Wireless electro-installation

Home & building wireless solutions

iNELS®

ELKO EP, Holding

We are traditional, innovative and purely Czech development manufacturer of electronic devices and we have been your partner in the field of electroinstallations for 26 years.

ELKO EP employs about 330 people, exports its products to more than seventy countries, and has representatives in thirteen foreign branches. Company of the Year of the Zlín Region, Visionary of the Year, Global Exporter of the Year, Participation in the Czech TOP 100, these are just some of the awards received. Still, we are not finnished. We are constantly striving to move forward in the field of innovation and development. That's our primary concern.

Millions of relays, thousands of satisfied customers, hundreds of our own employees, twenty six years of research, development and production, thirteen foreign branches, one company. ELKO EP, innovative- a purely Czech company based in Holešov, where development, production, logistics, service and support go hand in hand. We primarily focus on developing and manufacturing systems for building automation in the residential, commercial and industrial sector, a wide range of Smart city facilities and the so-called Internet of Things (IoT).

Facts and stats

30 %
EXPORT

ANNUAL TURNOVER
20 mil. EUR

40 %
CZECH

30 %
BRANCHES

13
BRANCHES OVER THE WORLDS

70
EXPORTING COUNTRIES

330
EMPLOYEES

10 000
iNELS INSTALLATION

12 000 000
MANUFACTURED PRODUCTS

2ⁿᵈ position
in Europe
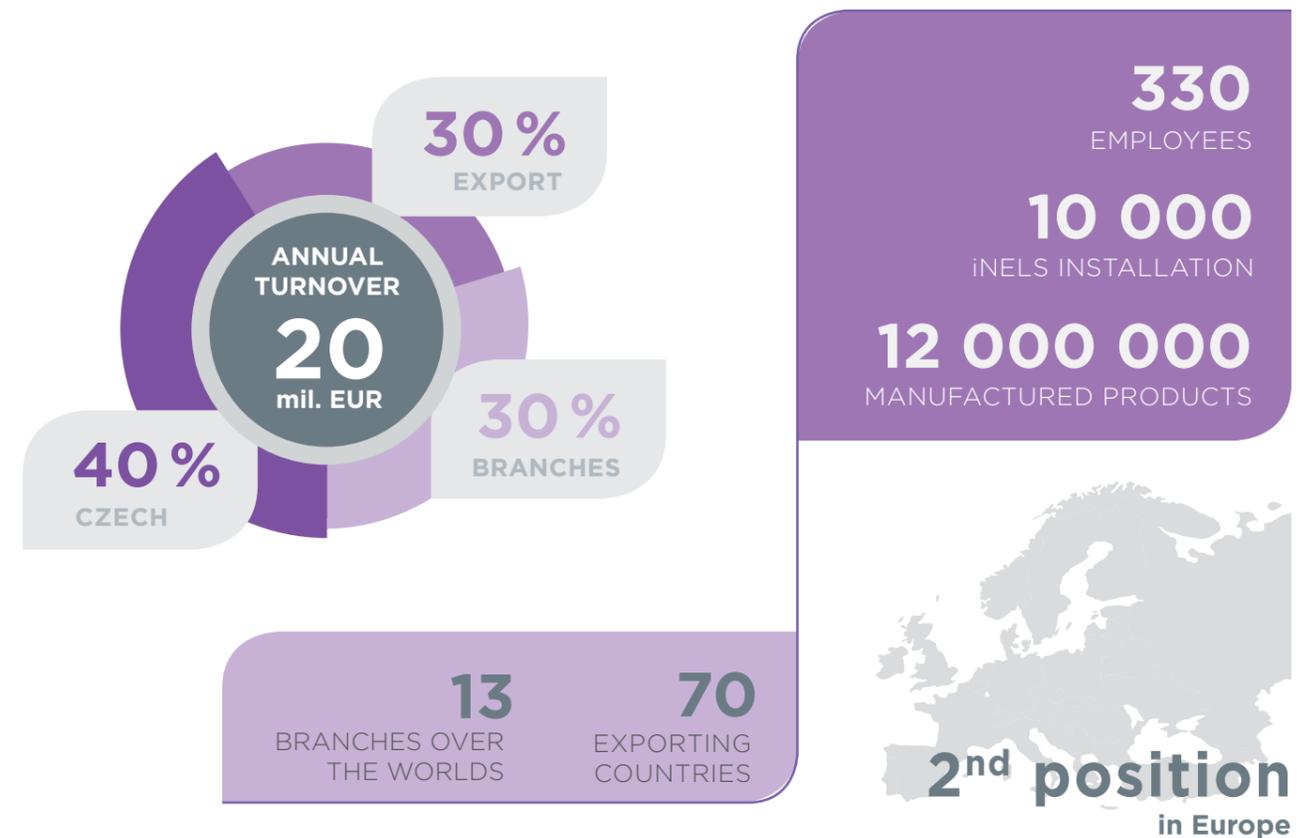
WE ARE

DEVELOPERS

In the new R&D center, more than 30 engineers develop new products and extend the functionality of existing products
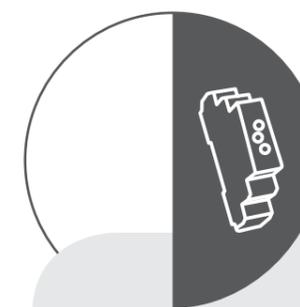
PRODUCERS

modern antistatic spaces, 2x fully automated SMD production lines, 2 shift operations.

SUPPORT

24 hours / 7 days / 360 days we not only provide technical support but also logistics.

SELLERS

personal access to more than 70 sales representatives in ELKO EP Holding provides impeccable services and superior products at an affordable price.

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 it performs wirelessly. This means that you do not need to carry out extensive alterations to your electrical installations to promote them to a higher order of magnitude.

So you can indulge what was not possible before. In addition, the electronic installation can be extended, changed or upgraded at any time.

Savings

- by effi cient 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 how easily you control it. With us you can control the devices and appliances in many ways, one at a time or combine them at will.

For those conservatives amongst us, there are buttons in the form of switches exactly as we know and are used to them, for those of us who often move around the house In the garden, the RF Pilot remote control in your pocket will surely be appreciated. Touch unit is again designed for those who like everything in one place with a – 3.5 "display securely holding all the necessary buttons within the frame. An interesting and often preferred option is the driver's smartphone – which most of us already have in our pocket.

You can control iNELS with:

| Wall Controller | RF Key | RF Pilot | RF Touch | Smartphone App | Smart TV App |
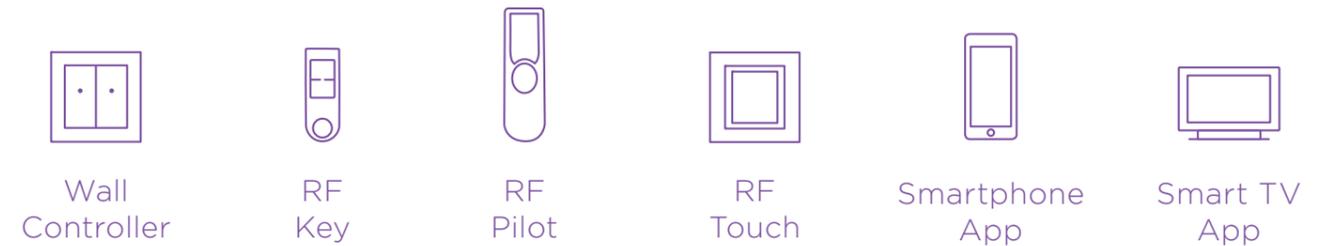
Wall controller

- wireless and in premium design
- the high variability of wireless switches
- simple installation – can be attached or fixed anywhere
- it also offers control of up to any 4 lights

Key chain

- pocket controller for every day
- small dimensions make it possible to have the key fob always 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 colour display offers control of up to 40 household appliances
- lights, sockets, garage doors, sprinklers, blinds, awnings, etc.

RF Touch

- design element with a touch of luxury fittingly accenting any interior
- it will become a central, wireless intuitively controlled home
- coloured 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.

APPs for your home

Through an application on your smartphone, you can control your home while keeping complete track of all its ongoing processes.

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. 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 colour LED strip will provide a wonderful bedroom atmosphere to suit your mood.
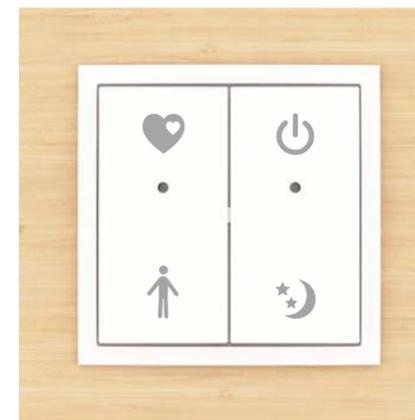
Button for "GOOD NIGHT"

- ♡   • 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 colours of the coloured 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 whole house

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

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

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.

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

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

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

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.

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.

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 śmartphone application.

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

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

Thermovalve

Radiator

Floor heating pipe

Window detector

Window

RF

RF

RF

Wi-Fi

ELKO CLOUD

Heaters

Switching socket

Router

Floor heating cable

Switching unit with sensor

Switching unit

Fan-coil
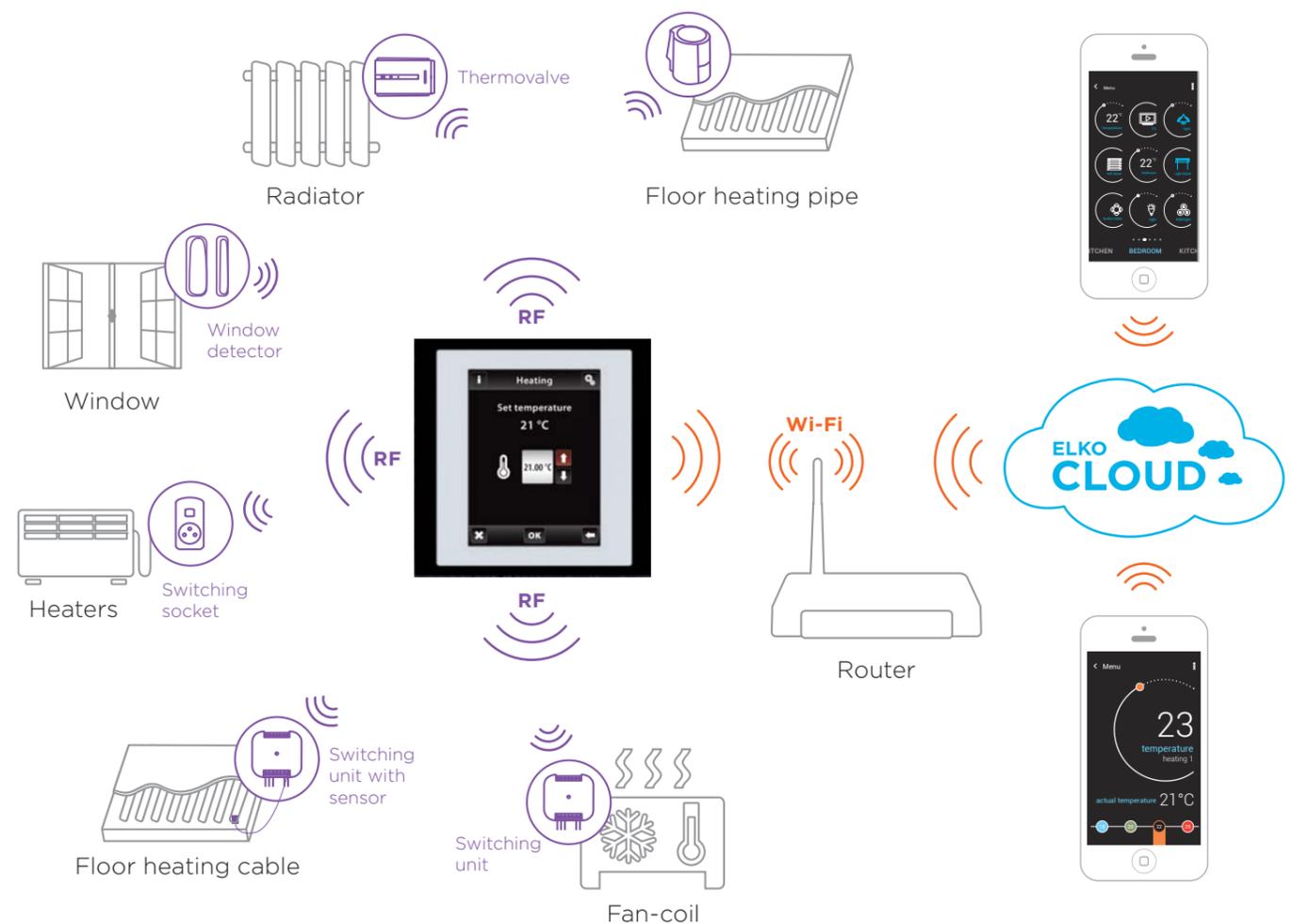
Temperature controller

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

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

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, wnings – 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.
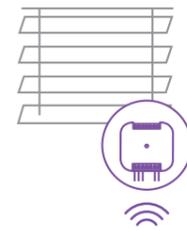
Blinds/Shutters   Awning   Access gateway   Garage
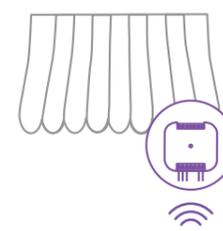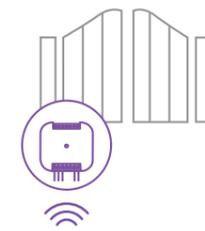
Jalousie Actuator

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

Keychain   RF Pilot   Wireless touch unit RF Touch   App
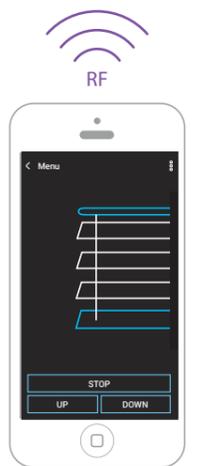
Intercom
& Video door-phone

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 replacement of traditional doorbells or door phones. It is a wireless installation allowing a user to open the door or gate.

Door Communicator

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

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

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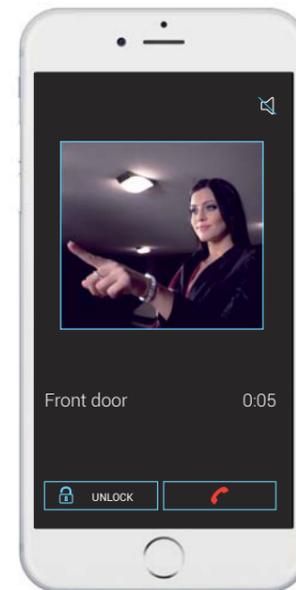
iNELS enables you to redirect a door bell ringing and consequent video conversation to your phone, even if you are not at home.
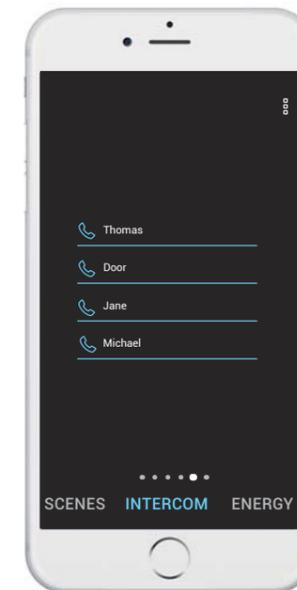
The application enables calls between participants on smartphones, tablets, or LARA device.

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

Back entrance

Thomas

All

Michele
Thomas
Jane
Michael

Front door

Michele
away

Front door

Thomas

Back entrance

Michele

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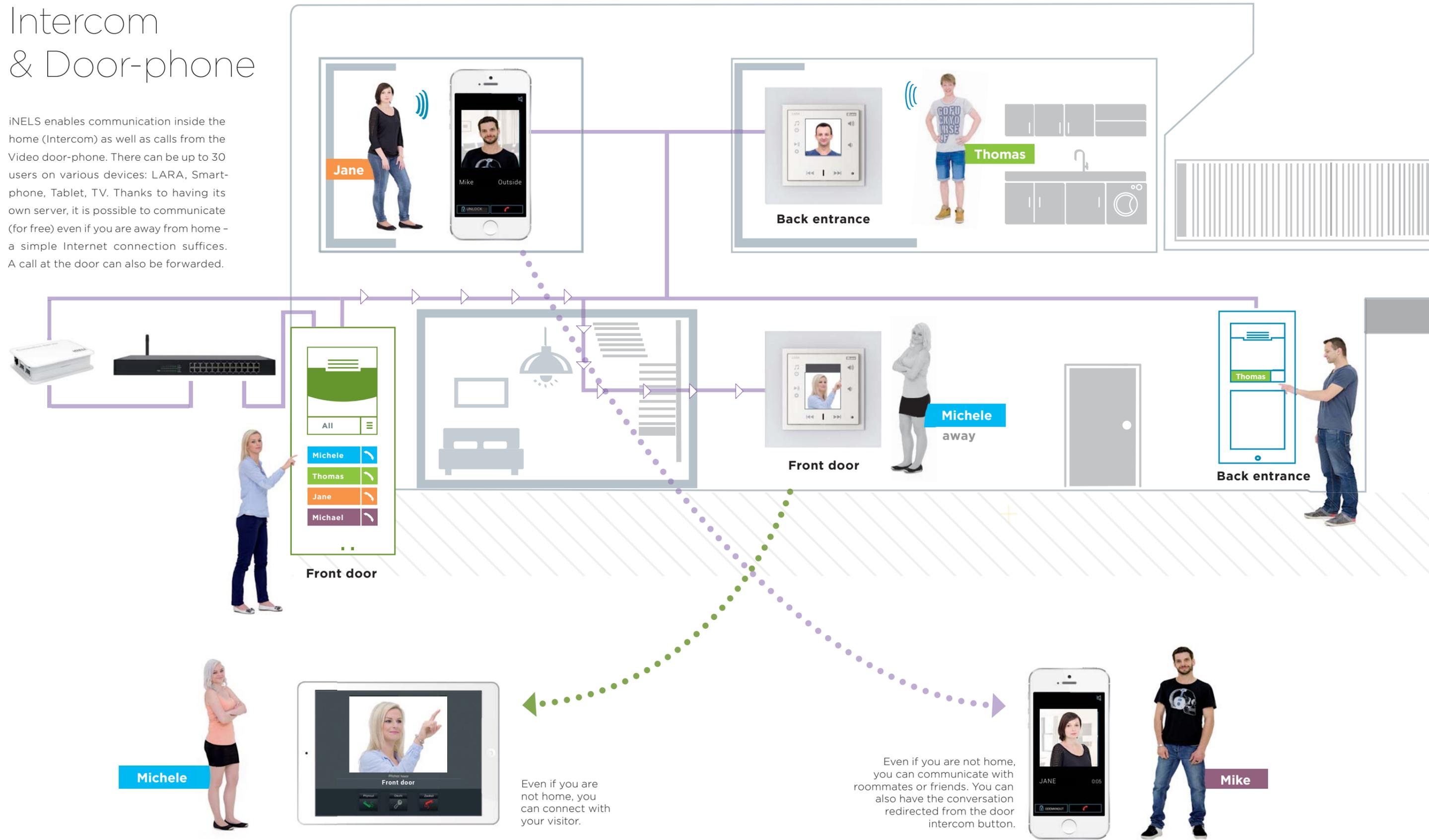
Even if you are not home, you can connect with your visitor.

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.

JANE   0:05

Mike

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

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 over flowing 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.
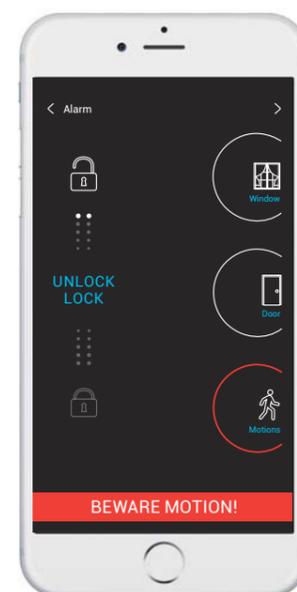
Flood detector

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
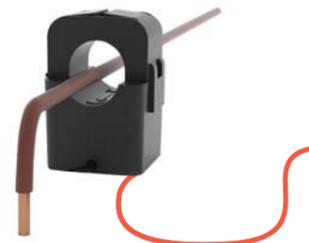
Current transformer

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

- the wireless pulse transducer scans the sensor data from the meter and sends it to the RFPM-2M gateway for further evaluation

- supported sensors: LS (LED sensor), MS (magnetic sensor), IRS (IR sensor)

Consumption overview
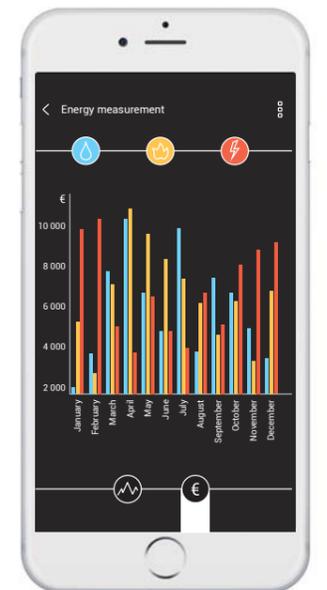
- all energy sources for the selected period

- 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.

Colour 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.

RGB LED bulb

RF-RGB-LED-550

- receiver and dimmer enable setting of the brightness and colour
- luminance: 550 lm/675 lm, Base: E27
- lamp life: 30,000 hours
- function: brightness 0—100%, RGB lamp: automatic blending of colours
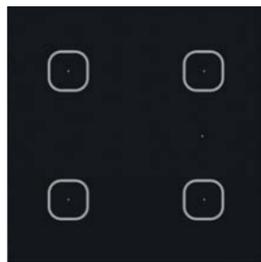
Wireless Dimmer Switch

RFDW-71

- wireless switch in glass design with integrated dimming element
- supply voltage: 230V AC/50 Hz, 120V AC/60 Hz
- 4-channel design
- control up to 25 channels
- 6 light functions

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-colour strips or an RGB colour strip
- control from the RF Key Alarm, RF Pilot, RF Touch or the Application
- inputs for controlling 0 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, 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.

Switching socket (multi-function)

RFSC-61

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

Wireless switching unit (multifunctional) - 1 output

RFSA-61M

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

Wireless switching unit - 6 outputs

RFSA-66M

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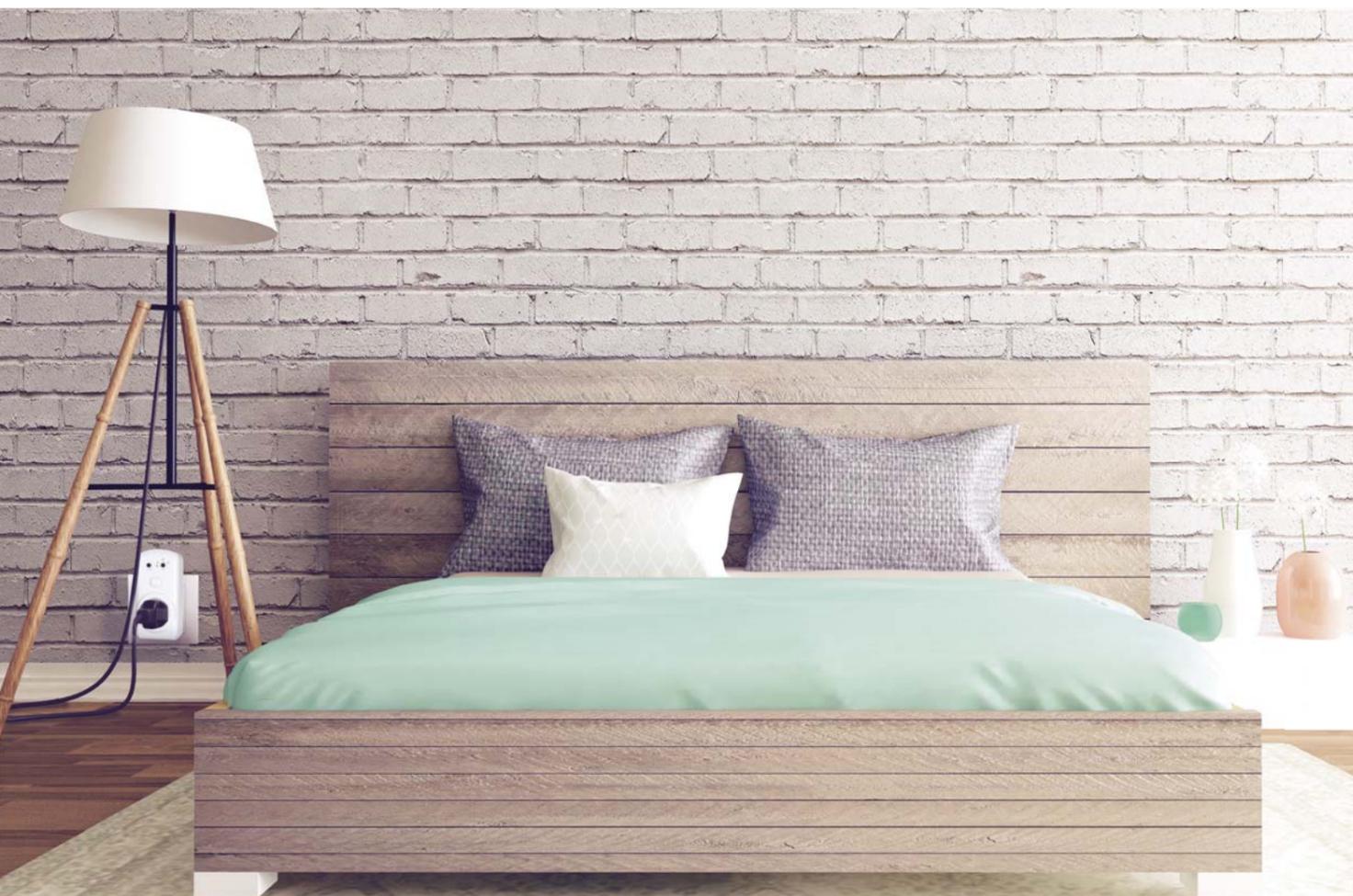
Wireless switching unit with input

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

Wireless switch unit (inbuilt) - 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.

Wireless switching unit with 2 inputs – 2 outputs

RFSAI-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?

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	Colour plastic	Colour plastic
Metal	Wood	Stone	Crystal
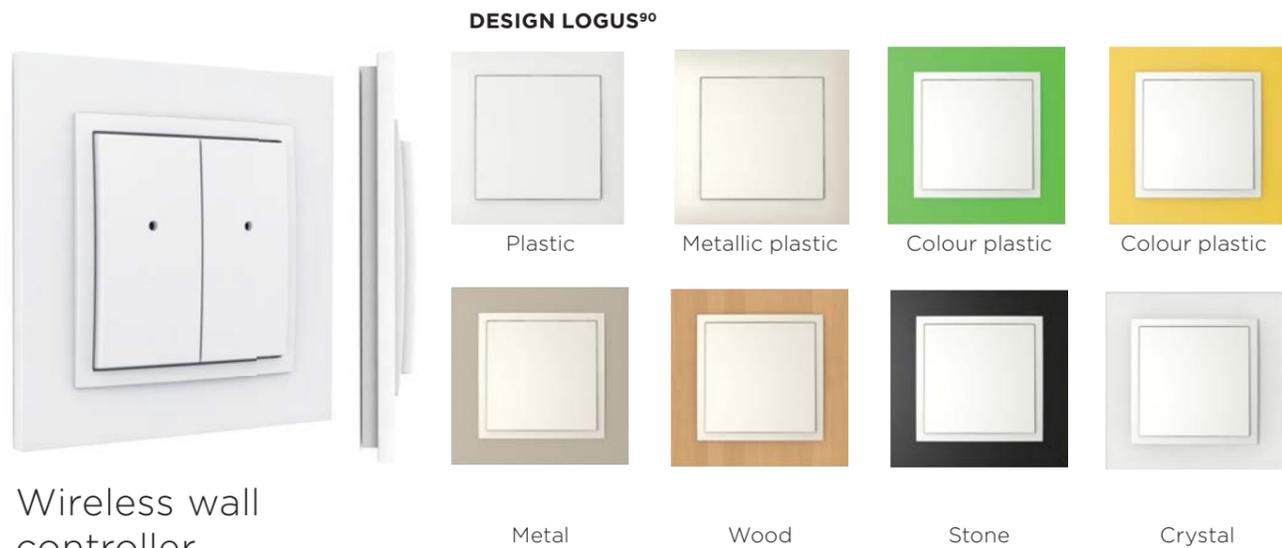
Wireless wall controller

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

RF Touch

RF Touch - W

- system unit, which controls your smart home
- controls up to 40 units
- thanks to bi-directional communication, it displays the status of appliances

Wireless remote controller with display

RF Pilot

- controls up to 40 appliances independently
- scenes function
- integrated temperature sensor
- battery power
- coloured 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.

New, now you can also use as signal repeaters other units in our portfolio, such as the switching, dimming components that use the protocol RFIO[2].

Smart RF Box with WiFi

eLAN-RF-Wi-003

- smart RF box is center of your Smart Home and bridge between your smartphone and controlled 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

iNELS Wireless System

RF - radiofrequency protocol
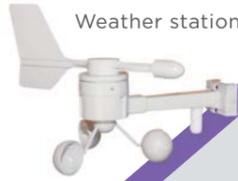
Wi-Fi

Outdoor PTZ camera

Wi-Fi

ELKO CLOUD

Weather station

Indoor PTZ camera

Indoor camera

Wi-Fi

Wi-Fi Router

Controllers:

Application for the smartphone

Radio and Intercom

Touch unit

Wall buttom

Thermostat

Wireless dimmer switch

RF Pilot with display & keychain

L3
L2
L1
PEN

Electricity panel meter

Wi-Fi

RF

Video door-phone

Energy gateway

Electricity meter

Detectors:

Smoke

Door/window
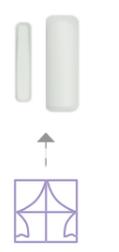
Motion

Wi-Fi

RF

Smart RF Box Wi-Fi

RF

Sensors:

Flood

Temperature

Twilight

°C

Smart IR Box

IR

IR

Audio/ Video

Home appliances

Elements:

Switching unit - 6 outputs
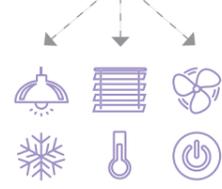
Switching unit - 1 output

Switching socket

Switching unit for jalousie

Thermovalve for radiator

Switching unit - 1 output

RGB Coloured LED bulb

Dimmer for LED strips

Water meter

RF

Wireless pulse converter

Do energy brany

Do energy brany

RF

Wireless pulse converter

Gas meter

Wireless HRESK
Hotel Room Energy Saving Kit

Motion detector

- in conjunction with the main switch unit they can provide automatic lighting control

- as its battery powered it provides not only easy installation, but it can be located wherever it suits you
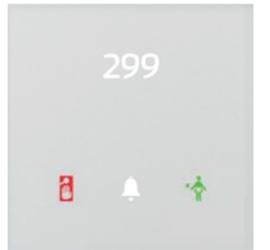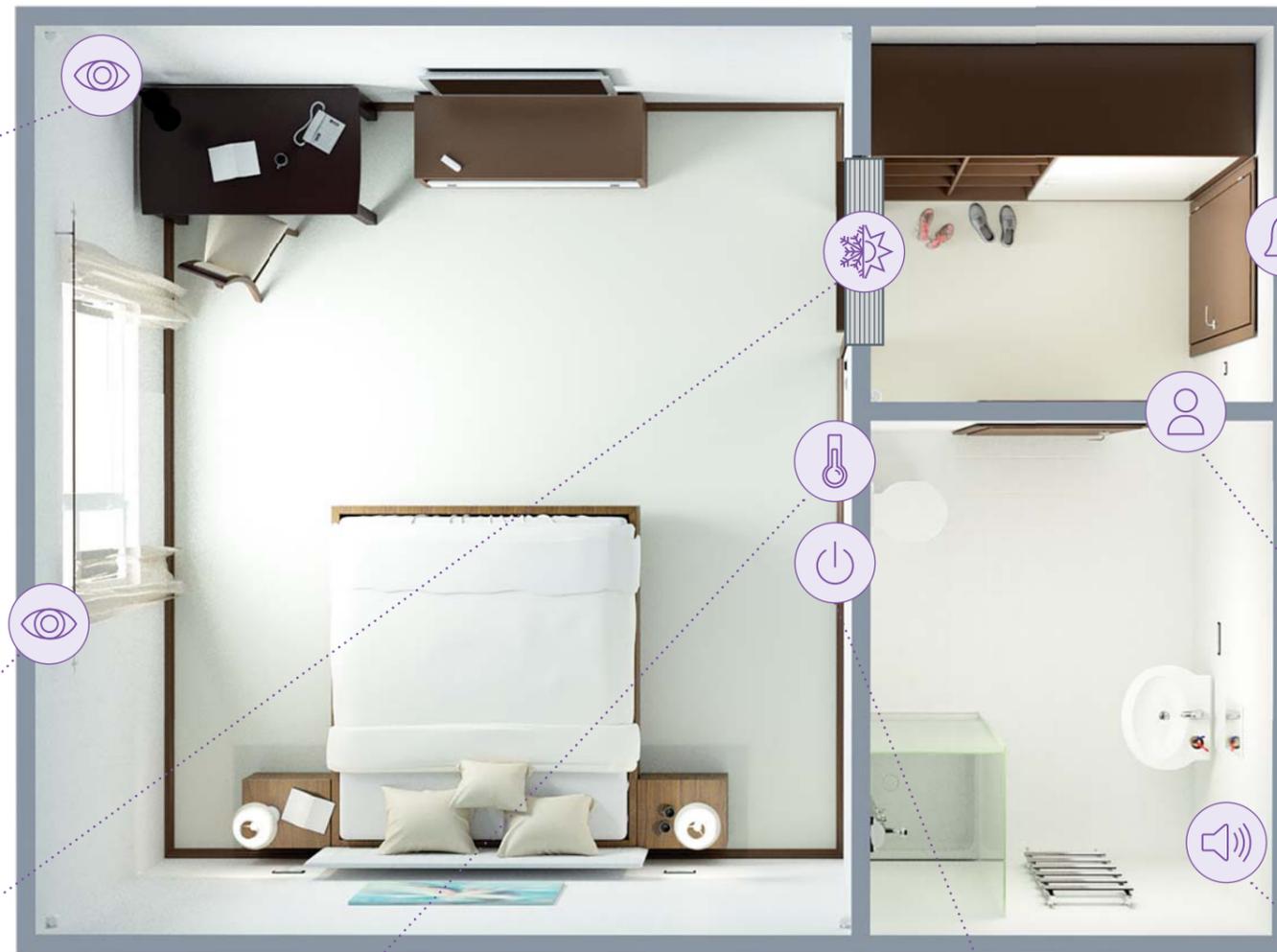
Glass card reader

- the controller signals the information the guest chooses for Smart Card Holder - "Do not Disturb" or "Request for Cleaning"

- at the same time, it has a bell (button) that can be used by the hotel or maid service

- the design is possible in a glass design (black/white) or in the design of the LOGUS⁹⁰ switches

Door/window open detectors

- in combination with the main switch unit, they can provide efficient control of room thermoregulation

- battery power allows easy installation anywhere on the window or door frame

Fan-coil controller

- the unit can be combined with the temperature controller to achieve an effective solution for Fan Coil heating

- using the unit, you can change engine speed by three speeds and switch between heating/cooling mode

Thermoregulator

- the combination of the RFTC-150G digital thermoregulator and the RFSA-166M switching unit is used to control room temperature

- the controller can change the standard heating and cooling temperature and has three speeds – low, medium, high

- automatically checks the selected room temperature, and if it is too high, it switches on the air conditioning

Wall button

- thanks to the flat base of the wireless switch, you can easily place it on the bedside table or stick it on the glass wall

- the RFWB-40/G wireless switch has MASTER OFF (channel number 3) – this button turns off all lights and the fan in the room

- By pressing the button down briefly or for longer, the lights can be turned on/off or the brightness can be adjusted.
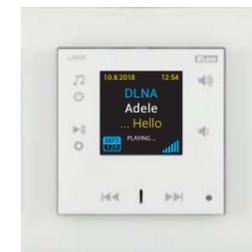
Radio & Music player

- LARA is an Internet radio and also a player of your favourite music from a smartphone or central repository.

- installation is with the LOGUS⁹⁰ design switches

- allows you to listen to music in the room where it is installed

Smart card holder

- the card reader can be combined with the main switch unit to which additional units and detectors can be connected to provide automatic control of the lighting when the guest is in the room or the switch off if the card is removed

- you can use the "Do not Disturb", "Clean Room" or "Shut Down" buttons to provide efficient hotel services – this information is also signalled on the multifunctional controller beside/on front of the door

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.

Wireless wall controller

RFWB-40/G

- the flat base of the controller is predisposed for fast installation on any surface
- sending the set command (ON/OFF, dimming, time off /on, retraction/extend) after pressing the button
- colour combinations of frames in the LOGUS90 design
- stage setting – One-touch control lets you control multiple devices
- battery power 1x 3V CR 2032 battery

## Multifunctional card reader

RFPCR-31G

- wall panel with integrated RFID card reader
- indicates the information that a guest chooses for Smart Card Holder - "Do not Disturb" or "Request for Cleaning"
- contains a bell (button) that can be used by the hotel or maid service
- the design is possible in glass design (black/white) or in the design of the LOGUS90 switches
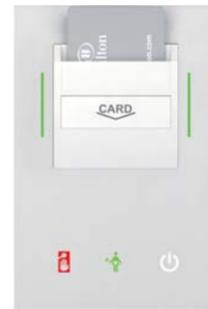
Smart card holder

RFGCH-31/W, RFGCH-31/B

- the card holder can be combined with the main switch unit to which additional units and detectors can be attached to provide automatic lighting control when the guest is in the room or vice versa when the card is removed
- an effective "hotel room" or "all shutdown" buttons can be used to ensure efficient hotel services – this information is also signalled on the multifunction card reader beside/on front of the room door
- design in glass design (black/white)
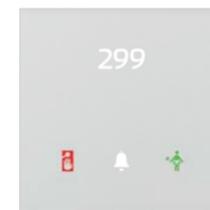
Glass card reader

RFGCR-31/W, RFGCR-31/B

- wall panel with integrated RFID card reader
- indicates the information that a guest chooses for Smart Card Holder - "Do not Disturb" or "Request for Cleaning"
- contains a bell (button) that can be used by the hotel or maid service
- the design is possible in glass design (black/white) or in the design of the LOGUS90 switches

Automatic light control functionality
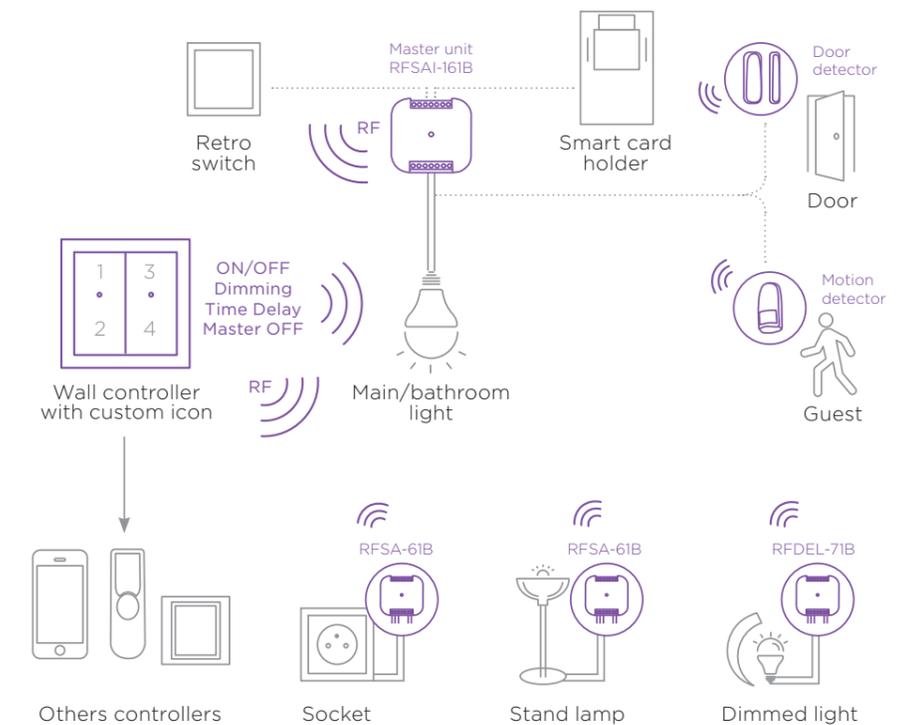
Room temperature control

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 temperature 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 possibe 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 the equipment in the room.

Wireless switching unit

RFSA-166M

- the 6-channel version of the switch unit allows switching between heating/cooling mode and 3 speeds
- can be used in combination with the RFTC-150G wireless controller, which measures the room temperature via the integrated sensor, and sends a command to switch the switching unit on/off to achieve better functionality
- the unit can be paired with wireless detectors that can more efficiently switch heating/cooling (when a window is open, etc.)
- permanent power supply 110—230V AC or 12—24V AC / DC

Wireless temperature controller

RFTC-150/G

- the temperature controller can be combined with the RFSA-166M switching unit which commands the switching unit on/off
- colour combinations of frames in the LOGUS⁹⁰ design
- temperature range is 0... 55 ° C
- battery power 2x 1.5 V AAA battery

Overheating protection

RFSTI-111B

- temperature component with 1 output channel
- serves to protect the room against overcooling/overheating where the temperature can cause damage to furniture and appliances
- suitable especially for rooms with a tropical climate
- by means of an external sensor it measures the temperature in the range of 5—35 ° C and switches the Fan coil or air conditioner based on the set temperature

Simple retrofit: Combination of existing switch with wireless controllers
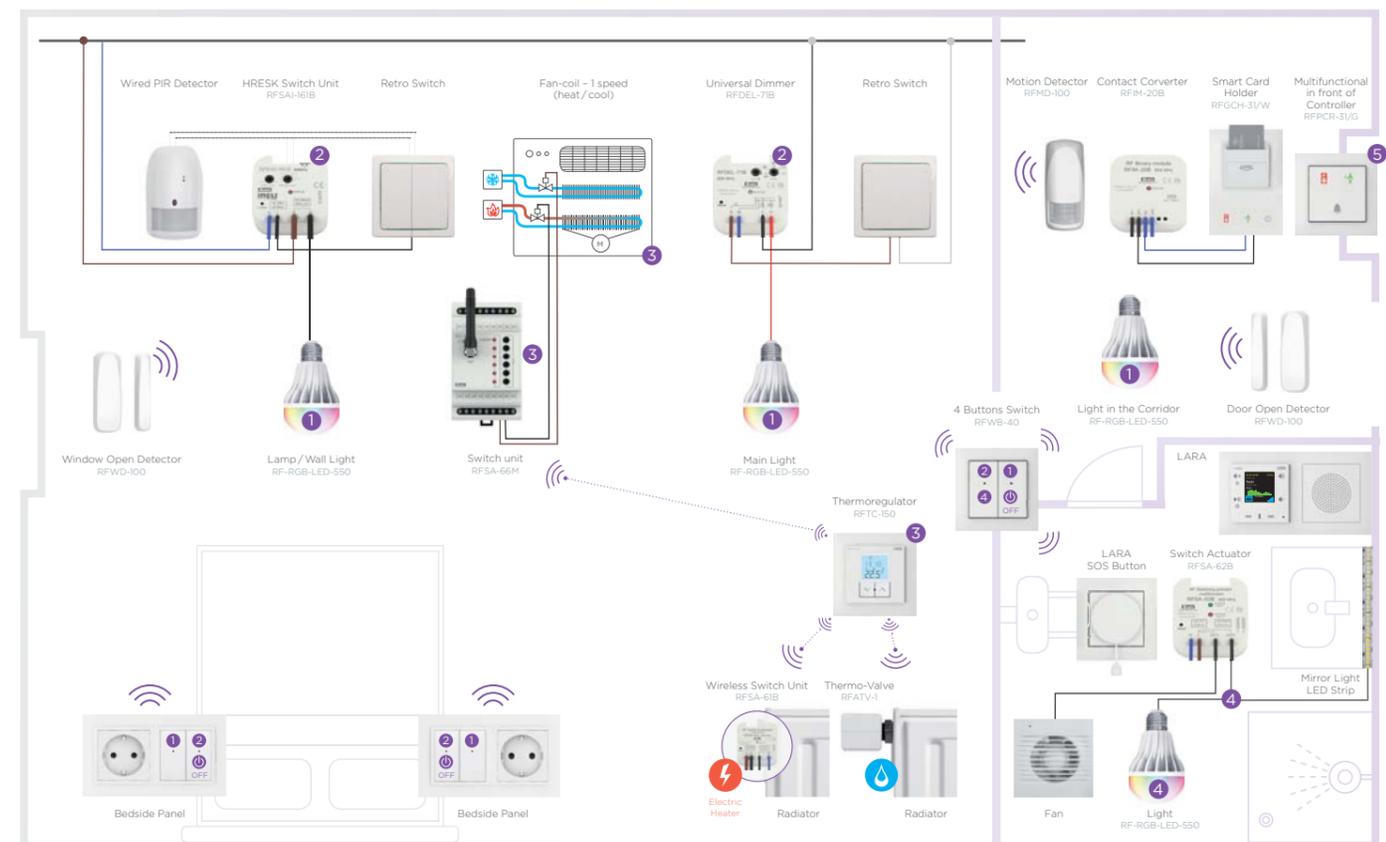
Apps for all

Applications that you can download completely free, with which you can control all devices connected to the system.

On your device, you can view power consumption values and charts, check security cameras, or control your home audio. At the same time, you can configure all your devices through the application.

The application is designed for smart phones and watches running on Android or Apple iOS.

Overview of functions

	iHC-MIIRF	iHC-MAIRF	iNELS Home Control	iNELS Home Control
	App Store	Google play	TIZEN	TIZEN
Lighting control	✓	✓	✓	✓
Blinds/Shutters	✓	✓	✓	✓
Sockets	✓	✓	✓	✓
Garage doors/gates	✓	✓	✓	✓
RGB bulbs, LED strips	✓	✓	✓	✓
Scenes	✓	✓	✓	✓
Heating	✓	✓	✗	✗
Cameras	✓	✓	✓	✗
Air conditioning	✓	✓	✗	✗
Weather station	✓	✓	✗	✗
Energy control	✗	✓	✗	✗
Video door-phone	✓	✓	✗	✗
Audio/Video	✓	✓	✗	✗

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.
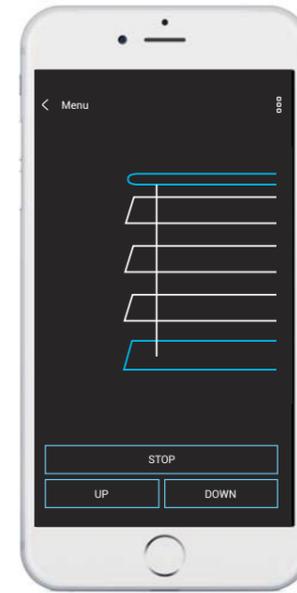
Blinds control
Did you forget to set the shutters in light of the weather? No problem.
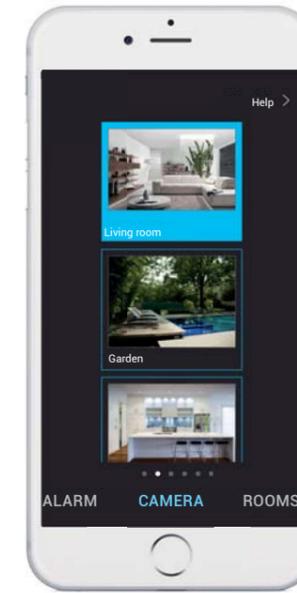
Cameras
You can keep an eye on the security of your home from anywhere on earth.
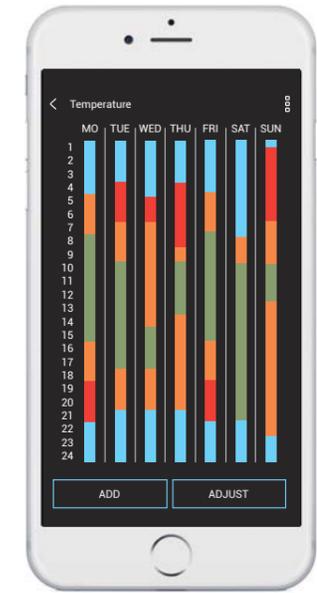
Scheduling
When and what mode of heating in one place for a week-arranged and easier.

iNELS References

Since we began supplying iNELS, we have performed over 10,000 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 fi nd 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
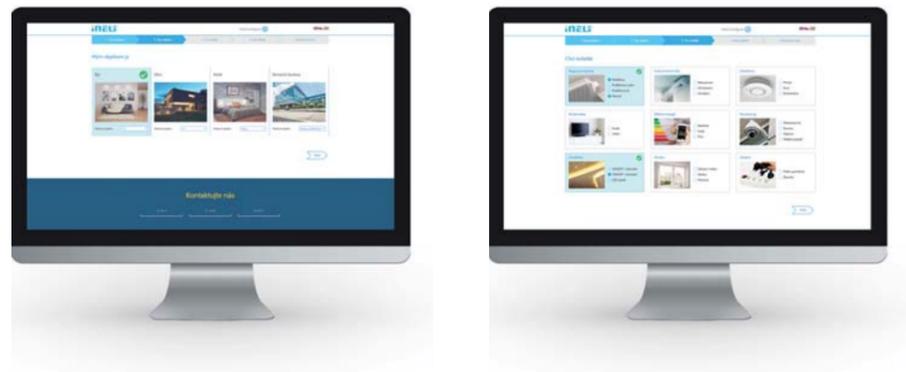
Smart Home & Building Solutions for

Home   Hotel   Future Office   Commercial   Industry   Smart City

www.inels.com

Hotel Kempinski Bayterek

Almaty/Kazakhstan

- 5 star hotel
- lighting control in the public space
- more than 15 000 lights jare controlled via DALI protocol
- lights scenes

Jamie's Italian

Budapest/Hungary

- iNELS BUS System is controlling lighting and terrace-cooling/heating
- high voltage neon signs, lighting control

Badorka Balaton Aquarium

Balatonfured/Hungary

- iNELS controls all the lighting, for example the illumination of the aquariums
- speciality: there are no switches on the walls at all. Every light can be controlled via the 2 mounted tablets

Pest-Buda Bistro & Hotel

Budapest/Hungary

- the oldest hotel of Hungary, which was built in 1696
- 10 rooms with unique luxury equipment with heating & air-conditioning
- furniture & equipment has been renovated a few years ago
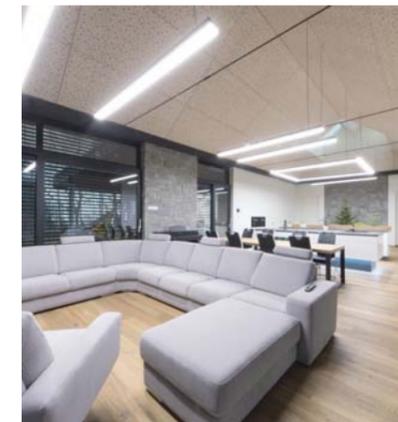
Villa

Beskydy /Poland

- iNELS bus system
- meteostation
- lighting scenes
- using by tablet, smartphones and EST3

Hotel Wyndham

Istanbul/Turkey

- more than 3000 lighting circuits are controlled through the DALI protocol
- another thousand lighting circuits are controlled via DA3-22M units

Thermo regulation

Wireless touch unit
RF Touch

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

Wireless 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)

Wireless 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)

Wireless 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)

Switching unit with temperature 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 LOGUS⁹⁰
- LED status indication

Wireless 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

Wireless temperature sensor
RFTI-10B

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

Switching unit with temperature 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

Detectors

Smoke detector
RFSD-101

- power: 4x 1,5 V AA battery
- smoke detection: optical light scattering
- autotest

Motion detector
RFMD-100

- power: 2x 1,5 V AA battery
- detection angle 105°
- shot length 12 m (13.12 yd)

Door / Window detector
RFWD-100

- power: 1x 3 V CR2032 battery
- opened window/door detection
- battery status indication

Wireless Flood detector
RFSF-1B + FP-1

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

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

Energy management

Energy gateway
RFPM-2M

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

Wireless 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
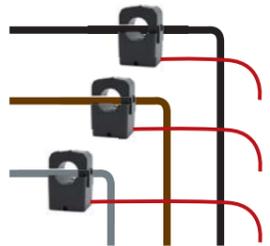
Current transformer
CT50

- 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)

LED sensor
LS

Flashing LED

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

Magnetic sensor
MS

Built-in magnet in the gas meter

- 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

Rotating water meter indicator

- 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 coloured bulb

RF-RGB-LED-550

• power: 100—240 V AC 50/60 Hz
• luminous fl ux: 550 lm
• color temperature: RGB
• brightness regulation: 0—100%
• compatible base: E27
• durability: 30 000 h

Dimming socket (multi-function)

RFDSC-71

French | Schuko | British | US

• 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 coloured (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

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 25 channels

Wireless twilight switch

RFSOU-1

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

Switching actuators

Switching socket (multi-function)

RFSC-61

French | Schuko | British | US

• 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)

Wireless switching unit (multifunctional) - 1 output

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 25 channels (of controllers)
• option of connecting an external antenna

Wireless switching 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 25 channels (of controllers)
• option of connecting an external antenna

Switching unit for outdoor use (multi-function)

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 25 channels (of controllers)
• IP65 protection

Wireless switching unit

RFSA-11B
RFSA-61B

• power: 230 V AC/50—60 Hz, 120 V AC/60 Hz, 24 V DC
• load: 16 A
• single-function ON/OFF or multifunctional design
• operated from 25 channels (of controllers)
• manual control with inbuilt button

Wireless switching unit with input

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 25 channels (of controllers)
• terminal for control from existing button

Wireless switching unit – 2 output

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.)
• each channel can be controlled by up to 12 controllers

Wireless switching unit – 2 output

RFSAI-62B

• Supply voltage AC / DC 12 - 24, AC 120 V or AC 230 V.
• Load 2x 8A
• 2x independent channels
• 2x switching contacts (AgSnO2)
• time-functions (2 s - 60 min)
• each channel can be controlled by up to 12 controllers

Controllers

Switching unit for shutter

RFJA-12B, RFJA-32B

• switching of roller shutters, blinds, awnings, garage doors, gates etc.
• possibility of connectingan existing buttons
• power: 230 V AC/50—60 Hz, 120 V AC/60 Hz, 12—24 V DC
• load: 2x 8 A
• operated from 25 channels (of controllers)

Wireless wall controller

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

Montáž na povrch a do zdi

• 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
• coloured 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
• colour OLED display

4 buttons controller

RF Key

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

Wireless dimmer switch

RFDW-71

• wireless switch in glass design with integrated dimming element
• supply voltage: 230V AC/50 Hz, 120V AC/60 Hz
• 4-channel design
• control up to 25 channels
• 6 light functions

Wireless 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 external antenna

Wireless 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
- automatic DHCP connection
- managing accounts/backup of projects via web interface

Smart RF Box with WiFi
eLAN-RF-Wi-003

- power: 10—27 V DC/200 mA SELV
- setting with up to 40 units
- The HUB does not need Internet access for its operation; it creates its own Wi-Fi network
- managing accounts/backup of projects via web interface

French

Schuko

British

US

Wireless signal repeater to extend the RF signal range
RFRP-20

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

Multifunctional 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
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
VERSO

- basic module series offers higher specifi cation 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 AC, 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

The communication between the components is wireless at 868—916 MHz (according to country standards/regulations), using the unique RFIO and RFIO[2] protocols. Both are proprietary wireless protocols from ELKO EP, which have a completely unique structure. RFIO[2] is an extension of the RFIO protocol and allows users to use newly introduced features, such as unit signals (repeater), for selected features. This protocol is fully compatible with the previous version of the protocol (RFIO).

Available frequency for individual territories:

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

Benefits of RFIO:

- communication is low-energy and reliably transfers small data packets
- fees or licenses are not required
- no overlapping of communication space with unaddressed commands
- frequency used does not interfere with Wi-Fi/Bluetooth devices
- setting communication between components is not conditional on working with a computer or system

Benefits of RFIO[2]:

- products labeled as "RFIO[2]" will allow newly set selected components such as unit signals (repeaters)
- for components, you can easily update FW using the RFAF/USB service device
- enables communication with RFMD-100, RFWD-100 and RFSD-100/RFSD-101
- data transfer between wireless components takes place in such a way that other receivers within range can help transfer the information (packet) to a remote receiver that is out of reach. It is possible to cover large-scale objects (real estate) and also increase the reliability of transmission in more demanding buildings
- backward compatibility with RFIO elements is retained

ELKO CLOUD

Wi-Fi

router

cameras

blinds

controller RFWB

eLAN RF

lighting

eLAN IR

controller RF Pilot

Mobile APP iHC

video door phone

audio

appliances

TV

Product dimensions

In an installation box — Surface-mounted — RF Touch-W — RF Touch-B

In an installation box — Surface-mounted

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

RFSTI-11G — RFTC-100/G — RFWB-20/G RFWB-40/G — RFTC-10/G RFTC-50/G

RF Key

RF Pilot

IP65

RFUS-61

In an installation box

IP65

RFSOU-1 RFTM-1

1Modul

RFSG-1M RFSA-61M

3Modul

RFGSM-220M RFDEL-71M — RFSA-66M RFPM-2M — RFDA-73M/RGB

MINI

RFIM-20B
RFIM-40B
RFTI-10B
RFSF-1B
RFJA-12B/24VDC
RFJA-32B/24VDC

RFDEL-71B
RFSA-11B
RFSA-61B
RFSA-62B
RFSAI-61B
RFSTI-11B
RFDAC-71B
RFJA-12B/230V
RFJA-32B/230V

Socket

RFRP-20 RFSC-61 RFDSC-71

Detector

RFSD-100 RFSD-101

Detector

RFMD-100

Detector sensor — **magnet**

RFWD-100

Installation possibilities
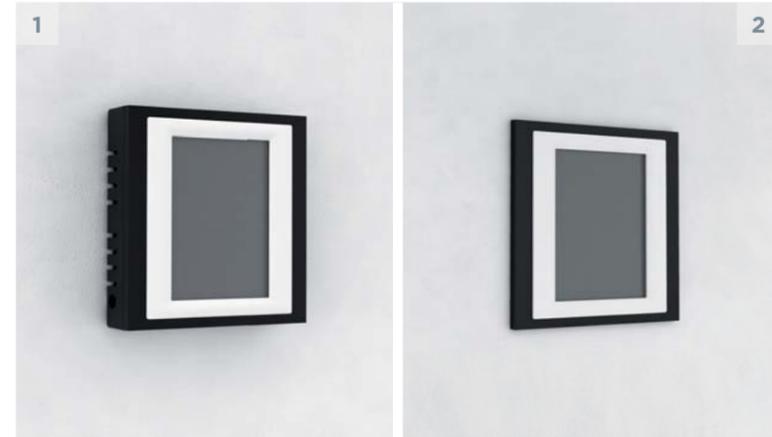
1) Surface mounted

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

RF Touch-W	RFTC-10/G
RFWB-20/G	RFTC-50/G
RFWB-40/G	RFTC-150/G

2) Flush mounted

RF Touch-B	RFTC-100/G
RFSTI-11/G	RFDW-71
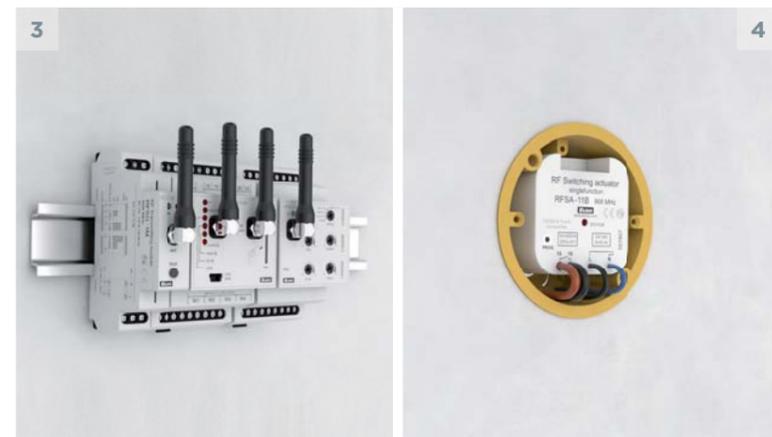
3) DIN Rail mounted

On DIN rail according to EN 60715.

RFSG-1M	RFDEL-71M
RFGSM-220M	RFSA-61M
RFPM-2M	RFSA-66M
RFDA-73M/RGB	RFSA-166M

4) Mounted to or in the installation box

RFIM-20B	RFJA-12B
RFIM-40B	RFJA-32B
RFDAC-71B	RFSF-1B
RFDEL-71B	RFSTI-11B
RFSA-11B	RFTI-10B
RFSA-61B	RFSAI-161B
RFSA-62B	RFSTI-111B
RFSAI-61B	

5) Mounted into the cover of appliance

RFDAC-71B	RFSAI-61B
RFDEL-71B	RFJA-12B
RFSA-11B	RFJA-32B
RFSA-61B	RFSAI-161B
RFSA-62B	RFSTI-111B

6) Surface mounted

RFSOU-1	RFSD-100
RFUS-61	RFMD-100
RFTM-1	RFWD-100
RFSF-1B	

Others just resell
HOWEVER, WE DEVELOP AND MANUFACTURE PRODUCTS OURSELVES!

26 years
on the market

15 years
ISO certification
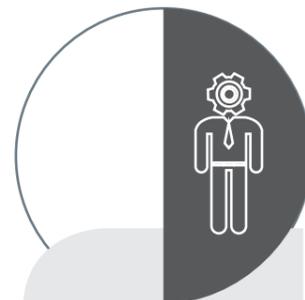
40
developers
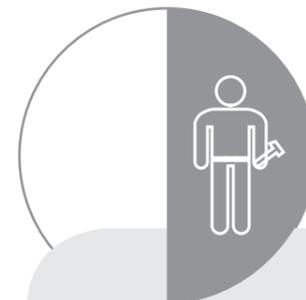
330
employees

2 000 m²
manufacturing space
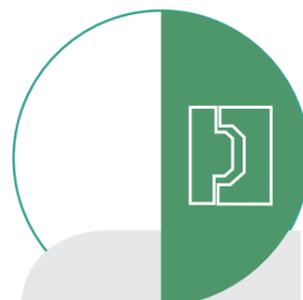
200
proprietary plastic mods
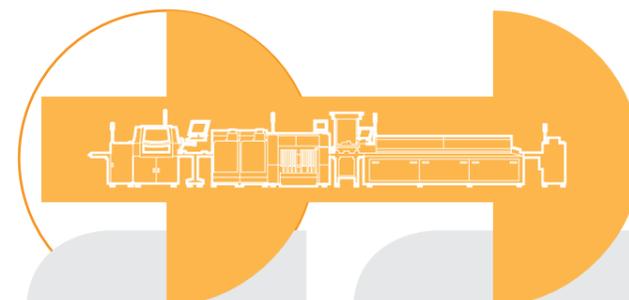
2
SMD lines
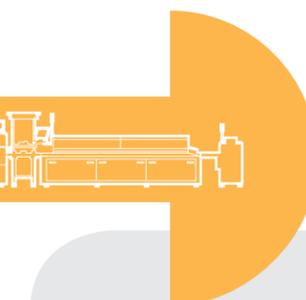
1 mil.
components per day
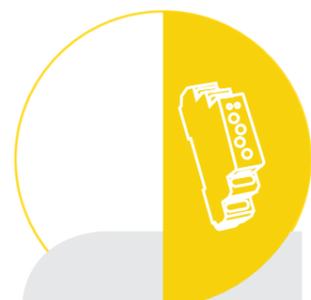
600 000
products per year

2 000 m²
finalization and dispatch

2000
warehousing spaces

2
printing lasers
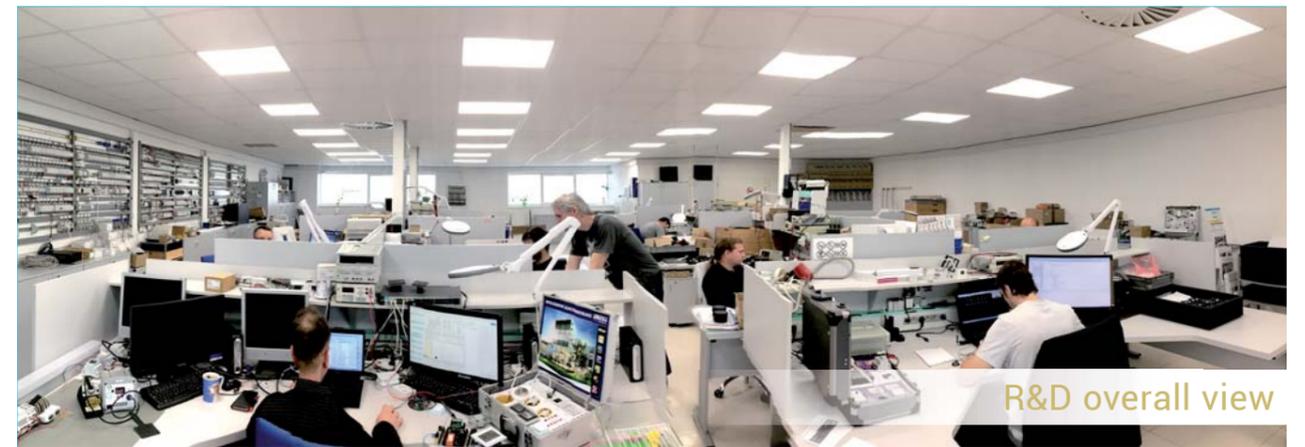
R&D overall view

Manufacturing hall

Testing lab

Finalization and dispatch

ELKO EP Holding

World map showing ELKO EP Holding locations: Czech Republic, Poland, Ukraine, Russia, Baltic, Germany, Hungary, Spain, Slovakia, Saudi Arabia, UAE, India, Vietnam.

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