature level)
- GSM communicator can be used in three ways:
 - a) independently – reacts to SMS or ringing phone once, where it switches an internal relay or reacts to 1 of 4 inputs
 - b) with RF Control actuators – the switch command is sent to a switching actuator within range, which then switches (ex. heating)
 - c) with the RF Touch unit – where it is possible to request information by mobile phone on the actuator status, and switch the actuator based on this
- setting is performed using software supplied with GSM communicator via a mini USB connector, OSMS Windows XP and newer. RFGSM software is available for download at the manufacturer website: www.elkoep.com/download/
- GSM contains:
 - 4x potential-free, separated inputs for connecting other devices (ex. smoke detectors, blind actuators, heat sensors, etc.)
 - 2x output relays Switch 8A (ex. contactor, lighting, command for heating circuit, etc.)
 - 2x antenna (-for GSM, - for RF communication)
 - LI-ION batteries for backing up GSM communicator function for up to 30 min.
- package includes:
 - 2x internal antenna AN-I
 - mini USB connector - power cord used for SW installation in the GSM communicator
 - SW connector 1
 - power supply adapter 12V 6W
- optional accessories: external antenna AN-E. More information on p. 45

Description of the device



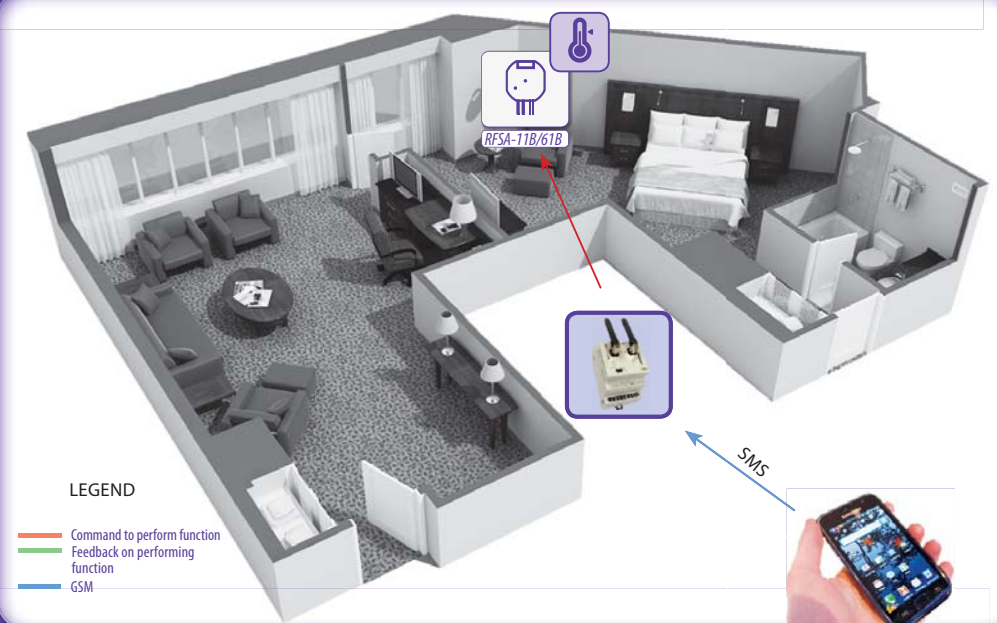
A

Thanks to the GSM communicator, you immediately know what the temperature is at home right now. Just send an SMS or ring the communicator once, the RF signal transfers this command to RF Touch and from RF Touch, an SMS reply is sent back to your phone with the current temperature. You can then switch the heating on or off.



B

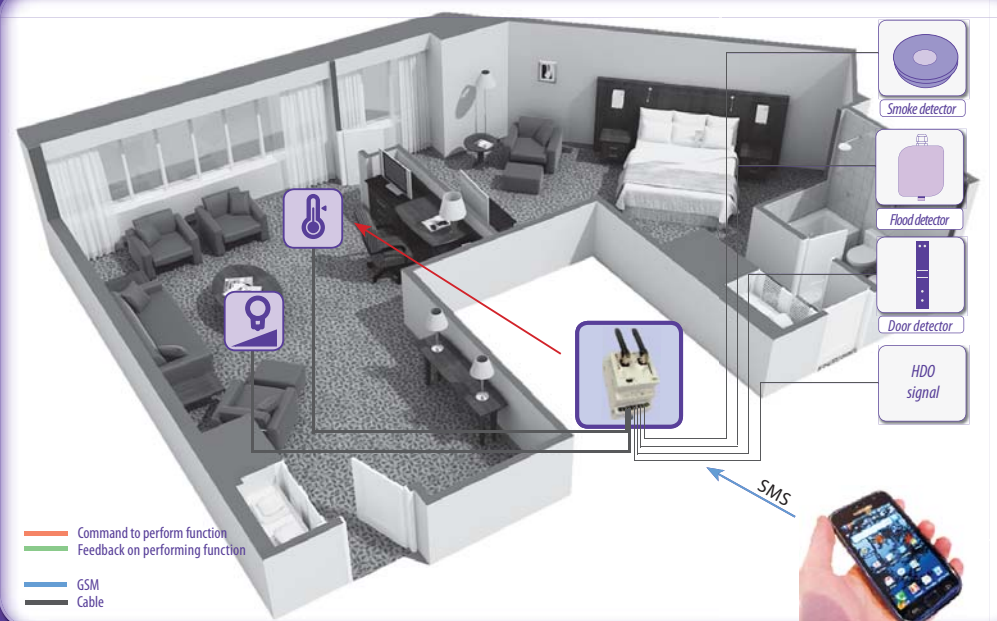
By sending an SMS or ringing once, you activate the GSM communicator, which sends an RF command to the temperature actuator, which then switches the heating (cable connection applied between the actuator and heater).



C

GSM communicator enables you to directly switch on up to 4 appliances. Its usefulness thus expands from simply switching into the area of detectors.

One of 4 inputs receives information from the detector and sends it by SMS to the given telephone number.





CONTROLS ELEMENTS



EAN code

RFRP-20/F: 8595188145107 (French)

RFRP-20 /S: 8595488145470 (Schuko)

RFRP-20/B: 8595188145480 (British)

- the radio frequency signal repeater extends the range between the transmitter and the receiver by 200 meters
- serves to transmit signal between up to 20 units
- easy installation - plug into a socket, the function of the pass-through socket remains unchanged
- supply voltage 110–250V AC
- indication:
 - green LED: supplying voltage
 - red LED: active status (receiving and transmitting RF signal)
- programming by button
- frequency 868 MHz
- produced in three versions:



French
CZ, SK, PL, FR



Schuko
HU, DE, RU, AT, RO



British
GB

Technical parameters	RFRP-20
Supply voltage:	230 - 250V / 50-60Hz
Apparent input:	6 VA
Dissipated power:	0.7W
Transmitter frequency:	868 MHz
Range in free space:	up to 200 m
Minimum control distance:	20 mm
Programming	button
	green LED / red LED
Other data:	
Operating temperature:	-20 to +55 °C
Storage temperature:	-30 to +70°C
Mounting:	plug into a socket
Protection:	IP20 Device
Dimensions:	60 x 120 x 80 mm
Weight:	225 g
Related standards:	EN 607 30-1 ED.2

Control up to 20 actuators



RF Touch



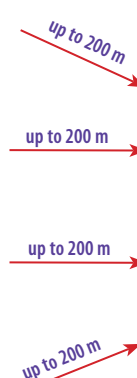
RF Pilot



RF KEY



RFWB-20/G
RFWB-40/G

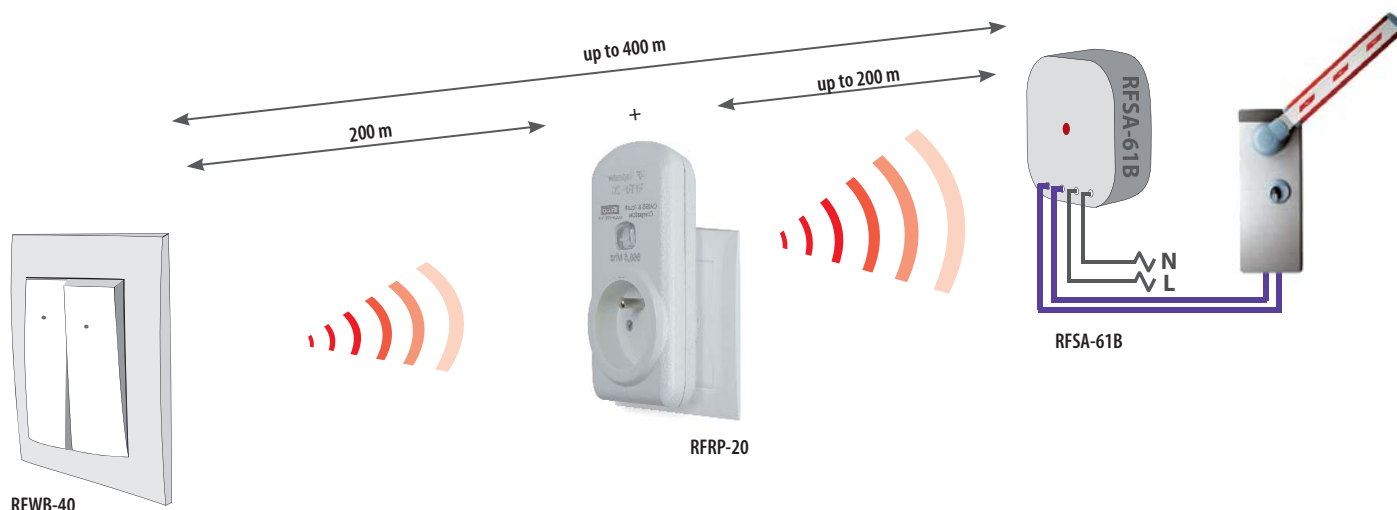


up to 200 m

... up to 20 actuators

RANGE up to 400 m

Example of use





CONTROL ELEMENTS



EAN code

RFPM-1/F: 8595488146279 (French)

RFPM-1/S: 8595488446287 (Schuko)

RFPM-1/B: 859518814518 (British)

- the device sends information to RF Touch on power consumption, serving in essence as a combination of remote controlled socket and electricity meter
- RFPM-1 measures the following data:
 - voltage
 - current
 - power
 - network frequency
 - consumed power
- variables are displayed with the RF Touch
- controlling the socket from RF TOUCH or the button on the panel
- measured consumed energy in RFPM-1 can be RF Touch converted to money
- produced in three designs of sockets and plugs:



French
CZ, SK, PL, FR



Schuko
HU, DE, RU, AT, RO



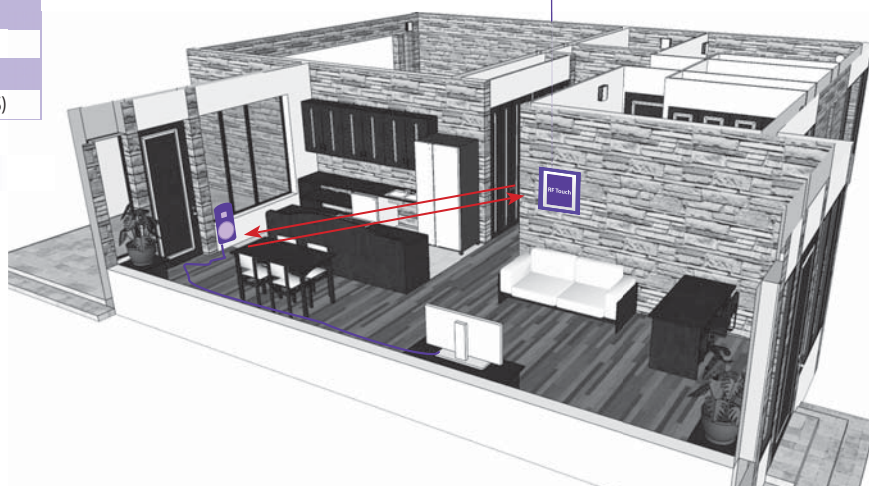
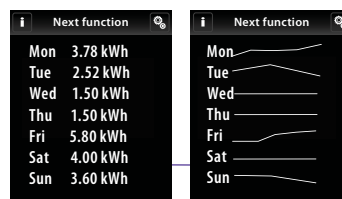
GB

- energy consumption history (day, week, month) can be displayed with the RF Touch

Description of the device



Examples of use



Technical parameters	FRENCH, SCHUKO	BRITISH
Supply voltage:	AC 230 V AC / 50 Hz	AC 240 V / 50 Hz
Supply voltage tolerance:	+15/- 20 %	
Power (closed relay):	2,2 VA / 1.1 W	
<u>Output</u>		
Number of contacts:	1 switching (AgNi)	
Max. current:	16A / AC1	
Switching power:	4000 VA (AC1)	
Mechanical service life:	3 x 10 ⁷	
Electrical service life:	0,7x10 ⁵	
<u>Controlling</u>		
RF command from the transmitter:	868 MHz	
Manually:	button on panel	
RF range	up to 150 m	
<u>Status indication</u>		
Supply voltage OK:	green LED	
Relay closed:	red LED	
Design:		
Box with socket and plug:	design FRENCH, SCHUKO	design BRITISH
<u>Further data</u>		
Protection:	IP 30	
Overvoltage category:	II.	
Contamination degree:	2	
Operating temperature:	- 15 ... + 40° C	
Storage temperature:	- 30 ... + 70° C	
Dimensions:	60x120x60mm	
Weight:	195 g	
Related standards:	EN 60669, EN 300 220, EN 301 489	
directives RTTE, NVč.426/2000Sb (directives 1999/ES)		

Description of function

- After inserting the device into the socket 230V/50Hz (FRENCH, SCHUKO) or 240V/50Hz (BRITISH) the green LED is lit - power supply is OK. After switching on the power supply, the relay is always open.



RFJA-12B/230V



RFJA-12B/24VDC

**CONTROL
ELEMENTS**



EAN code

RFJA-12B/230V: 8595188137010 / RFJA-12B/24V DC: 8595188140614

Technical parameters	RFJA-12B/230V	RFJA-12B/24VDC
Supply voltage:	230 V AC / 50 - 60 Hz	12-24 V DC
Apparent input:	7 VA / cos φ = 0.1	x
Dissipated power:	0.7 W	x
Power without load:	x	0.5 W
Power under load:	x	25 W
Supply voltage tolerance:	+10 -15 %	
Output		
Number of contacts:	2 x switching (AgSnO ₂)	x
Rated current:	8 A / AC1	x
Permanent current:	x	1 A
Switching power:	2000 VA / AC1	x
Peak current:	10 A / <3 s	1.5 A
Switching voltage:	250 V AC1	x
Switching output voltage*:	x	12-24 V DC*
Mechanical service life:	1x10 ⁷	x
Electrical service life (AC1):	1x10 ⁵	x
Control:		
RF, by command from transmitter:	868 MHz	
Manual control:	PROG (STOP, ▲, STOP, ▼)	
Range in free space:	up to 100 m	
Other data:		
Operating temperature:	-15 to + 50 °C	
Operating position:	any**	
Mounting:	free at lead-in wires	
Protection:	IP 30	
Overvoltage category:	III.	
Contamination degree:	2	
Terminals:	CY wire, cross section 4x0.75 mm ²	
Length of terminals:	90 mm	
Dimensions:	49 x 49 x 21 mm	49 x 49 x 13 mm
Weight:	46 g	22 g
Related standards:	EN 60669, EN 300 220, EN 301 489 RTTE Directives, Gov. Reg. No.426/2000 Sb. (Directive 1999/EC)	

* Identical with supply voltage

** For more information, see p. 48

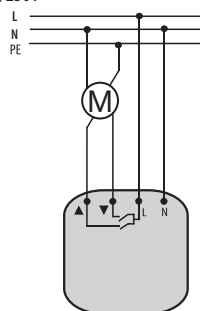
Function description

- When the control button is pressed for less than 2 seconds, shutters move up (▲) or down (▼).
- When the control button is pressed for more than 2 seconds, shutters move up (▲) or down (▼) until reaching the final position.

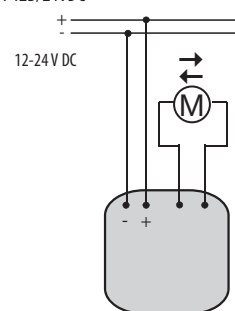
- RF shutter ACTUATOR is used for controlling shutter engines, window shutters, garage gates, etc.
- RFJA-12B/230V: switches 230V AC electric engines, which are controlled in two directions and have built-in protector terminal switch.
 - the time function of the relay "remembers" the time of closing and opening the blinds
- RFJA-12B/24V DC: controls particularly shutters and blinds installed inside the window (12-24V DC electric engines), with built-in terminal switch, where direction of the motion is controlled by switching polarity
 - the time function of the relay "remembers" the time of closing and opening the blinds
 - contactless and noise-free switching
- each actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button, keychain or the RF Touch-W / RF Touch-B unit).
- LED indicator of the device status on the front panel
- for programming and manual control, press the Prog button
- for mounting in an installation box (such as KU-68) or to be installed into non-conducting covers of unit engines
- possibility to assign receivers to the RF Control system

Wiring

RFJA-12B/230V



RFJA-12B/24VDC



Device description

RFJA-12B/230V

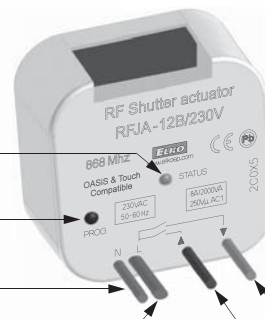
Device status

indicator – LED

Program button
(manual control)

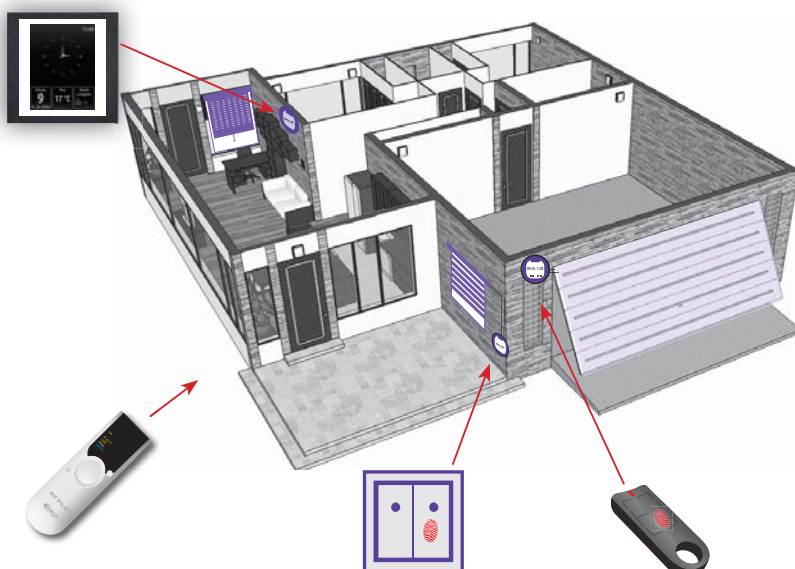
Neutral conductor

Phase conductor



Output relay contacts

Example of use





EAN code

RFDSC-11/F: 8595188145923 (French)
RFDSC-11/S: 8595488145930 (Schuko)
RFDSC-11/B: 8595188145459 (British)

RFDSC-71/F: 8595188145947 (French)
RFDSC-71/S: 8595488145954 (Schuko)
RFDSC-71/B: 8595188145466 (British)

Technical parameters	RFDSC-11	RFDSC-71
Supply voltage:	230 V AC / 50 Hz	
Apparent power:	1.1 VA	
Dissipated power:	0.8 W	
Supply voltage tolerance:	+10/ -15 %	
Dimming load:	R,L,C, LED, ESL	
Output		
Contactless:	2 x MOSFET	
Load capacity:	300 W*	
Control		
RF command from the transmitter:	868 MHz	
Range in open space:	up to 160 m (more on range on page 44)	
Manual control:	button PROG (ON/OFF)	
Further data		
Operating temperature:	-20 up to +35 °C	
Storage temperature:	-30 up to +70 °C	
Working position:	any*	
Mounting:	in a network socket 230 V AC	
Protection:	IP 30	
Overvoltage category:	III.	
Contamination degree:	2	
Dimensions:	60 x 120 x 80 mm	
Weight:	129 g	
Related standards:	EN 60669, EN 300 220, EN 301 489 directives RTTE, NVE.426/2000Sb (directives 1999/ES)	

* capacity for power factor $\cos \varphi = 1$

The power factor of dimmable LEDs and ESL bulbs ranges from $\cos \varphi = 0.95$ up to 0.4.

An approximate value of maximum load may be obtained by multiplying the load capacity of the dimmer by the power factor of the connected light source.

- the dimming socket offers a simple solution to dimming lamps and lights plugged into the socket, this socket is simply positioned between the existing outlet and the light
- it enables dimming of the following light sources:

type of source	symbol	description
R resistive		ordinary light bulb, halogen lamp
L inductive		coiled transformer for low-voltage halogen lamps
C capacitive		electronic transformer for low-voltage halogen lamps
LED		LED lamps and LED light sources, 230 V
ESL		dimmable energy-saving fluorescent tubes

- the type of light source is set by the switch on the front of the device
- max. output load is 300 W
- electronic overcurrent and thermal protection - switches off the output in case of overload, short circuit or overheating
- setting the minimum brightness by the potentiometer on the front of the device eliminates flashing of various types of light sources
- the actuator can be controlled by up to 32 channels
- RFDSC-11: single-function, button dimmer
- RFDSC-71: 6 light functions, ON/OFF function (identical with the functions of RFDA-71B) see p. 32
- programming and manual switching of the output is performed using the Prog button
- produced in three designs of sockets and plugs:



French
CZ, SK, PL, FR



Schuko
HU, DE, RU, AT, RO

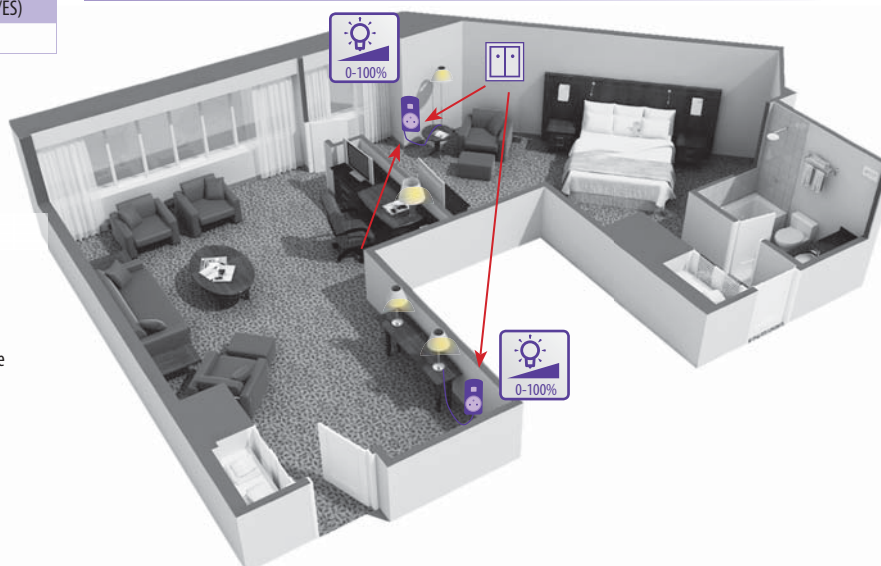


British
GB

Description of the device



Example of use



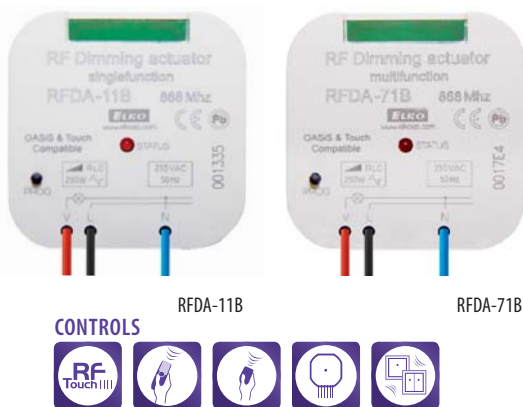
Description of function

Controlling the dimmer:

- a short press of the button ($< 0.5s$) switches light on or off
- a long press ($> 0.5s$) enables fluid regulation of light intensity
- for the ESL load, when the lamp is switched off, a short press increases the brightness to the maximum level (when the energy saver „lights up“) and then drops to the preset level

Setting the minimum brightness:

- performed using the potentiometer on the front side
- used mainly when dimming energy-saving fluorescent tubes and LED bulbs due to their differing illumination characteristics
- it prevents unwanted flashing when setting the actuator to the min. brightness



CONTROLS



EAN code

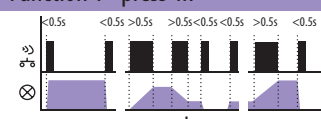
RFDA-11B: 8595188136846 / RFDA-71B: 8595188143080

Technical parameters	RFDA-11B	RFDA-71B
Supply voltage:	230 V AC / 50 Hz	
Apparent input:	8.3 VA / cos φ = 0.1	
Dissipated power:	0.83 W	
Supply voltage tolerance:	+10/- 15 %	
Connection:	3 conductors, including neutral	
<u>Output</u>		
Resistance load:	250 VA*	
Capacity load:	250 VA*	
Inductive load:	250 VA*	
<u>Control:</u>		
RF, by command from transmitter:	868 MHz	
Manual control:	PROG (ON/OFF)	
Range in free space:	up to 160 m	
<u>Other data:</u>		
Operating temperature:	-15 to + 50 °C	
Operating position:	any*	
Mounting:	free at lead-in wires	
Protection:	IP 30	
Overvoltage category:	III.	
Contamination degree:	2	
Terminals (CY wire, cross-section):	3x0.75 mm ²	
Length of terminals:	90 mm	
Dimensions:	49 x 49 x 21 mm	
Weight:	40 g	
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, Gov. Reg. No. 426/2000Sb (Directives 1999/EC)	

* For more information, see p. 48

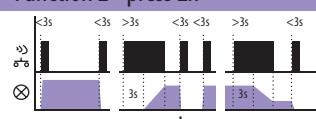
- serves for light dimming and creating light scenes (4 preset light scenes)
- allows dimming bulbs and halogen lights with electronic or wound R, L, C 250VA transformer
- **RFDA-11B**: single-function - button dimmer
- **RFDA-71B**: multifunction - 6 light functions, ON/OFF function, possibility to set continuous switching on/off of light (between 2 seconds and 30 minutes)
- easy control: switch on/off the light by pressing the button shortly; adjust brightness by pressing and holding
- each actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button, keychain or the RF Touch-W / B unit)
- electronic overcurrent protection - the output is switched off in case of overloading or short-circuit for programming and manual control, press the Prog button
- installation box design (such as KU-68)

Function 1 - press 1x



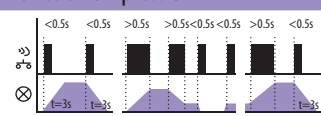
- a) Press the button for less than 0.5 seconds to switch on the light; press again to switch it off.
- b) Press and hold the button for more than 0.5 seconds to adjust brightness continuously. After releasing the button, the brightness level is saved into memory and pressing the button shortly later will switch on/off the light to this intensity.
- c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 2 - press 2x



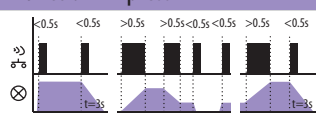
- a) Press the button for less than 3 seconds to switch on the light; press again to switch it off.
- b) To avoid undesirable brightness adjustment, the continuous brightness regulation is only activated pressing and holding the button for more than 3 seconds. After releasing the button, the brightness level is saved in the memory and pressing the button shortly later will switch on/off the light to this intensity.
- c) Brightness may be adjusted by pressing and holding the button for more than 3 seconds at any time. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 3 - press 3x



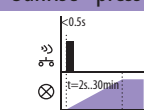
- a) Press the button for less than 0.5 seconds to continuously switch on the light for 3 seconds (at 100% brightness). By pressing the button shortly again, the light will continuously switch off for 3 seconds.
- b) Press and hold the button for more than 0.5 seconds to adjust brightness continuously. After releasing the button, the brightness level is saved in the memory and pressing the button shortly later will switch on/off the light to this intensity.
- c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Function 4 - press 4x



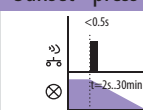
- a) Press the button for less than 0.5 second to switch on the light. By pressing the button shortly again, the light will continuously switch off for 3 seconds (at 100% brightness).
- b) Press and hold the button for more than 0.5 second to adjust brightness continuously. After releasing the button, the brightness level is saved in the memory and pressing the button shortly later will switch on/off the light to this intensity.
- c) Brightness may be adjusted at any time by pressing and holding the button. The receiver remembers the adjusted value even after disconnecting from power supply.

Sunrise - press 5x



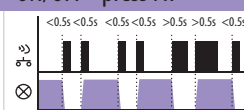
After pressing the button, the light will start to switch on during the selected time period, ranging from 2 seconds to 30 minutes.

Sunset - press 6x



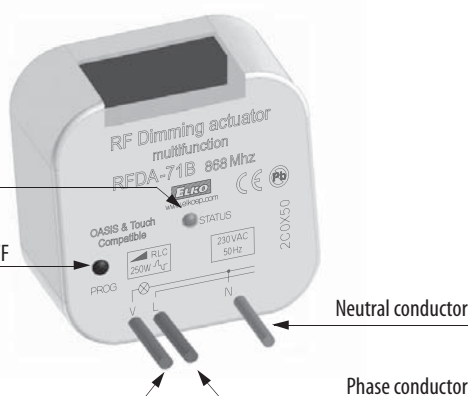
After pressing the button, the light will start to switch off during the selected time period, ranging from 2 seconds to 30 minutes.

ON/OFF - press 7x

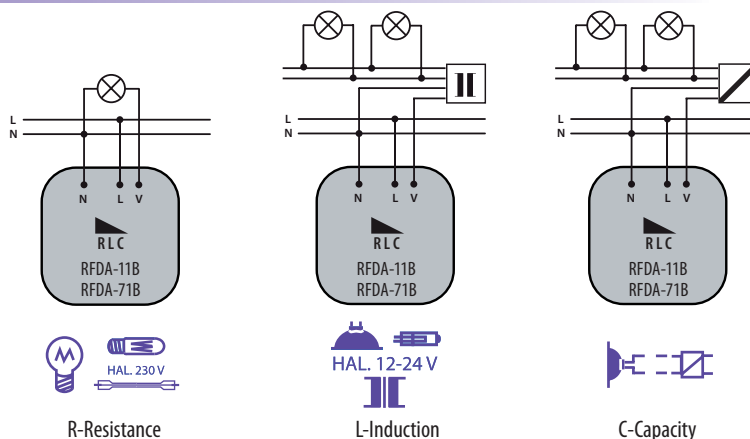


If the light is off, press the button to switch it on. If the light is on, press the button to switch it off.

Device description



Wiring with different types of load





CONTROL ELEMENTS



EAN code

8595188145121

Technical parameters	RFDEL-71B
Supply voltage:	230 V AC / 50 Hz
Apparent power:	1.1 VA
Dissipated power:	0.8 W
Supply voltage tolerance:	+10/-15 %
Connection:	4-wire, with "NEUTRAL"
Dimmed load:	R, L, C, LED, ESL
Output	
Contactless:	2 x MOSFET
Load capacity:	160 W*
Controlling	
RF command from the transmitter:	868 MHz
Range in open space:	up to 160 m (more on range on p. 44)
Manual control:	button PROG (ON/OFF), external button
Glow lamp connection:	No
Further data	
Operating temperature:	-20 up to +35°C
Storage temperature:	-30 up to +70°C
Operating position:	any*
Mounting:	free at lead-in wires
Protection:	IP 30 under normal conditions
Overvoltage category:	III.
Contamination degree:	2
Terminals (CY wire, Cross-section):	4 x 0.75 mm ²
Terminal length:	90 mm
Dimensions:	49 x 49 x 21 mm
Weight:	40 g
Related standards:	EN 607 30-1 ED.2

* capacity for power factor $\cos \varphi = 1$

The power factor of dimmable LEDs and ESL bulbs ranges from $\cos \varphi = 0.95$ up to 0.4.
An approximate value of maximum load may be obtained by multiplying the load capacity of the dimmer by the power factor of the connected light source.

- serves for controlling light intensity of these light sources:

source type	symbol	description
R resistive		resistive bulb, halogen lamp
L inductive		inductive coil transformer for low-voltage halogen lamps
C capacitive		electronic transformer (capacitive load) for low-voltage halogen lamps LED
LED		LED lamps and LED light sources, 230 V
ESL		dimable energy-saving tubes

- the type of light source is set by the switch on the front of the device
- max. output load is 160 W
- option of controlling existing external button and RF transmitter
- electronic overcurrent and thermal protection - switches off the output in case of overload, short circuit or overheating
- setting min. brightness by potentiometer on the front of the device eliminates flashing of various types of light sources
- by installing the actuator under an existing button, you have the option of further control of lighting using RF Control wireless transmitters or the RF Touch touch screen unit. This then makes it possible to control the actuator with the existing button or wireless controller
- the actuator can be controlled by up to 32 channels
6 light functions, ON/OFF function (identical with the functions of RFDA-71B) see p. 32

Description of function

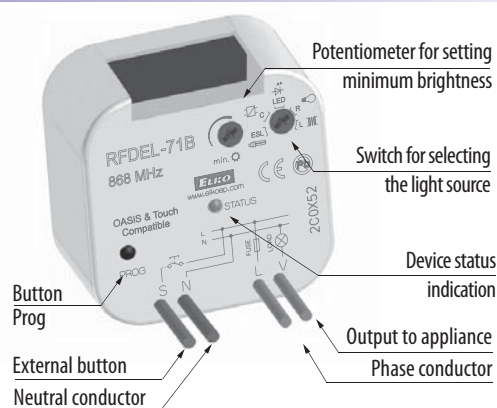
Controlling the dimmer:

- a short press of the button (< 0.5s) switches light on or off
- a long press (> 0.5s) enables fluid regulation of light intensity
- for the ESL load, when the lamp is switched off, a short press increases the brightness to the maximum level (when the energy saver „lights up“) and then drops to the preset level

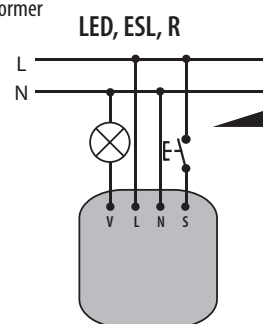
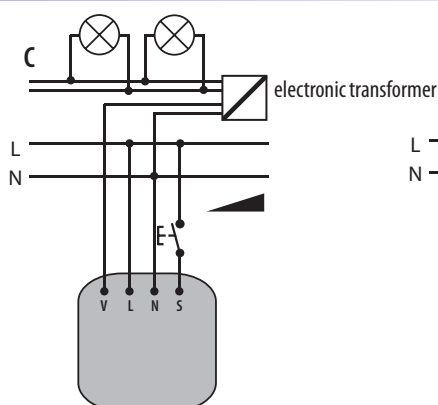
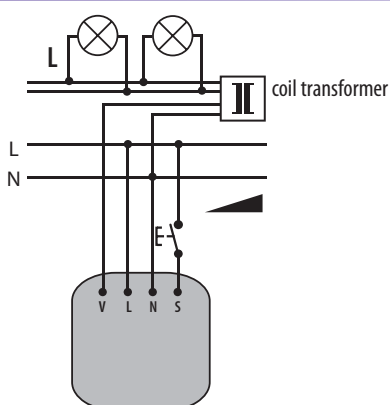
Setting the minimum brightness:

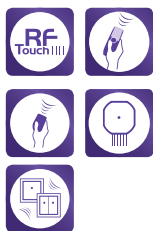
- performed using the potentiometer on the front side
- used mainly when dimming energy-saving fluorescent tubes and LED bulbs due to their differing illumination characteristics
- it prevents unwanted flashing when setting the actuator to the min. brightness

Description of the device



Connection





EXTERNAL ANTENNA AN-E

EAN code

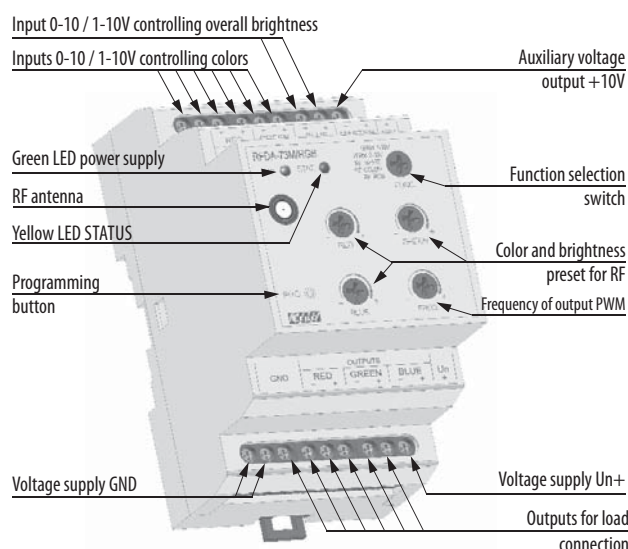
RFDA-73M/RGB: 8595188146814
External antenna AN-E: 859415759012
Internal antenna AN-I: 8595188161862

Technical parameters		RFDA-73M/RGB
Supply terminals:		Un+, GND
Supply voltage:		12-24 V DC stabilized
Maximum power without load:		0.8 W
Output		
Dimmed load:		LED strip 12V, 24V with common anode RGB LED strips 12V, 24V with common anode
Number of channels:		3
Rated current:		3x5 A
Peak current:		3x10 A
Switching voltage:		Un
Controlling		
RF by command from the transmitter:		868 MHz
Ext. signal:		0-10 V, 1-10V
Ext. signal:		1-10 V
Range in open space:		up to 160 m
Load capacity of output +10V:		10 mA
Further data		
Operating temperature:		-20 up to + 50 °C
Storage temperature:		-30 up to + 70 °C
Working position:		any
Mounting:		DIN rail EN 60715
Protection:		IP 20 from front panel
Contamination degree:		2
Cross-section of connecting wires (mm ²):		max 1x2.5, max 2x1.5/ with a hollow max. 1x2.5
Dimensions:		90 x 52 x 65 mm
Weight:		130 g
Related standards:		EN 60730-1; EN 60730-2-11

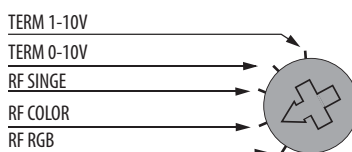
- used to dim LEDs, an LED strip and RGB LED strip with power supply 12-24V DC
- control is performed with RF Control wireless transmitters or signal 0-10V/ 1-10V, or iNELS DAC converter iNELS
- The function (FUNC) selection switch enables setting of colored light scenes
- upon switching off, the set level is stored in the memory, and when switched back on, it returns to the most recently set value
- the load for individual channels is 3x5A, which in practice enables dimming of approx. 60W = an 8m RGB LED strip
- the supply voltage to the equipment and the LED strip must be the same. If the RFDA-73M/RGB is supplied by 12V DC, LED strip / source should also be supplied by 12V DC. The same applies for a supply voltage of 24V DC
- programming is performed button PROG located on the front panel of the device
- supplied with internal antenna SMA (M)
- optional accessories: external antenna AN-E.

More information on p. 45

Description of the device



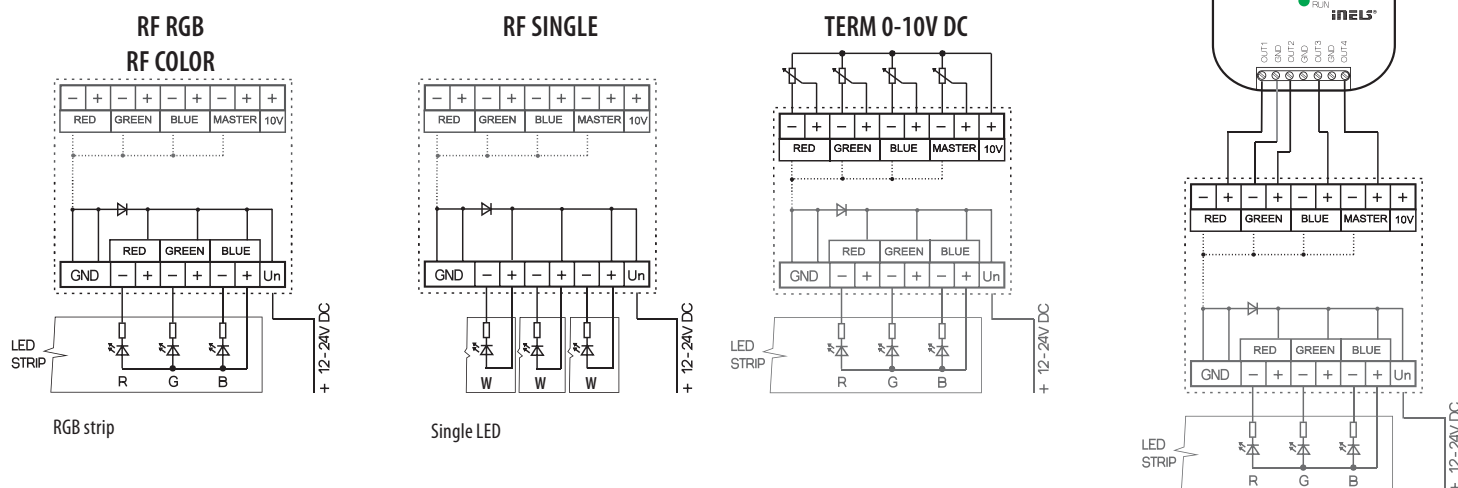
Description of function selection switch:



Control options

Output variations:

Control options:



Description of functions

RF RGB

RF RGB mode for controlling RGB LED strips.

In the RF RGB programming mode, colors are automatically assigned to individual transmitter buttons.

Note: It is only possible to use this function for RFWB-40, RF KEY and RFIM-40

LEGEND

Buttons:

R - red

G - green

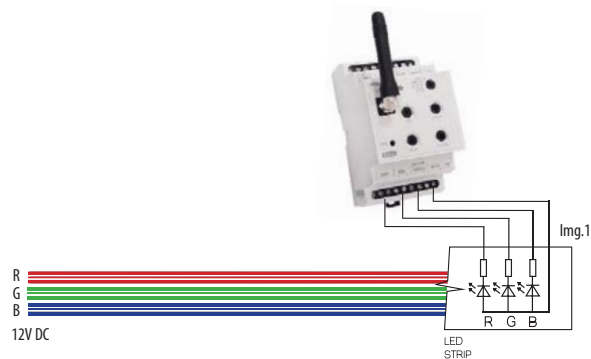
B - blue

M - master setting of overall scene brightness

RF RGB



RF KEY



RF COLOR

Mode RF COLOR for controlling RGB LED strips, where it is possible to choose the color for an individual transmitter button. The device is brought into programming mode when the strip changes color. By pressing transmitter, the color is automatically set under the given button.

Note: It is only possible to use this function for RFWB-40, RF KEY and RFIM-40

LEGEND

Buttons:

V - free selection of color

V - free selection of color

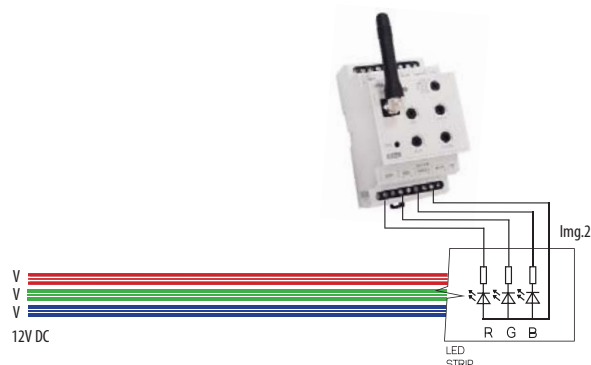
V - free selection of color

M - master setting of overall scene brightness

RF COLOR



RF KEY



RF SINGLE

Mode RF SINGLE.

It works in a mode, where it acts like 3 separate dimmers for RF SINGLE 12-24 V, meaning it dims 3 blue strips. Each channel can be programmed independent of each other and has its own address.

LEGEND

Buttons:

S1 - single color

S2 - single color

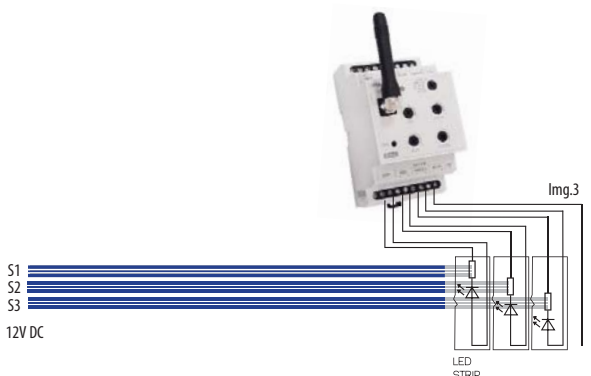
S3 - single color

M - master setting of overall scene brightness

RF SINGLE



RF KEY



TERM 0-10V and TERM 1-10V

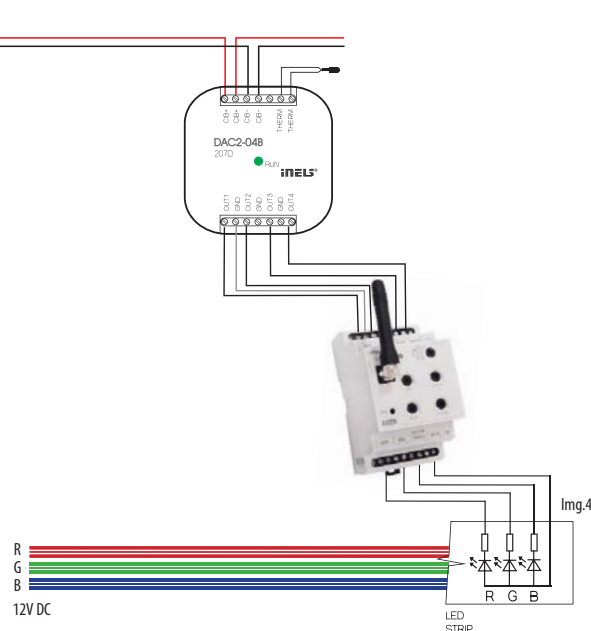
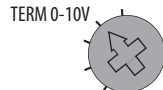
MODES TERM 0-10V AND TERM 1-10V.

Inputs 0-10V and 1-10V serves for controlling iNELS with the help of DAC2-4M or DAC2-04B. So it's possible to combine and control LED strips via iNELS.

TERM 1-10V
TERM 0-10V



EST-2





EAN code

RFSC-11/F: 8595188145596 (French)
RFSC-11/S: 8595488145619 (Schuko)
RFSC-11/B: 8595188145114 (British)
RFSC-61/F: 8595188145602 (French)
RFSC-61/S: 8595488145626 (Schuko)
RFSC-61/B: 8595188145442 (British)

CONTROL ELEMENTS



- this is a quick solution for wireless control of appliances into a socket, when the switching socket is connected between the existing socket and controlled appliance
- **RFSC-11**: single-function design - switch on, switch off
- **RFSC-61**: multifunction design - button switch on/off, impulse relays, delayed return, delayed start programming and manual control ON/OFF is performed by pressing the button on the front panel of the device
- switching output up to 4000 VA
- the switched socket may be controlled by up to 32 channels
- option of assigning receivers to the RF Control system
- LED signaling of device status on the front panel:
 - red - status
 - green - power indication
- option of setting function delayed return, delayed start with time interval from 1 up to 10 hours
- produced in three designs of sockets and plugs:



French
CZ, SK, PL, FR



Schuko
HU, DE, RU, AT, RO



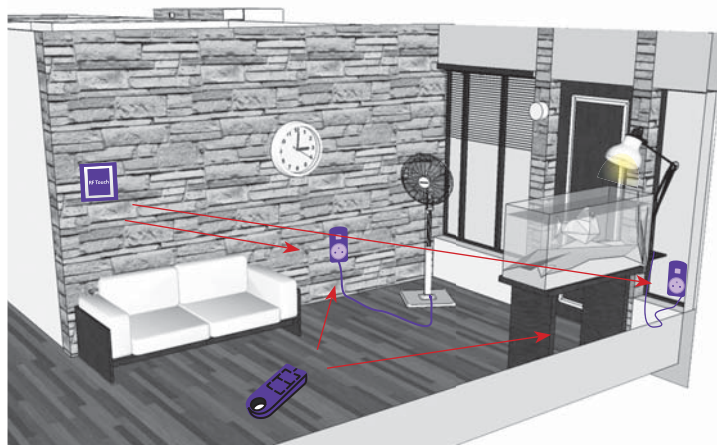
British
GB

Technical parameters	RFSC-11	RFSC-61
Supply voltage:	230 V AC / 50 - 60 Hz	
Apparent power:	6 VA	
Dissipated power:	0.7 W	
Supply voltage tolerance:	+10 %; -15 %	
<u>Output</u>		
Number of contacts:	1x switching (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:	3x10 ⁷	
Electrical service life (AC1):	0.7x10 ⁵	
<u>Controlling</u>		
RF command from the transmitter:	868 MHz	
Manual control:	button PROG (ON/OFF)	
Range in open space:	up to 200 m	
<u>Further data</u>		
Operating temperature:	-15 up to + 50 °C	
Working position:	any*	
Mounting:	in a network socket 230 V AC	
Protection:	IP 30	
Overvoltage category:	III.	
Contamination degree:	2	
Dimensions:	60 x 120 x 80 mm	
Weight:	195 g	
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, NVČ.426/2000Sb (directive 1999/ES)	

Functions and their programming

1 Button Program. mode 1x press The output contact will close by pressing the button and open by releasing the button.	2 Close Program. mode 2x press The output contact will close by pressing the button.	3 Switch off Program. mode 3x press The output contact will close by pressing the button.
4 Impulse relay Program. mode 4x press The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.	5 Delayed return Program. mode 5x press The output contact will close by pressing the button and open after the set time interval has elapsed. t = 2s..60min	6 Delayed start Program. mode 6x press The output contact will close by pressing the button and open after the set time interval has elapsed. t = 2s..60min

Example of use



Description of the device





RFSA-61B

RFSA-62B

CONTROLS ELEMENTS



EAN code

RFSA-11B: 8595188136839 / RFSA-61B: 8595188136242 / RFSA-62B: 8595188142816

Technical parameters	RFSA-11B	RFSA-61B	RFSA-62B
Supply voltage:	230 V AC / 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 (AgSnO ₂)		2 x switching (AgSnO ₂)
Rated current:	16 A / AC1		8 A / AC1
Switching power:	4000 VA / AC1, 384 W / DC		2000 VA / AC1
Peak current:	30 A / <3 s		10 A / <3 s
Switching voltage:	250 V AC1 / 24 V DC		250 V AC1
Max. DC switching power:	500 mW		500 mW
Mechanical service life:	3x10 ⁷		1x10 ⁷
Electrical service life (AC1):	0.7x10 ⁵		1x10 ⁵
Control:			
RF, by command from transmitter:	868 MHz		
Manual control:	PROG (ON/OFF) button		
Range in free space:	up to 200 m		up to 100 m
Other data:			
Operating temperature:	-15 to + 50 °C		
Operating position:	any *		
Mounting:	free at lead-in wires		
Protection:	IP 30		
Overvoltage category:	III.		
Contamination degree:	2		
Terminals (CY wire, cross-section):	2x 0.75 mm ² , 2x 2.5 mm ²		1x2.5; 3 x 0.75 mm ²
Length of terminals:	90 mm		
Dimensions:	49 x 49 x 21 mm		
Weight:	46 g		
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, Gov. Req. No. 426/2000Sb(Directives 1999/EC))		

* For more information, see p. 36

- RF switching actuators serve to control electrical appliances, lights, heating, garage door, sockets, etc.
- switching actuator design

Switching actuators	Output		Rated current		Number of functions	
	Channel 1	Channel 2	16A	8A	1	6
RFSA-11B	•		•		•	
RFSA-61B	•		•			•
RFSA-62B		•		•		•

- with the 2-channel design of the RFSA-62B multifunction switching actuator, a function can be programmed for each channel independently
- multifunction actuator functions: button, ON/OFF, impulse relay, delayed return, delayed start
- for programming and manual control ON/OFF, press the Prog button
- RFSA-11B and RFSA-61B switching actuators can be controlled by up to 32 channels, while RFSA-62B switching actuator can be controlled by 16 channels at 1 relay
- possibility to assign receivers to the RF Control system
- LED indicator of the device status on the front panel
- installation box design (such as KU-68)

Functions and their programming

1 Button

Press 1x

The output contact will close by pressing the button and open by releasing the button.

2 Switch On

Press 2x

The output contact will close by pressing the button.

3 Switch Off

Press 3x

The output contact will open by pressing the button.

4 Impulse relay

Press 4x

The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.

5 Delayed return

Press 5x

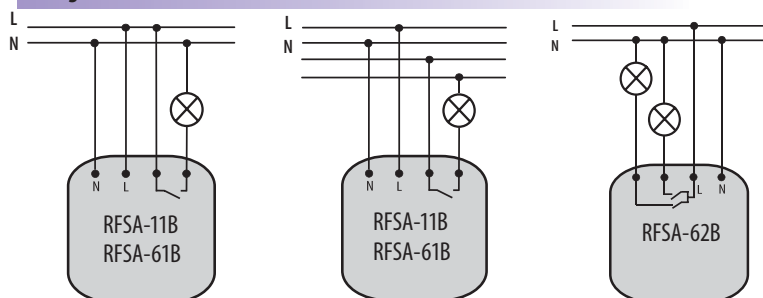
The output contact will close by pressing the button and open after the set time interval has elapsed.

6 Delayed start

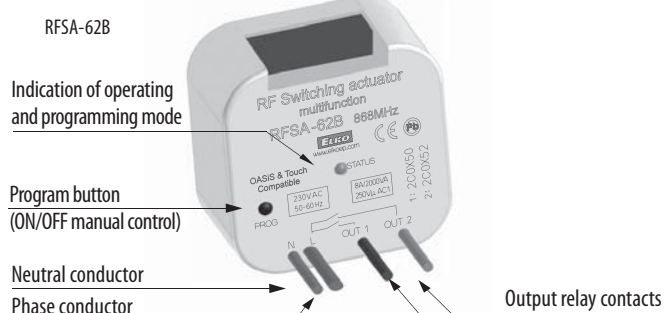
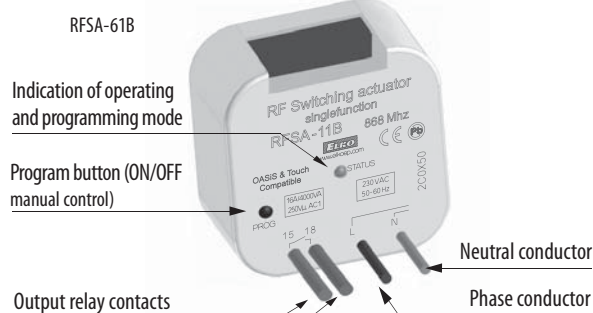
Press 6x

The output contact will open by pressing the button and close after the set time interval has elapsed.

Wiring



Device description

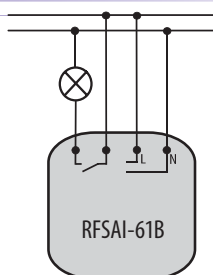




CONTROL ELEMENTS



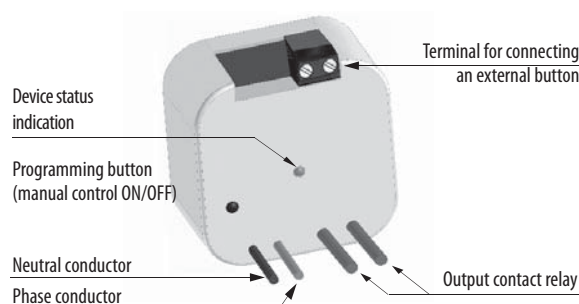
Technical parameters	RFSAI - 61B
Supply voltage:	230 V AC / 50 - 60 Hz
Apparent power:	7 VA / $\cos \varphi = 0.1$
Dissipated power:	0.7 W
Supply voltage tolerance:	+10 %; -15 %
Output	
Number of contacts:	1x switching (AgSnO ₂)
Rated current:	16 A / AC1
Switching power:	4000 VA / AC1, 384 W / DC
Peak current:	30 A / <3 s
Switching voltage:	250 V AC1 / 24 V DC
Min. switching power DC:	500 mW
Mechanical service life:	3x10 ⁷
Electrical service life (AC1):	0.7x10 ⁵
Controlling	
RF command from the transmitter:	868 MHz
Manual control:	button PROG (ON/OFF)
External button:	max. 12 m cable
Range in open space:	up to 200 m
Further data	
Voltage of open contact:	3V
Resist. of connection for closed contact:	<1 kΩ
Resist. of connection for open contact:	>10 kΩ
Galvanic isolation of input:	No
Operating temperature:	-15 up to + 50 °C
Working position:	any *
Mounting:	free at lead-in wires
Protection:	IP 30
Overvoltage category:	III.
Contamination degree:	2
Terminals (CY wire, Cross-section):	2x 0.75 mm ² , 2x 2.5 mm ²
Terminal length:	90 mm
Dimensions:	49 x 49 x 21 mm
Weight:	46 g
Related standards:	EN 60669, EN 300 220, EN 301 489 directive RTTE, NVČ.426/2000Sb (directive 1999/ES)
Connection	



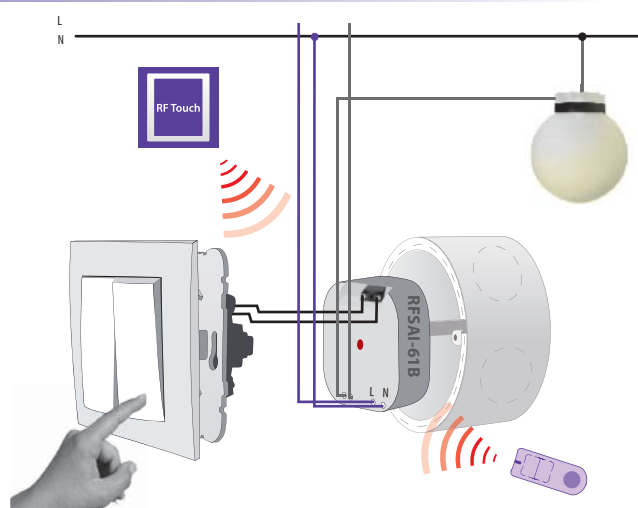
- by installing the actuator under the existing button, we achieve further lighting control options when using RF Control wireless transmitters or the RF Touch touch screen unit. It is thus possible to control the actuator by an existing button, but also by a wireless controller
- the switching actuator serves for controlling appliances, lights, heating, garage doors, sockets, etc.
- function of a multifunction actuator: button switch on/off, impulse relays, delayed return, delayed start
- programming and manual control ON/OFF are performed using the Prog button
- the switching actuator RFSAI-61B can be controlled by up to 32 channels, including external input
- the external button must be potential
- free signaling of the device status by LED on the front panel
- designed for use in an installation cabinet (ex. KU-68)

Functions and their programming

1 Button program. mode 1x press The output contact will close by pressing the button and open by releasing the button.	2 Close program. mode 2x press The output contact will close by pressing the button.	3 Switch off program. mode 3x press The output contact will close by pressing the button.
4 Impulse relay program. mode 4x press The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.	5 Delayed return program. mode 5x press The output contact will open by pressing the button and close after the set time interval has elapsed.	6 Delayed start program. mode 6x press The output contact will open by pressing the button and close after the set time interval has elapsed.



Example of use



*For more information, see p. 48



- RF switching actuators serve to control electrical appliances, lights, heating, garage door, entrance gates, etc.
- switching actuator designs:
 - RFSA-61M:** 1-channel switching actuator in 1-MODULE design with internal or external antenna
 - RFSA-66M:** 6-channel switching actuator in 3-MODULE design with internal or external antenna
- multifunction actuator functions: button, ON/OFF, impulse relay, delayed return, delayed start
- for programming and manual control ON/OFF, press the Prog button
- each relay of switching actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button, keychain or the RF Touch-W / RF Touch-B unit)
- LED indicator of the device status on the front panel
- possibility to assign receivers to the RF Control and RF Touch systems
- galvanically isolated power supply
- an internal antenna is included in the standard package, external antenna is available on request only

CONTROLS ELEMENTS



EAN code

RFSA-61M: 8595188137003/ RFSA-66M: 8595188142830 (internal antenna is included in the standard package).

Internal antenna AN-I: 8595188161862

External antenna AN-E: 859415759012

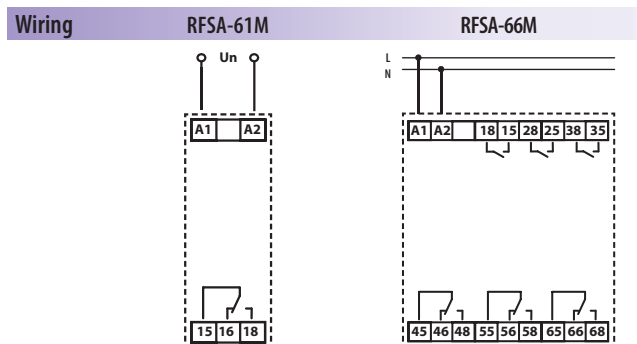
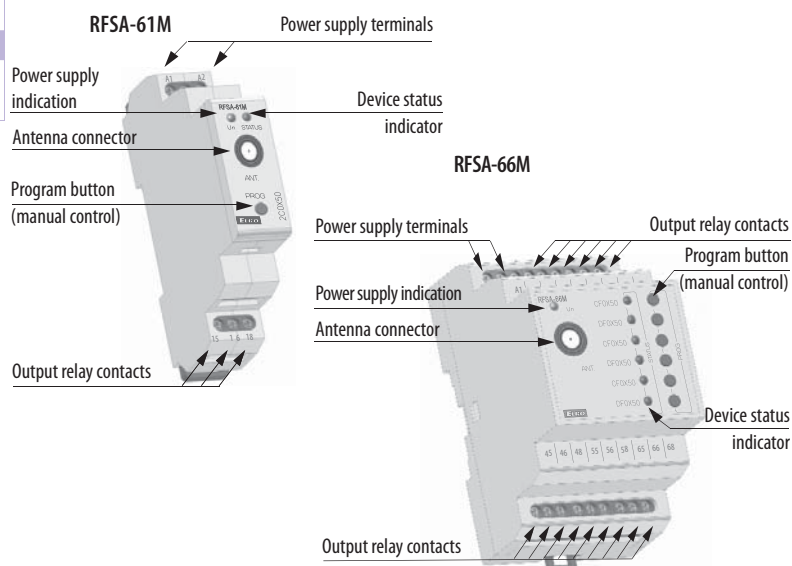
Technical parameters	RFSA-61M	RFSA-66M	
Supply voltage:	110 - 230 V AC / 50 - 60 Hz		
Apparent input:	2.7 VA / cos φ = 0.6		min. 2 VA / max. 5 VA
Dissipated power:	1.62 W		min. 0.5 W / max. 2.5 W
Supply voltage tolerance:	+10% / -25 %		
Output			
Number of contacts:	1x switching (AgSnO ₂)		3x switching (AgSnO ₂) 3x switching (AgSnO ₂)
Rated current:	16 A / AC1		8 A / AC1
Switching power:	4000 VA / AC1, 384 W / DC		2000 VA / AC1
Peak current:	30 A / <3 s		10 A / <3 s
Switching voltage:	250 V AC1 / 24 V DC		250 V AC1
Max. DC switching power:	500 mW		500 mW
Mechanical service life:	3x10 ⁷		1x10 ⁷
Electrical service life (AC1):	0.7x10 ⁵		1x10 ⁵
Control:			
RF, by command from transmitter:	868 MHz		
Manual control:	PROG (ON/OFF) button		
Range in free space:	up to 200 m		
Other data:			
Operating temperature:	-15 °C to + 50 °C		
Operating position:	any *		
Mounting:	DIN rail EN 60715		
Protection:	IP20 from the front panel		
Overvoltage category:	III.		
Contamination degree:	2		
Connecting conductor cross-section (mm ²):	max. 1x2.5, max. 2x1.5 / with a hollow max. 1x2.5		
Dimensions:	90 x 17.5 x 64 mm		90 x 52 x 65 mm
Weight:	74 g	137 g	264 g 310 g
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, Gov. Reg. No. 426/2000Sb(Directives 1999/EC)		

* For more information, see p. 48

Functions and their programming

1 Button Program mode Press 1x The output contact will close by pressing the button and open by releasing the button.	2 Switch On Program mode Press 2x The output contact will close by pressing the button.	3 Switch Off Program mode Press 3x The output contact will open by pressing the button.
4 Impulse relay Program mode Press 4x The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.	5 Delayed return t = 2s..60min Program mode Press 5x The output contact will close by pressing the button and open after the set time interval has elapsed.	6 Delayed start t = 2s..60min Program mode Press 6x The output contact will open by pressing the button and close after the set time interval has elapsed.

Device description





CONTROL ELEMENTS



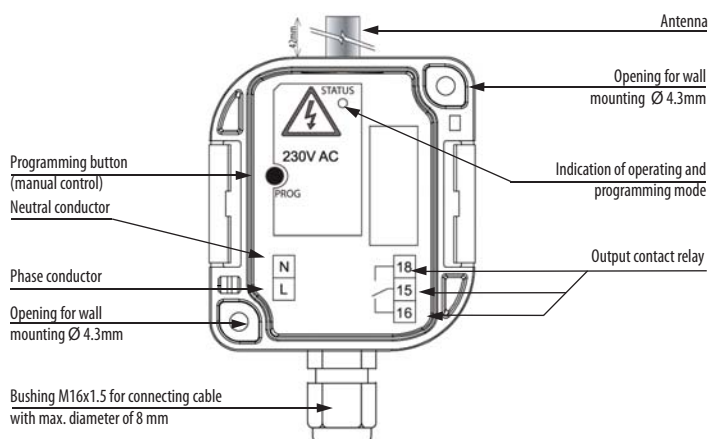
EAN code

RFUS-11: 8595188140546 / RFUS-61: 8595188145268

Technical parameters	RFUS-11	RFUS-61
Supply voltage:	230 V AC / 50 - 60 Hz	
Apparent power:	5 VA / $\cos \varphi = 0.1$	
Dissipated power:	0.6 W	
Supply voltage tolerance:	+10 %; -15 %	
<u>Output</u>		
Rated current:	1 x switching (AgSnO ₂)	
Number of contacts:	12 A / AC1	
Switching power:	3000 VA / AC1, 384 W / DC	
Peak current:	30 A / <3 s	
Peak current:	250 V AC1 / 24 V DC	
Min. switching power DC:	500 mW	
Mechanical service life:	3x10 ⁷	
Electrical service life (AC1):	0.7x10 ⁵	
<u>Controlling</u>		
RF command from the transmitter:	868 MHz	
Manual control:	button PROG (ON/OFF)	
Range in open space:	up to 200 m	
<u>Further data</u>		
Operating temperature:	-15 up to + 50 °C	
Operating position:	any	
Mounting:	screws	
Protection:	IP 65	
Overvoltage category:	III.	
Contamination degree:	2	
Cross-section of connecting wires (mm ²)	max. 1x2.5,max. 2x1.5/s a hollow max.1x2.5	
Recommended power cord:	CYKY 3x1.5 (CYKY 4x1.5)	
Dimensions:	136 x 62 x 34 mm	
Weight:	146 g	
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, NVČ.426/2000Sb (directives 1999/ES)	

* For more information, see p. 48

Description of the device

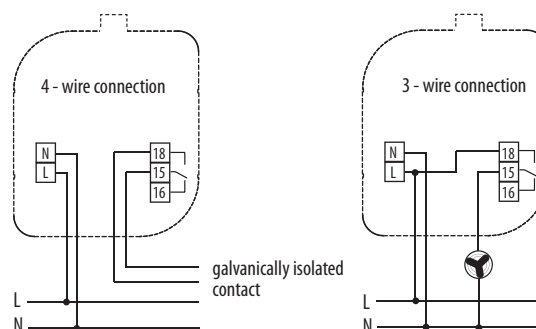


- RF switching actuators with enhanced IP 65 protection are designed for use in harsh environments: dusty, dirty environments, outdoors, cellars, greenhouses, boiler rooms, reservoirs and tanks, refrigeration boxes, etc.
- **RFUS-11:** single-function design - switch on, switch off
- **RFUS-61:** multifunction design - button switch on/off, impulse relays, delayed return, delayed start
- programming and manual control ON/OFF is performed using the Prog button, placement inside cabinet
- switching actuators may be controlled by up to 32 channels
- option of assigning receivers to the RF Control system
- device status signaling by LED on the front cover
- bushing M16x1.5 for connecting cable with max. diameter of 8 mm

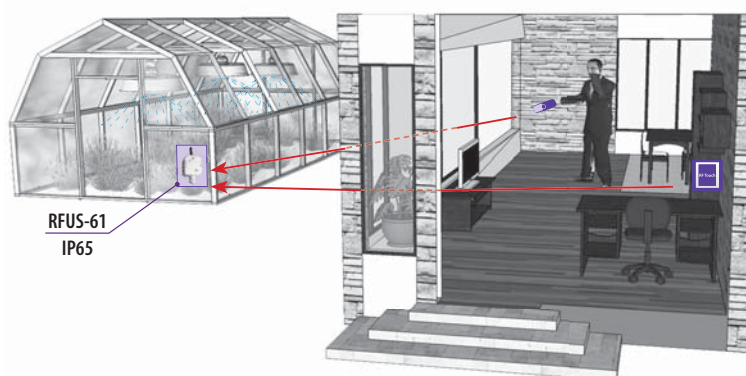
Functions and their programming

1 Button 1x press The output contact will close by pressing the button and open by releasing the button.	2 Close 2x press The output contact will close by pressing the button.	3 Switch off 3x press The output contact will close by pressing the button.
4 Impulse relay 4x press The output contact will switch to the opposite position with each press of the button. If the contact was closed, it will open and vice versa.	5 Delayed return 5x press The output contact will open by pressing the button and close after the set time interval has elapsed.	6 Delayed start 6x press The output contact will open by pressing the button and close after the set time interval has elapsed.

Description of the device



Example of use





RFSTI-11/G



CONTROLS ELEMENTS



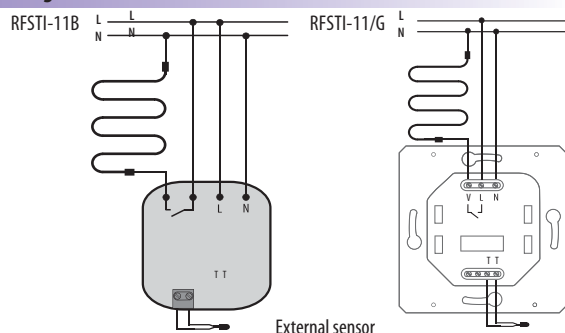
RFSTI-11B

RFSTI-11B

RFSTI-11B: 8595188135849

Technical parameters	RFSTI-11B	RFSTI-11/G
Supply voltage:	230 V AC / 50 - 60 Hz	
Apparent input:	7 VA / cos φ = 0.1	
Dissipated power:	0.7 W	
Supply voltage tolerance:	+10 %; -15 %	
Temperature measurement input:	1x external TZ/TC teperature sensor input	1x internal NTC thermistor; 1x external TZ/TC temperature sensor input
Temp. measurement range and accuracy:	-20 to +50 °C; 0.5 °C of the range	
Output		
Number of contacts:	1x switching (AgSnO ₂)	
Rated current:	16 A / AC1	8 A / AC1
Switching power:	4000 VA / AC1, 384 W / DC	2000VA / AC1; 240W / DC1
Peak current:	30 A / <3 s	
Switching voltage:	250 V AC1 / 24 V DC	
Max. DC switching power:	500 mW	
Mechanical service life:	3x10 ⁷	
Electrical service life (AC1):	0.7x10 ⁵	
Control:		
RF, by command from transmitter:	868 MHz	
Manual control:	x	buttons
Range:	up to 160 m	
Other data:		
Operating temperature:	-15 to + 50 °C	
Status indication:	red LED	blue, red LED
Operating position:	any	vertical*
Mounting:	free at lead-in wires	in an installation box
Protection:	IP 30	IP 20
Overvoltage category:	III.	
Contamination degree:	2	
Outlets (CY wire, cross-section, length):	2x0.75mm, 2x0.25mm ² ,90mm	x
Cross-section of connecting cables (mm ²):	x	max. 1x2.5, max. 2x1.5 / with a hollow max. 1x2.5
Dimensions:	49 x 49 x 21 mm	84 x 89 x 30 mm
Weight:	46 g	68 g
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, Gov. Reg. No. 426/2000Sb (Directives 1999/EC)	

Wiring



External sensor

External sensor

- used for temperature measurement and, at the same time, for switching of the heating circuit. Switches the boiler, floor heating, air conditioning, etc.
- wireless actuator with temperature sensor functions:
 - temperature measurement
 - processing and sending information to RF Touch each 5 minutes (by sudden change of temperature, sends the signal within 1 minute)
 - receiving instruction to switch on the heating device
- RFSTI-11B:** - installation box design (KU-68)
 - LED indicator of the device status on the front panel
- RFSTI-11/G:** - LOGUS⁹⁰ design with manual control by buttons on the front panel
 - LED indicator of the switch status on the front panel - ON - red LED, OFF - blue LED
 - an in-built sensor, terminals for connection of external sensor (see the accessories, page 45)
- possibility to assign receivers to the RF Control system
- switching actuator with temperature sensor is designed to be assigned to RF Touch-W (RF Touch-B) unit

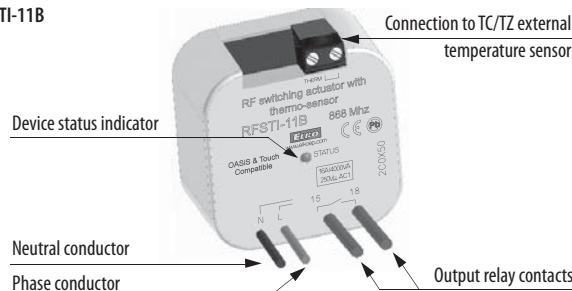
RFSTI-11B

RFSTI-11/G: 8595188142779 (device, white cover, white frame)
 RFSTI-11/G white: 8595188142595 (device, cover)
 RFSTI-11/G ivory: 8595188142601 (device, cover)
 RFSTI-11/G ice: 8595188142618 (device, cover)

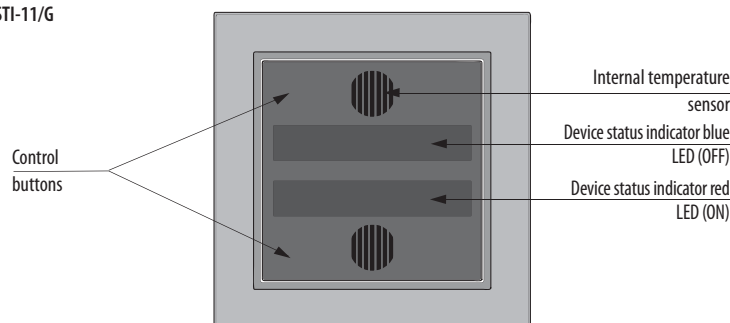
RFSTI-11/G pearl: 8595188142625 (device, cover)
 RFSTI-11/G aluminium: 8595188142632 (device, cover)
 RFSTI-11/G grey: 8595188142649 (device, cover)

Device description

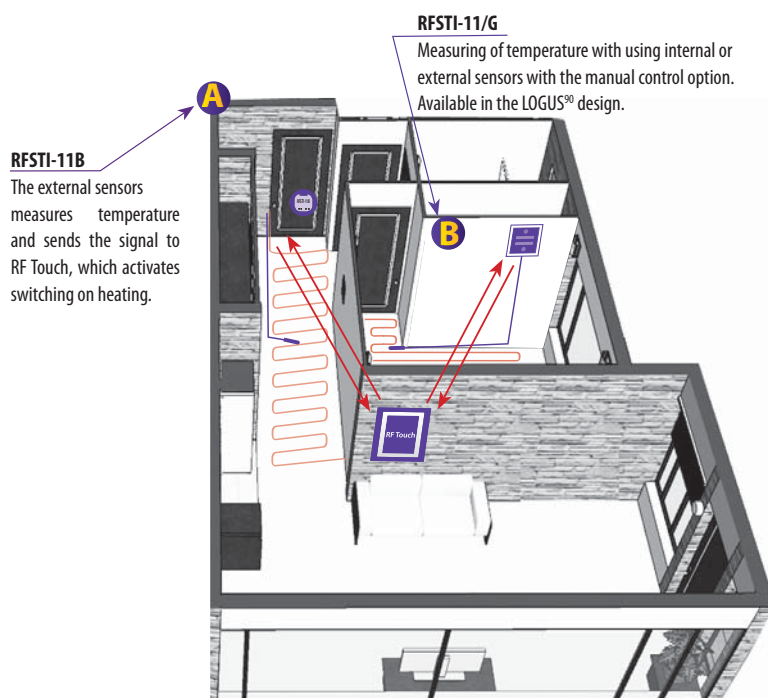
RFSTI-11B



RFSTI-11/G



Communication with RF Touch unit



RFSTI-11B

The external sensors measures temperature and sends the signal to RF Touch, which activates switching on heating.

RFSTI-11/G

Measuring of temperature with using internal or external sensors with the manual control option. Available in the LOGUS⁹⁰ design.



CONTROL ELEMENTS



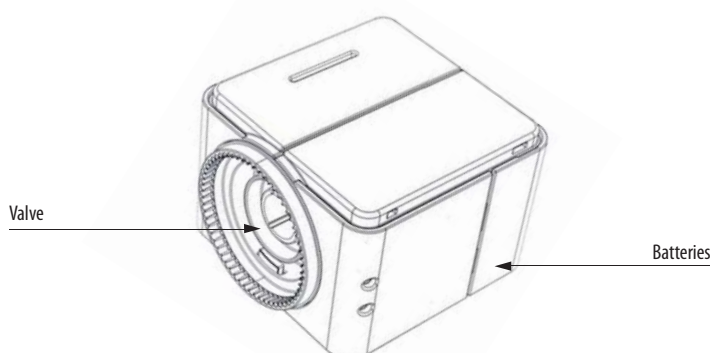
EAN code

RFATV-1: 8595188145138

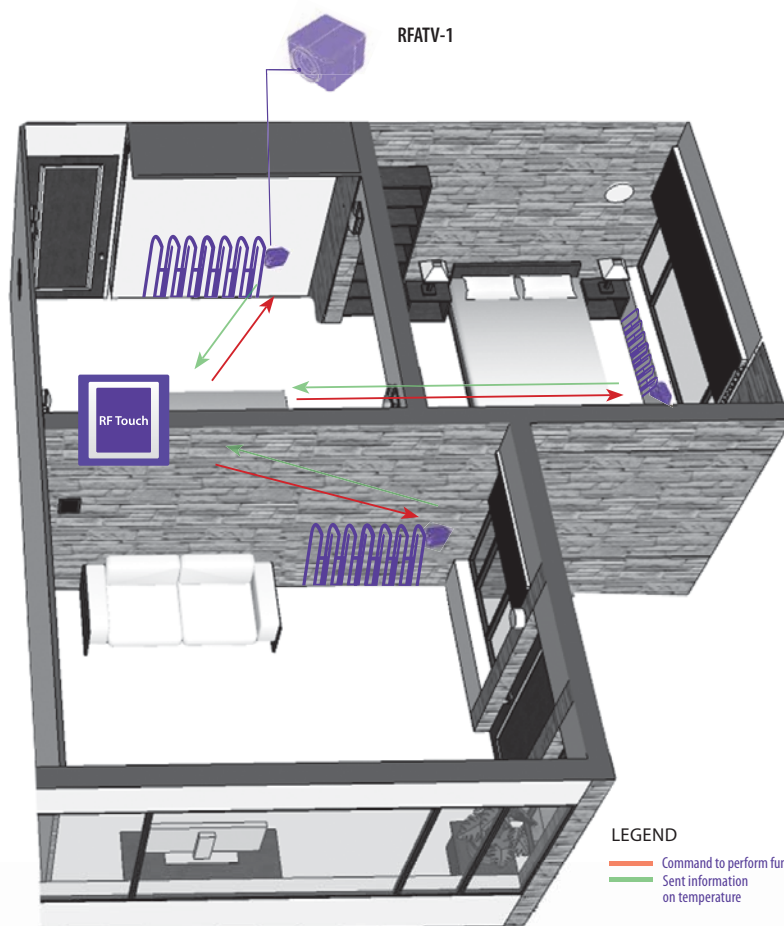
Technical parameters	RFATV-1
Supply voltage:	2 x 1.5 V batteries AA
Battery life:	1 year
Control	
Broadcasting frequency	868 MHz
RF command from the transmitter:	RF Touch
Range in open space:	up to 100 m
Further data	
Operating temperature:	0 up to +50 °C
Working position:	any
Protection:	IP 40
Dimensions:	65x65x48 mm
Thermostat end:	M 30 x 1,5
Piston stroke:	max. 4 mm
Controlling force:	max. 100 N
Related standards:	EN 60730

- used to measure the temperature in the given zone and also for wireless control of a radiator (heater) valve . It is an ideal solution for reconstructions = quick integration of heating regulation elements into your apartment or house
- function: measures temperature and sends its value to RF Touch in 5-minute intervals
RF Touch assess the sent temperature and by a set program, opens or close the radiator (heater) valve
- has a built-in internal sensor
- option of assigning to the RF Touch unit (up to 30 detectors)
- battery power supply enables quick assembly without cutting into the wall or complex modifications
 - battery indicator on RF Touch display
- package includes:
 - adapters Danfoss RAV, RA, RAVL
 - 2x batteries AA 1.5V

Description of the device



Example of use



Adapters

Type of valve	Type of adapter
Danfoss RAV (the valve plunger must be fitted with the enclosed pin)	
Danfoss RA	
Danfoss RAVL	

Package contents

Thermostat	
2x batteries AA1.5V	
Adapters	
Instruction manual	



CONTROL ELEMENTS



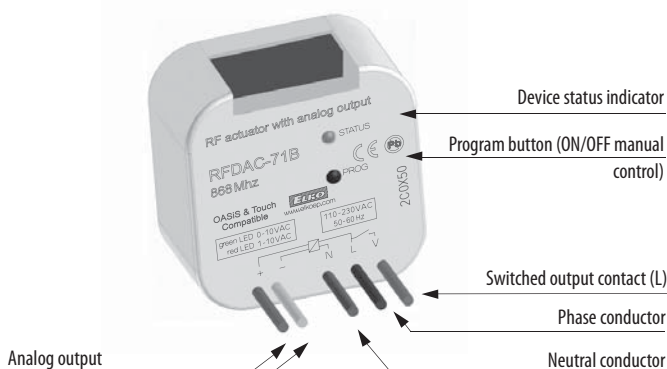
EAN code

RFDAC-71B: 8595188142809

Technical parameters	RFDAC-71B
Supply voltage:	110 - 230 V AC / 50 - 60 Hz
Apparent input:	3 VA
Dissipated power:	1.2 W
Supply voltage tolerance:	+10 / -15 %
Potential-free analog output/max.current:	0(1)-10 V / 10 mA
Control:	
RF, by command from transmitter:	868 MHz
Manual control:	PROG (ON/OFF) button
Range in free space:	up to 200 m
Minimum control distance:	20 mm
Contact relay:	1x AgSnO ₂ , switches the phase conductor
Rated current:	16A / AC1
Switching power:	4000VA / AC1
Switching voltage:	250V AC1
Mechanical service life:	3x10 ⁷
Electrical service life:	0.7x10 ⁵
Indication:	red LED / green LED
Output selection:	0(1)-10V / PROG button
Other data:	
Operating temperature:	-15 to +50 °C
Operating position:	any*
Mounting:	free at lead-in wires
Protection:	IP 30
Overvoltage category:	III.
Contamination degree:	2
Terminals (CY wire, cross-section):	CY wire, cross section 3 x Ø 0.75 mm ² , 2 x Ø 2.5 mm ²
Length of terminals:	90 mm
Dimensions:	49 x 49 x 21 mm
Weight:	52 g
Related standards:	EN 60669, EN 300 220, EN 301 489 Directives RTTE, Gov. Reg. No..426/2000Sb(Directives 1999/EC))

* For more information, see p. 48

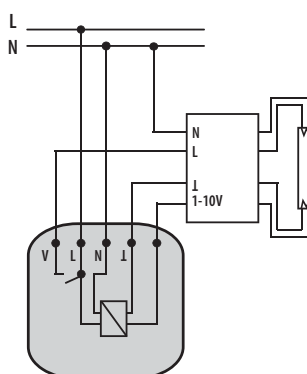
Device description



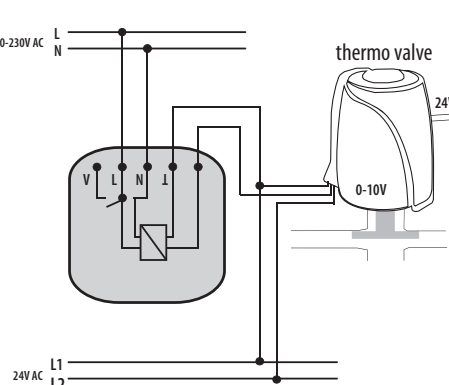
- the actuator is intended for continuous regulation of devices controlled with analog connected voltage 0(1) - 10V
- it is particularly suitable to use:
 - in combination with a dimmable control gear to dim fluorescent tubes
 - to control other power dimmers
 - to control other regulators (thermo valves, heating stopcocks, ventilation, etc.)
- simple use:
 - press the transmitter button shortly to switch on/off the appliance circuit and to set the voltage at the analog output to the latest set value
 - press and hold the transmitter button to control voltage at the analog output in the range between 0(1)–10V
- each actuator can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button, keychain or the RF Touch)
- the Prog button serves to:
 - select the mode of output voltage 0–10V (green LED) or 1-10V (red LED)
 - programming
 - manual control
- RFDA-71B: multifunction - 7 program functions: 6 different "light functions," ON/OFF function
- installation box design (such as KU-68)

Wiring

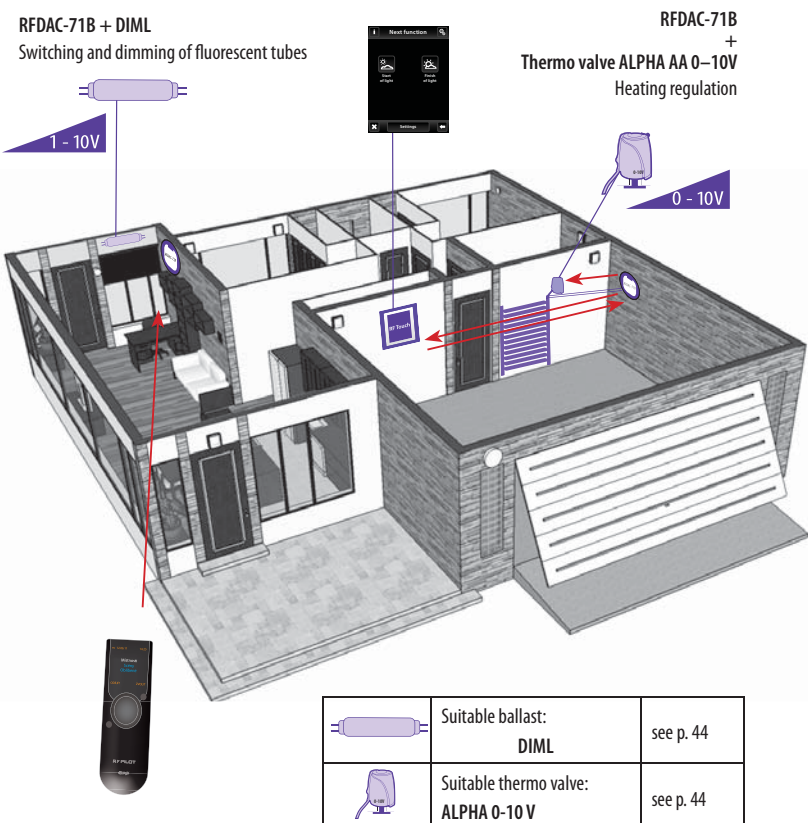
Connection example: dimming of fluorescent tubes with dimmable ballast



Connection example: with thermo valve



Example of use



Temperature sensors TC and TZ



EAN code	
TC-0	8595188110075
TC-3	8595188110617
TC-6	8595188110082
TC-12	8595188110099



EAN code	
TZ-0	8595188140591
TZ-3	8595188110600
TZ-6	8595188110594
TZ-12	8595188110587

- the temperature sensors are made of NTC thermistor filled in a metal
- hollow with a heat-conducting putty (TZ) or inside a PVC terminal (TC, TC3)
- high electric strength which meets the double insulation requirements
- TC sensor** - supply cable to the TC sensor is made of a 2Dx0.5 mm CYSY conductor
- TZ sensor** - 2Dx0.5 mm V03SS-F cable with silicone isolation
 - suitable particularly for use under extreme temperatures

TC sensor weight:	TZ sensor weight:
- TC-0 - 5 g	- TZ-0 - 4.5 g
- TC-3 - 108 g	- TZ-3 - 106 g
- TC-6 - 213 g	- TZ-6 - 216 g
- TC-12 - 466 g	- TZ-12 - 418 g

Technical parameters	TC	TZ
Range:	0..+70 °C	-40..+125 °C
Sensor:	NTC 12K 5 %	NTC 12K 5 %
In air / water:	(τ65) 92 s / 23 s	(τ65) 62 s / 8 s
In air / water:	(τ95) 306 s / 56 s	(τ95) 216 s / 23 s
Cable material:	Heat-resistant PVC	silicone
Terminal material:	Heat-resistant PVC	nickel-plated copper
Terminal:	IP 67	IP 67

τ65 (95): is a time which the sensor is heated to 65 (95)% temperature environment in which the sensor is placed.

TYPES OF TEMPERATURE SENSORS FOR RANGE FROM 0 till + 70 °C - connectible directly in the terminal block	TYPES OF TEMPERATURE SENSORS FOR RANGE FROM -40 till + 125 °C - connectible directly in the terminal block
TC-0 - temperature sensor, length 110 mm	TZ-0 - temperature sensor, length 110 mm
TC-3 - temperature sensor, length 3 m	TZ-3 - temperature sensor, length 3 m
TC-6 - temperature sensor, length 6 m	TZ-6 - temperature sensor, length 6 m
TC-12 - temperature sensor, length 12 m	TZ-12 - temperature sensor, length 12 m

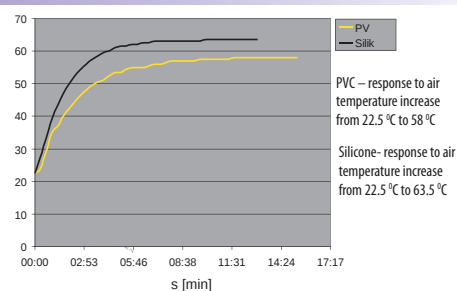
Resistive values of sensors in depending on temperature

Temperature (°C)	Sensor NTC (kΩ)	Sensor PT100 (Ω)
20	14.7	107.8
30	9.8	111.7
40	6.6	115.5
50	4.6	119.4
60	3.2	123.2
70	2.3	127.1

NTC 12 kΩ tolerance is ± 5% at 25 °C

Long-term stability of the sensor resistance PT100 is 0.05% (10.000 Hrs).

NTC sensor warming up - by air



Internal antenna AN-I



- for multifunction switching actuator RFSA-61M, RFSA-66M, RFGSM, RF-ELAN-003, RFDA-73M/RGB and transmitter module RFSG-1M into plastic switchboard
- internal antenna is included in the standard package of switching actuator
- sensitivity 1 dB

EAN code
External antenna AN-E: 8595188161862

External antenna AN-E



- for multifunctional switching actuator RFSA-61M, RFSA-66M, RFGSM, RF-ELAN-003, RFDA-73M/RGB and transmitter module RFSG-1M for mounting into metal switchboard
- external antenna AN-E is delivered on request only
- sensitivity 5 dB
- cable length 3m

EAN code
External antenna AN-E: 859415759012

* RFSA-61M - switching actuator with inertial antenna (for mounting in plastic switchboards) External antenna (for mounting in metal switchboards) available on request only.

X This SET combination is not available.

Transmitters		CONTROLLERS			CONVERTERS		DETECTORS		
Receivers									
		RFWB-20/G	RFWB-40/G	RF KEY	RFIM-20B	RFIM-40B	JA-80P	JA-81M	JA-82M
SWITCHING	 RFSC-11	RFSET-SCW-Z1 Basic set RFSC-11 + RFWB-20/G	X	RFSET-SCK-Z1 Basic set RFSC-11 + RF KEY	X	X	X	X	X
	 RFSC-61	X	RFSET-SCW-F1 Multifunction set RFSC-61 + RFWB-40/G	RFSET-SCK-F1 Multifunction set RFSC-61 + RF KEY	X	X	X	X	X
	 RFSA-11B	RFSET-SW2-Z1 Basic set RFSA-11B + RFWB-20/G	X	RFSET-SK-Z1 Basic set RFSA-11B + RF KEY	RFSET-SIM2-Z1 Basic set RFSA-11B + RFIM-20B	X	X	X	X
	 RFSA-61B	X	RFSET-SW-F1 Multifunction set RFSA-61B + RFWB-40/G	RFSET-SK-F1 Multifunction set RFSA-61B + RF KEY	RFSET-SIM2-F1 Multifunction set RFSA-61B + RFIM-20B	RFSET-SIM4-F1 Multifunction set RFSA-61B + RFIM-40B	RFSET-S080P-F1 Multifunction set RFSA-61B + JA-80P	RFSET-S081M-F1 Multifunction set RFSA-61B + JA-81M	RFSET-S082M-F1 Multifunction set RFSA-61B + JA-82M
	 RFSA-62B	X	RFSET-S2W-F1 Multifunction set RFSA-62B + RFWB-40/G	RFSET-S2K-F1 Multifunction set RFSA-62B + RF KEY	X	X	X	X	X
	 RFSA-61M*	X	RFSET-SMW-F1 Multifunction set RFSA-61M + RFWB-40/G	RFSET-SMK-F1 Multifunction set RFSA-61M + RF KEY	X	X	X	X	X
ROLLER BLIND	 RFJA-12B/230V	RFSET-JW2-Z1 Basic set RFJA-12B + RFWB-20/G	X	RFSET-JK-Z1 Basic set RFJA-12B + RF KEY	RFSET-JIM2-Z1 Basic set RFJA-12B + RFIM-20B	X	X	X	X
DIMMING	 RFDSC-11	X	RFSET-DSCW-Z1 Basic set RFDSC-11 + RFWB-40/G	RFSET-DSCK-Z1 Basic set RFDSC-11 + RF KEY	X	X	X	X	X
	 RFDSC-71	RFSET-DSCW-F1 Multifunction set RFDSC-71 + RFWB-20/G	X	RFSET-DSCK-F1 Multifunction set RFDSC-71 + RF KEY	X	X	X	X	X
	 RFDA-11B	RFSET-DW2-Z1 Basic set RFDA-11B + RFWB-20/G	X	RFSET-DK-Z1 Basic set RFDA-11B + RF KEY	X	X	X	X	X
	 RFDA-71B	X	RFSET-DW-F1 Multifunction set RFDA-71B + RFWB-40/G	RFSET-DK-F1 Multifunction set RFDA-71B + RF KEY	RFSET-DIM2-Z1 Basic set RFDA-11B + RFIM-20B	RFSET-DIM4-F1 Multifunction set RFDA-71B + RFIM-40B	X	X	X
ANALOG ACTUATOR	 RFDAC-71B	X	RFSET-DCW-F1 Multifunction set RFDAC-71B + RFWB-40/G	RFSET-DCK-F1 Multifunction set RFDAC-71B + RF KEY	X	X	X	X	X

PROGRAMMING OF WIRELESS WALL SWITCH BUTTON AND SWITCHING ACTUATOR

Mount the receiver in an installation box, under a light or into a switchboard, according to the design of the receiving actuator.

>1s

>0.5s

1

2

Use a suitable tool to press the program button on the receiver for more than 1 second. The receiver LED will start to flash in 0.5-second intervals.

The flashing of the receiver indicates that it is in program mode and is ready to receive signals from any transmitter button with a selected program.

Press 2x = set the "light scene" function

Press 5x = set the "sunrise" function

By pressing the transmitter button repeatedly, save the selected program. The number of times the button is pressed (1x to 7x) corresponds to each respective function (see the chart below). Signal transmission is indicated by the flashing transmitter LED.

The receiving actuator confirms the acceptance of the command when its LED goes dark for a short moment. Step 3 can now be repeated to program the remaining button positions or other transmitters.

Program functions can be set to any transmitter position - wireless wall switch button or Keychain. Each receiver can be controlled by up to 32 channels (1 channel is represented by 1 button on the wireless wall switch button, keychain or detector). The transmitter may be connected to more receivers to control an unlimited number of receivers with functions to which it is programmed and which are within the range of the RF signal.

Actuator program selection

Number of pressing the transmitter button	Multifunction receivers	
	Switch	Dimmer
Press 1x	Button	Scene 1
Press 2x	Switch on	Scene 2
Press 3x	Switch off	Scene 3
Press 4x	Impulse relay	Scene 4
Press 5x	Delayed return	Sunrise
Press 6x	Delayed start	Sunset
Press 7x		ON/OFF

3

4

Finish the program mode by pressing the receiver button. The red LED will stop flashing.

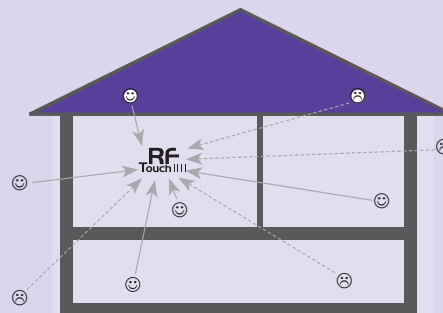
Press and hold the receiver button again for more than 5 seconds to delete one actuator from memory. The LED will start to flash in 1-second intervals. Now press the button corresponding the transmitter whose function you want to delete. Press the receiver program button to return the actuator to the original mode.

PROGRAMMING OF RF TOUCH CONTROL UNIT

Step 1 – Location of RF Touch and RF units

Keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area.

For radio frequency signal penetration through various construction materials, see the chart on page 48.



Step 2 – Complete the Installation Form

- name of the device you want to control (for creating a menu)
 - names of units (for correct classification into a group, e.g. RFSA-61B)
 - unit addresses (for actuator identification, e.g. 00150A)
- The Installation Form is included at the end of the Manual

Name
e.g. RFSA-61B



Address
e.g. 00150A

Step 3 – Menu setting (create names)

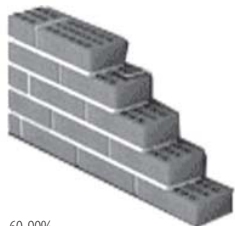
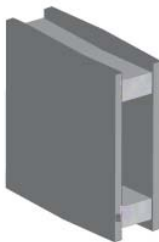
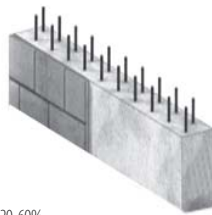
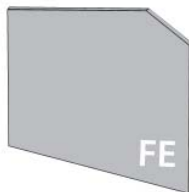
Create the list of controlled device names in Settings / Menu (Create name).

Step 4 – Programming

The programming of RF units with RF Touch is conducted in Settings / Programming.



Radio frequency signal penetration through various construction materials

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

Instructions for use

For correct and faultless functioning and safe operation of the product, it is necessary to observe the following principles:

- Do not install in outdoor or wet spaces
- During maximum load, sufficient cooling must be ensured for RFDA-11B, RFDA-71B and RFDEL-71B
- Do not install RF components into metal switchboard and steel lighting panels (the metal is an obstacle to the RF signal)
- Keep in mind that the radio signal range for RF installations depends on the building structure, materials used and the manner of unit location in the area.
- Actuator protection: Actuators are equipped with thermal protection which disconnects output when the temperature inside the device exceeds a certain level.

WARNING!

Inductive and capacitive loads must not be connected simultaneously!



For more information on product availability
send an e-mail to: support@elkoep.com

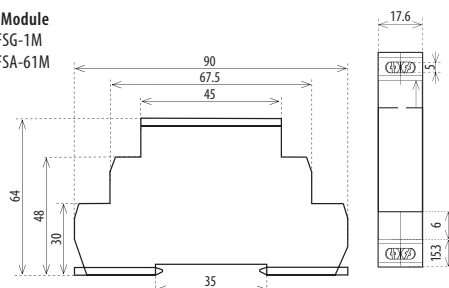
WARNING!

RF Touch and RF Pilot units are only compatible
with actuators designated as **OASIS & Touch Compatible!**

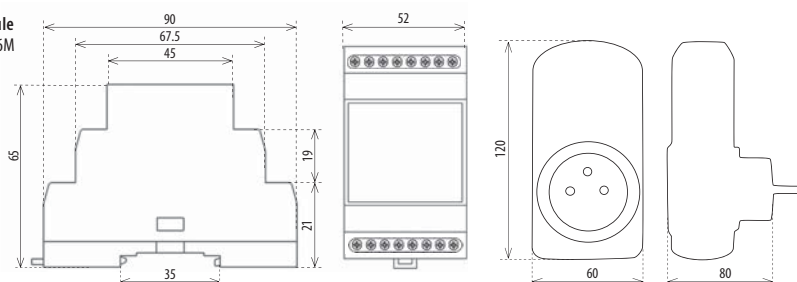


Product dimensions

1-Module
RFSG-1M
RFSA-61M

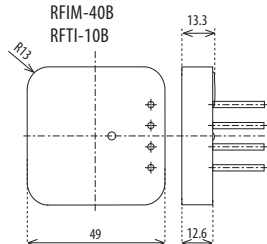


3-Module
RFSA-66M



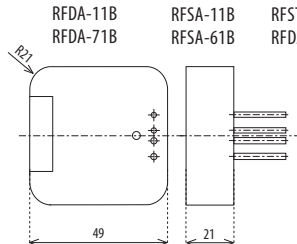
MINI

RFIM-20B
RFIM-40B
RFTI-10B

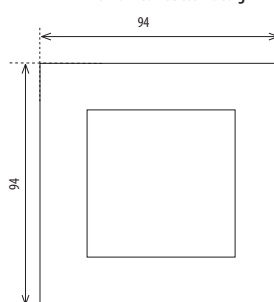


MINI

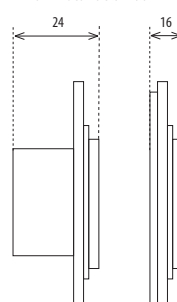
RFJA-12B/230V
RFDA-11B
RFDA-71B
RFDEL-71B
RFSA-11B
RFSA-61B
RFSTI-11B
RFDAC-71B



Wall switch button design



In an installation box



Surface-mounted

Wall switch button design
RF Touch-W
RFBW-20/G
RFBW-40/G
RFSTI-11/G
RFTC-10/G

In an installation box
RF Touch-B
RFSTI-11/G

Surface-mounted
RF Touch-W
RFBW-20/G
RFBW-40/G

Frame dimensions are given for metal frames, glass, wood, granite

Switching actuators

RFJA-12B; RFSA-62B; RFSA-66M; RFSTI-11/G									
Load type	 cos φ ≥ 0.95 AC1	 AC2	 AC3	 ACSa without compensation	 ACSa with compensation	 AC5b	 AC6a	 AC7b	 AC12
Contact material AgSnO ₂ Contact 8A	250V / 8A	250V / 5A	250V / 4A	x	x	250W	250V / 4A	250V / 1A	250V / 1A
Load type	 AC13	 AC14	 AC15	 DC1	 DC3	 DC5	 DC12	 DC13	 DC14
Contact material AgSnO ₂ Contact 8A	x	250V / 4A	250V / 3A	30V / 8A	24V / 3A	30V / 2A	30V / 8A	30V / 2A	x

RFUS-11; RFUS-61									
Load type	 cos φ ≥ 0.95 AC1	 AC2	 AC3	 ACSa without compensation	 ACSa with compensation	 AC5b	 AC6a	 AC7b	 AC12
Contact material AgSnO ₂ Contact 14A	250V / 14A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) up to max input C=14uF	1000W	x	250V / 3A	x
Load type	 AC13	 AC14	 AC15	 DC1	 DC3	 DC5	 DC12	 DC13	 DC14
Contact material AgSnO ₂ Contact 14A	x	250V / 6A	250V / 6A	24V / 10A	24V / 3A	24V / 2A	24V / 6A	24V / 2A	x

RFSA-11B; RFSA-61B; RFSA-61M; RFSTI-11B; RFDAC-71B, RFSC-11, RFSC-61, RFSAI-61B									
Load type	 cos φ ≥ 0.95 AC1	 AC2	 AC3	 ACSa without compensation	 ACSa with compensation	 AC5b	 AC6a	 AC7b	 AC12
Contact material AgSnO ₂ Contact 16A	250V / 16A	250V / 5A	250V / 3A	230V / 3A (690VA)	230V / 3A (690VA) up to max input C=14uF	1000W	x	250V / 3A	250V / 10A
Load type	 AC13	 AC14	 AC15	 DC1	 DC3	 DC5	 DC12	 DC13	 DC14
Contact material AgSnO ₂ Contact 16A	x	250V / 6A	250V / 6A	24V / 10A	24V / 3A	24V / 2A	24V / 6A	24V / 2A	x

Dimming actuators

PRODUCT	AUTOMATIC LOAD DETECTION	 R	 L	 C	 ESL	LED		
		Standard light bulbs, halogen lamps 	Low voltage lamps 12-24V wound transformers 	Low voltage lamps 12-24V electric transformers 	Efficient dimmable fluorescent lamps 	CATEGORY 1 Mostly, multiple LED* illumination sources, power provided by LINEAR source limiting current (sharper dimming), lower price. 	CATEGORY 2 Sources that have 1-3 power LEDs, power provided by SWITCHING the source regulating brightness based on the input voltage (smoother dimming), higher price GU10 have a higher body. 	CATEGORY 3 LED with DC and current regulation. Designed for dimming LED chips, LED strips, RGB LED. 
RFDA-11B	●	●	●	●	x	x	●	x
RFDA-71B	●	●	●	●	x	x	●	x
RFDEL-71B	●	●	●	●	●	●	●	x
RFDA-73M/RGB	x	x	x	x	x	x	x	●
RFDAC-71B	x	1 x Output 0/1-10 V 			x	x	x	x
RFDSC-11	●	●	●	●	●	●	●	x
RFDSC-71	●	●	●	●	●	●	●	x

Wireless solution of your ELECTRICAL INSTALLATION



RF TOUCH - Touch control unit

RF Touch wireless control unit enables you to control your entire house from one place. You can switch on/off devices and control window shutters, lights and heating with a touch of a button. RF Touch automatically manages heating, switches on/off electrical devices and controls window shutters in accordance with a weekly schedule. You can enter up to 5 programs to run in one day. RF Touch can control up to 40 actuators and can receive information from up to 30 detectors.



RF PILOT - Remote Controller with OLED display

From the comfort of your house or flat, you can control lights, set light scenes, control window shutters or open the garage door.

The Scene mode offers group control of devices so you can execute more commands with one touch. RF Pilot also informs you about the temperature of the space in which it is located. RF Pilot is designed to control up to 40 actuators.



RF KEY - Remote Controller

Thanks to its small dimensions, you can have the RF KEY always with you. It is designed to control garage doors or window shutters. It also enables you to control switching, dimming and analog actuators. The number of controlled actuators is unlimited. The keychain is offered in two colors (black, white).

To control the garage door and window shutters:

recommended set RF SET JK-Z1: keychain RF Key + RFJA-12B

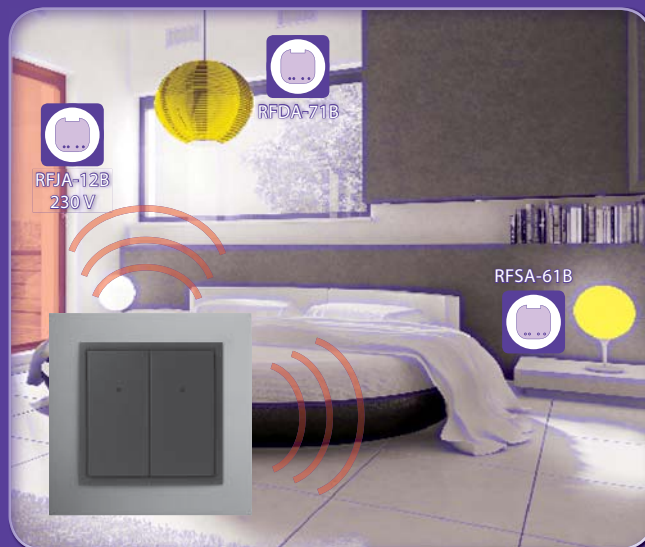
...Your house at one touch

RFWB-40/G - Wireless wall switch button

Thanks to their flat base, wireless wall switch buttons can be mounted to any surface – wall, wood or glass. The switches are entirely independent of cable wiring and are powered by batteries = safe against injuries caused by electric shock. The switches are available in either the standard plastic, or the luxury LOGUS⁹⁰ design.

To switch lights using a wall switch button with time functions:

recommended set RF SET-SW-F1: RFWB-40/G + RFSA-61B



RFIM-20, RFIM-40 - Universal transmitters

Universal transmitters are designed for mounting under your existing switch, easily transforming it into a wireless one. These transmitters do not need an external power supply (they are battery-powered).

To switch lights using a universal transmitter:

recommended set RF SET-SIM2-Z1: RFIM-20B + RFSA-11B



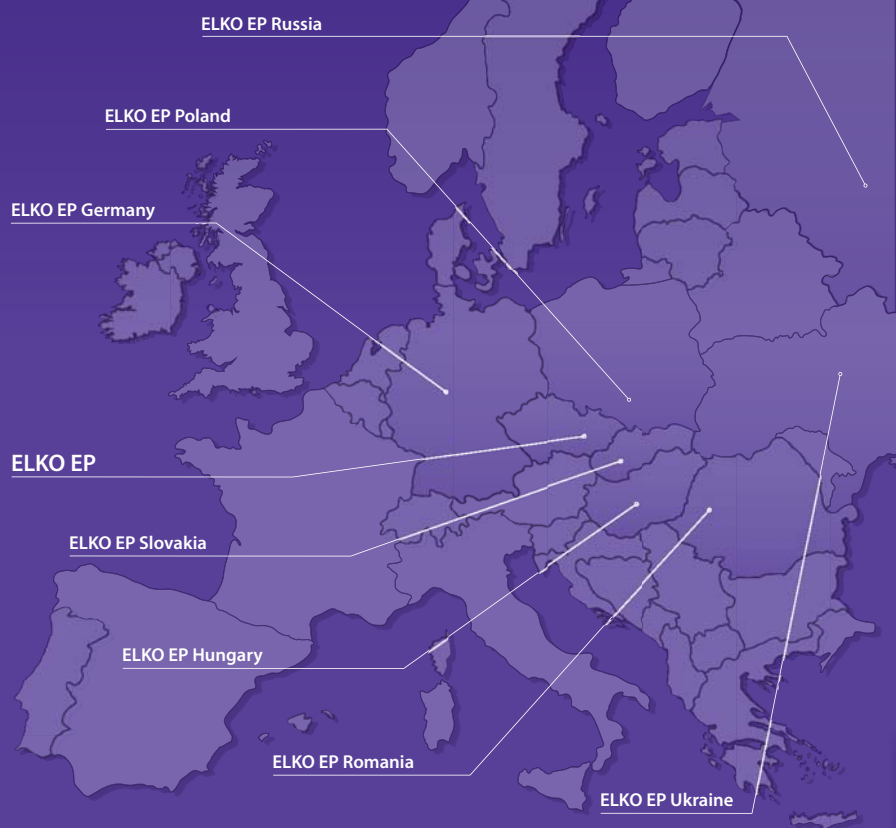
DETECTORS

OASiS detectors may also serve to control household; the detectors respond to movement, or opening doors or windows. They allow you, for instance, to switch on lights by movement or by opening a window.

To detect the movement of persons:

recommended set RFSET-S081M-F1: JA - 80P + RFSA-61B





**EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT
FUND INVESTMENT IN YOUR FUTURE**



ELKO EP, s.r.o.

Palackého 493 / 769 01 Holesov, Vsetulý / Czech Republic

Phone: + 420 573 514 223 / Fax: +420 573 514 227 / E-mail: elko@elkoep.com

Published: 04/2012 / Modifications or amendments reserved/ © Copyright ELKO EP, s.r.o. / 1st edition