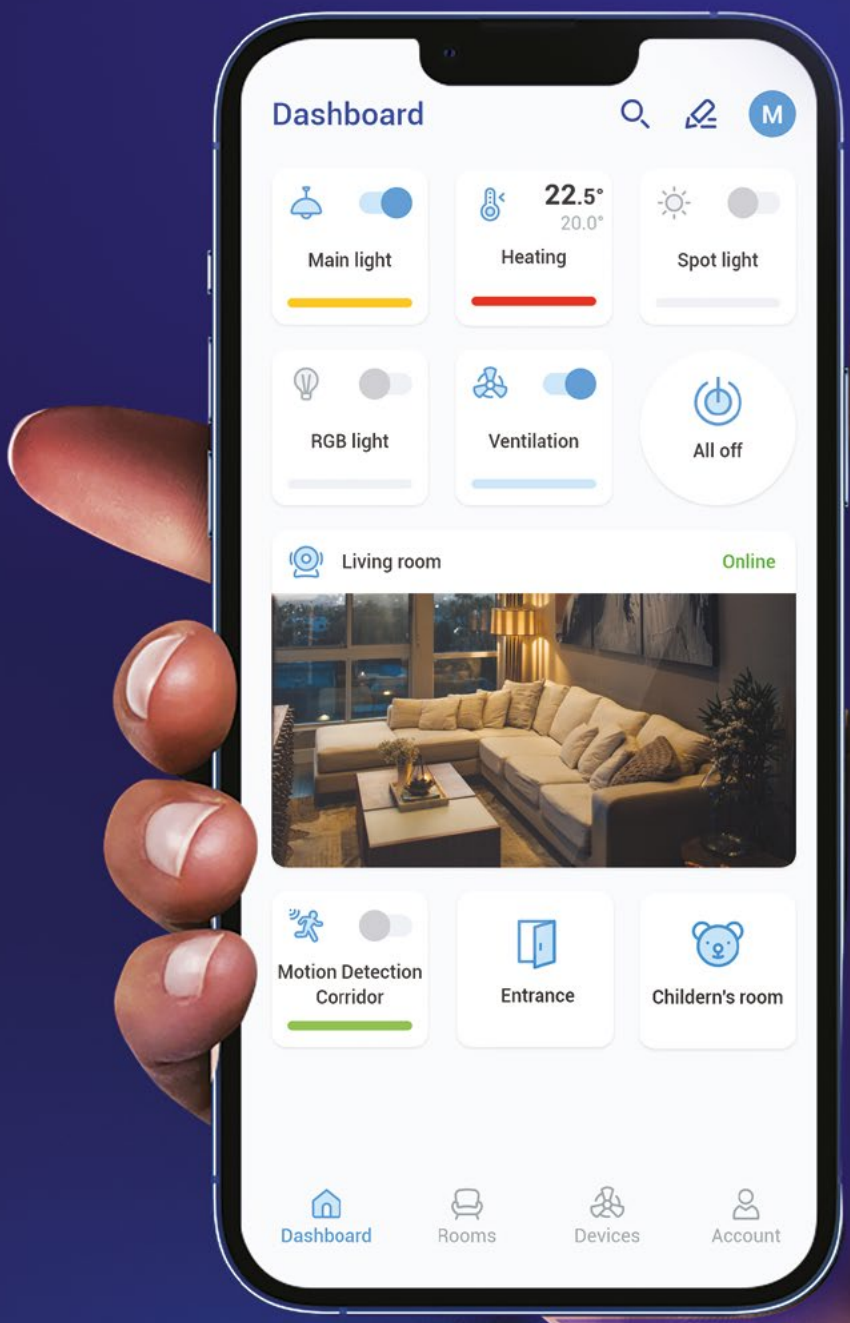
Highlights 2022

News from iNELS & ELKO EP World.

www.elkoep.com



iNELS 2022 starts with new mobile application

- New IP infrastructure in iNELS BUS
- New Smart Kits
- New iNELS Cloud
- New products

Available on:

Download on the App Store

ANDROID APP ON Google play

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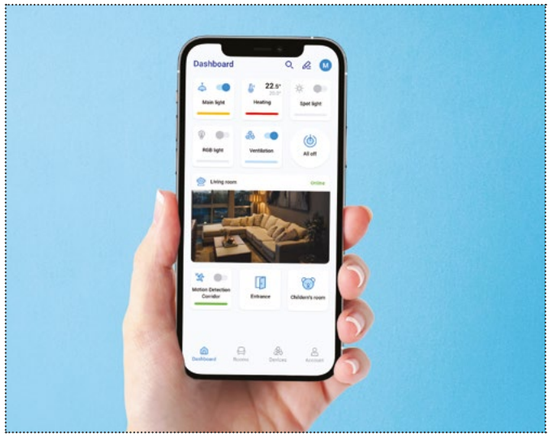

Clear, intuitive, modern

iNELS 2022 starts a new mobile app.

New generation of iNELS application for monitoring and control of all iNELS devices, regardless of whether it is BUS or wireless technology with many useful functions, the list of which is constantly growing.. Now available for free on Google Play and the App Store.

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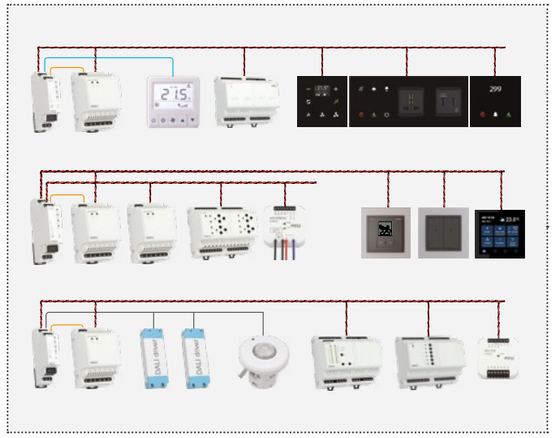
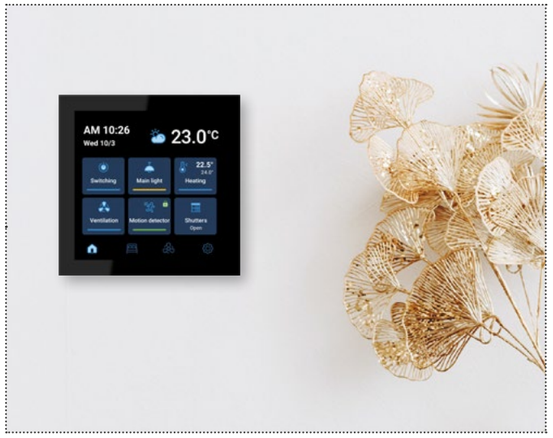


iNELS BUS new approach

Evolution in the iNELS BUS system.

This is a new approach in the use of the IP protocol to interconnect individual central units and buses connected to them. The new IP infrastructure brings with it completely new possibilities of using buses in small, medium and very large installations.

... see page **10-13**



iNELS RF hot news

Wall touch panel with smart box functions

New central element for controlling heating, switching electrical appliances and equipment, dimming lights or controlling blinds and detectors. It's RF-Touch-2.

... see page **14**

iNELS Smart Kits

Starter kits for every household,

Starter kits for every household, it is an easy and fast solution for typical cases of home use, such as moving a wall switch, equipping common lights with dimming functions, remote control of blinds and shutters, advanced heating control and basic home security.

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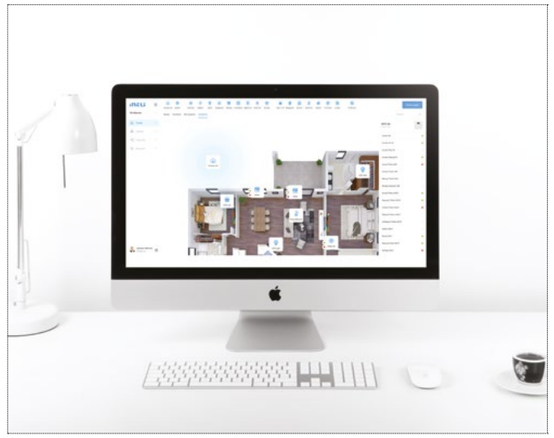


ELKO Cloud + iRidium

Creativity and availability

Make you own application. Using iRidium features and hundreds of preset designs create your own custom control interface. And place it on the ELKO Cloud, available worldwide 24/365 thanks to DigitalOcean services.

... see page **20-21**

Product news overview

Relays - iNELS BUS - iNELS RF

Reviews of key innovations of all product lines - Relays, iNELS RF and iNELS BUS. Clear overview of new product functions, technical parameters and their typical use.

... see page **22-27**

Products Portfolio

Wide range of electronics

For more information visit
www.elkoep.com/**products**

Timers / Relays

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

Protection monitoring relays

Every household, every object and every machine needs a monitoring relay. There are several reasons why, overvoltage, undervoltage, phase failure, asymmetry, frequency, or power factors.

Switches and sockets

This portfolio covers a variety of colorful and elegant accessories suitable for interior use or even more demanding areas such as workshops or industrial objects.

Wireless (RF) electro

The system uses wireless communication between devices. The installation itself is variable thanks to this communication and can be gradually expanded.

Wired (BUS) electro

The BUS system offers a unique solution for new installations (refurbishment) in family houses, hotels and villas. It offers a wide range of functions for both automation and comfort.

Lighting control

A sector that offers complete control over all lighting devices. From switching, dimming to controlling your favourite DALI luminaires. Everything can be controlled with a connection to iNELS wired or wireless technology.

Hotel Wireless Retrofit

Hotel Room Energy Saving Kit (HRESK) - Solutions for hotel rooms based on wireless technology is designed to function in existing hotels. It is possible to simply elevate the existing electrical installation to a higher level without long-lasting construction modifications.

Guest Room Management System

Guest Room Management System - The BUS system is designed mainly for hotels and offers comfortable and easy control of hotel rooms, reception and restaurant.

Building management system

Building Management System (BMS) is a comprehensive solution for monitoring, and controlling even the most complex of building systems. You can monitor everything on your computer monitor or tablet in the comfort of reception or office.

Multimedia

Here you can find extensions for our iNELS system and not just for it. Lara Music Players, Intercoms and Door Communicators, Application Communication Servers and 3rd party applications.

SW Solution

This portfolio covers a variety of colorful and elegant accessories suitable for interior use or even more demanding areas such as workshops or industrial objects.

Remote control and monitoring

The building is under control anytime and anywhere. Thanks to the iNELS app, it is available via any mobile device - mobile phone or tablet. Remote monitoring, notification, control functions - all this allows immediate overview and management.

New mobile App iNELS

Clear, intuitive, modern.

Another addition to the family of mobile applications for controlling iNELS devices is the new mobile application with the distinctive name "iNELS", in which great emphasis is placed on the graphic design and intuitive operation.

The new application will be the only one to enable the control of wireless elements from the iNELS RF portfolio using the new eLAN-RF-103 system control unit.

The application allows you to easily control connected devices such as socket switching, dimming of lights, control of blinds or garage doors, control of heating circuits and compatible air conditioning. Of course, the display of available values, such as temperature, status of motion, window, door or flood detectors, or the current status of all controlled devices.

It now brings a clear Dashboard, on which it is possible to display the most used devices, previews of connected cameras or created scenes. With one click, you can control several devices at once.

The iNELS application will be gradually supplemented with the possibility of connecting new devices, new system and central units as well as third-party devices. Enter a whole new stage with the new iNELS mobile application in expanding the functions and integration options of the iNELS 2022 system.

Try the application iNELS

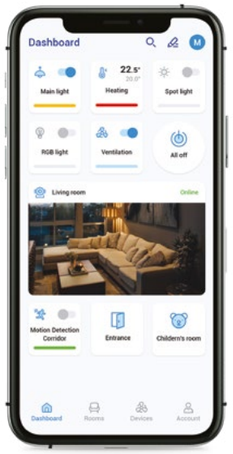
Available on iPhone & All Android Devices

Download on the App Store

ANDROID APP ON Google play

Function preview

Mobile App iNELS
elkoep.com/**new-mobile-app-inels**

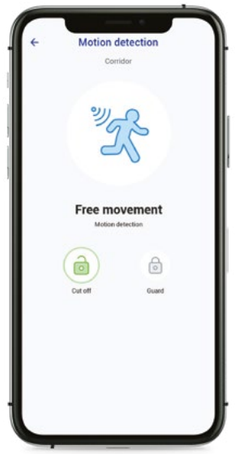


Dashboard

Clear dashboard with a number of widgets for easy control of the most used devices. This is a house on one screen and on one click.

Heating

Room temperature comfort and energy saving at every moment. Monitor the heating or cooling of the house and control it remotely as needed.

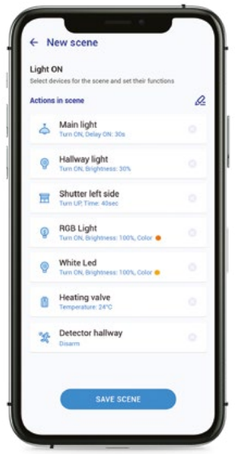


Security

Don’t be surprised, be safe. Be informed immediately about a possible threat and keep track of what’s going on in the house from anywhere.

Time schedules

Let your house work for you. Take full advantage of building automation functions, whether in the form of time schedules or smart scenarios.

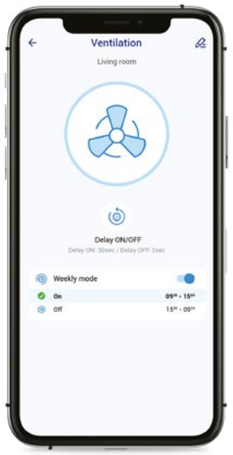


Scene

Control multiple devices with one click. Turn off the lights throughout the house or pull out all the blinds, set the right atmosphere for watching TV. Set up your scenes.

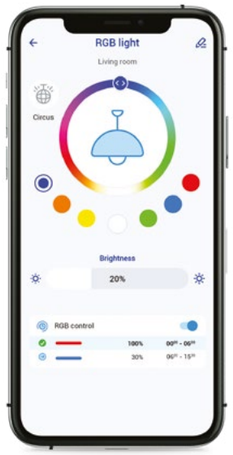
Cameras

Live monitoring of your home or office, inside and even outside. Be secure at avery moment. You can use HIKVISION cameras or any other with RTSP or MJPEG protocol.



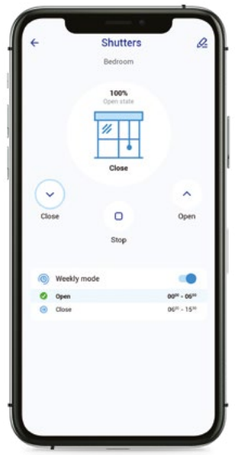
Switches

Don’t have smart appliances? Don’t despair, thanks to the switching elements you can fully integrate and control just like any iNELS unit.



Lights

Take advantage of all the possibilities of light comfort and energy saving. Adjust the light intensity, use the dimming function, play with the color of the lights, all with a simple and intuitive tool.



Shutters

You don’t want to get out of bed, but would you like to pull the blinds up? And let them pull down automatically in the evening when it’s dark? Do it.

Ready functions

Electroinstallation

- Lighting control ✓
- Shutter, blind ✓
- Garage doors and gate ✓
- Switching appliances ✓
- RGB bulbs and LED strips ✓
- Scenes ✓
- Automation ✓

HVAC

- Heating ✓
- Cooling ✓

Security

- Detectors/sensor ✓
- Camera ✓

Voice assistant

- Google Home ✓
- Amazon Alexa ✓

Coming soon in 2022

1st Quarter

- Weather station (3RD Party) (3RD Party)
- Intercoms (3RD Party) (3RD Party)
- Home appliances (3RD Party) (3RD Party)
- Air conditioning (3RD Party) (3RD Party)

2nd Quarter

- Rule engine (Automatization)

3rd Quarter

- User management (Other)
- Notification (Other)
- Tablet version (Other)

4th Quarter

- Energy dashboard (Energy) (Energy)
- History report (Energy) (Energy)

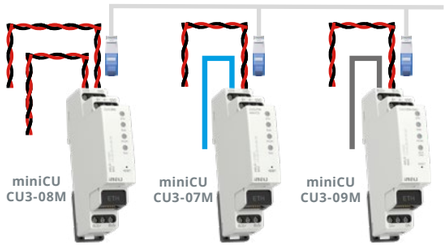
Open topology with new possibilities

iNELS BUS comes with a progressive system architecture using the IP protocol.

Evolutionary change in the structure of the connection to the collection system and iNELS BUS, it is only possible to use the IP protocol to connect individual central units and the collection points connected to them. The new IP infrastructure brings about the full potential of using collection points in small, medium and very large installations.

Autonomous BUS

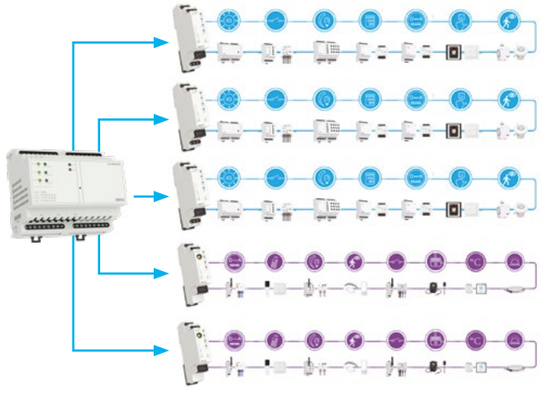
Unlike the previous version of iNELS BUS, where all buses were connected via EBM to one central unit, in the new structure each bus is fully autonomous thanks to the minified version of the central unit (CU3-07 / 08M). MiniCU (short name for single-module central unit) is a full-fledged central unit that controls only 1 or 2 buses. The main difference is that full functionality is maintained even if communication with other units is lost, so that all units connected to the miniCU remain interconnected, including all predefined links. After the connection with the superior units is re-established, the centrally controlled functions will only be synchronized and restored.



BUS1	✔	✔	✔
BUS2	✔	✘	✘
MODBUS	✘	✔	✘
DALI	✘	✘	✔

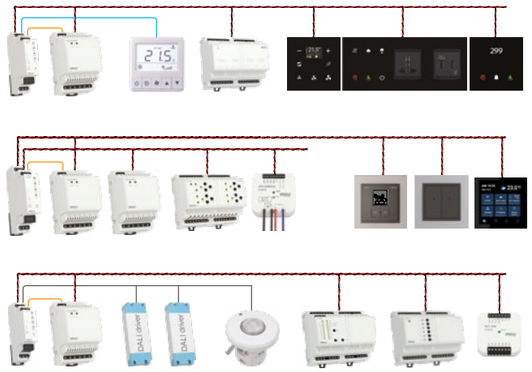
One central unit even for large installations

Centrally controlled functionalities are provided by the master central unit CU3-IPMASTER. The „IP master“ clearly defines how this central unit is connected to the autonomous MiniCUs using the IP protocol. With a commonly used Ethernet speed of 100Mbps and the possibility of asynchronous communication, the connection capacity between the IPMASTER and the slave miniCUs is more than 1,000 times greater than in the previous version of iNELS BUS. Thanks to this, we can connect the IPMASTER to a much larger number of slave buses at the same time.



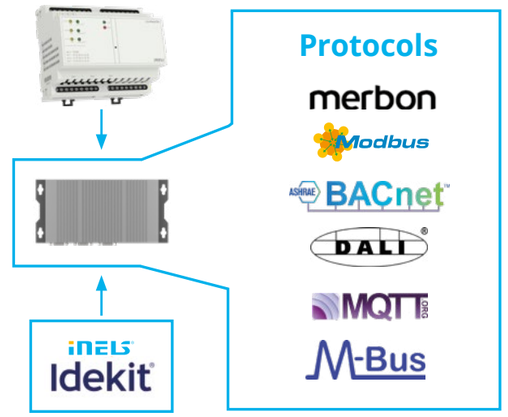
Autonomous installation

Thanks to the high performance of the IPMASTER unit, we can control even large installations with only one central unit. Unlike similar solutions, where the IP protocol is used in large installations mainly for connection to an external system based on cloud technologies, IPMASTER guarantees full functionality without the need for an Internet connection. For fully functional operation of a large installation, it is only necessary to ensure mutual connectivity with subordinate MiniCUs.



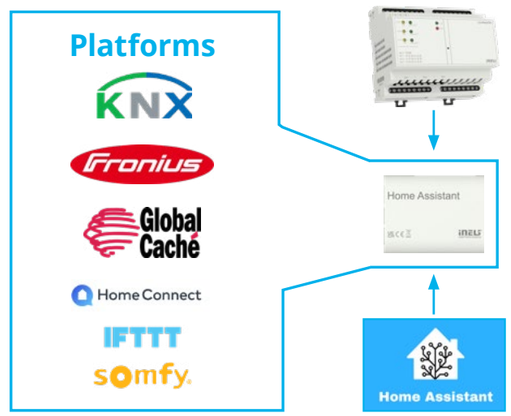
Central supervision & global conditionality

The new IP infrastructure consists not only in the connection between the MiniCU and the IPMASTER central unit, but also in the connection to the central iNELS CLOUD system. Using the cloud, it is possible to connect individual IPMASTER units and thus all their subordinate units, buses and elements. This creates not only the possibility of unlimited scaling of the iNELS BUS system, but also the possibility of creating interrelated functions, where the control element on one installation can control the actuators on a geographically remote installation controlled by another IPMASTER unit. In addition, iNELS CLOUD offers the possibility of creating conditions linked to external third-party systems or global time and meteorological variables.



iNELS compatibility

The new IP infrastructure also includes the option of connecting compatible iNELS RF central units (wireless technology) and newly implemented iNELS Home Assistant third-party integration control units. With the help of IPMASTER units, it is possible to integrate almost the entire iNELS portfolio, including third-party devices that can be connected using the open Home Assistant platform.



iNELS BUS: Open topology with new possibilities

APPS

Apps for phone

Aplication for TV smart

Voice control

inels.cloud

CU3-07M | BUS 1 MODBUS

BUS 1
MODBUS
POWER
32 units
LAN
miniCU CU3-07
Power supply with BUS separator
MODBUS thermostat
Combined unit with DALI output
Thermostat
Multifunctional panel
Card reader

CU3-08M | BUS 1 BUS 2

BUS 1
BUS 2
POWER
32 units
LAN
miniCU CU3-08M
Power supply with BUS separator
Power supply with BUS separator
Switching actuator
Roller shutter actuator
Digital thermoregulator
Wall switch button
4" Touch controller

CU3-09M/DALI | BUS 1 DALI

BUS 1
DALI
POWER
32 units
64 DALI devices
LAN
miniCU CU3-09M/ DALI
Power supply with BUS separator
DALI converter
Combined motion detector, temperature and intensity lighting
Switching actuator
Dimming actuator
Binary input

eLAN-RF-104 | RADIO 868 Mhz

LAN
RF gateway eLAN-RF-104
Motion detector
Window/Door detector
Flood de-tector
Switching actuator
Dimming actuator
Switching socket-plug

iNELS BUS: Open topology with new possibilities

Platform

KNX
Fronius
Global Caché
Home Connect
IFTTT
somfy
Home Assistant
iDM
iNELS Idekit

Home Assistant
CU3-IPMASTER
Server

Protocols

merbon
Modbus
BACnet
DALI
MQTT
M-Bus

MODBUS

Fancoils
Thermostat
MODBUS
Wireless MODBUS
Water meter
Electricity meter
gasometer

3rd party devices

KNX
KNX
KNX

HVAC

GREE
HITACHI
Haier
TRANE
COOLAUTOMATION
MITSUBISHI ELECTRIC
SAMSUNG
TOSHIBA
DAIKIN
IntesisBox
Panasonic
LG

CCTV

Intercom

Meteostation

BUS 1
MODBUS
POWER
32 unit
CU3-07

BUS 1
BUS 2
POWER
32 unit
CU3-08M

BUS 1
POWER
64 DALI devices
32 unit
CU3-09/DALI

iNELS Wired (BUS)

RF gateway eLAN-RF-104
RF gateway eLAN-RF-103

iNELS Wireless (RF)

Converter eLAN-IR-003
RS-232
RS-485
Converter eLAN-RS-232/485
IR
IR
IR
Audio/Video
Home appliances
Air conditioning
LARA Intercom
LARA Radio

iNELS Multimedia

iNELS RF Touch-2

Wall touch panel with smart box functions

COMING SOON

The RF Touch-2 wall touch unit is a central element for controlling heating, switching electrical appliances and equipment, dimming lights or controlling blinds and detectors.

It includes a temperature and humidity sensor for the thermostat function. It sends and receives commands from the elements and displays everything on a four-inch capacitive display.

The room temperature can be adjusted using a digital thermoregulator and the device is also able to create cooling circuits.

RF Touch-2 allows quick control and creation of scenes that perform the required actions on the set devices. For example, it can simultaneously close blinds and dim lights in the living room.

The touch unit is fully compatible with the iNELS mobile application and can be connected to iNELS CLOUD.

New display

New construction

New functionalities

	New (RF Touch-2/B)	Curent (RF Touch-B)
Display type	capacitive	resistive
Touch point	multitouch	single touch
Resolution	480 × 480 px	320 × 240 px
Diagonal	4“	3.5“
Display colors	64 million	262.000

	New (RF Touch-2/B)	Curent (RF Touch-B)
Smaller frontside outlines	86 × 86 mm	94 × 94 mm
Smaller backside outlines	43 × 46 mm	50 × 50 mm
Easier installation	separate metal wall holder + display to snap-in to holder	base flushed mounted + display with pins to fit to holes
Power connections	USB-C & terminals & PoE	terminals only
Consumption	3W	5W

	New (RF Touch-2/B)	Curent (RF Touch-B)
Communications	Radio + Wifi + LAN	Radio
Sensors	temp + humidity + ambient + proximity	temperature
Gateway (eLAN-RF)	included	-
Connection to Cloud	yes	no
UX/UI	variable	fix
Setup possibility	free, via the iNELS Cloud	fix

Easier installation iNELS RF

The units are newly equipped with screw-less terminals

The modernization of the switching units consists in the replacement of components - the classic screw clamp is replaced by a screw-less terminals.

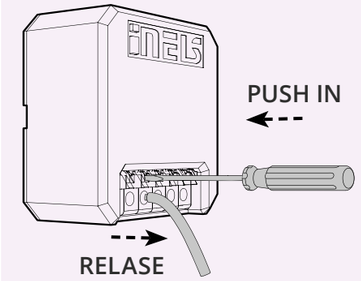
While the power supply wires have previously had to be screwed to the device, the new technology makes the connection easier: the clamp allows quick connection by simply inserting the wire into the device. In the screw-less terminal, the conductor is pressed by a spring against a fixed, non-moving part, the pressure on the conductor is constant throughout the life of the product. The connection is very tight and reliable.

Removal of the conductor or any adjustments are just as easy as installation. Both rigid and flexible conductors of appropriate cross-sections can be connected to the device.

The new unit design has additional advantages thanks to innovation: using elements without lead wires creates more space in the installation box and makes the overall installation clearer.

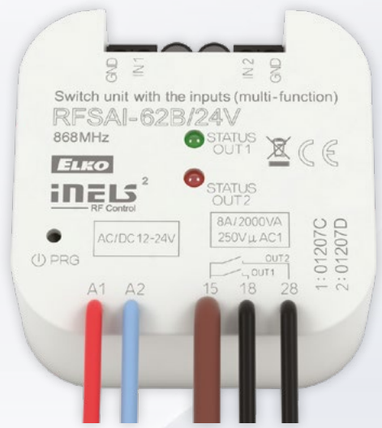
In the case of actuators that have one input/output, the power supply terminals are intentionally doubled, so there is no need for additional external connection terminals in most installations.

The innovation guarantees a firm and stable connection.



Upgraded switching elements of these types:

- **RFSAI–11B–SL**
- **RFSAI–62B–SL**
- **RFSTI–11B–SL**
- **RFJA–32B–SL**
- **RFDEL–71B–SL**



Current product

Screwles terminals for faster wiring

Innovated product

Smart Kits

First step to a Smart Home

It is a starter kit for every household, it is an easy and fast solution for typical cases of home use, such as moving a wall switch, equipping common lights with dimming functions, remote control of blinds and shutters, advanced heating control and basic home security.

Mainly, it is a set of one controller (e.g. wall controller) with an active unit (e.g. switch), which is ready for immediate installation. Although the kits are design as “preprogramed plug-&-play” and their installation can be done by a buyer-themselves, it is still a professional product, which should not be compared to a “hobby” production.

iNELS smart kits are the basis of your new smart home.

Works with Apple HomeKit · works with Google Assistant · WORKS WITH amazon alexa

iNELS Smart kits
smartkits.inels.com

Wireless switch

Combinations of wireless controllers and switching actuators for universal use. It is used to control electrical appliances, lights, sockets, garage doors, etc.

Light comfort

Combinations of wireless iNELS controller and dimming acuators to control the lighting level. They can be installed in existing lighting circuits or dimmable plug-in lamps.

Blinds within reach

Combinations of wireless iNELS controllers and blind actuators. For those who have electrically operated blinds/shutters and want to control them wirelessly.

Termal comfort and savings

Combination of wall thermostat and elements for controlling radiators, floor heating or central heating with its own boiler.

Be secure

A combination of security detectors and an alarm to improve the protection of your smart home. Whether you are at home or not, you can rest assured that everything is fine.

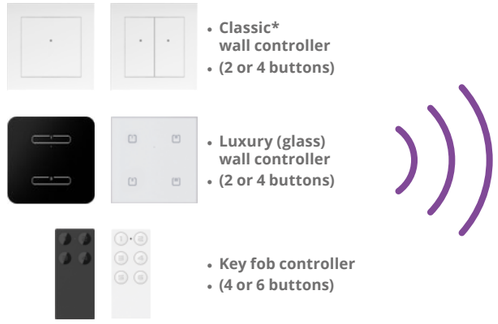
iNELS Smart House

A smart house can handle many routine tasks for you. It can set everything itself based on the data, but it is always you who controls.

Combination of iNELS devices

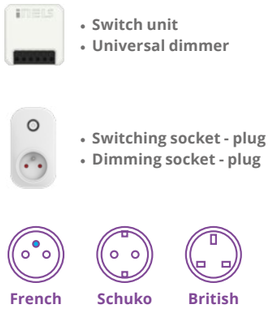
Switching, Dimming, Shutters & Blinders

Controllers



- Classic* wall controller
- (2 or 4 buttons)
- Luxury (glass) wall controller
- (2 or 4 buttons)
- Key fob controller
- (4 or 6 buttons)

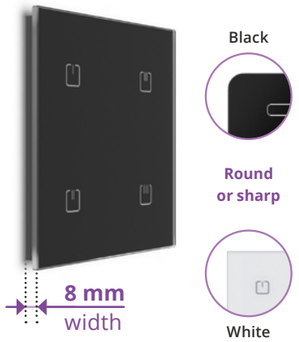
Recievers



- Switch unit
- Universal dimmer
- Switching socket - plug
- Dimming socket - plug

French Schuko British

Glass wall controller



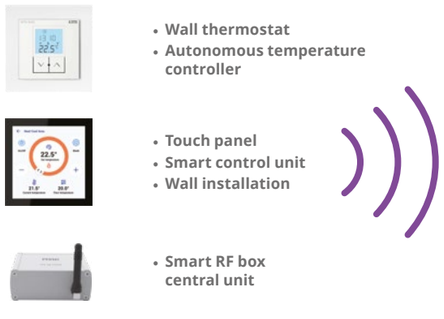
Black

Round or sharp

White

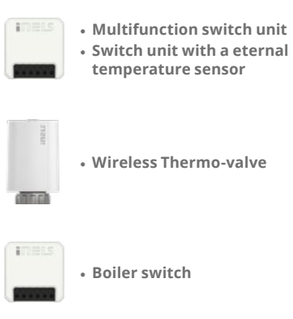
Temperature controll

Controllers



- Wall thermostat
- Autonomous temperature controller
- Touch panel
- Smart control unit
- Wall installation
- Smart RF box central unit

Recievers



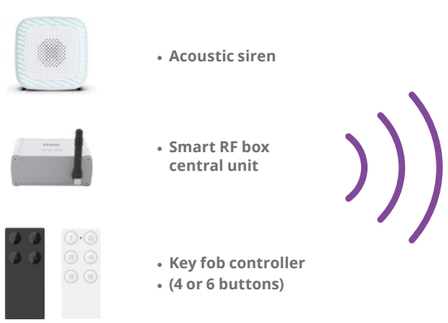
- Multifunction switch unit
- Switch unit with a eternal temperature sensor
- Wireless Thermo-valve
- Boiler switch

Touch panel

Wall-mounted central panel with smart box functions

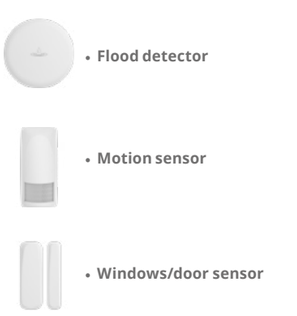
Security

Controllers



- Acoustic siren
- Smart RF box central unit
- Key fob controller
- (4 or 6 buttons)

Recievers



- Flood detector
- Motion sensor
- Windows/door sensor

iNELS App

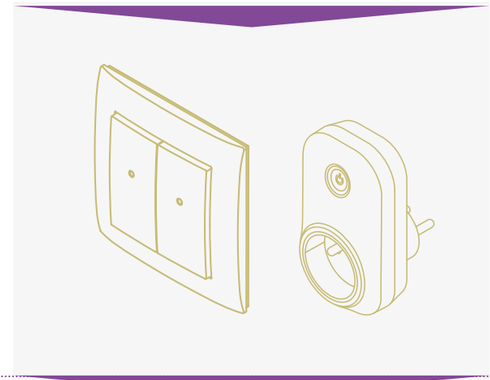
Security notifications on mobile phone

Smart Expandable System

Point to Point

End User

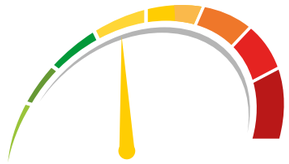
Individual elements of the iNELS system for personalised installation.

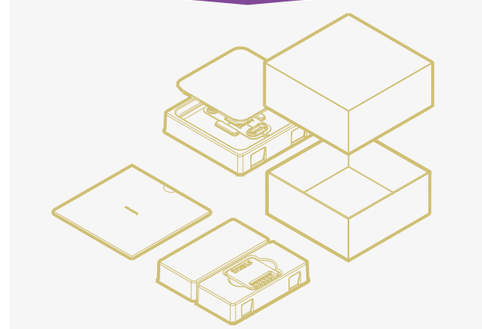


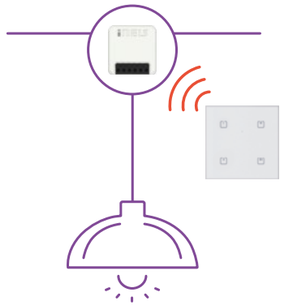
Kits

Hobby Man

Pre-Set elements for everyday applications.







Connected Home

Electrician

A simple solution to turn your house into a smart home, without any structural intervention.

Smart Home

System Integrators

When using wireless elements is faster and cheaper.

iNELS & iRidium

Fast, nice and easy to use

Did you know that you have the opportunity to create your own application to control iNELS? You can choose from hundreds of preset designs or create your own custom control interface.

You can add bus and wireless control units to the application created in this way, as this application supports both of our solutions.

In addition, iRidi can also be used as a gateway for iNELS. It allows you to connect Modbus and KNX protocols to iNELS, or provide support for all types of voice control for the system. In addition, the application created with the help of the gateway then has the ability to connect and control not only all the functions of the smarthome, but also to create a common interface for controlling home theaters and multimedia. You can also add security cameras, access control and security systems here.

iNELS and iRidi are used not only for complex solutions of larger houses, but also for hotels and the residential sector, where the creation of individual common applications for controlling functions in the apartment and in the common areas of the flat building is a great advantage.

Features

- Home automation
- Security cameras
- Audio intercom
- Lighting control
- Multimedia networks
- Home Cinema
- Internet of Things
- Multiroom applications

iRidium mobile

iNELS RF Control

iNELS BUS System

Watch the VIDEO:

iNELS Cloud

Unlimited control options

iNELS Cloud
inels.cloud

While the definition of the "cloud" may not be entirely clear, in principle it ist the term used to describe the global network of servers, each of which has its own function.

ELKO Cloud uses the support of one of the largest providers of these services, specifically the Cloud service DigitalOcean. This provider has 14 data centers located around the world, and as such can guarantee almost 99.99% stability of its services which at the moment accounts for more than half a million users.

Users of smart homes or larger automated installations can control their RF or BUS devices remotely without the need to own a public IP address that would allow them to remotely access the installation.

Thanks to the outsourcing of data to the cloud, the possibility for integration and interconnection has been created for a much wider range of third-party devices that will make the system user experience more enjoyable to use. For example, the voice control that is available in The Google Home or Amazon Alexa apps.

∞ GB
memory

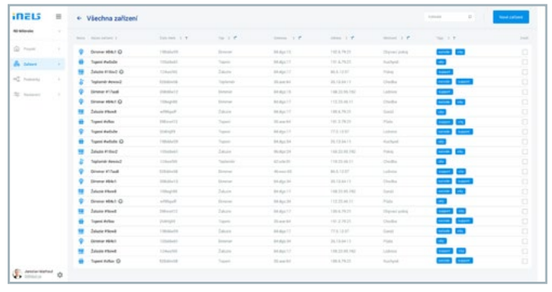
∞ CPU
number of cores

∞ GB
storage

Thanks to these unlimited parameters ELKO CAN provide cloud connectivity to its customers all over the world and all this completely free of charge.

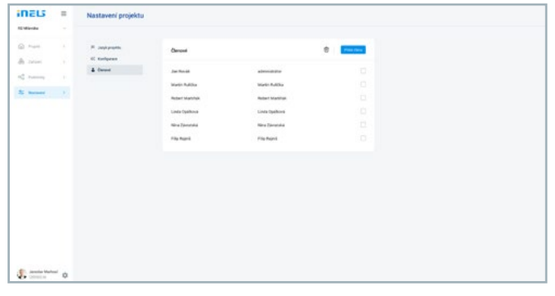
Configuration and control

Elko cloud has control and configuration of installations not only through the iNELS mobile application, but also the new web interface.



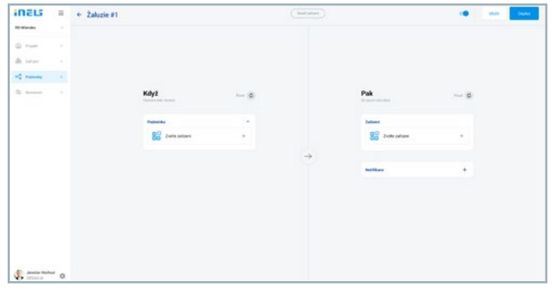
Manage all devices

The cloud allows you to manage installed devices in one place. The list of devices can be filtered and configured by specific basic parameters.



User management

User management allows detailed control over the usage of entire installations for individual users. By setting up rules there can be almost no limit to different configuration options.



Conditions

Conditional automation allows you to create arbitrary links between your devices throughout the installation. With conditions in the hands of users it delivers an almost unlimited tool for configuring your installation.

Timers / Relays

Catalogue Modular electronic devices:
elkoep.com/**download**

Multifunction voltage monitoring relay

HRN-100

- voltage monitoring relay with LCD display
- multifunction and in many ways universal monitoring relay which protects devices and equipment connected to a 3-phase network
- optionally monitors upper and lower voltage & frequency in 3-phase circuits

Twilight and light digital switch

SOU-2 + fotosensor SKS

- is used for control of lights on the basis of ambient light intensity and real time (combination of SOU-1 and time switch SHT-3 in one device)
- switching: according to a program (AUTO)/ permanently manual/random (CUBE)
- external sensor SKS-200 included in the package

Multifunction current monitoring

PRI-34

- measures true root mean square value TRUE RMS
- option to select functions with error state memory (Latch)
- possibility to extend the current range using an external CT
- power supply and monitoring circuits are not galvanically separated

Multifunction time relay

CRM-131H

- multifunction 3 control inputs
- multifunction time relay for universal use in automation, control and regulation or in house installations
- three control inputs - START, INHIBIT, RESET
- mode selection - according to the set function, permanently closed, permanently open, function of MEMORY LATCH with delay

Economy version

Multifunction time relay

CRM-161

- multifunction, economy version of CRM-91H
- multifunction economy version of time relay for universal use in automation, control and regulation or in house installations
- universal supply voltage: AC 24 – 240 V (AC 50/60 Hz) and DC 24V
- comfortable and well-arranged function and time-range setting by rotary switches

On delay time relay

SJR-2

- for gradual switching of high power, prevents current strokes in the main
- Double stage ON DELAY
- time scale 0.1 s - 10 days divided into 10 ranges: 0.1 s - 1 s/1 s - 10 s/0.1 min - 1 min/1 min - 10 min/0.1 hrs - 1 h/1 h - 10 hrs/0.1 day - 1 day/1 day - 10 days/only ON/only OFF
- time range setting via rotary switch

Liquid level relays

HRH-9

- for monitoring up to 6-levels each probe has its own output contact
- each of the six probes has its own output contact
- Optional function of each probe independently: pump-up, pump-down, including optional delay
- automatic and manual calibration

Analog time switches

ATS-1DR ATS-2D ATS-2DR ATS-2WR

- a simple and inexpensive alternative to digital switches for controlling real-time heating, ventilation, cooling, lighting or pumps
- with daily or weekly program
- selection of operating modes
- sealable transparent front panel cover to prevent unauthorized access

Power suplies

PS1M / PS2M / PS3M / PS4M

- adjustable output for voltage drop compensation, high load in small design output voltage 12 or 24 V
- switching stabilized power supply with output voltage 12 or 24 V DC
- high efficiency up to 90%. Low ripple and noise

ELKO EP time relays got c(UL)us listed

We have recently been able to obtain the UL certification for some of the wide range of ELKO EP time relays. It is a truly traditional mark of quality. The certification company Underwriter Laboratories, which grants this certification (its initials), was founded in 1894 in Chicago. It has been testing the safety of individual components and entire products for more than 100 years

What exactly means „UL listed“?
ELKO EP‘s relay gained the higher of the two levels of certification, namely UL listed. This certification does not only test individual product components, but also the products as a whole. It is therefore a more extensive series of more complex tests. The result guarantees customers safe handling, along with the use of sustainable standards and long product life.

But what exactly does the abbreviation cULus mean? Add C for Canada and US for the United States to the UL test company‘s core initials. The certification of our products is valid for both of these countries.

Which products are involved?

DIN module relays:

- CRM-2H/UNI, CRM-2T/UNI, CRM-161, CRM-91H/UNI
- CRM-111H, CRM-181J, CRM-93H/UNI, CRM-113H
- CRM-183J, CRM-121H, CRM-131H
- CRM-111H, CRM-181J, CRM-93H/UNI, CRM-113H

PLUG-IN socket relays:

- PTRM-216K, PTRM-216T, PTRM-216KP
- PTRM-216TP, PTRA-216K, PTRA-216T

Wired (BUS) electro

Catalogue Wired (BUS) electro-installation:
elkoep.com/**download**

Superior central control unit projects using iNELS IP protocol

CU3-IPMASTER

- the CU3-IPMASTER central unit is a high-performance control unit designed for controlling subordinate units compatible with the iNELS IP protocol
- CU3-IPMASTER is designed for fully autonomous control of even very large projects consisting of 1000+ subordinate central or system units
- the iNELS IP protocol also allows the use of the iNELS mobile application to control all devices included in the project

Basic central control unit iNELS BUS

CU3-07M

- Cu3-07M is one of the basic system control units of iNELS BUS installations
- the unit can work independently, as an autonomous project, or it can be controlled by the CU3-IPMASTER central unit as part of a larger project
- the unit is equipped with one BUS to which it is possible to connect up to 32 elements from the iNELS BUS portfolio

Extended central control unit iNELS BUS

CU3-08M

- CU3-08M is one of the basic system control units of iNELS BUS installations
- the unit can work independently, as an autonomous project, or it can be controlled by the CU3-IPMASTER central unit as part of a larger project
- the unit is equipped with two BUS, to which it is possible to connect a total of up to 64 elements (2x32) from the iNELS BUS portfolio

Room controller with PHASE dimmers

RC3-612M

- the unit is designed to control hotel rooms
- the unit is equipped with 6 binary inputs, of which 2 can be configured as temperature inputs and 8 independent relays with switch contacts
- it also includes two analog outputs and two-phase dimmer channels

Combined actuator with 10 inputs and 8 outputs

IOU3-108M

- IOU3-108M is combined actuator equipped with 8 binary inputs, 2 temperature inputs and 8 independent relays with switching potential-free contacts
- binary inputs IOU3-108M are used to connect up to 8 devices with a potentialfree contact (such as switches, buttons, burglar alar, ...)
- the unit can be used to read pulses from energy meters with a pulse output

Dimmer Actuator 6-channel

DA3-66M

- DA3-66M is a universal dimming 6-channels actuator, which is used to control the brightness of dimmable light sources such as ESL, LED and RLC with 230 V power supply
- the DA3-66M has 6 semiconductor controlled 230 V AC outputs. The maximum possible load is 150 VA for each channel
- each output channel is independently controllable and addressable

Central unit for control of DALI ballasts

CU3-09M/DALI

- CU3-09M/DALI is a special version of the minified central unit and is designed to control DALI electronic ballasts from the iNELS system
- the unit can work independently, as an autonomous project, or it can be controlled by the CU3-IPMASTER central unit as part of a larger project
- up to 32 elements from the iNELS BUS portfolio can be connected to the BUS system

Power supply 30 W with BUS separator

PS3-30/iNELS

- PS3-30/iNELS is a stabilized switching power supply, with the total power of 30 W
- used to supply central units and external master
- electronic short circuit protection, high-capacity and thermal overload, over voltage
- part of the power supply is an internally integrated bus separator for supplying one BUS branch, from which the iNELS peripheral units are further supplied

Room controller with DALI dimmer

RC3-610M/DALI

- the unit is designed to control hotel rooms
- the unit is equipped with 6 binary inputs, of which 2 can be configured as temperature inputs and 8 independent relays with switch contacts
- It also includes two analog outputs and a bus for controlling up to 64 DALI ballasts

Gateway iNELS DALI/DMX

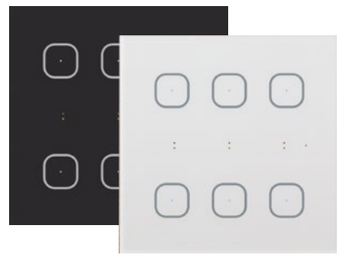
EMDC-64M

- the unit EMDC-64M is designed to control DALI electronic ballasts and DMX receivers from the iNELS system
- EMDC-64M enables control of up to 64 independent electronic ballasts DALI (Digital Addressable Lighting Interface) for fluorescent lamps, LEDs and other light sources
- EMDC-64M also enables connection of up to 32 receivers DMX (Digital MultipleX) in a single segment

Gateway for connecting protocols and devices by a third party

Home Assistant GW

- works as a server for connecting third-party devices and integrating them into the iNELS environment
- the server uses the open Home Assistant platform, which contains more than 1000 existing integrations
- the Home Assistant GW communicates via the iNELS IP protocol, so it can be controlled via the iNELS mobile application or the CU3-IPMASTER master



Glass switch button controllers (sharp edges)

GSB3-40 / GSB3-60 / GSB3-80

- the wall controller with touch control series GSB3 is a design element (controller) in the system iNELS3 with elegant design and comfortable controlling
- controllers are 4-channels (GSB3-40), 6-channels (GSB3-60) and 8-channels (GSB3-80)
- controllers are available in black and white variants

Wireless (RF) electro

Catalogue Wireless (RF) electro-installation:
elkoep.com/**download**

Glass touch controllers 2 or 4 buttons (sharp edges)

RFGB-20 / RFGB-40

- the glass touch controller is a design RF (wireless) control unit and is available in elegant black and white variants
- only 8 mm thick

RFGB-20/B: 2-buttons, black glass
RFGB-40/B: 4-buttons, black glass
RFGB-20/W: 2-buttons, white glass
RFGB-40/W: 4-buttons, white glass

Glass touch controllers 2 or 4 buttons (round edges)

RFGB-220 / RFGB-240

- the glass touch controller is a design RF (wireless) control unit and is available in elegant black and white variants
- only 8 mm thick

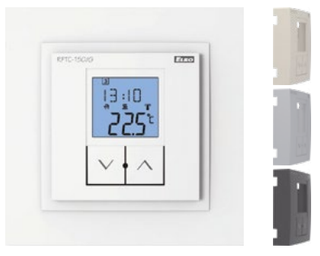
RFGB-220/B: 2-buttons, black glass
RFGB-240/B: 4-buttons, black glass
RFGB-220/W: 2-buttons, white glass
RFGB-240/W: 4-buttons, white glass

Glass controller with dimmer 4 buttons (sharp & round edges)

RFDW-71

- wireless glass designed switch with integrated dimming component which serves to regulate light sources:
  - **R** – classic lamps
  - **L** – halogen lamps with wound transformer
  - **C** – halogen lamps with electronic transformer
  - **ESL** – dimmable energy efficient fluorescent lamps
  - **LED** light sources (230 V)

RFDW-71/B: 4-buttons, black glass
RFDW-71/W: 4-buttons, white glass



Thermostat for fancoil control via RFSA-166M

RFTC-150/G

- the wireless controller RFTC-150/G in design LOGUS^{90} measures the room temperature by internal sensor
- on the basis of a set program it sends commands to the switching component RFSA-166M Switching fan coil
- it is possible to set automatic or manual mode
- range of measured temperature 0 to 55 °C

Outdoor controller 2 buttons

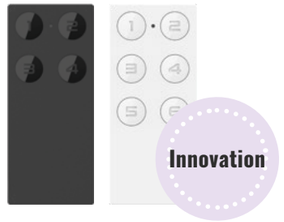
RFOWB-20

- the wireless push-button controller with IP65 protection is used to control iNELS RF components and protect them from the outdoor environmen
- 2 buttons allow (independently of each other) control of an unlimited number of components (actuators)
- the controller is suitable for control from the pool, garden, terrace, and pergola. It can be used as an uncovered bell button
- Fastening with screws or double-sided tape

Wireless thermovalve

RFATV-2

- The wireless thermovalve measures the room temperature with an internal sensor and opens/closes the radiator valve based on the set program in the system component
- It can be combined with the eLAN-RF, RF smart box
- It measures temperature in the range 0 to +50 ° C and humidity 5-95% and sends it to the system component at regular 2 min. intervals
- „Open window" detection, when the temperature suddenly closes the valve for a preset time



Key fob 4 buttons, 6 buttons

RF KEY-40 / RF KEY-60

- when pressing the button, it sends a set signal (ON/OFF, dimming, time switching OFF/ON, blinds up/down)
- **RF KEY-40**: four buttons enable control of four units independently
- **RF KEY-60**: six buttons enable control of four units independently
- key fob - sized remote control, available in black and white

Dimming socket-plug

RFDSC-71N

- the dimmable socket is used to control the brightness of luminaires that are connected by a power cord with a plug
  - **R** - conventional bulbs (resistive load)
  - **L** - halogen bulbs with winding transformer (inductive load)
  - **C** - halogen bulbs with electronic transformer (capacitive load)
  - **ESL** - dimmable energy-saving lamps
  - **LED** - light sources equipped with LEDs

Switching socket-plug

RFSC-61N

- the switched socket is used to control fans, lamps, direct heaters, and appliances, which are connected by a power cord with a plug up to 16 A
- they can be combined with detectors, controllers, or iNELS RF Control system components
- multifunctional design - button, impulse relay and time functions of a delayed start or return with time setting 2 s - 60 min
- the switched socket can be controlled by up to 32 channels

DALI converter

RFDALI-32B-SL

- the RFDALI-32B-SL converter is designed to control devices with a DALI interface, such as dimmers, electronic ballasts, LED converters and more
- the control is performed by components from the iNELS RF Control system, detectors, controllers or system devices
- Assignment and configuration of DALI devices is performed via the Application via the Bluetooth interface

Universal dimmer, 6-channels

RFDEL-76M

- the RFDEL-76M is a universal six-channel dimmer that is used to control the brightness intensity of dimmable R - L - C - ESL - LED ESL sources
- the maximum possible load is 150 VA for 230 V and 75 VA for 120 V for each channel
- individual dimmer channels can be connected in parallel to increase the maximum output load at the expense of the number of outputs
- each of the output channels is independently controllable and addressable

Input contacts converter

RFIM-40B/BP-SL / RFIM-40B/230-SL

- converts 4 potential-free inputs that can be closed for a short time (buttons) or permanently (switch, contact) on the RF signal
- range up to 200 m (in open space)

RFIM-40B / BP-SL: battery supply (CR 123A)
RFIM-40B / 230-SL: mains supply (AC 230V)

iNELS for everything, everywhere

iNELS References
inels.com/**references**

STROM Offices
Czech Republic / Pilsen

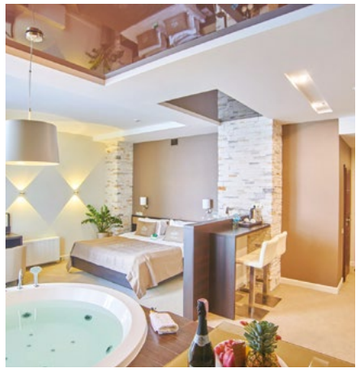
- model of serviced private offices and shared office space tailored to individuals or small start-ups
- controlling lighting, blinds and heating, all integrated with the access control system

Pivate Villas
Middle East / Kingdom of Jordan

- three residential villas in the country capital Amman
- outdoor and indoor lighting controlled by wall-mounted glass touch controllers
- iNELS BUS GSB3 series controllers

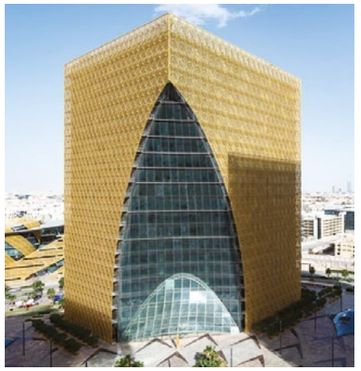
Multifunctional centre
Kazakhstan / Almaty

- Hotel Kempinski, Chaplin Cinemas multiplex, luxury restaurant
- lighting control in the reception, corridors, social and conference rooms
- group of CU3-02M central units - the brain of the central hotel solution



SPA hotel NEMO
Ukraine / Odessa

- luxury anf confort thanks to smart technology iNELS BUS
- the air conditioning, lights and the fire system in hundred hotels rooms it is the project scope
- the basic element is the control of Mitsubishi HVAC with a support of hotel thermostats GRT3 and iNELS glass touch controllers



Mashroat Office
Saudi Arabia / Riyad

- the headquarters of goverment company Mashroat Office - The National Project Management, Operation and Maintenance Organization
- The lighting control of the conference facilities and coridors divaded into 8 rooms and 32 dimmable circuits

Astronomical clock
Slovakia / Stará Bystrica

- the most accurate astronomical clock in the world
- The astronomical part consists of an astrolabe showing the signs of the zodiac, the position of the sun and moon and the moon phaes.
- for a perfect impression lighting is need and it is timed using CRM-91H element

Riyadh Metro
Saudi Arabia / Riyad

- protection for tunnel ventilation fan in underground stations
- TER-7 - thermostat for monitoring temperature of motor winding
- 188 pieces in 12 metro stations

Family House
Czech Republic / Břeclav

- comprehensive installation of the iNELS BUS system in a family house
- control of all indoor and outdoor lights with emphasis on RGB lighting
- power windows, including blinds, curtains and drapes, heating control, and integrations of security system

Hotel Chateau
Slovakia / Krakovany

- hotel Chateau in the area of the world-famous Slovak spa Piešťany
- smart heating control of all hotel areas

Kuwait Society of Engineer
Kuwait / Bneid Al Qar

- KSE is one of the leading institutes in Kuwait where it holds more than 5 thousand engineers serving various government and private sectors
- iNELS has installed a combination of BUS & RF solutions to control lighting, blinds, and shutters
- KSE is one of the strategic supporters of iNELS and working together on other technological projects.

Boyko Author School
Ukraine / Kharkiv

- modern classroom equipment of the summer campus of the most prestigious private school
- sensor-controlled lighting level on the bench workspace and automatically adjustable lighting brightness controlled by DALI adapters. controlled energy consumption regulated by motion detectors

Janoušek Winery
Czech Republic / Rakvice

- Janoušek family winery in one of the most famous wine production locations
- lighting and heating control in presentation areas
- iNELS BUS system using central unit CU3-01M, dimming actuators DA3-012M, switching actuators SA3-012M and wall controllers WSB3-40

Made in Czech Republic

We have been your partner in the field for 30 years, manufacturing and developing the highest quality electrical devices.

ELKO EP employs 330 people across 15 foreign branches that exports its products to more than seventy countries. Company of the Year of the Zlín Region, Visionary of the Year and Global Exporter of the Year are just some of the awards we have received throughout the years as we consistently strive to move forward in the field of innovation and development.

Millions of relays, hundreds of smart homes and thousands of satisfied customers. This is ELKO EP; a traditional company based in the center of Europe, where development, production, logistics, and service are at the forefront of our focus. Building automation systems, smart city facilities and the Internet of Things (IoT) devices are solutions we can offer.

Other just resell

However, we develop and manufacture products ourselves!

Developers

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

Producers

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

Support

24 hours / 7 days / 360 days, logistical as well as technical.

Sellers

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

Facts & Stats

About ELKOEP
elkoep.com/**about-us**

The world is changing at every moment and we are ready for it. We develop, modernize, expand and constantly grow.

About ELKO EP	**30 years** on the market	**20 years** ISO certification	**330** Employees
Reasonable split	**30%** Czech	**40%** Export	**30%** Branches
Worldwide presence	**10** Branches	**6** Franchises	**70** Exporting countries
Our figures	**16 500** iNELS installation	**600 000** Products per year	**13 mio** All products
In house production	**2** SMD lines	**2** Printing lasers	**2000m²** Manufacturing space

Constant innovation

The highest products quality and their constantly expanding functionality rank us among the world leaders.

NOTES

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