Wireless electro-installations

Smart home & building solutions

iNELS®

ELKO EP, Holding

The company ELKO EP has been one of the leading European players in the field of residential and industrial electrical devices for more than 24 years. Since 2007, the company has been developing and producing its own system of Smart Home & Building Solutions called iNELS.

At present, ELKO EP employs nearly 240 people, exports to 70 countries around the world and already has 13 foreign branches. The company is justly proud to produce it´s own components, and to have its own development and innovation of new products. It is also able to offer its customers instantaneous distribution and rapid, flawless service. The company became the Company of the Year in 2012 and earned it´s place as one of the TOP 100 Czech companies.

Facts and Stats

40%
CZECH

30%
EXPORT

ANNUAL
TURNOVER
20
Mil. EUR

30%
BRANCHES

2nd position
in Europe

13
BRANCHES
OVER THE WORLD

70
EXPORTING
COUNTRIES

240
EMPLOYEES

5 000
iNELS INSTALLATION

12 000 000
MANUFACTURED PRODUCTS

DEVELOPERS

PRODUCERS

WE
ARE

SUPPORT

SELLERS

www.inels.com

Why a Smart Home?

A Smart Home is not a necessity of life, but is becoming a vital requirement. It can do what a classic electrical installation cannot, or can only do with great difficulty.

Each potential customer has different motivations for wanting to set up a smart home. Some are interested in savings, others like combining comfort with safety, but in either case, all the characteristics are an inseparable part of the system, and it is only up to the customer which ones are most important.

The main advantage of iNELS RF is its wireless design. For you this means you do not have to cut into any walls to improve your home wiring scheme.

With iNELS RF, you can do so easily, or create a retrofit and enjoy what never used to be possible. And you can expand or downsize the configuration at any time.

$ Savings

- by efficient heating or AC regulation, you can attain savings of up to 30%
- dimming lets you save around 15%
- further savings: linking appliances, time switching, weekly mode, detectors

Safety

- the system includes detectors of motion, smoke and open windows
- you can create an alarm to protect your property and loved ones

Comfort

- you can control comfortably from a controller in the pocket or smartphone
- by pressing a single button, you perform several commands at once
- you need not worry about switching things off - they switch automatically or based on fulfilling a condition

Monitoring

- integrated video cameras provide a view of what is happening at a location you are currently away from
- events are recorded onto a log that you can view later
- you can connect from anywhere in the world and monitor your home in real time or from the recording

Automation

- everything is set up to function automatically
- weekly heating mode, blinds at dawn, lights at dusk
- the motion detector is not only for security, but detects the presence of persons for other functions as well

Flexibility

- option of adding more devices
- change in functions by simple readjustment
- settings and management remotely without needing to arrive on site

You can control your devices in various ways

It does not matter what you control but what you control it with. You can control units and appliances in many ways and even combine them.

For those more conservative, buttons take the form of switches as you have always been used to. Those often moving around the home and garden will appreciate having the RF Pilot in their pocket. The touch unit is designed for those who always want to have all buttons in one place – on a 3.5" framed display. For some, a smart phone is an interesting accessory, but for many it is the only controller that does not need to be purchased because they already have one!

Wall controller

- wireless and in premium design
- the high variability of wireless switches
- benefits of wireless switches include fast installation
- it also offers control of up to any 4 lights

Key chain

- pocket controller for every day
- unique design of the key alarm conceived in the smallest possible design to fit nicely in your pocket and always keep handy
- it can control up to 4 independent devices and switch scenes

RF Pilot

- here marks the start of home automation
- the remote controller with OLED color display offers control of up to 40 household appliances
- lights, sockets, garage doors, sprinklers, blinds, awnings, etc.
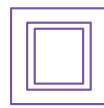
You can control iNELS with:

| Wall controller | RF Key | RF Pilot | RF Touch | Smartphone app | Smart TV app |

RF Touch

- design element with a tinge of luxury fittingly accenting any interior
- it will become a central, wireless intuitively controlled home
- provides energy consumption and door phone function as well
- colored 3.5" TFT display

Smartphone

- the only controller that comes free
- one of the main thoughts behind the iNELS is to keep one's home under control
- after downloading the application, you can control the entire house

Smart TV

- by Samsung Smart TV from model 2013 iNELS RF via Smart RF Box
- you can add to the app a floorplan of your room and house for easier control
- installing and using the app iNELS Home control from Samsung sites is free

Your home

The wireless iNELS RF system offers you a unique chance to breathe life into your home.

Controlling appliances, dimming lights, creating light scenes, security - we need all these functions in our daily lives. iNELS RF is a building kit that you build just the way you like. The result will be one system that takes complete care of the running of your home. It will become an indispensable part of your family. You can fully adjust iNELS based on what you do or where you are, whether on vacation or at work, with family at home or with friends, or whether you are waking up or going to sleep.

Applications for smart devices

Via your smartphone or Samsung watch you can control your house as well as having an overview of the processes taking place there, even when you are away from home.

Living room

This is the room where not only family, but friends and guests meet. It is usually the home's largest room, and all technologies and multiple lights are installed here. You also may spend the majority of your time here.

With the press of a single button, iNELS lets you set up a light scene to suit the current situation or mood. The control touch unit puts the entire home virtually under your thumb - switch off all the lights, close the gate, read the outside temperature and set the thermostat in the children's room.

RF Touch

Wireless touch unit for central control of your home wireless system. Besides switching and dimming, it provides a current overview of energy consumption and is a part of the home intercom. The color 4" TFT display enables quick and easy control of appliances.

Kitchen

The kitchen is a room with a large number of appliances. These include the stove, the dishwasher, the hood and the refrigerator. It is therefore natural to protect this area. This is accomplished either by a surge monitor in the distribution box or by detectors.

The smoke detector monitors a sudden fire or flare-up. The flame detector is the foundation of safety in your home. Battery power makes installation easy. The integrated temperature sensor scans for the critical temperature at which materials not producing smoke can ignite. The unique, stylish design is appropriate in every modern interior.

Smoke detector

This detector helps protect persons and property from a fire that has ignited. After detection, it immediately sends this information to your smartphone. The warning can be in the form of notification in the application or by SMS message. It also triggers an audible alarm.

Bedroom

You control the lighting and blinds with a switch on the nightstand.

With a long press, you set the brightness to your desired intensity, and keep one button reserved to light the way to the bathroom at night. With one practical button, you can also switch off all lights, even the forgotten ones (master switch).

The color LED lamp or color LED strip will provide a wonderful bedroom atmosphere to suit your mood.
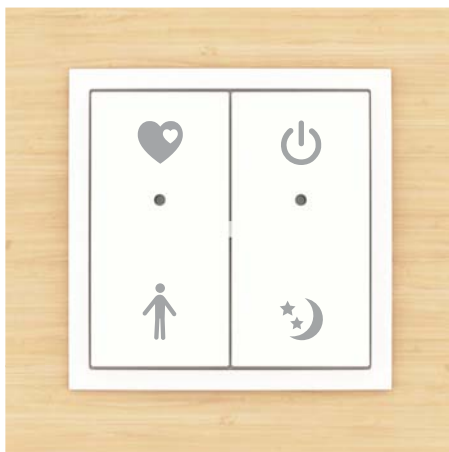
Button for „ GOOD NIGHT "

♡ • Set romantic light scenes.

⏻ • Master switch (All OFF)

🧍 • Night light corridor to toilet.

🌙 • Gradual dimming off.

Children's room

Ideal when they're playing, being good and safe. The wireless button grows with the children.

For the older and more resourceful kids, the RF Pilot is ready. It can not only play with the colors of the colored LED lamps and strips, but can also control everything else in your home.

In the meantime, a video camera is monitoring the toddler in the crib and a night light chases away bad dreams - a lamp set by a dimmer to minimum brightness.

Camera Preview   **Remote Controller / Keychain**

One system,
one application,
for the whole house

Video cameras

Through the telephone application or CUBE Touch, you can browse through images of up to 9 video IP cameras.

Light scenes

With just one button on the controller, you can simultaneously control multiple devices (light scenes, all off, nighttime hallway, etc.)
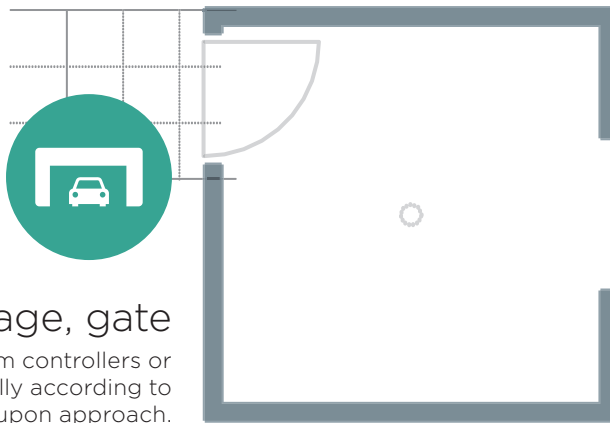
Garage, gate

You can control from controllers or automatically according to position upon approach.

Macro functions

If the light is on the shutters go down.

Watering

It is possible to predefine a time mode in the system for watering in relation to temperature and moisture. You can control circuits manually from the application as well.

Door communicator

Verbal and visual communication with a guest by means of the app or the telephone application.
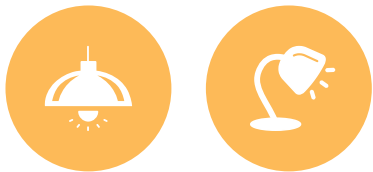
Lighting

Simple switching or dimming of various types of light sources including LEDs and even colored RGB strips.

Exhaust and ventilation

In relation to presence or according to the time mode or dependence of lights.

Blinds and roll shutters

Actuators enable control of various types of shading technology. It is possible to set dependent programs in a time mode, light scenes, or to control manually.

Measuring energy

Measured values of consumption of electricity, water, gas and brightness transmitted wirelessly to the Cloud, which in turn provides them to applications or web browsers.

Security

The systems include detectors (motion, window, door, smoke), forming the basis of the home alarm system. The water leakage sensor warns against flooding of the bathroom or an overflowing reservoir.

Heating and cooling

iNELS enables control of up to 40 independent circuits of heating or HVAC. Setting several ways: RF Touch, application, ...

Appliances

Switching according to set mode or manually from the application or from any system controller.

Weather

If it is too windy outside, shutters go down.
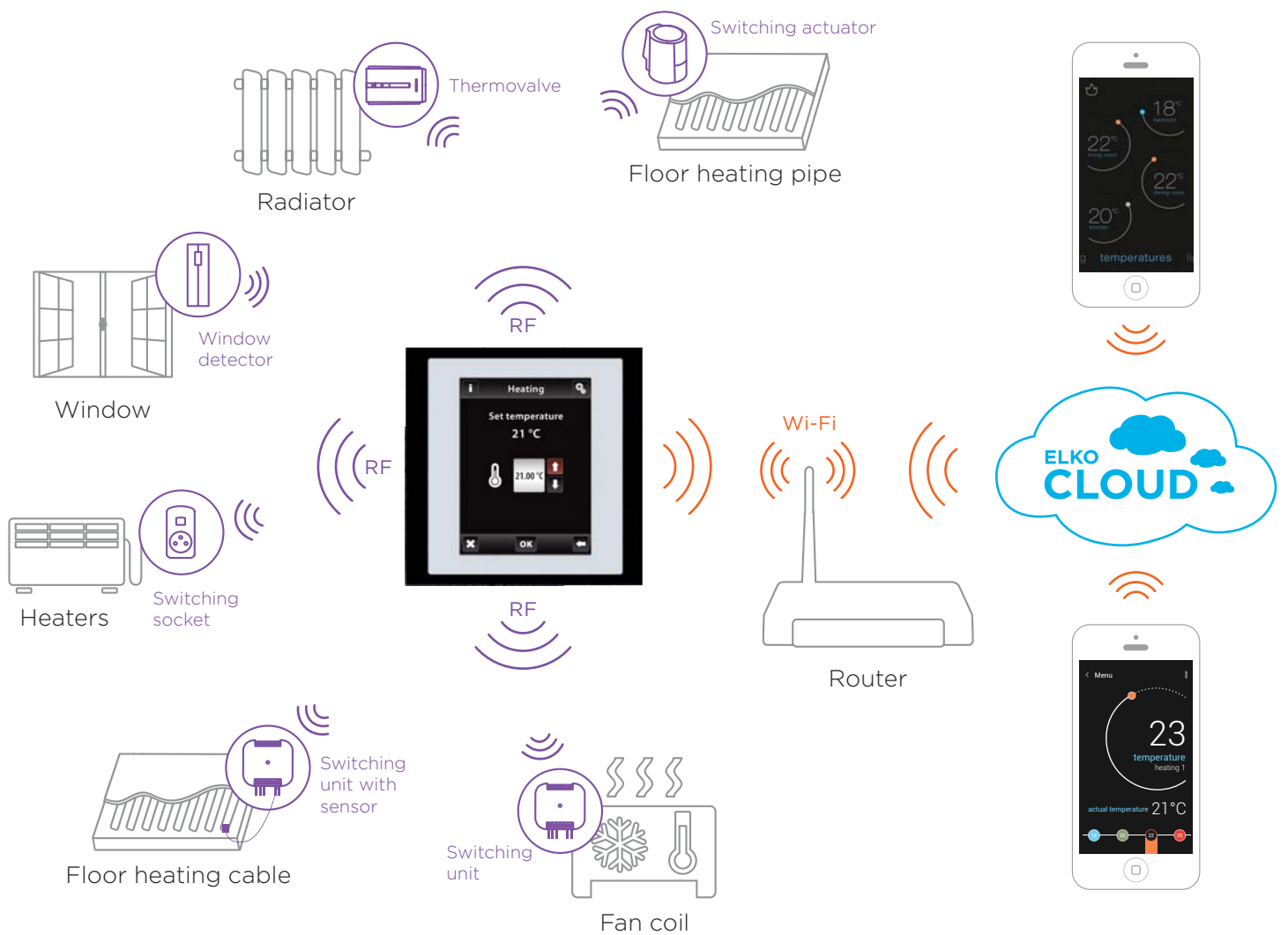
19

Temperature regulation

Heat regulation - with RF Touch, you have heating under control throughout the home.

It is not necessary to have a thermostat in each room, and yet you can regulate each room separately. Whether you are controlling a radiator-mounted thermovalve or floor-mounted electrical cable, this element always has a temperature sensor that sends information to RF Touch, which then regulates the home based on the set temperature and according to a time program.
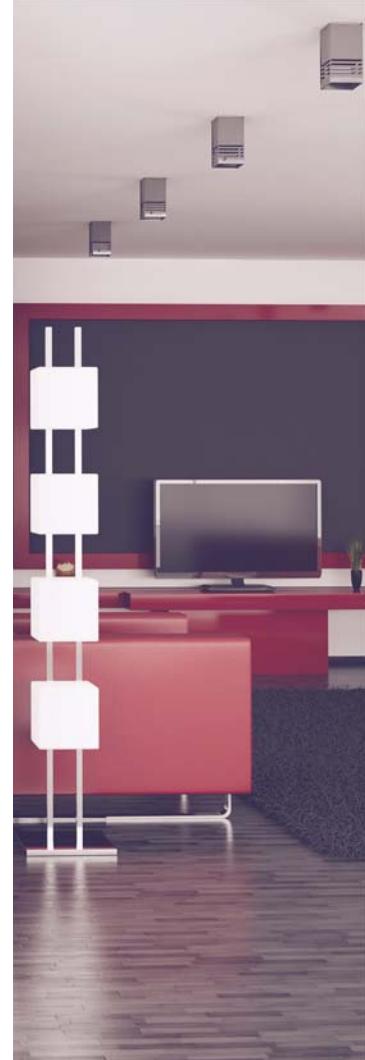
RF Touch

- this is a touch wireless unit with a 3.5" display
- can control up to 40 heating or AC circuits = 40 thermostats in 1 device
- in connection with other wireless units, it can react to an open window or outdoor light intensity
- if the thermostat is connected to the Internet, it sends temperature information via the Cloud, and you can set the temperature from anywhere using a mobile application

Heating
Set temperature
21 °C
21.00 °C
OK

Thermovalve

Radiator

Switching actuator

Floor heating pipe

Window
detector

Window

RF

Heaters

Switching
socket

RF

Heating
Set temperature
21 °C
21.00 °C
OK

RF

Wi-Fi

ELKO
CLOUD

Router

18°
22°
22°
20°
temperatures

23
temperature
heating 1
actual temperature   21 °C

Floor heating cable

Switching
unit with
sensor

Switching
unit

Fan coil

Heating, ventilation & air-conditioning

The iNELS can control various heating sources - water, gas and oil boilers and regulate radiators, spiral heaters, fan coil units or electrical cables.

Using a wireless sensor, it can sense not only the outdoor, but also the indoor or floor temperature. Control is possible from RF Touch, a mobile application or by Temperature controller.

Temperature controller

RFTC-50/G

- used for autonomous temperature control for underfloor pipes and auxiliary heating
- the display features information on the current and set temperature and heating parameters
- weekly program

TC sensor

Temperature controller

RFSTI-11B

- the ideal solution for underfloor electrical (hot water) heating, where the external sensor senses the floor temperature, and a unit directly switches the heating mat (cables)
- the automatic program with manual regulation is performed via the unit RF Touch or the application iNELS Home Control

Temperature sensor

RFTI-10B

- measures the indoor (internal) and outdoor (external) temperature
- it sends the measured temperature to RF Touch or to a Smart RF Box
- temperature range -20 to 50 °C (-4 to 122 °F)
- battery power allows placement anywhere, sensors from TC / TZ line

Thermovalve

RFATV-1

- measures the ambient temperature that it then compares with the set temperature in RF Touch or in the App
- based on regulation, it controls water valves in radiators and heating ladder
- temperature range 0-32 °C (32-90 °F)

Shading controls, door, gates, jalousies, blinds, roll shutters…

Controlling garage doors, entrance gates, barriers, blinds, roll shutters, awnings - all of these can be controlled from a single controller - either a key alarm, RF Pilot or smartphone app.

The main advantage of integration with the iNELS system is the option of presetting light scenes. In practice, this could mean closing the blinds at a set time or pulling down roll shutters in the event of bad weather - automatically, based on information from the weather station or manually. Whether you're at home or away. Another advantage to controlling light scenes is grouping multiple blinds together and controlling them with a single button or a single command. The pinnacle of use is rotating the lamellas of the blinds based on outdoor light intensity or sunset/sunrise. Yes, iNELS can do this too.

Flush mounted -shutter unit

RFJA-12B

- the shutters unit is used to control garage doors, gates, blinds, awnings, etc.
- load up to 2 x 8 A
- integrated time-functions
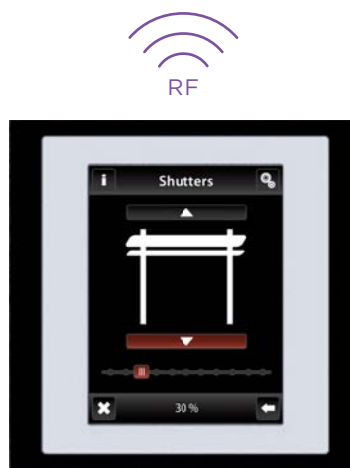
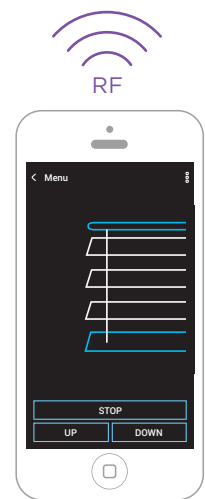| Blinds/Shutters	Awning	Access gateway	Garage
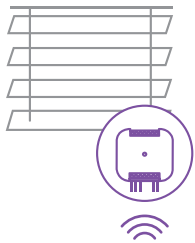
RF

Keychain

RF

20. 1. 2016   14:25

Shutters
Awning
Access gateway
Garage

QUIT   CHOOSE

RF Pilot

RF

Shutters

30 %

Wireless touch unit
RF Touch

RF

< Menu

STOP

UP   DOWN
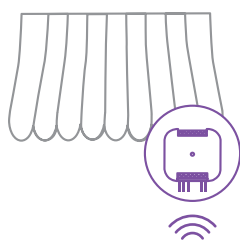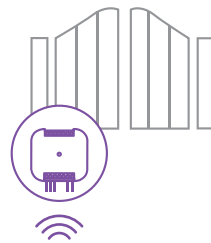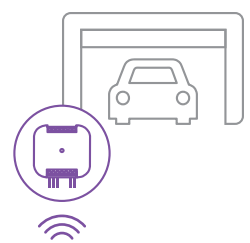
App

Intercom &
Video door-phone

Intercom function allows communication between RF Touch units or intercom calls between these unites and smartphones or tablets.

You can also receive audio/video transmission from the front door communicator through the intercom and you can see and speak with visitors even if you are not at home. It is a comfortable re-placement of traditional doorbells or door phones. It is a wireless installation allowing a user to open the door or gate.

Tomas

Michael

Jane

Door Communicator

- enables communication with voice and video equipment in the facility: LARA, phone applications, tablet or TV - where individual devices can be combined

- videophone basic module can be ex-tended with additional modules (for residential houses or buildings).

- the only connection required is a LAN cable that also supplies power (PoE)
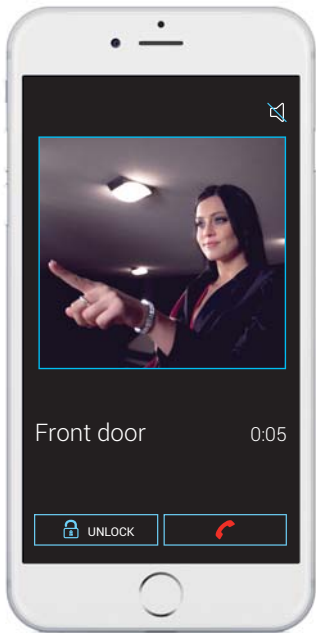
iNELS enables you to redirect a door bell ringing and consequent video conversation to your phone, even if you are not at home.
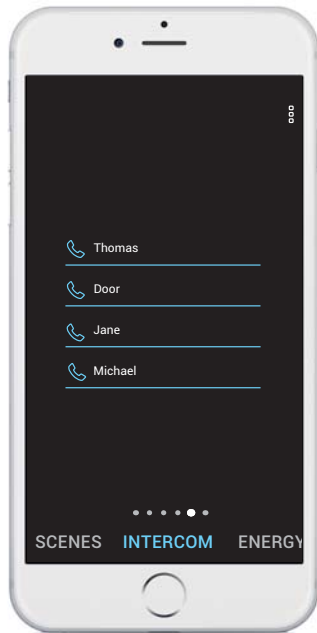
The application enables calls between participants on smartphones, tablets, iMM or LARA device.

Besides playing your music or the radio, the LARA unit can also facilitate a video conversation with the door communicator, the home intercom system or calls to the application in your mobile phone.

Intercom & Door-phone

iNELS enables communication inside the home (Intercom) as well as calls from the Video door-phone. There can be up to 30 users on various devices: LARA, Smartphone, Tablet, TV. Thanks to having its own server, it is possible to communicate (for free) even if you are away from home - a simple Internet connection suffices. A call at the door can also be forwarded.
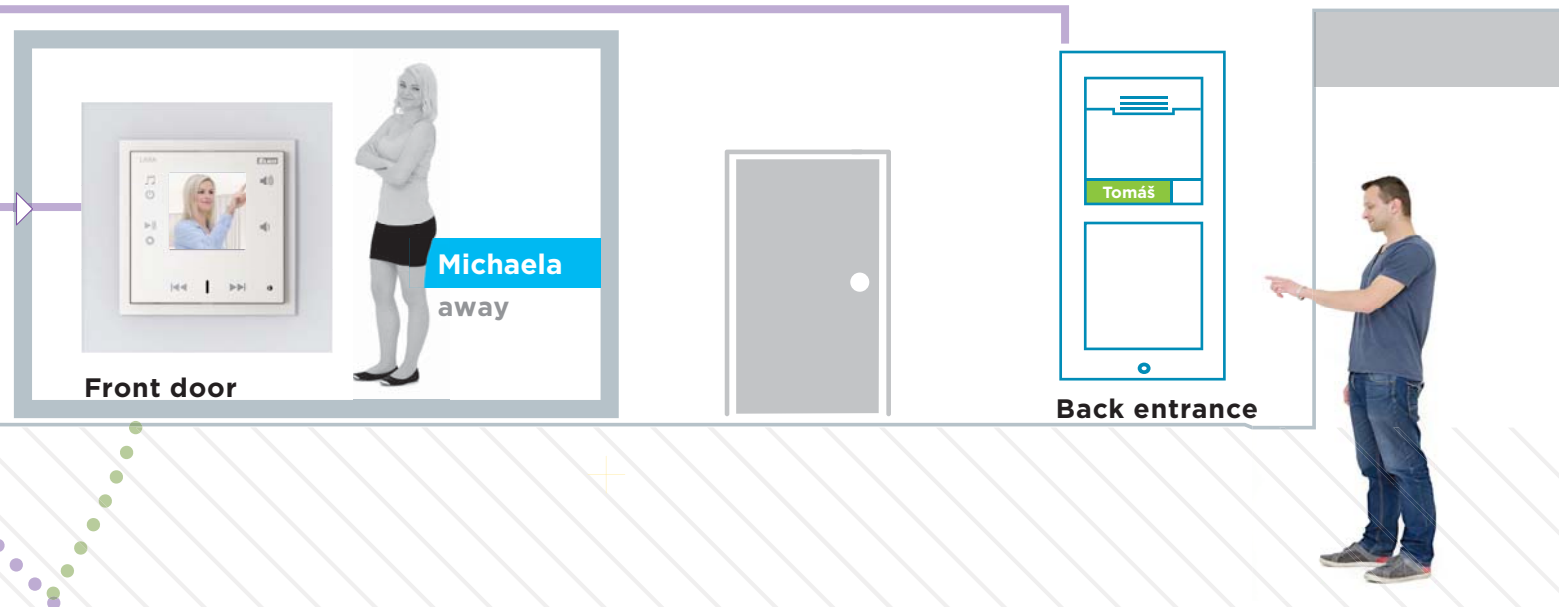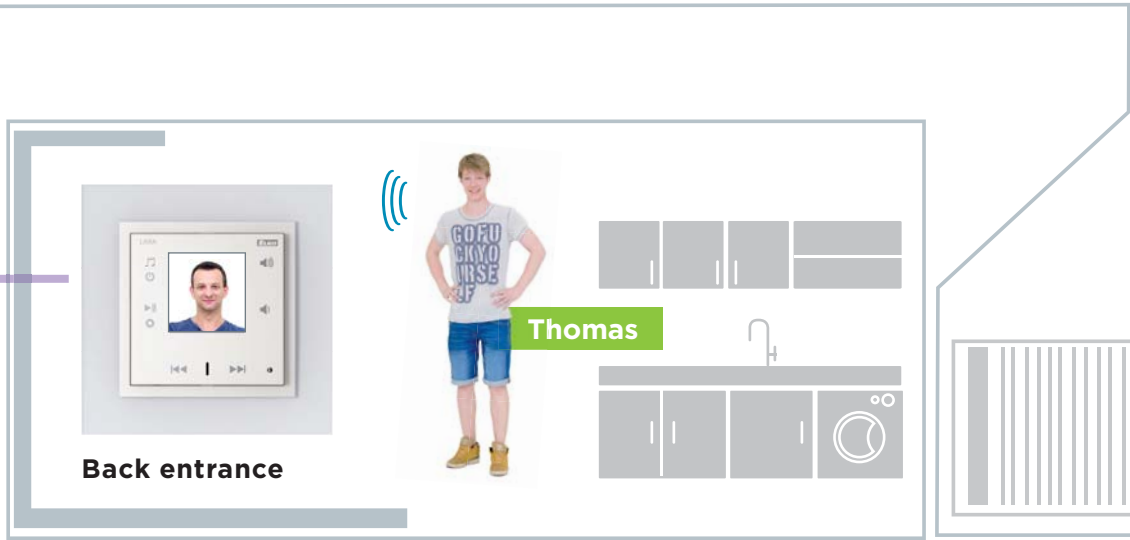

Jane

Mike   Outside

UNLOCK

All

Michaela
Thomas
Jane
Mike

Front door

Michaela

Front door
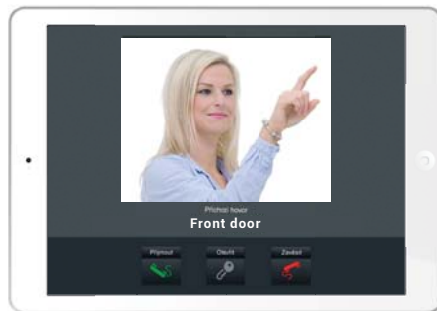
Even if you are not home, you can connect with your visitor.

Back entrance

Thomas

Tomáš

Front door

Michaela
away

Back entrance

Mike

JANE

Even if you are not home, you can communicate with roommates or friends. You can also have the conversation redirected from the door intercom button.
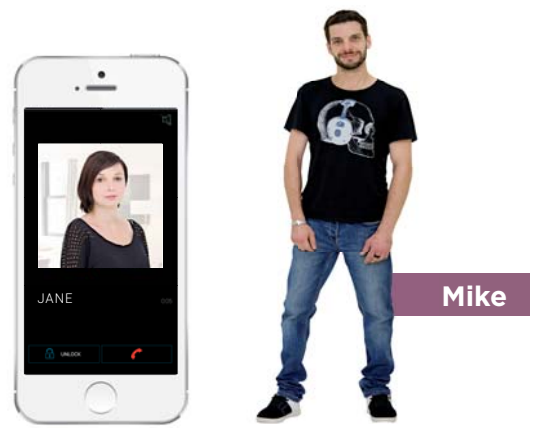
Security & Safety

Security of residents and protection of property are top priorities. For this reason, iNELS provides detectors that sense smoke, motion or open windows or doors.

Thanks to iNELS, you can set up basic security for your home, which, if breached, sends a notification in the application or via SMS. The flood sensor detects and indicates leaking water or an overflowing washing machine; after assessing the problem, you can thaw out a frozen gutter or remove icicles. You can connect some video cameras in the application that monitor internal or exterior movement.

< Alarm

UNLOCK
LOCK

window

door

motion

BEWARE MOTION !
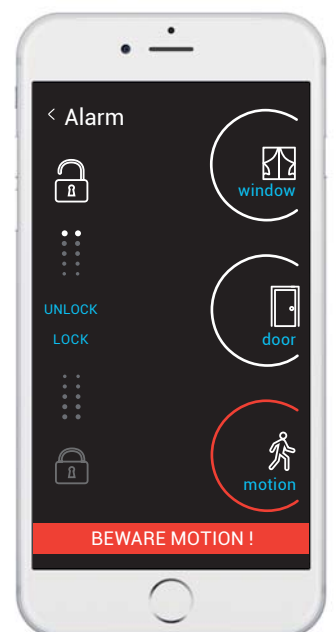
Smoke detector

RFSD-100

- it detects smoke from a fire
- automatic testing
- integrated temperature sensor
- battery status indicator
- battery power

Motion detector

RFMD-100

- it detects movement of persons and automatically controls lighting
- infrared scanning method to prevent false alarms
- battery power

Window detector

RFWD-100

- it informs you as you are leaving that a window or door is open
- upon activation, it sends information to the unit or Application
- integrated temperature sensor
- battery power

Flood detector

RFSF-1B + FP-1

- it detects flooding or overflowing by means of an external probe FP-1
- when activated, it sends a signal to the app or RF Touch to the switching units for closinge the water pipe

iNELS Cam

iNELS Cam

- up to 10 video cameras can be connected in the Application
- LAN or Wi-Fi connection
- 640 x 480 px resolution
- night IR illumination
- power adapter: 5V/1A (part of supply)

Video Cameras

- you can connect any video camera supporting MJPEG2
- in the application, you can zoom in, zoom out and rotate if the video camera allows it

Energy management

Due to ever-rising energy costs, monitoring energy consumption is one of the most important aspects of a smart home.

Wireless sensors are installed directly to the water meter or gas meter and by means of a concentrator at the electric meter, and information is sent to the Cloud for further processing. Data may be browsed through various filters in the Apps or Web browser.

It is also possible to set up notifications when critical parameter settings are exceeded and to switch on/off a certain device. Connecting to Smart Grid intelligent networks enables efficient electricity usage at optimal times.
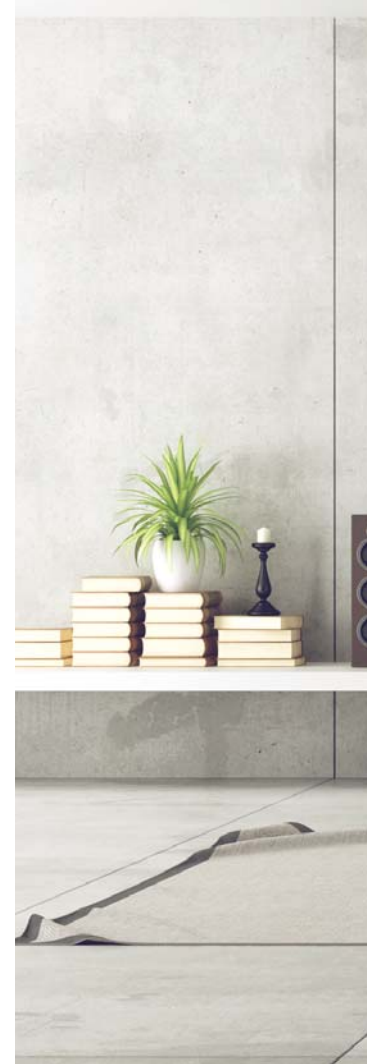
Energy gateway

RFPM-2M

- the energy gateway is a central device for assessing energy consumption (electricity, water, gas)
- it acts as an interface between the pulse converter RFTM-1 and your smartphone
- connection to the data network is made by means of a LAN Ethernet connector or wirelessly via a Wi-Fi network
- monitored data is stored on internal memory storage
- by means of the application iHC and Cloud connection, it is possible to maintain online access to data and monitoring history
- up to 4 tariff meter readings of electricity consumption
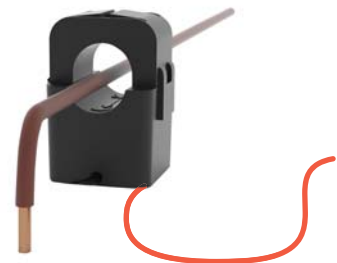
Current Transformer

CT50

- opening pliers open/close on the existing wire of the measured circuit, most frequently at the main supply at the electricity meter
- it is connected to the energy gateway RFPM-2M (up to 3 CT)
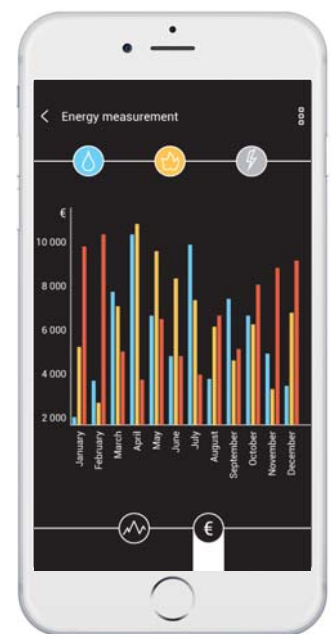
Transmitter Pulses

RFTM-1

- wireless transmitter of pulses from meter-based sensors
- it sends these pulses to the gateway RFPM-2M for further processing
- supported sensors: LS (LED sensor), MS (magnetic sensor), IRS (IR sensor)
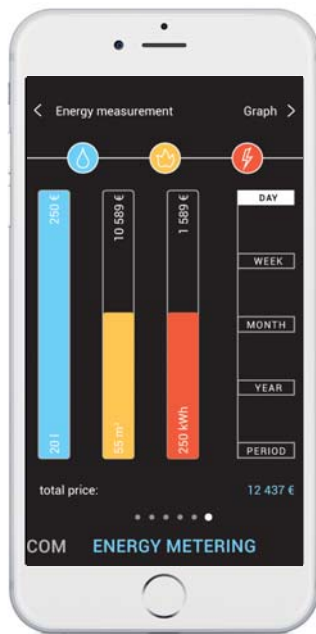
Consumption overview

- all energy sources for the selected period
- comparison with previous period
- critical limits from previous values

History in a graph

- possible to display based on units or value
- time restriction: day, week, month or selected period

Dimming & lighting control

Dimming is one of the basic characteristics of a smart home. Dimmers not only render a pleasant atmosphere, but also save on electricity.

iNELS offers dimmers in various designs (box, flush, DIN rail mounted, socket) for all types of light sources including today's popular LEDs.

Color strips and lamps have become a modern trend used not only for decorative illumination, but also more and more for lighting in the workplace. These too are integrated in iNELS.

Schuko

French

US

British

RGB LED bulb

RF-RGB-LED-550

White LED bulb

RF-WHITE-LED-675

- receiver and dimmer enable setting of the brightness and color
- luminance: 550 lm/675 lm, Base: E27
- lamp life: 30,000 hours
- function: brightness 0-100%, RGB lamp: automatic blending of colors. White lamp: setting colors warm/cold white

Dimming socket

RFDSC-71

- wireless socket for dimming lamps with various types of light sources
- time-function up to 10 hours
- settings of the minimum brightness to eliminate flashing
- function of smooth dimming / brightening with timing

Twilight switch (outdoor mounted)

RFSOU-1

- the wireless twilight switch measures outside illumination intensity
- based on a set value, it controls the switching element
- elimination of short-term change of ambient lighting (glare)
- battery power

Dimmer for RGB LED strips

RFDA-73M/RGB

- dimmer for controlling 3 single-color strips or an RGB color strip
- control from the RF Key Alarm, RF Pilot, RF Touch or the Application
- inputs for controlling 0-10 V
- maximum load: 3x 5 A

Universal dimmer (DIN rail mounted)

RFDEL-71M

- designed for dimming various light sources 230 V (600 VA), 120 V (300 VA)
- type of load: R, L, C, ESL, LED
- smooth dimming or brightening
- setting min. brightness for eliminated flashing LED sources

Universal dimmer (flush mounted)

RFDEL-71B

- designed for dimming various light sources 230 V (160 VA), 120 V (80 VA)
- type of load: R, L, C, ESL, LED
- smooth dimming or brightening
- setting min. brightness for eliminated flashing LED sources

Appliance control

It is possible to switch a multitude of electrical devices and appliances.

Whether they are connected to a socket or, installation box or hard-wired, iNELS has the right switch design for them.

Switching actuators are not only used for switching appliances but also allow you to set dependent functions – time-dependent or functions depending on the value of other input – motion detectors, flood sensors, light sensors or door opening detectors.

British

Schuko

French

US
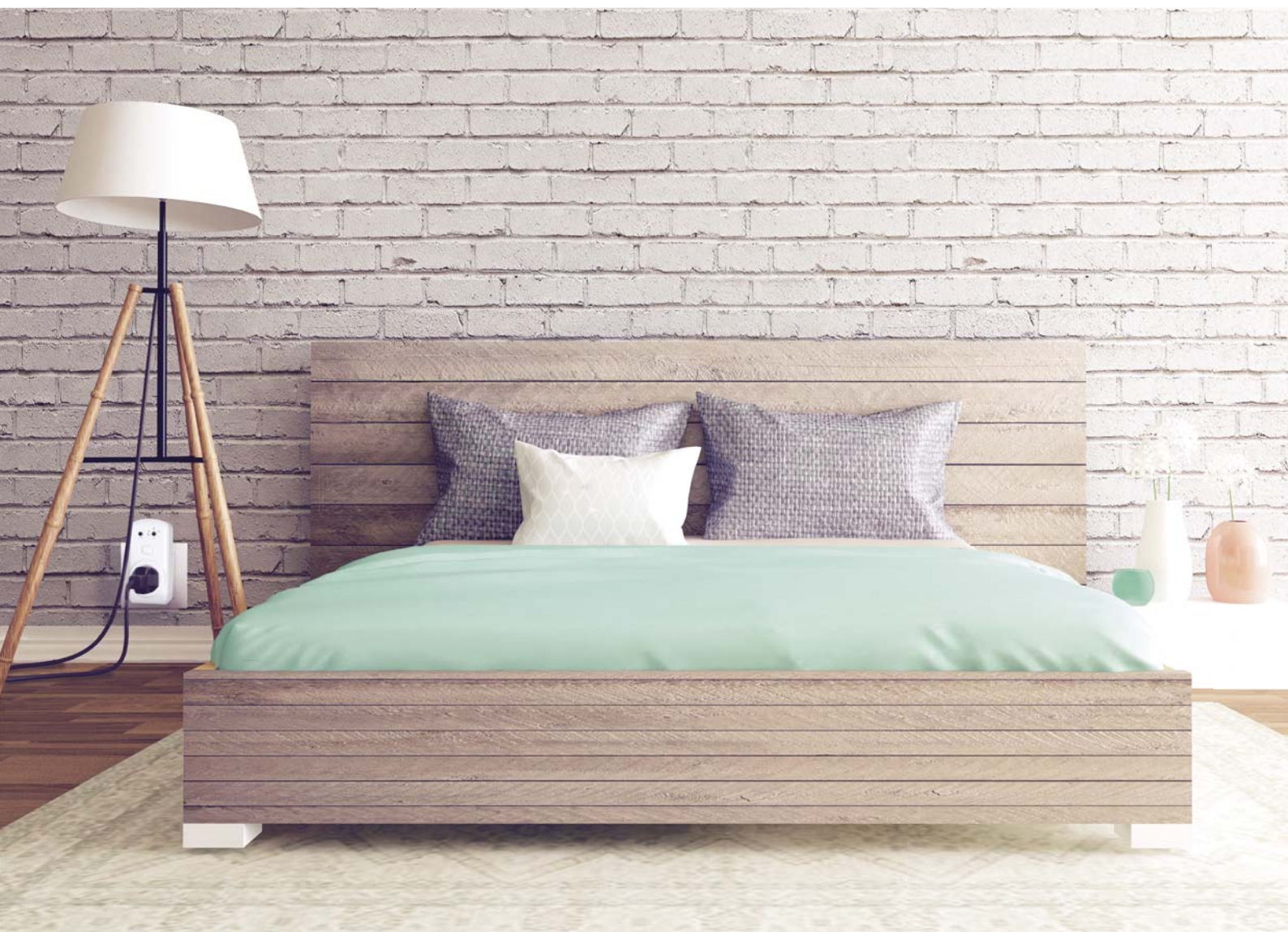
Switching socket

RFSC-61

- switched socket for controlling fans lamps, heaters and other devices connectible by cable with plug
- time-functions up to 10 hours

Switch unit

RFSA-61M

- the switching unit is used for controlling appliances, sockets, lights or ventilation
- can be combined with detectors

Switch unit - 6 outputs

RFSA-66M

- the switching unit can switch up to 6 independent circuits (socket, light)
- integrated time-functions for each channel separately.

Switch unit

RFSAI-61B

- the switching unit with 1 output channel is used for controlling appliances and lights
- integrated time-functions up to 60 min.
- terminal for connection existing push button switch

Switch unit - 2 outputs

RFSA-62B

- the switching unit with 2 output channels is used for controlling appliances and light circuits
- integrated time-functions up to 60 min.

How you will control it?
It is up to you...

The system can be controlled in a wide variety of ways. These include buttons the size of a classic switch, which control four various devices or functions. A button can be attached, glued or simply placed somewhere.

The wireless key alarm makes for a suitable pocket controller of gates, garage doors or entrance ways.

RF Pilot with its OLED color displays serves as a basis for home automation. It can control up to 40 devices, which can be located in individual rooms.

DESIGN LOGUS⁹⁰

Plastic	Metallic plastic	Color plastic	Color plastic
Metal	Wood	Stone	Crystal

Wall switch

RFWB-20/G, RFWB-40/G

• controls 2 / 4 appliances independently
• light scenes function
• battery power
• design: plastic, glass, wood, metal, stone, ...
• flat base
• silent operation

We bring you switches, sockets and accessories in standard, plastic or metallic design, but you will be impressed most by enchanting luxury design of purely natural frames: real wood, metal, granite and tempered glass - crystal

RF Touch

RF Touch - W

- system unit, which controls your smart home by means of the Application
- controls up to 40 units
- thanks to bi-directional communication, it displays the status of appliances
- it is connected to the home network by LAN cable or via Wi-Fi

Multi with display

RF Pilot

- controls up to 40 appliances independently
- scenes function
- integrated temperature sensor
- battery power
- colored OLED display

Keychain

RF Key

- controls 4 appliances independently
- light scenes function
- battery power
- design: white, black

Behind
the scenes

Smart Boxes are important but invisible elements in the smart home system. They are used to interface with a controlling telephone through its application. They are connected to the network, and if remote control is necessary, also to the Internet.

The Smart Box also acts as a mediator for storing data in the Cloud. Signal repeater – the repeater is used to extend the range where it is necessary to control devices over a greater distance.

Smart RF Box (HUB)

eLAN-RF-003-Wi

- smart RF box is center of your Smart Home and bridge between your smartphone and controled appliances
- thanks to the two-way communication, it visualizes the current status of individual units/actuators
- controls up to 40 units
- the intuitive app iNELS Home Control provides a centralized control from one place
- you can connect the HUB via LAN or Wi-Fi

Repeater

RFRP-20

- used to increase the range between the unit and controller by up to 200 m (220 yd)
- can read up to 20 units
- the socket function remains unchanged

Schuko

French

US

British

iNELS Wireless System

RF - radiofrequency protocol

Wi-Fi

Outdoor PTZ camera

Wi-Fi

Weather station

Indoor PTZ camera

Indoor camera

Wi-Fi

Wi-Fi Router

Electricity panel meter

L3
L2
L1
PEN

Video door-phone
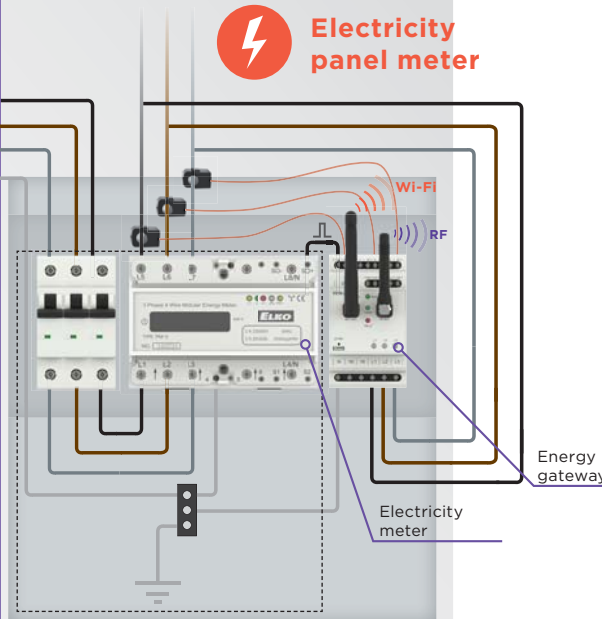
Wi-Fi

RF

Energy gateway

Electricity meter

Smart IR Box

IR

IR

Audio / Video

Home appliances

Water meter

To energy gateway

RF

Wireless pulse converter

To energy gateway

RF

Wireless pulse converter

Air-conditioning

Gas meter

ELKO CLOUD

Controllers:

| Application for the smart phone | Radio & Intercom | Touch unit | Wall controller | Thermostat | RF Pilot with display | Keychain |

Detectors:

Smoke | Door / Window | Motion

Wi-Fi

RF

Smart RF Box Wi-Fi

RF

Sensors:

Flood | Temperature | Twilight

Elements:
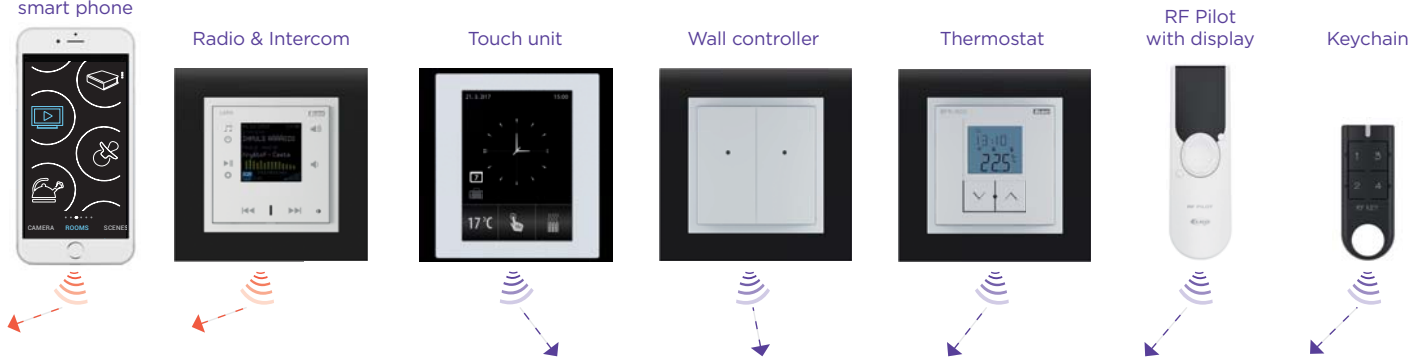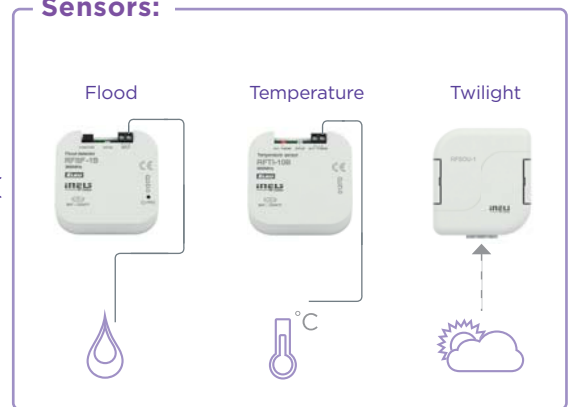
| Switch unit - 6 outputs | Switch unit - 1 output | Switching socket | Switch unit for shutters | Thermovalve for radiator | Switch unit - 1 output | RGB Coloured LED bulb | Dimmer for LED strips |
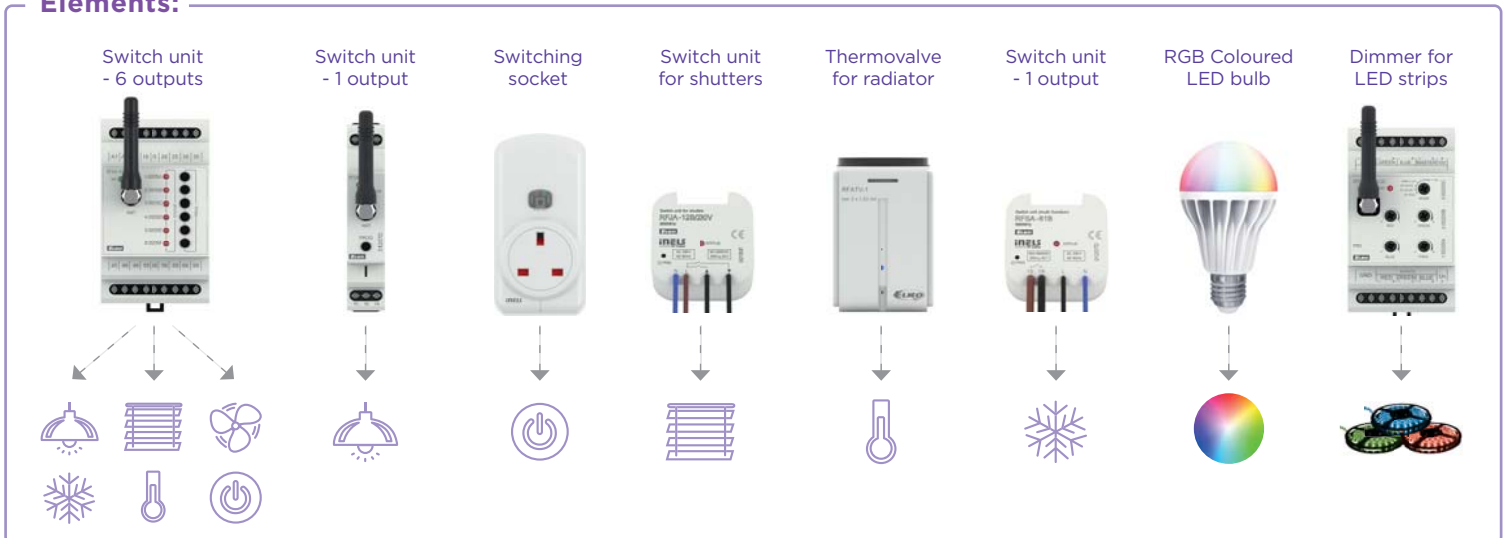
Wireless
Hotel Room
Energy Saving Kit

LARA audio control

- LARA is choice if you want to listen music in the room or bathroom
- LARA is internet radio, player of your favorite music from your smartphone or hotel central storage of music

Access control

- after inserting hotel card to card switches it will activate automatic regulation of the lights in the room
- in case that the guest is in the room then motion detector RFMD-100 gives a permanent wireless ON for main light
- if guest is leaving the room and is closing door where was installed doors detector RFWD-100 then it sends a command „delay OFF" (set time 3 minutes) and the light turns off
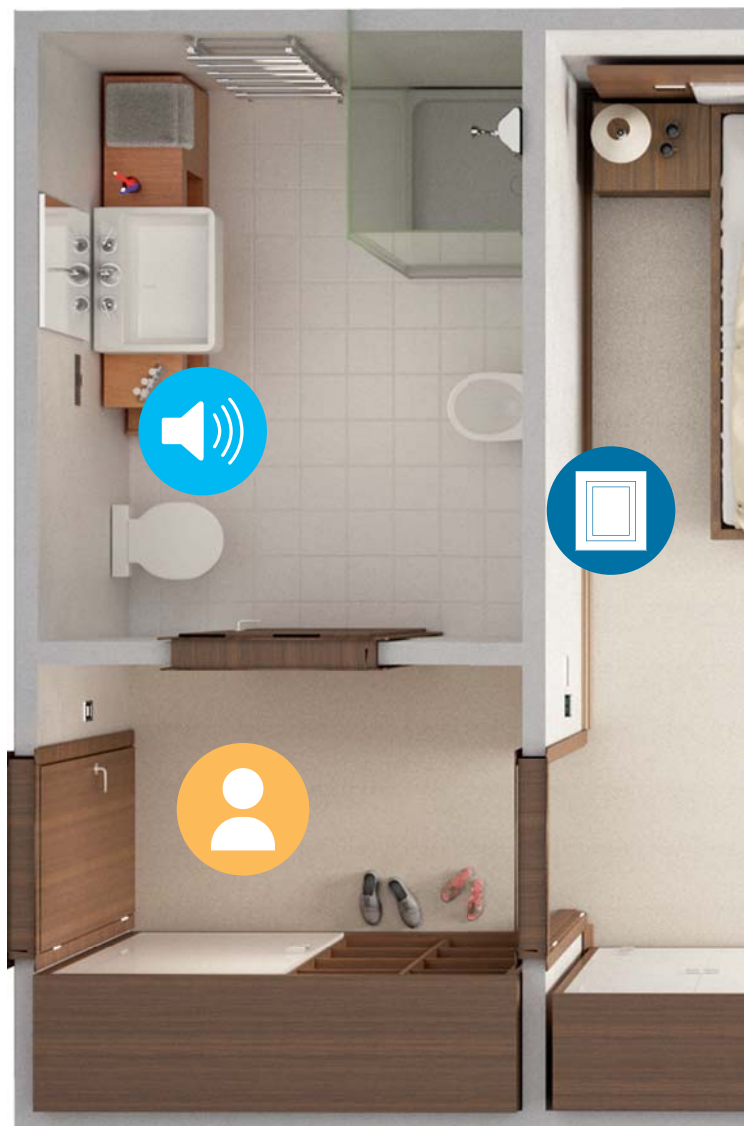
Touch panel

- design element with a touch of luxury that enlivens every interior. Used for scene control, temperature, and lighting colour
- hotel option also controls the music settings
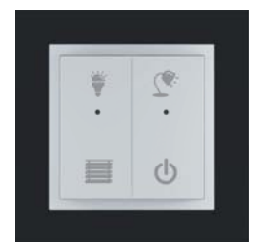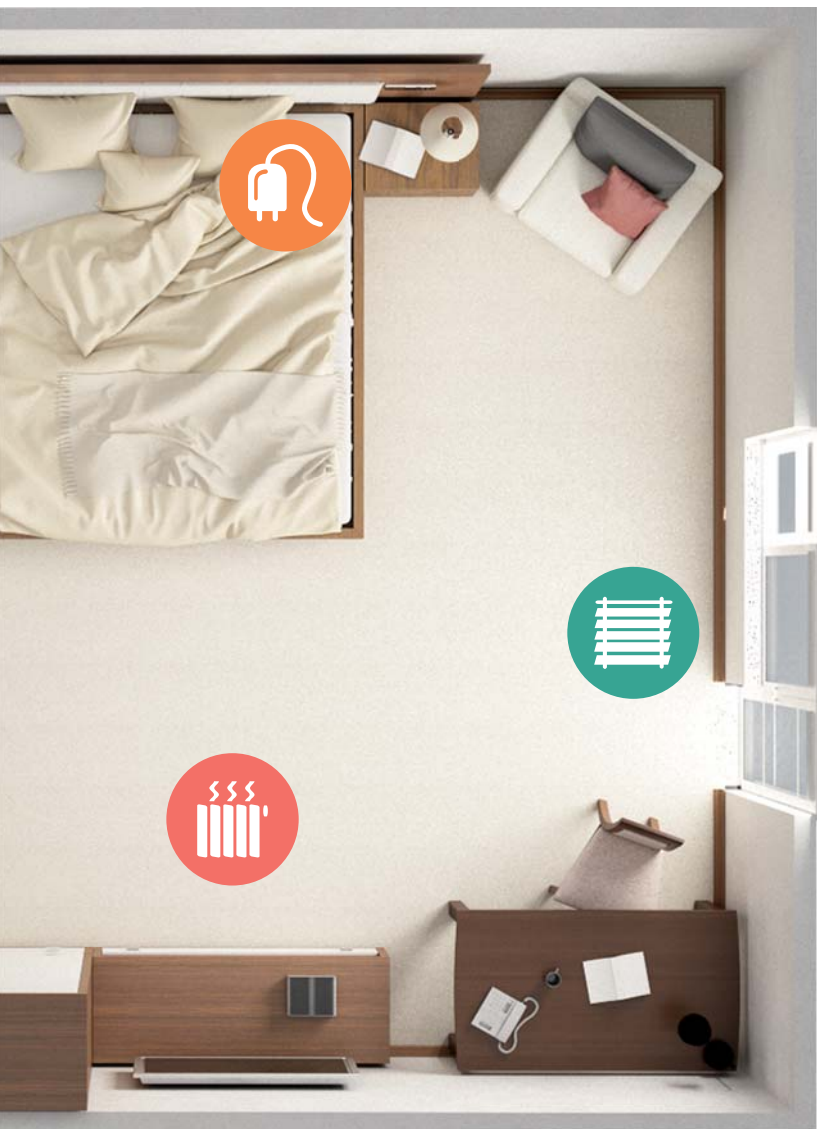
Wireless switch

- thanks to the flat base of wireless switch is easy to put it on the nightstand, wall or glass wall
- wireless switch RFWB-40/G has a function MASTER OFF (channel number 3)
- when the button is pressed it will turn off all the lights and a fan in the room
- after short pressing the light is switched on and off, holding down can regulate brightness

Temperature control

- combination of digital thermoregulator RFTC-50/G and switching unit RFSA-66M (6 outlets) is used for fan coil temperature control in the room
- regulator can change the standard temperature modes of heat and cool and it has three stages speed mode – low, medium, high
- RFTC control the critical temperature in the room if is higer automaticali switch on the aircondition

Shutters & curtains

- switching unit for blinds (RFJA-12B) is used for controlling curtains, awnings and blinds
- it is possible to use wireless switch to control it
- unit for controlling curtains can be combined with wireless twilight switch for automatic regulation of curtains

Saving for a hotel, convenience for customers

This is the automatic control of lighting, which is controlled by a combination of sensors (motion / door) and a switching component.

Operation is fully automatically or via a wireless controller, which is beyond the basic functions (ON / OFF). Additionally MASTER OFF function (one touch turns off all the lights).

Can control not only the main room lighting, but also a lamp in the corner of the room, curtains / blinds or can disable all / some of the socket circuits.

This combination of detector and the switching component provides hoteliers savings in lighting costs and customer ease of use.
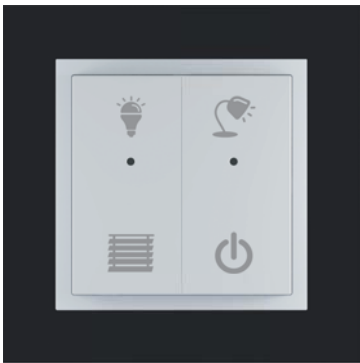
Mural
Wireless controller

RFWB-40

- for quick installation on any surface (no gluing or screwing into an installation box) after pressing the button it broadcasts the command setting (ON / OFF, dimming, time off / on, pull / insertion)
- designer frame LOGUS⁹⁰
- the possibility of setting scenes, where one touch controls more than one component
- battery power
- communication frequency 868 MHz bidirectional iNELS RF Control Protocol

Switch
wireless device

RFSAI-161B

- a switching component with one outlet channel used in combination with detectors
- automatic lighting control
- especially suitable for hotels
- controller is wireless switch (RFWB-20 or RFWB-40), touch RF Touch, or smartphone
- load connection 1x 16 A (4000 W)
- power: 230 V AC
- communication frequency: 868 MHz bidirectional protocol RFIO

Automatic light control functionality

Existing switch

Master unit
RFSAI-161B

RF

Main/bathroom light

Door detector

Door

Motion detector

Guest

Wall controller with custom icon

1 3
2 4

ON / OFF
Dimming
Time Delay
Master OFF

RF

others controllers

socket

RFSA-61B

stand lamp

RFSA-61B

dimmed light

RFDEL-71B
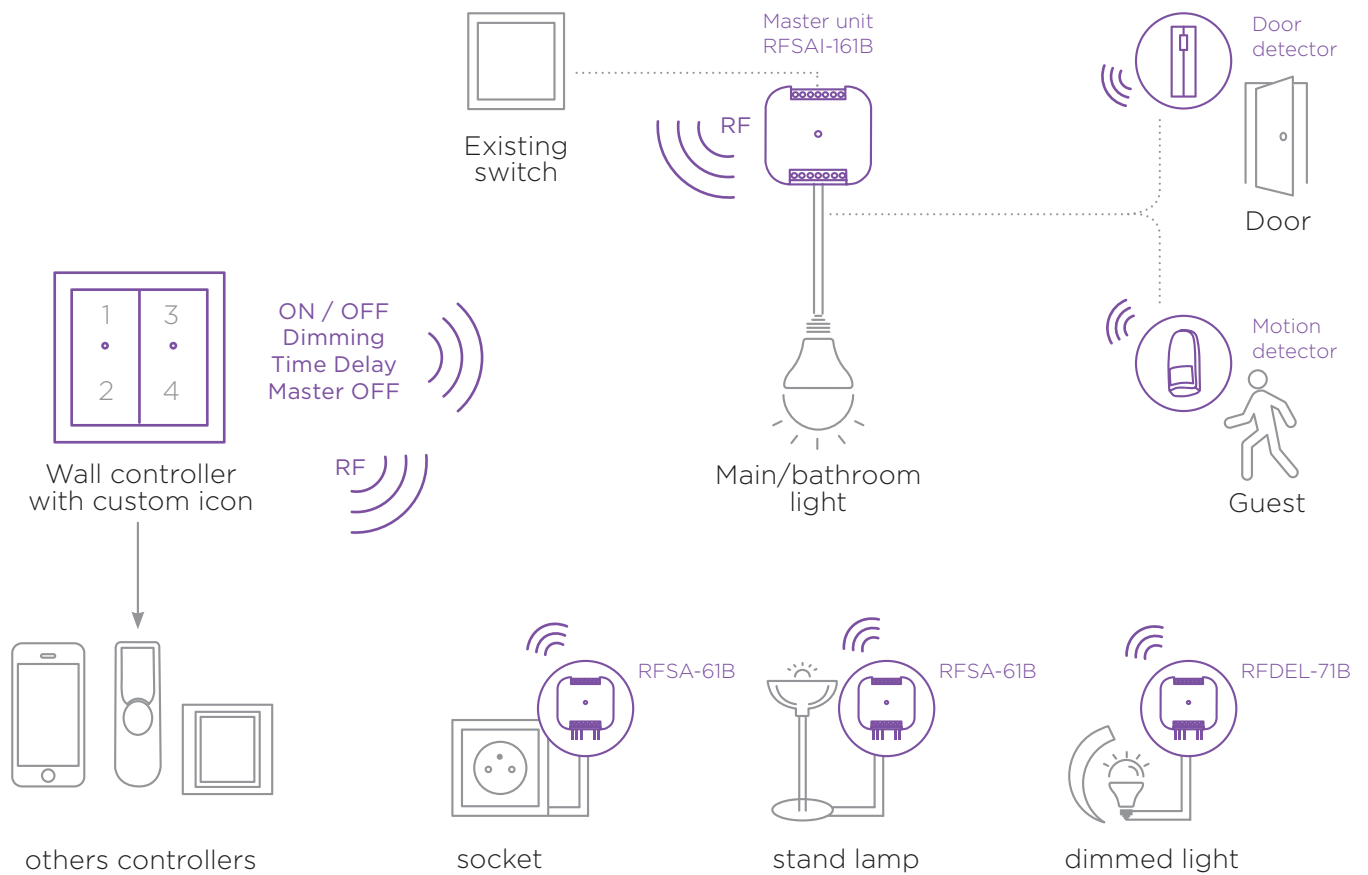
Control
overheated rooms

Temperature control in accommodation facilities is very often underestimated, although hot/cold is one of the first sensations that we feel when entering a room.

The temperature is universal temprature is very complicated, therefore the possibility to change the temperature should be easy. A digital regulator in combination with a switching component for heating control allows quick and easy temperature control. It is also possbie to compliment the component for the protection against overheating / undercooling temperatures, in the event that no one is inside.

This combination of components is a useful tool that prevents energy waste, as well as damage to equipment in the room.

Wireless thermal component

RFSTI-111B

- RFSTI-111B is a thermal component with one outlet conduit
- serves as protection against overheating of the room where the temperature influence can be damaging to furniture and appliances
- particularly suitable for rooms in a tropical climate
- uses an external sensor to measure the temperature in the range of 5-35 ° C, based on the set (critical) temperature switches the fan coil or air conditioning on or off.

Switch unit - 6 outputs

RFSA-66M

- the switching unit can switch up to 6 independent circuits (socket, light)
- integrated time-functions for each channel separately.

Temperature controller

RFTC-50

- used for autonomous temperature control for underfloor pipes and auxiliary heating
- the display features information on the current and set temperature and heating parameters
- weekly program

Temperature control

L

N   230 V

RF)))

RFTC-50

(((

RFSA-66M

Fan coil
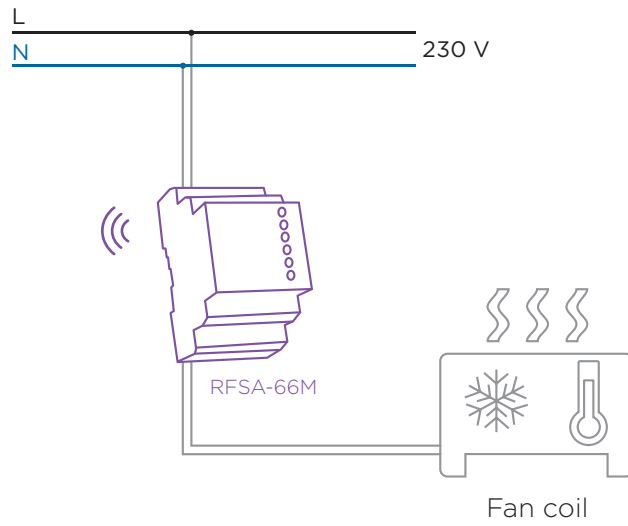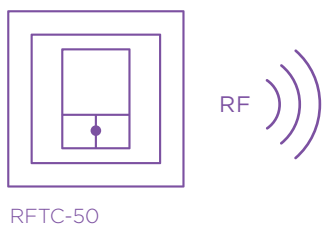
Overheating protection of room

RFSTI-111B

sensor

critical temperature
above 33 °C

Fan coil
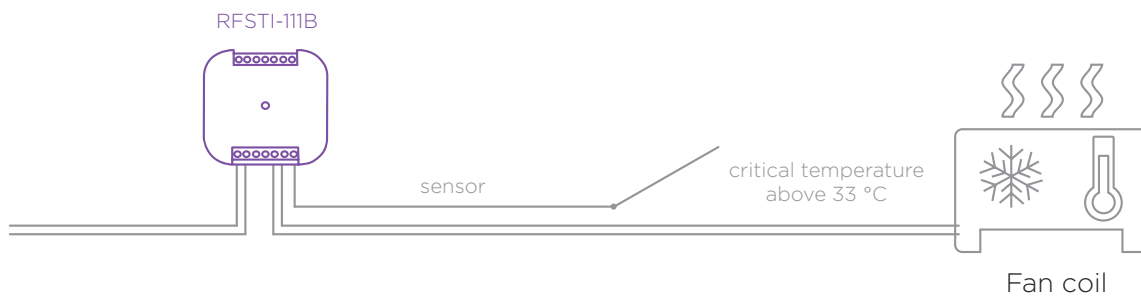
Apps for all

Applications, which can be downloaded for free. It is possible to control all devices connected to the system.

On the devices are shown values and consumption graphs, as well as cameras and house consonants. Via the application possible to set and configure the variables of the sytem. Applications for Android smart phones and watches as well as iOS from Apple.

Overview of functions

	iHC-MIRF	iHC-MARF	iNELS Home Control	iNELS Home Control
	Available on the iPhone App Store	ANDROID APP ON Google play	Samsung SMART TV	TIZEN
Lighting	✓	✓	✓	✓
Blinds	✓	✓	✓	✓
Sockets	✓	✓	✓	✓
Garage doors, gates	✓	✓	✓	✓
RGB bulbs, LED strips	✓	✓	✓	✓
Scenes	✓	✓	✓	✓
Heating	✓	✓	✗	✗
Cameras	✓	✓	✓	✗
Air-conditioning	✓	✓	✗	✗
Weather station	✓	✓	✗	✗
Energy Measurement	✗	✓	✗	✗
Door communicator / Intercom	✓	✓	✗	✗
A/V appliances	✓	✓	✗	✗

Overview

Absolute control over all appliances.
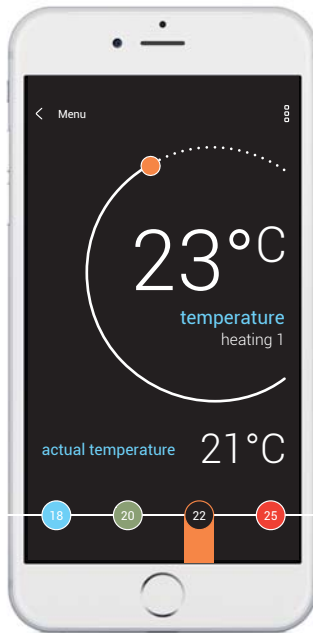
Thermo

You can set the temperature in each room just the way you like.
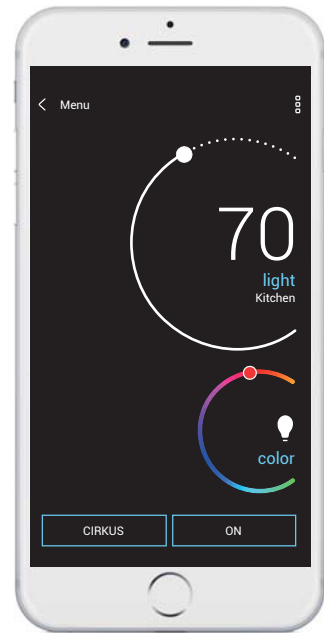
Lighting control

Dim up / down set romantic light scenes with RGB.
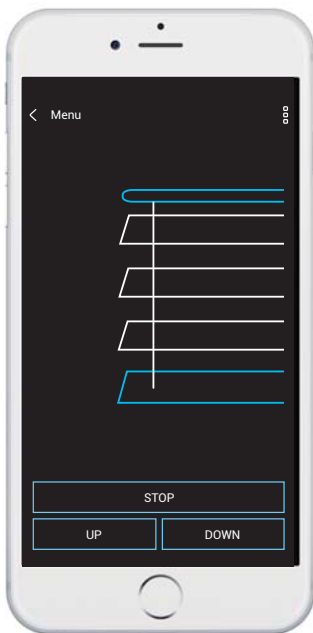
Blinds control

Did you forget to set the shutters in light of the weather? No problem.
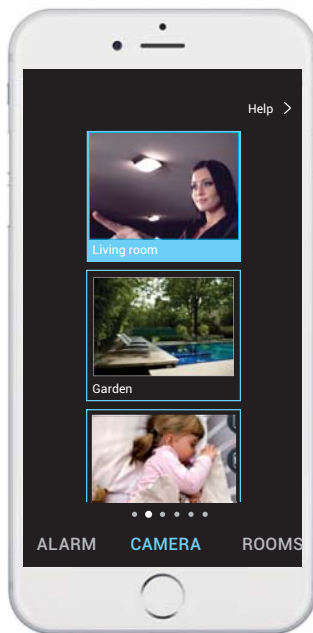
Cameras

You can keep an eye on the security of your home from anywhere on earth.
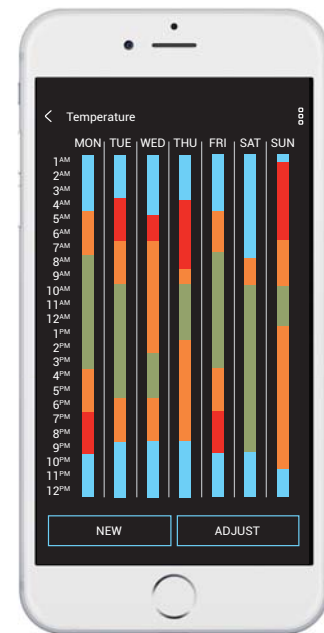
Scheduling

When and what mode of heating in one place for a week-arranged and easier.

References iNELS

Since we began supplying iNELS, we have performed over 3,000 installations. Introducing a selection.

A fully remote-controlled squash center in Hungary, a French restaurant in Prague's Municipal House, a discotheque in Kiev, Ukraine, a summer residence on Mallorca and a myriad, of apartments and houses. You can find our systems installed and implemented in hundreds of locations across the globe.

We can introduce the iNELS system to various projects, whether it concerns the residential sector or commercial space.

Quote can be found at:
elkoep.inels.com

Smart Home & Building solutions for

Flat / Apartment   House   Villa   Hotel   Commercial

www.inels.com

Shop Dior

Prague / Czech republic

- hardware: RF Control
- channel multifunction dimming actuator RFDA-71B
- single channel actuator with analog output RFDAC-71B
- RF remote control Pilot

Wellness - Chateau

Petrovice/ Czech republic

- iNELS system controls: 47 dimmable light circuits a 63 switching light circuits
- control lighting SPA, swimming pools, ceramic loungers

Showroom Smart Light

Bratislava / Slovakia

- the entire building, including warehouse and exterior spaces, is controlled by iNELS intelligent electro-installation
- iNELS system controls: 15 switching light circuits, 5 dimmable light circuits, 1 LED RGB light circuits, etc.

Sweet-shop Harrer

Soproň / Hungary

- all lights in the building are managed by iNELS system
- the system is controlled by central unit CU2-01M, it was programmed in IDM
- iNELS BUS System: 6 dimming circuits, 20 switching circuits

Hotel Merit Premium

Kyrenia / Cyprus

- all rooms are equipped with smart electro-installation
- this is controlled by RFSA units that switch set modes
- when designing a system, the emphasis was placed on the central function (MASTER switch)

Wyndham Grand

Istanbul / Turkey

- more than 3000 lighting circuits are controlled through the DALI protocol
- another thousand lighting circuits are controlled via DA3-22M units.
- the brain of the whole installation is the central unit - CU3-01M

Thermo regulation

Wireless touch unit

RF Touch

- power: 100-230 V AC, from the side 12 V DC
- load: up to 40 units
- Wi-Fi connection
- output: 2x potential free relays (3 A)

Temperature controller

RFTC-10/G

- power: 2x 1,5 V AAA battery
- temperature range: 0 to +55°C (32 - 131°F)
- integrated sensor
- design LOGUS⁹⁰ (glass, metal, wood, stone)

Temperature controller

RFTC-50/G

- power: 2x 1,5 V AAA battery
- temperature range: 0 to +55°C (32 - 131°F)
- weekly programming
- integrated sensor
- design LOGUS⁹⁰ (glass, metal, wood, stone)

Temperature controller

RFTC-100G

- power: 100-230 V AC/50-60 Hz
- temperature range: 0 to +55°C (32 - 131°F)
- weekly programming
- integrated sensor
- design LOGUS⁹⁰ (glass, metal, wood, stone)

Detectors

Smoke detector

RFSD-100

- power: 2x 1,5 V AAA battery
- smoke detection: optical light scattering
- autotest

Motion detector

RFMD-100

- power: 1x 1,5 V AAA battery
- detection angle 120°
- shot length 12 m (13.12 yd)

Window detector

RFWD-100

- power: 2x 3 V CR2032 battery
- opened window / door detection
- battery status indication

Flood detector

RFSF-1B + FP-1

- power: 1x 3 V battery CR 2477
- terminal for external probe
- operation button: battery status, signal quality

Energy management

Energy gateway

RFPM-2M

- power: 230 V AC / 50-60Hz
- inputs: PULS1, PULS2, CIB
- tariff inputs: TARF1, TARF2
- current measurement probes 3 x CT50
- output RELAY: 1NO/NC, 16A
- connection: LAN / Wi-Fi

Pulse converter

RFTM-1

- power: 2x 1,5 V battery AAA
- supported sensors: LS (LED sensor), MS (magnetic sensor), IRS (Infra Red sensor)
- IP 65 protection
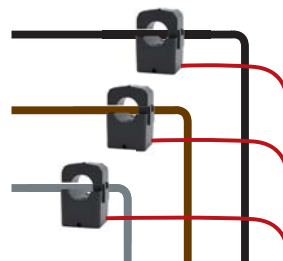
Current transformer

CT50

- the opening CT are installed on the existing wire of the measured circuit, most frequently at the main input to the electricity meter
- current: 50 A
- frequency: 50/60 Hz
- dimensions: 31 x 46 x 32 mm (1.22 x 1.81 x 1.26 in)

Switch unit with sensor

RFSTI-11/G

- power: 110-230 V AC/50-60 Hz
- temperature range: -20 to +50°C (-40 - 122°F)
- load: 8 A
- internal / external sensor
- design LOGUS^{90}
- LED status indication

Thermovalve

RFATV-1

- power: 2x 1,5 V batteries AA
- temperature range: 0 to 32°C (32 - 90°F)
- integrated sensor
- adapters: RAV, RA, RAVL

Temperature sensor

RFTI-10B

- power: 1x 3 V CR 2477 battery
- temperature range: -20 to +50°C (-40 - 122°F)
- internal / External sensor

Switch unit with sensor

RFSTI-11B

- power: 230 V AC/50-60 Hz
    120 V AC/60 Hz
    12-24 V DC
- temperature range: -20 to +50°C (-40 - 122°F)
- load: 16 A

Cameras

IP camera

iNELS Cam

- power: 5 V DC adapter
- resolution: 640 x 480 px
- night light
- up to 10 cameras in app

Video Cameras

- you can connect any video camera supporting MJPEG2
- compatible cameras Axis, D-link, Dahua

Flashing LED

Built-in magnet in the gas meter

Rotating water meter indicator

LED sensor

LS

- the LED sensor scans LED pulses on meters, which indicate consumption by flashing
- cable length: 1.5 m (4.92 ft)

Magnetic sensor

MS

- the magnetic sensor scans the pulse, created with every rotation of a magnet located on the unit dial
- cable length: 1.5 m (4.92 ft)

Infra Red sensor

IRS

- the Infra Red sensor scans the reflective curtain placed on the moving dial (mainly on water meters)
- cable length: 1.5 m (4.92 ft)

☀ Dimming actuators

Wireless colored bulb

RF-RGB-LED-550

- power: 100-240 V AC 50/60 Hz
- luminous flux: 550 lm
- color temperature: RGB
- brightness regulation: 0 - 100%
- compatible base: E27
- durability: 30 000 h.

Wireless white bulb

RF-White-LED-675

- power: 100-240 V AC 50/60 Hz
- luminous flux: 675 lm
- color temperature: 600/5000K
- brighteness regulation: 0 - 100%
- compatible base: E27
- durability: 30 000 h.

Dimming socket

RFDSC-71

Schuko
French
US
British

- power:
  230-250 V/50-60 Hz (300 VA),
  120 V AC/60 Hz (150 VA)
- type of load: R, L, C, LED, ESL
- light scenes functions
- minimum brighteness setting
- operated from 32 channels

Dimmer for (RGB) LED strips

RFDA-73M/RGB

- power: 12-24 V DC stabilized
- load: 3x 5 A
- LED strips:
  single color
  7,2 VA, 3x 8 m (3x 26.25 ft)
  RGB LED
  14,2 VA, 10 m (32.80 ft)
- external control 0-10 V

🔌 Switching actuators

Switching socket

RFSC-61

Schuko
French
US
British

- power: 230-250 V/50-60 Hz,
  120 V AC/60 Hz
- load: 16 A
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)

Switch unit

RFSA-61M

- power: 110-230 V AC/50-60 Hz,
  12-24 V DC
- load: 16 A
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)
- option of connecting an exter-
  nal antenna

Switch unit - 6 outputs

RFSA-66M

- power: 110-230 V AC/50-60 Hz
- load: 6x 8 A
- 6 independent channels
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)
- option of connecting an exter-
  nal antenna

Outdoor switch unit

RFUS-61

- power: 230 V AC/50-60 Hz,
  120 V AC/60 Hz,
  12-24 V DC
- load: 12 A
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)
- IP65 protection

🔒 Controllers

Wall buttons

RFWB-20/G, RFWB-40/G

- power: 3 V CR 2032 battery
- 2 channels /4 channels
- scenes function
- command LED indication
- switching with a micro-button

RF Touch

Wall (surface), Flush

- power: 100-230 V AC,
  from the side 12 V DC
- setting with up to 40 units
  + 30 detectors
- central unit with autocontrol
- status visualization
- colored TFT LCD display, 3.5˝

Wireless remote controller

RF Pilot

- power: 2x 1,5 V AAA batteries
- setting with up to 40 units
- inbuilt temperature sensor
- scene function
- status visualization
- color OLED display

4 buttons controller

RF Key

- power: 3 V CR 2032 battery
- scenes function
- command LED indication

Universal dimmer

RFDEL-71M

- power (Load):
  230 V AC/50 Hz (600 VA),
  120 V AC/60 Hz (300 VA)
- type of load: R, L, C, LED, ESL
- external control 0-10 V or
  potentiometer
- control from external button
- light scenes function
- minimum brighteness setting
- operated from 32 channels

Universal dimmer

RFDEL-71B

- power (Load):
  230 V AC/50 Hz (160 VA),
  120 V AC/60 Hz (80 VA)
- type of load: R, L, C, LED, ESL
- control from external button
- light scenes function
- minimum brighteness setting
- overheat protection
- operated from 32 channels

Twilight switch

RFSOU-1

- power: 2x 1,5 battery AAA
- range: 1 - 100 000 lx
- twilinght and light switch function
- time delayed setting (0 - 2 min.)
- IP65 protection

Switch unit

RFSA-11B

- power: 230 V AC/50-60 Hz,
  120 V AC/60 Hz,
  24 V DC
- load: 16 A
- function ON/OFF
- operated from 32 channels
  (of controllers)
- manual control with inbuilt
  button

Switch unit

RFSAI-61B

- power: 230 V AC/50-60 Hz,
  120 V AC/60 Hz,
  24 V DC
- load: 16 A
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)
- terminal for control from
  existing button

Switch unit - 2 outputs

RFSA-62B

- power: 230 V AC/50-60 Hz,
  120 V AC/60 Hz,
  24 V DC
- load: 2x 8 A
- 2 independent channels
- time-functions (2 s.- 60 min.)
- operated from 32 channels
  (of controllers)

Shutter unit

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

- power: 230 V AC/50-60 Hz,
  120 V AC/60 Hz,
  12-24 V DC
- load: 2x 8 A
- operated from 32 channels
  (of controllers)

Contact converter

RFSG-1M

- cheap/expensive current control
- power: 110-230 V AC/50-60 Hz,
  24 V DC (galvanically separated)
- control input 12-230 V AC/DC
- option of connecting an exter-
  nal antenna

Contact converter

RFIM-20B, RFIM-40B

- wireless contact converter
  changes your existing button
  to a wireless one
- power: 1x 3 V battery CR 2477
  2x 3 V battery CR 2032
- 2 channels/4 channels

Behind the scenes

Smart RF Box
eLAN-RF-003

- power: 10-27 V DC/200 mA SELV
- setting with up to 40 units
- LAN connection
- HUB does not need the Internet to run
- automatic DHCP connection
- managing accounts/backup of projects via web interface
- routing/repeater function
- iOS and ANDROID compatibility

Smart Wi-Fi RF Box
eLAN-RF-Wi-003

- power: 10-27 V DC/200 mA SELV
- setting with up to 40 units
- LAN or Wi-Fi connection
- HUB does not need the Internet to run
- automatic DHCP connection
- managing accounts/backup of projects via web interface
- routing/repeater function
- iOS and ANDROID compatibility

Repeater
RFRP-20

British / Schuko / French / US

- power: 230-250 V/50-60 Hz, 120 V AC/60 Hz
- the socket function is retained

GSM communicator
RFGSM-220M

- power: 11-30 V DC, backup power supply Li-Ion batteries
- inputs: 4 wire, 10 wireless RF
- outputs: 2 relay (2x 8 A), 10 wireless (RFS...)
- control via SMS or ringing
- control of up to 30 telephone numbers
- other functions: time delay, alarm, status report

Door communicator

Door communicator
2N HELIOS BASE

- door communicator 2N Helios door entry system with camera for smaller installations with a built-in camera and one or two buttons
- you can choose from two variants of contactless RFID reader

Door communicator
2N HELIOS VERSO

- basic module series offers higher specification camera with IR illumination and night vision
- watchtower with multifunction modules can be changed according to customer needs
- you can choose mechanical illuminated keys, a numeric keypad or infopanel

Accessories

Thermodrive
Telva 230 V, Telva 24 V

- operating voltage: 230 V or 24V, 50/60 Hz
- stopping force: 100 N ±5%
- dimension h/w/l: 55+5 x 44 x 61 mm (2.17+0.2 x 1.73 x 2.40 in)

Flood Probe
FP-1

- working temperature: -10 - 40°C (14 - 104°F)
- mounting: glue / screw
- length of cable: 3 m (3,3 yd)
- dimensions: 60 x 30 x 8 mm (2.4 x 1.2 x 0,3 in)

Temperature sensors
TC

- range: 0 - 70 °C (32 - 158°F)
- sensor: NTC 12 K 5%
- TC-0 - l. 110 mm (4.33 in)
- TC-3 - l. 3 m (1.42 yd)
- TC-6 - l. 6 m (1.75 yd)
- TC-12 - l. 12 m (13.12 yd)

Temperature sensors
TZ

- range: -40 - 125 °C (-40 - 257°F)
- sensor: NTC 12 K 5%
- TZ-0 - l. 110 mm (4.33 in)
- TZ-3 - l. 3 m (1.42 yd)
- TC-6 - l. 6 m (1.75 yd)
- TC-12 - l. 12 m (13.12 yd)

Internal antenna
AN-I

- for GSM-220M, eLAN-RF-003, eLAN-RF-Wi-003, RFDA-73/RGB, RFSA-61M, RFSA-66M, EMDC-64M, RFDEL-71M and transmitter module RFSG-1M into plastic switchboard
- rod angle, without cable
- sensitivity 1dB

External antenna
AN-E

- for RFGSM-220M, eLAN-RF-003, eLAN-RF-Wi-003, RFDA-73/RGB, RFSA-61M, RFSA-66M, EMDC-64M, RFDEL-71M and transmitter module RFSG-1M
- cable length 3 m (3.28 yd)
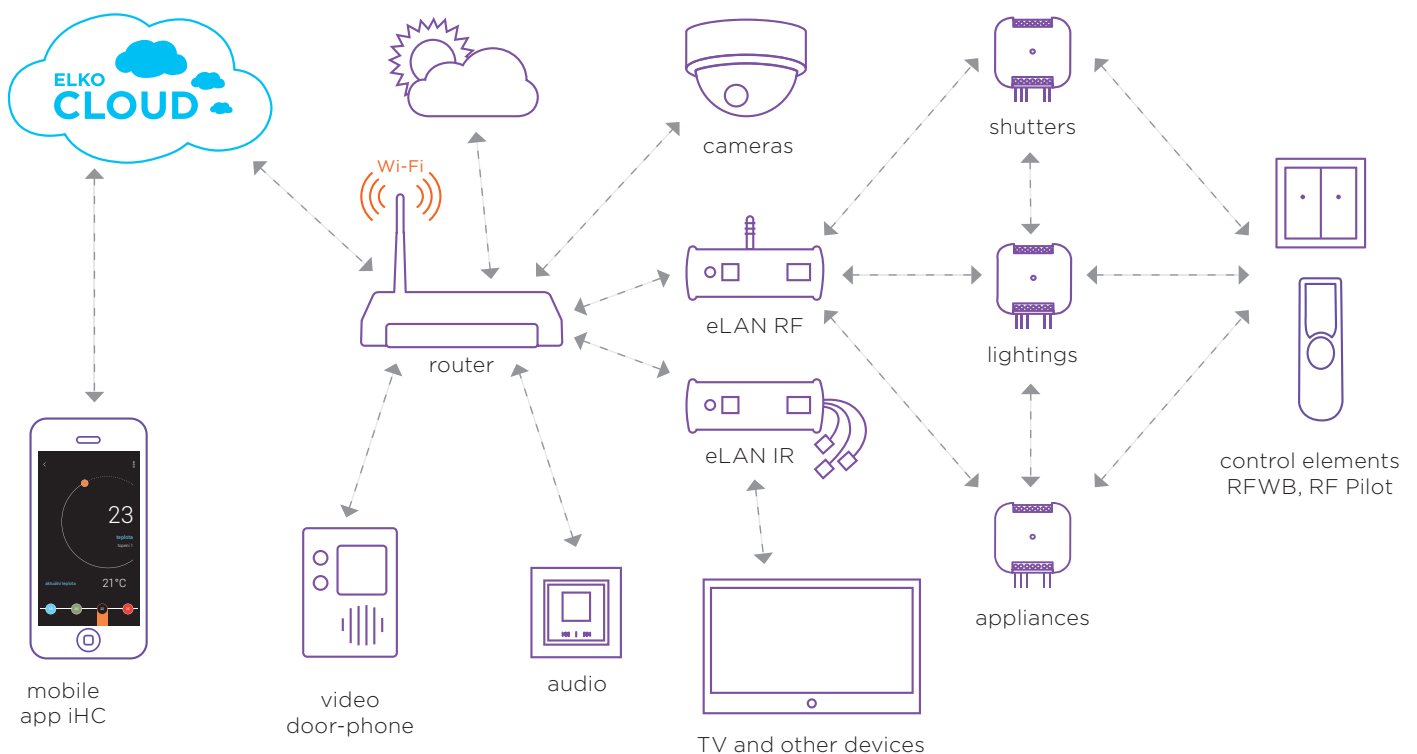- sensitivity 5dB

Protocol and compatibility

Communication between units (transmitters and receivers) takes place wirelessly on a frequency of 868 – 916 MHz based on standards in the given country on an entirely unique protocol RFIO. RFIO is a proprietary wireless protocol of ELKO EP, which is unique for its structure. In the USA, there is also available a variety of units with the protocol Z-Wave (915 MHz), which is compatible also with other producers of similar devices on the same protocol.

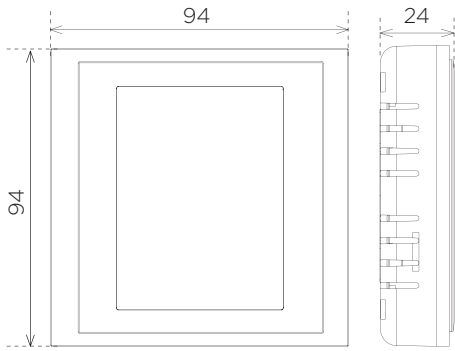**Available frequency for individual territories:**

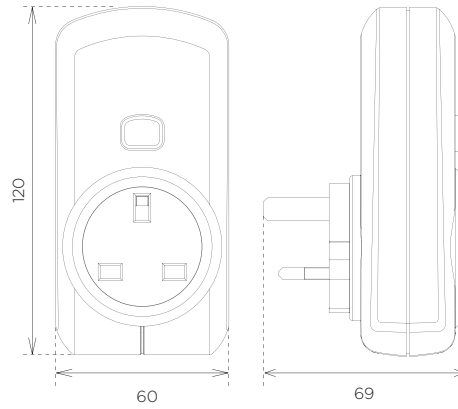|			
866 MHz	India	916 MHz	North / South America, Australia
868 MHz	EU, Ukraine, Russia		
	Middle East	922 MHz	New Zealand

Advantages of the RFIO protocol:

• Reliable transfer of small data packets with transfer speed of up to 100 kbit/s

• No fees or licenses required

• Used frequencies do not collide with Wi-Fi /Bluetooth devices and wireless units at 2.4 GHz (ZigBee)

• It does not needlessly overwhelm communications space with unaddressed commands

• Low power radio

• Routing - Data transfer between wireless units takes place by a system where other receivers within range help transfer information (packets) to the distant receiver, which itself would be out of range. It is thus possible to cover larger buildings and increase reliability of transmission for more complex buildings.
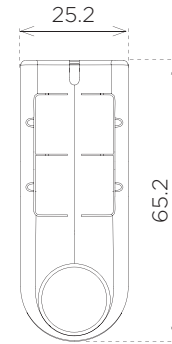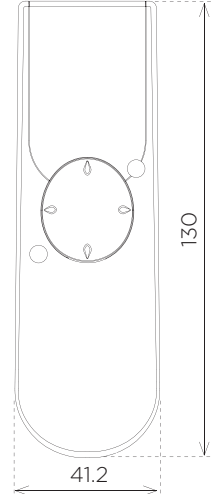

ELKO CLOUD

Wi-Fi

router

mobile app iHC

video door-phone

audio

TV and other devices

cameras

eLAN RF

eLAN IR

shutters

lightings

appliances

control elements RFWB, RF Pilot

Product dimensions

RF Touch - W
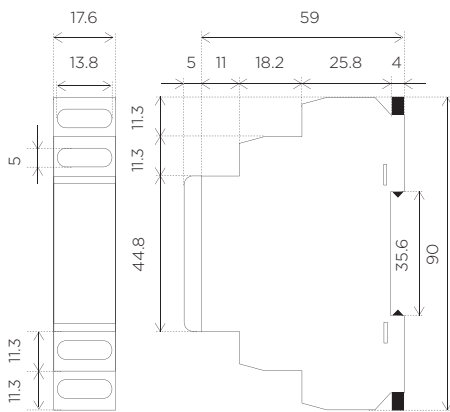

RFRP-20
RFDSC-71
RFSC-61

RF Key
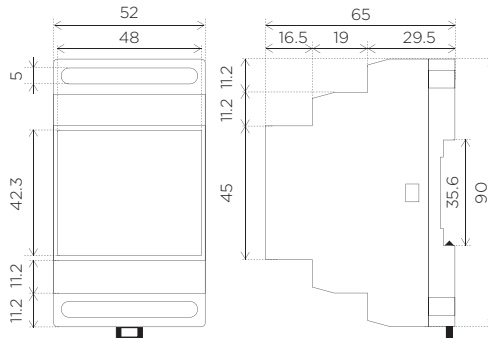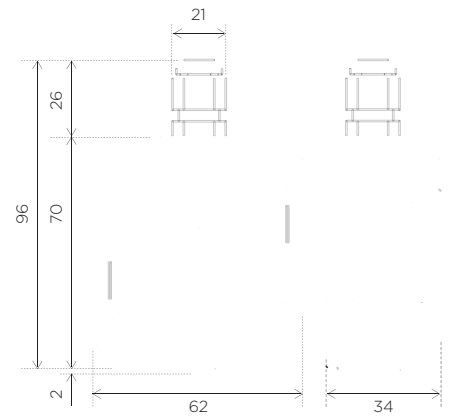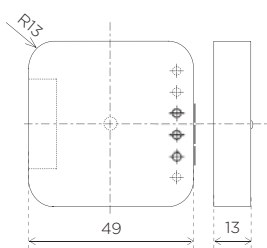
RF Pilot

1 Modul

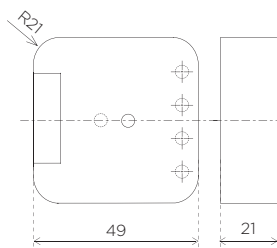RFSA-61M

3 Modul

RFSA-66M
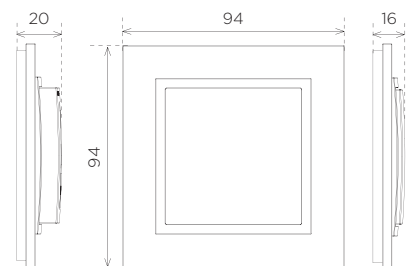RFDEL-71M

RFDA-73M/RGB
RFPM-2

IP65

RFSOU-1

MINI

RFTI-10B
RFSF-1B

MINI

RFDEL-71B
RFSA-62B

RFSAI-61B
RFJA-12B/230V

RFTC-50/G

RFWB-20/G
RFWB-40/G

Installation possibilities

1) Surface mounted

Wall mounted or in an installation box with spacing of 65 mm.

RFSC-100,	RFWB-40/G
RFMD-100	RFTC-50/G
RFWD-100	RF Touch
RFWB-20/G	

2) Flush mounted

RF Touch

3) DIN Rail mounted

On DIN rail according to EN 615.

RFPM-2	RFSA-61M
RFDA-73M/RGB	RFSA-66M
RFDEL-71M	

4) Mounted to or in the installation box

In an installation box or built in to the device.

RFTI-10B	RFSA-62B
RFSF-1B + FP-1	RFSAI-61B
RFDEL-71B	RFJA-12B/230V

5) Mounted into the cover of appliance

RFTI-10B	RFSA-62B
RFSF-1B + FP-1	RFSAI-61B
RFDEL-71B	RFJA-12B/230V

6) Surface mounted

RFSOU-1	RFUS-61

Others just resell

HOWEVER, WE DEVELOP AND MANUFACTURE PRODUCTS OURSELVES!

24 years
on the market

13 years
ISO certification

40 developers

200 proprietary
plastic molds

2 000 m²
manufacturing
space

240 production
workers

2
SMD lines

1 Mil.
components
per day

600 000
products per year

2000 m²
expedition space

2000
warehousing points

2 printing
lasers
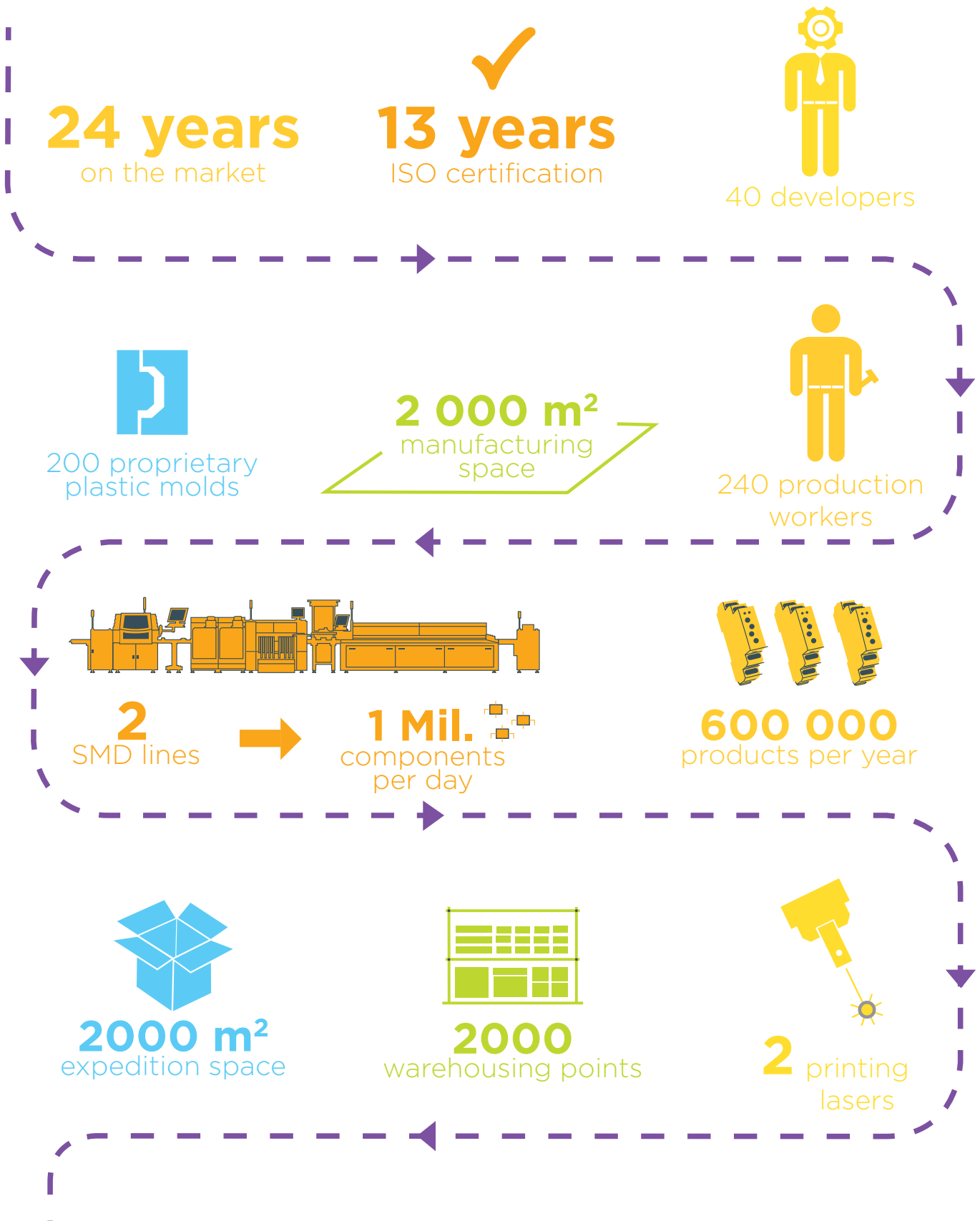
R&D overall view

Internal lab

SMD production line

Chip placing

Production hall

Testing

ELKO EP Holding

USA

Russia

Ukraine

Poland

Czech Republic
(Headquarters)

Germany

Austria

Spain

Hungary

Slovakia

Turkey

UAE

Iran

Saudi Arabia