PRODUCT OVERVIEW

Timers/Relays

Protection & monitoring relays

iNELS RF Wireless electroinstallation

iNELS BUS Wired electroinstallation

Design switches & sockets

ELKO EP

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.

Facts and stats

30 %	**40 %**	**30 %**	**330**	**16 500**	**13 000 000**
Czech	Export	Branches	Employees	iNELS installation	Manufactured products

10	**6**	**70**
Branches	Franchises	Exporting countries

World leader
in production of relays

WE ARE

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

PRODUCERS
Modern antistatic spaces, 2 × fully automated SMD production lines with 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 providing impeccable services and superior products at an affordable price.

relay

Timers/Relays   www.elkoep.com/relays
Time relays, auxiliary relays, installation contactors, memory and bistable relays, staircase switches, time switches, twilight and light switches, dimmers and light intensity controllers, power supplies and bell transformers, controlling and signalling devices.

Monitoring/Protection relays   www.elkoep.com/monitoring
Voltage relays 1-phase and 3-phase (undervoltage, overvoltage, phase failure, phase asymmetry and phase sequence), current relays, level relays, thermostats, light indicator of voltage, power factor and frequency monitoring.

iNELS
RF Control

Wireless electro-installation iNELS RF   www.elkoep.com/wireless
Components of smart wireless system can be easily and quickly used in existing buildings where it is not desirable to cut holes for cables (e.g. add/change a light switch when changing room layouts). However, it is also possible to assemble a complete system for apartment or house control, intelligent control of heating, blinds or scene settings. When using the eLAN-RF gateway, the entire installation can also be controlled by an application from a mobile phone, tablet or television.

Hotel Wireless Retrofit (HRESK)   www.elkoep.com/retrofit
Hotel Room Energy Saving Kit - is a complete solution designed primarily for existing hotel rooms and is based on the iNELS RF wireless system. It focuses on the following areas: "Energy savings": switching off all appliances when leaving the room or not overheating/not overcooling, "Comfort" - all out of bed and "Safety": bell, guest in the room, maid, visitor.

iNELS
BUS System

Wired electro-installation iNELS BUS   www.elkoep.com/wired
The sensors and actuators, together with the central unit, which is the heart of the system, communicate via a 2-wires and enable the built up a larger installation for family houses, villas, hotels and buildings. Individual functions of elements are parameterized in iDM SW, so simple and more complex actions can be set.

Hospitality Hotel (GRMS)   www.elkoep.com/hospitality
Guest Room Management System – is a comprehensive solution designed primarily for new hotels, guesthouses or wellness and is based on the iNELS BUS system. In the room, it resolves the control of lighting, access, temperature control and audio/video distribution. It features glass panels with touch buttons that can be combined in various ways (numbers, shape, and colours) and customized (description, logo).

Building management system   www.elkoep.com/building
Building Management System is the supervisor above the iNELS BUS, resp. wireless system iNELS RF. It enables not only the control of several central units (CU) or gateways (eLAN), but also the connection to other protocols that the technology brings in the building (Modbus, Bacnet, KNX, etc.).

Lighting control   www.elkoep.com/lighting
iNELS offer a variety of lighting control solutions for all types of light sources: from simple (dimmers from the RELAY range), through wireless (iNELS RF) to sophisticated control within the iNELS BUS installation, which (except conventional R - L - C - LED dimmers) also includes units for light control via DALI and DMX bus.

LOGUS90

Switches and sockets   www.elkoep.com/logus90
Switches, sockets and a complete range of devices and accessories - this is the Logus90 series from the Portuguese manufacturer Efapel. This range is complemented by both standard plastic frames and luxury frames made of purely natural materials: real wood, metal, granite or tempered glass. Be exceptional!

1-MODULE	2-MODULE	3-MODULE	4-MODULE	6-MODULE

BOX - flush mounted

BOX-SL - push-in terminals

BOX - into the cover

into 11-Pin Socket

or

into the panel

48 x 48 x 79 mm

Outdoor IP65 protection

IP65

139 x 139 x 56 mm

IP65

72 x 62 x 34 mm

64 x 74 x 44 mm

interior

72 x 62 x 34 mm

25 x 75 x 16 mm
15 x 75 x 14 mm

Ø 89 x 23 mm

63 x 110 x 74 mm

70,5 x 30,5 x 7,5 mm

in LOGUS⁹⁰ design

AQUARELLA   **ARBORE**   **ANIMATO**   **PETRA**

METALLO   **BASE**

CRYSTAL

CRM-181J REPLACEMENT CRM-93J REPLACEMENT CRM-61 REPLACEMENT NEW NEW

ECONOMY BESTSELLER 3 OUTPUTS in 1 module 3 OUTPUTS in 1 module

	CRM-181J	CRM-183J	CRM-161	CRM-91H	CRM-93H	CRM-111H	CRM-113H	CRM-2T
Type	Single-function		Multi-function - ECONOMY	Multi-function BESTSELLER		Multi-function with Inhibit delay		Star/delta timer
Control input type	Line Voltage Trigger	Line Voltage Trigger	Line Voltage Trigger	Line Voltage Trigger	Line Voltage Trigger	Line Voltage Trigger	Line Voltage Trigger	-

Main parameters

	CRM-181J	CRM-183J	CRM-161	CRM-91H	CRM-93H	CRM-111H	CRM-113H	CRM-2T
Supply voltage (frequency)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC 24-240V and DC 24V (AC 50-60 Hz)	AC/DC 12-240V or AC 230V only (AC 50-60 Hz)	AC/DC 12-240V or AC 230V only (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V or AC 230V only (AC 50-60 Hz)
Time Range	0.1 s - 100 hrs	0.1 s - 100 hrs	0.1 s - 10 hrs	0.1 s - 10 days	0.1 s - 10 days	0.05 s - 30 days	0.05 s - 30 days	0.1 s - 100 days, 0.1 - 1 s
Contact Configuration and Rating	SPDT (1x C/O) 16 A/250 V	3PDT (3x C/O) 8 A/250 V	SPDT (1x C/O) 8 A/250 V	SPDT (1x C/O) 16 A/250 V	3PDT (3x C/O) 8 A/250V	1x SPDT (1x C/O) 16 A/250 V	3PDT (3x C/O) 8 A/250V	2x SPDT (2x C/O) 16 A/250 V
2nd (3rd) contact mode selection	no	no	no	no	no	no	yes	no

Functions

	CRM-181J	CRM-183J	CRM-161	CRM-91H	CRM-93H	CRM-111H	CRM-113H	CRM-2T
Number of function	1	1	6	10	10	11	10	1
List of function	ZR - ON DELAY ZN - INTERVAL ON BL - FLASHER - ON first		ON DELAY, INTERVAL ON, FLASHER ON first, OFF DELAY, ON/OFF delay, MEMORY LATCH with delay, ON DELAY with control signal	ON DELAY, INTERVAL ON, FLASHER-OFF first, FLASHER ON first, OFF DELAY, SINGLE SHOT, SINGLE SHOT falling edge, ON/OFF DELAY, MEMORY LATCH, PULSE GENERATOR 0.5 s		ON DELAY, INTERVAL ON, FLASHER ON/OFF first, MEMORY LATCH, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY	ON DELAY, INTERVAL ON, FLASHER-ON/OFF first, MEMORY LATCH, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY	STAR/DELTA
New functions	OD - OFF DELAY		-	-	-	WATCHDOG, INTERVAL ON/OFF, MEMORY LATCH WITH DELAY	WATCHDOG, INTERVAL ON/OFF	-

General information

Mounting	35 mm DIN rail (IEC 60715)
Temperature Range	Operating: -20°C to +55°C (-4°F to 131°F) Storing: -30°C to +70°C (-22°F to 158°F)
Lifetime	Electrical: 100,000 operations Mechanical: 10,000,000 operations
Dielectric strength	Between power supply and output contact 1: 4 kV AC

Weight	61 g (2.15 oz)	61 g (2.15 oz)	61 g (2.15 oz)	61 g (2.15 oz)	82 g (2.79 oz)	61 g (2.15 oz)	82 g (2.79 oz)	79 g (2.79 oz)
Dimensions	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝	90 x 17.6 x 64 mm 3.5˝ x 0.7˝ x 2.5˝

Approved by
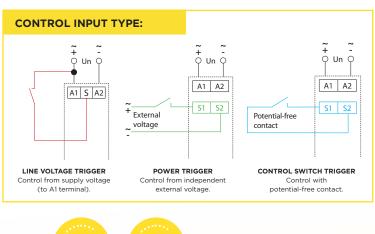
EAC CE c(UL)us

New function OD - OFF DELAY

GOOD DEAL $

EXTERNAL POTENTIOMETER

For remote time setting (CRM-91HE and CRM-2HE)

WATCHDOG

INTERVAL ON/OFF

CONTROL INPUT TYPE:

LINE VOLTAGE TRIGGER
Control from supply voltage
(to A1 terminal).

POWER TRIGGER
Control from independent
external voltage.

CONTROL SWITCH TRIGGER
Control with
potential-free contact.

MULTI-FUNCTION LED INDICATION:
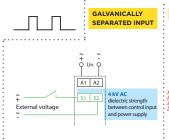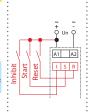
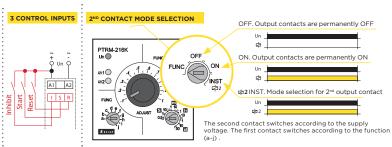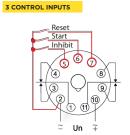|	CRM-2H	CRM-121H	CRM-131H	PTRM-216K	PTRM-216T	PTRM-216KP	PTRM-216TP	PTRA-216K	PTRA-216T
	Asymmetric flasher	Multi-function with GSCI	Multi-function with three inputs	Multi-function with PFCI		Multi-function with Inhibit delay		Multi-function with three inputs	
	Line Voltage Trigger	Power Trigger (galvanically separated)	Three control inputs (START, INHIBIT, RESET)	Control Switch Trigger	Control Switch Trigger	Line Voltage Trigger	Line Voltage Trigger	Three control inputs (START, INHIBIT, RESET)	Three control inputs (START, INHIBIT, RESET)
	AC/DC 12-240V or AC 230V only (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)
	0.1 s - 100 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days
	SPDT (1x C/O) 16 A/250 V	SPDT (1x C/O) 16 A/250 V	SPDT (1x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V	2x SPDT (2x C/O) 16 A/250 V
	no	no	no	yes	yes	yes	yes	yes	yes
	2	11	11	10	10	10	10	10	10
	ASYMMETRIC FLASHER - ON FIRST or ASYMMETRIC FLASHER - OFF FIRST	ON DELAY, INTERVAL ON, FLASHER-ON/ OFF first, MEMORY LATCH, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY	**WITH CONTROL SIGNAL:** ON DELAY, INTERVAL ON, FLASHER-ON first, FLASHER-OFF first, OFF DELAY, SINGLE SHOT, PULSE GENE- RATOR 0.5 s, ON/ OFF DELAY	ON DELAY, INTERVAL ON, FLASHER - ON/ OFF first, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY, MEMORY LATCH		ON DELAY, INTERVAL ON, FLASHER - ON/ OFF first, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY, MEMORY LATCH		ON DELAY, INTERVAL ON, FLASHER-ON/ OFF first, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY, MEMORY LATCH with delay	
	–	WATCHDOG, INTERVAL ON/OFF, MEMORY LATCH WITH DELAY	WATCHDOG, INTERVAL ON/OFF, MEMORY LATCH WITH DELAY	WATCHDOG, INTERVAL ON/OFF		WATCHDOG, INTERVAL ON/OFF		WATCHDOG, INTERVAL ON/OFF	

35 mm DIN rail (IEC 60715)			11 Pin Octal Socket					
Operating: -20°C to +55°C (-4°F to 131°F) Storing: -30°C to +70°C (-22°F to 158°F)								
Electrical: 100,000 operations Mechanical: 10,000,000 operations								
Between power supply and output contact: 4 kV AC			Between power supply and output contact: 2.5 kV AC					
61 g (2.15 oz)	72 g (2.57 oz)	61 g (2.17 oz)	108 g (3.85 oz)	107 g (3.82 oz)	108 g (3.85 oz)	107 g (3.82 oz)	108 g (3.85 oz)	107 g (3.82 oz)
90 x 17.6 x 64 mm	90 x 17.6 x 64 mm	90 x 17.6 x 64 mm	48 x 48 x 89 mm	48 x 48 x 79 mm	48 x 48 x 89 mm	48 x 48 x 79 mm	48 x 48 x 89 mm	48 x 48 x 79 mm
3.5˝ x 0.7˝ x 2.5˝	3.5˝ x 0.7˝ x 2.5˝	3.5˝ x 0.7˝ x 2.5˝	1.7˝ x 1.7˝ x 3.5˝	1.7˝ x 1.7˝ x 3.1˝	1.7˝ x 1.7˝ x 3.5˝	1.7˝ x 1.7˝ x 3.1˝	1.7˝ x 1.7˝ x 3.5˝	1.7˝ x 1.7˝ x 3.1˝

GALVANICALLY SEPARATED INPUT

4 kV AC dielectric strength between control input and power supply

3 CONTROL INPUTS

2ND CONTACT MODE SELECTION

OFF. Output contacts are permanently OFF

ON. Output contacts are permanently ON

INST. Mode selection for 2nd output contact

The second contact switches according to the supply voltage. The first contact switches according to the function (a-j).

3 CONTROL INPUTS

Reset
Start
Inhibit

TIME RELAYS | multifunction, on DIN rail

multifunction, economy version of CRM-91H

ECONOMY

CRM-61 replacement

multifunction 1x output contact

BESTSELLER

UNI only

multifunction 3x output contacts

3 OUTPUTS in 1-MODULE

UNI only

multifunction with external potentiometer

energy saving relay

INNOVATION

Technical parameters	CRM-161	CRM-91H	CRM-93H	CRM-91HE	CRM-101
Output	1x CO, 8 A	1x CO, 16 A	3x CO, 8 A	1x CO, 16 A	1x CO, 16 A
Housing	1-MODULE				
Supply voltage (frequency)	AC 24-240 V and DC 24 V (AC 50/60Hz)	AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)	AC/DC 12-240 V or AC 230 V (50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)
Time range	0.1 s - 10 hrs (6 ranges)	0.1s - 10 days (10 ranges)	0.1 s - 10 days (10 ranges)	0.1 s - 10 days (10 ranges)	t1: 1 - 60 min, t2: 0 - 120 s
Number of functions	6	10	10	10	4
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)				
Order code	8161	**UNI:** 7521 **230V:** 7078	**UNI:** 7561 **230V:** 7562	8145	8411
	Economy version of CRM-91H. Only the 6 most used functions, 8 A changeover contact, miniUNI power supply AC / DC 24-240 V + DC 24 V.	The most used multifunctional time relay for universal use in automation, control and regulation or in house installations. 10 functions, 10 time ranges, multifunctional LED signalling, universal power supply in a wide range of AC / DC 12-240 V.	As a CRM-91H, but with the possibility of time control by an external potentiometer. The potentiometer is mounted in a panel, hole diameter 25 mm.	Relay for automatic switching of electricity using connected sensors (motion detector and magnetic door contact) in the room.

MODULE on DIN rail

TIME RELAYS | multifunction, on DIN rail

multifunction with Inhibit (delay) 1x output contact

NEW

multifunction 3x output contacts 2nd & 3rd contact selection

NEW

multifunction galvanically separated control input

NEW

multifunction 3 control inputs

NEW

OFF DELAY after power supply failure

Technical parameters	CRM-111H	CRM-113H	CRM-121H	CRM-131H	CRM-82TO
Output	1x CO, 16 A	3x CO, 8 A	1x CO, 16 A	1x CO, 16 A	2x CO, 8 A
Housing	1-MODULE				
Supply voltage (frequency)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)
Time range	50 ms - 30 days (10 ranges)	50 ms - 30 days (10 ranges)	50 ms - 30 days (10 ranges)	50 ms - 30 days (10 ranges)	0.1s - 10 min (4 ranges)
Number of functions	11	10	11	11	2
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)				
Order code	7554	8063	7555	7556	7580
	All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause).	All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause). 2nd & 3rd contact mode selection.	Galvanically separated control input (Power Trigger) for control with external voltage in the range at AC / DC 12-240 V.	Three control inputs – START, INHIBIT, RESET. All functions start with triggering of control input START.	Relay is timing after power supply failure and is switched off after set time period. Two time functions: a - TRUE OFF DELAY e - ON DELAY

TIME RELAYS | single function, on DIN rail

CRM-81J replacement

CRM-83J replacement

UNI only

UNI only

		STAR / DELTA timer	**asymmetric flasher 1x output contact**	**asymmetric flasher with two external potentiometers**	**2-channel ON DELAY function 2x output contacts**
choose from 4 functions 1x output contact	**choose from 4 functions 3x output contacts**				

Technical parameters	CRM-181J	CRM-183J	CRM-2T	CRM-2H	CRM-2HE	SJR-2
Output	1x CO, 16 A	3x CO, 8 A	2x CO, 16 A	1x CO, 16 A	1x CO, 16 A	2x CO, 16 A
Housing	1-MODULE					
Supply voltage (frequency)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V or AC 230 V or AC 24-480 V	AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)
Time range	0.1s - 100 hrs (10 ranges)	0.1s - 100 hrs (10 ranges)	t1: 0.1s - 100 days, t2: 0.1s - 1s	0.1s - 100 days (10 ranges)	0.1s - 100 days (10 ranges)	0.1s - 10 days (10 ranges)
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)					

external potentiometer

mounted in Ø 25 mm hole in the panel

ZR: ON DELAY
CRM-181J/UNI ZR: 8038 | **CRM-183J/UNI ZR:** 8061

ZN: INTERVAL ON
CRM-181J/UNI ZN: 8039 | **CRM-183J/UNI ZN:** 8060

BL: FLASHER - ON first
CRM-181J/UNI BL: 8040 | **CRM-183J/UNI BL:** 8058

OD: OFF DELAY
CRM-181J/UNI OD: 8041 | **CRM-183J/UNI OD:** 8059

CRM-2T/UNI: 7669
CRM-2T/230V: 8381
CRM-2T/24-480V: 4530
Time t1 λ (star)
0.1 s do 100 days.
Time t2 (delay) λ / ▲
0.1 s - 1 s.

CRM-2H/UNI: 7668
CRM-2H/230V: 8395
Asymmetric flasher with independently adjustable output closing and opening time.
2 time functions:
• asymmetric flasher - ON first
• asymmetric flasher - OFF first.

CRM-2HE/UNI: 8144
Asymmetric flasher with possibility of time control with external potentiometers.
2 time functions:
• asymmetric flasher - ON first
• asymmetric flasher - OFF first.

SJR-2/UNI: 7670
SJR-2/230V: 8396
It is used for gradual (cascade) switching. 2 x independent ON DELAY outputs. Time adjustable from 0.1 s to 100 days.

TIME RELAYS | multifunction, PLUG-IN

NEW

PRM-91H PRM-92H replacement

	multifunction, 2x output contacts (2nd contact mode selection)	**multifunction, 2x output contacts (2nd contact mode selection)**	**multifunction, 2x output contacts (2nd contact mode selection)**

Technical parameters	PTRM-216TP	PTRM-216KP	PTRM-216T	PTRM-216K	PTRA-216T	PTRA-216K
Time setting	rotary potentiometer	knob	rotary potentiometer	knob	rotary potentiometer	knob
Output	2x CO, 16 A					
Housing	PLUG-IN, into 11-pin octal socket					
Control input	line voltage trigger		control switch trigger		3 control inputs (START, INHIBIT, RESET)	
Supply voltage (frequency)	AC/DC 12-240 V (50-60 Hz)					
Time range	50 ms - 30 days (10 ranges)					
Number of functions	10					
Dimensions	48 x 48 x 79 mm	48 x 48 x 89 mm	48 x 48 x 79 mm	48 x 48 x 89 mm	48 x 48 x 79 mm	48 x 48 x 89 mm
Order code	7938	7861	7938	7557	7560	7559

panel cut-out

45 mm

45 mm

into 11-pin octal socket

All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause).

Three control inputs – START, INHIBIT, RESET. All functions start with triggering of control input START.

All functions initiated by the supply voltage, except for the flasher function, can use the control input to inhibit the delay (pause).

TIME RELAYS | digital, on DIN rail

STAIRCASE SWITCHES |

NEW

CRM-42 CRM-42F replacement

	multifunction LCD display 1x output contact	multifunction LED display 2x output contacts		standard with function ON/AUTO/OFF	multifunction extending time, signaling before switching off
Technical parameters	**CRM-100**	**PDR-2A**	**PDR-2B**	**CRM-4**	**CRM-46**
Output	1x CO, 8 A	2x CO, 16 A		1x CO, 16 A	1x CO, 16 A
Housing	1-MODULE	3-MODULE		1-MODULE	1-MODULE
Supply voltage (frequency)	AC/DC 24-240 V (AC 50-60 Hz)	AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)		AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)
Time range	0.1 s - 999 hrs	0.01 s - 100 hrs		0.5 s - 10 min	0.5 s - 30 min
Number of functions	17	16	10	3	6
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)	90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)		90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)	
Order code	7453	**UNI:** 304 **230V:** 303	**UNI:** 306 **230V:** 305	7077	7491

CRM-100

| Control input B1 is controlled by the supply voltage.

More accurate thanks to digital time setting. | Multifunction programmable digital relay with 4-digit red LED display. It is used for applications where it is necessary to set the exact time (have a visual check).

PDR-2A: optional second relay function (16 functions)
PDR-2B: individual setting of the functions for both output contacts (10 functions). | It is used for delayed switching off of lighting on stairs, corridor, entrance ...
It is controlled by the button or several buttons from several places (connected in parallel).
3 or 4 wire connection. | Smart features:
- extending time
- premature shutdown
- impulse relay
- signalling before switching OFF.
3 or 4 wire connection. |

TIME RELAYS | flush/cover mounted

	multifunction 3-wire (without NEUTRAL) on input: LED bulb	multifunction 3-wire (without NEUTRAL) on input: incandescent bulb	multifunction 4-wire (with NEUTRAL) contactless output	multifunction 4-wire (with NEUTRAL) 1x output contact
Technical parameters	**SMR-K**	**SMR-T**	**SMR-H**	**SMR-B**
Output	1x triac	1x triac	1x triac	1x CO, 16 A (AgSnO$_2$)
Housing	BOX	BOX	BOX	BOX
Resistive load	10 - 160 VA	10 - 160 VA	0 - 200 VA	0 - 4000 VA
Inductive load	10 - 100 VA	10 - 100 VA	0 - 100 VA	0 - 2000 VA
Supply voltage (frequency)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)
Number of functions	9	9	9	10
Dimensions		49 x 49 x 13 mm (1.9˝x 1.9˝x 0.5˝)		49 x 49 x 21 mm (1.9˝x 1.9˝x 0.8˝)
Order code	4517	2910	2911	3556

BOX
flush mounted

| Multifunction time relay for installation in an installation box for 3-wire connection (does not require NEUTRAL). An LED bulb or energy saver can be connected in parallel to the control input. | Like the SMR-K, but in parallel to the control input, unlike the SMR-K, neither an LED bulb nor an energy saver can be connected, only other types of loads.
Glow-lamps are supported. | Multifunction time relay for installation in an installation box for 4-wire connection (requires Neutral). Not suitable for switching LED bulbs. | Multifunction time relay for installation in an installation box for 4-wire connection (requires Neutral). Thanks to the switching contact AgSnO$_2$, it is also suitable for switching LED bulbs or savings. |

DIGITAL TIME SWITCHES |

	weekly 1-channel	weekly 2-channels	weekly, yearly 1-channel	weekly, yearly 2-channels	with astronomical program 2-channels	with synchronized time (GPS) 1-channel	smartphone app control 2-channels
Technical parameters	SHT-1	SHT-1/2	SHT-3	SHT-3/2	SHT-4	SHT-6G (GPSR-1)	SHT-7
Program	weekly	weekly	weekly, yearly	weekly, yearly	weekly, yearly, astro	weekly, yearly	weekly, yearly
Replaceable battery	no	no	no	no	yes	yes	yes
Output	1x CO, 16 A	2x CO, 16 A	1x CO, 16 A	2x CO, 16 A	2x CO, 16 A	1x CO, 16 A	2x CO, 16 A
Housing	2-MODULE						
Supply voltage (frequency)	AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)		AC/DC 12-240 V or AC 230 V (AC 50-60 Hz)		AC 230 V (50-60 Hz)	AC 100-240 V DC 140-340 V	AC 230 V (50-60 Hz)
Dimensions	90 x 35 x 64 mm (3.5˝ x1.4˝ x 2.5˝)						
Order code	**UNI:** 3043 **230V:** 3042	**UNI:** 3041 **230V:** 3040	**UNI:** 3675 **230V:** 3676	**UNI:** 2904 **230V:** 2901	4475	8239	3549

INNOVATION

GPS receiver for SHT-6G
GPSR-1

It is used to control various appliances depending on the real time: with weekly (SHT-1), and weekly and annualy (SHT-3) program.
Power backup in case of battery power failure. Backlit LCD display, sealable cover. Possibility of automatic summer / winter time transition.
Additional functions: manual control, random switching, and pulse output.

Switches the output according to the time of sunrise and sunset based on geographical coordinates or European cities.

As SHT-3, but real time can be synchronized via GPS receiver.

Settings via smartphone with NFC communication (Android).

iNELS Home NFC Setter

ANALOG TIME SWITCHES |

NEW

	with daily program and power backup	with daily program	with daily program and power backup	with weekly program and power backup

Technical parameters	ATS-1DR	ATS-2D	ATS-2DR	ATS-2WR
Program	daily			weekly
Power backup	yes (max. 100 hrs)	no	yes (max. 150 hrs)	yes (max. 150 hrs)
Minimum switching interval	15 min	30 min	30 min	3.5 hrs
Output	1x NO, 16 A	1x CO, 16 A		
Resistive load	3500 VA			
Inductive load	1000 VA			
Housing	1-MODULE	2-MODULE		
Supply voltage (frequency)	AC 230 V (50/60 Hz)	AC 230 V (50/60 Hz)	AC 230 V (50/60 Hz)	AC 230 V (50/60 Hz)
Dimensions	90 x 17.6 x 64 mm	90 x 35 x 60 mm		
Order code	8211	8212	8213	8214

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.

App download

POWER RELAYS |

| 1x 16 A contact supply: AC 230 V | 1x 16 A contact supply: AC 230 V | 1x 16 A contact supply: UNI | 3x 8 A contacts supply: AC 230 V | 3x 8 A contacts supply: UNI | 3x 16 A contact: supply: AC/DC 24 V | 3x 16 A contacts supply: AC 230 V |

Technical parameters	VS116B/230	VS116K	VS116U	VS308K	VS308U	VS316/24	VS316/230
Output		1x CO, 16 A (AgSnO$_2$)		3x CO, 8 A (AgNi)		3x CO, 16 A (AgSnO$_2$)	
Housing	BOX	1-MODULE					
Supply voltage (frequency)	AC 230 V (50-60 Hz)	AC/DC 24 V and AC 230 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 24 V and AC 230 V (AC 50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC/DC 24 V (AC 50-60 Hz)	AC 230 V (50-60 Hz)
Dimensions	49 x 49 x 21 mm (1.9˝ x 1.9˝ x 0.8˝)	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)					
Order code	4754	codes below					

(red)		VS116K/red: 2295	VS116U/red: 2460	VS308K/red: 2269	VS308U/red: 3010	VS316/24V red: 3577	VS316/230V red: 4471
(green)		VS116K/green: 2261	VS116U/green: 3643	VS308K/green: 2271	VS308U/green: 3644	VS316/24V green: 3610	VS316/230V green: 4472
(white)		VS116K/white: 2257	VS116U/white: 3848	VS308K/white: 2267	VS308U/white: 3851	VS316/24V white: 3609	VS316/230V white: 4470
(blue)		VS116K/blue: 2260	VS116U/blue: 3847	VS308K/blue: 2270	VS308U/blue: 3850	VS316/24V blue: 3611	VS316/230V blue: 4474

INSTALLATION CONTACTORS |

| 1x20 A | 2x20 A | 4x25 A | 4x40 A | 4x63 A | 4x20 A | 2x20 A with manual control | 4x25 A with manual control |

Technical parameters	VS120	VS220	VS425	VS440	VS463	VS420	VSM220	VSM425
Max. load capacity	20 A	20 A	25 A	40 A	63 A	20 A	20 A	25 A
Number of poles	1	2	4	4		4	2	4
Contact configuration (NO/NC)	10, 01	20, 11, 02	40, 31, 22, 04	40, 31, 22, 04	40, 31, 22	40, 31	20, 11, 02	40, 31, 22, 04
Coil supply voltage (frequency)	AC/DC 24 V, 230 V (AC 50-60 Hz)	AC/DC 24 V, 48 V, 110 V, 230 V (AC 50-60 Hz)	AC/DC 24 V, 48 V, 110 V, 230 V (AC 50-60 Hz)	AC/DC 24 V, 110 V, 230 V (AC 50-60 Hz)	AC/DC 24 V, 48 V, 110 V, 230 V (AC 50-60 Hz)	AC 12 V, 24 V, 48 V, 110 V, 230 V (50-60 Hz)	AC 12 V, 24 V, 110 V, 230 V (50-60 Hz)	AC 12 V, 24 V, 42 V, 230 V (50-60 Hz)
Dimensions	17.5 x 85 x 60 mm		35 x 85 x 60 mm	53.3 x 84 x 60 mm		35 x 62.5 x 57 mm	17.5 x 85 x 60 mm	35 x 85 x 60 mm

These contactors are characterized by soft-switching operation, with DC coil and rectifier, what ensures a quiet operation and running.
Used to switch electrical circuits, in particular resistive loads and three-phase asynchronous motors.
IP20 protection - guards providing IP40 protection of all contactor (VS420 excluded) terminals are available upon request.
It is possible to connect auxiliary contact VSK-11 and VSK-20 to the contactors VS220, 425, 440, 463.
Installation on DIN rail or on panel.

Like VS, but moreover slide switch allowing manual control 1-AUTO-OFF.

INNOVATION

	1x NO, 16 A contact	2x NO/NC, 16 A contacts	2x NO, 16 A contacts	2x NO, 20 A contacts with remote control disconnection	2x NO, 32 A contacts	electronic version - noiseless 1x CO, 16 A contact	2x CO, 16 A contacts

Technical parameters	BR-216-10		BR-216-11		BR-216-20		BR-220-20		BR-232-20		MR-41		MR-42	
Output	1x NO, 16 A		1x NO+1x NC, 16 A		2x NO, 16 A		2x NO, 20 A		2x NO, 32 A		1x CO, 16 A		2x CO, 16 A	
Housing	1 -MODULE										1-MODULE			
Coil supply voltage (frequency)	AC 120 V (60 Hz)	AC 230 V (50 Hz)	AC 120 V (60 Hz)	AC 230 V (50 Hz)	AC 120 V (60 Hz)	AC 230 V (50 Hz)	AC 120 V (60 Hz)	AC 230 V (50 Hz)	AC 120 V (60 Hz)	AC 230 V (50 Hz)	AC 230 V (50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)	AC 230 V (50-60 Hz)	AC/DC 12-240 V (AC 50-60 Hz)
Coil disconnector	x		x		x		yes		yes		x		x	
Order code	6969	6885	6970	6887	6971	6886	6972	6888	6973	6889	8248	8224	8249	8225

The state of the output contacts changes with the coil pulse. They are used mainly for switching and control of luminaires, heating, ventilation and other devices - with buttons connected in parallel.
All relays can be controlled manually using the lever on the front panel (I-0), which also serves as a status signal.
In addition, the BR-220 and BR-232 have a switch for disconnecting the coil, as a result of which it can then only be operated with a slide switch on the front panel.
In steady state (ON or OFF) it has zero consumption.

Similar to the Bistable BR relay, but thanks to the electronic design, the switching is almost noiseless.
The relays remember their state even after the power failure is restored (the output is always OFF in the event of a power failure, after the power supply is restored it automatically returns to the state before the power failure).
MR-42: 2nd output option:
a) Parallel contact   b) step relay

TWILIGHT SWITCHES |

INNOVATION

IP65

INNOVATION   SKS-100   SKS-200

	analog with external sensor	digital with build-in time switch and external sensor	for outdoor use with built-in sensor	external photosensor

Technical parameters	SOU-1		SOU-2	SOU-3	SKS-100, SKS-200
Output	1x CO, 16 A		1x CO, 8 A	1x NO, 12 A	SKS-100: for use with SOU-1, LIC-1, LIC-2
Housing	1-MODULE		2-MODULE	box with IP65	
Supply voltage (frequency)	AC/DC 12-240 V (AC 50-60 Hz)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)	SKS-200: for use with SOU-2
Sensor	external, SKS-100		external, SKS-200	built-in	
Adjustable light intensity	1 - 50 000 lx (in 2 ranges)		10 - 50 000 lx	1 - 100 000 lx (in 3 ranges)	
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)		90 x 35 x 64 mm (3.5˝ x 1.4˝ x 2.5˝)	98 x 62 x 34 mm (3.9˝ x 2.4˝ x 1.3˝)	Ø 24 x 58 mm
Order code	8046	7551	8234	4056	8073	8233

Twilight switch (1-100 lx) or (100-50 000 lx), which closes the output when the level falls below the set level. External sensor SKS-100 included in the package.

Digital twilight switch with timer, i.e. the lighting level can be blocked in real time.
External sensor SKS-200 included in the package.

Twilight switch (1-1000 lx), which closes the output when falling below the set level or light switch (100-100.000 lx), which closes the output when the level is exceeded.

New external photosensor SKS-100 and SKS-200 for panel or wall mounting, via the included bracket.

POWER SUPPLIES | DC

adjustable output for voltage drop compensation, high load in small design output voltage 12 or 24 V

flush/cover mounted output voltage 12 or 24 V

regulated 12-24V

Technical parameters	PS1M		PS2M		PS3M		PS4M		PSB-10		PS-30R
Output voltage	DC 12 V	DC 24 V	DC 12 V	DC 24 V	DC 12 V	DC 24 V	DC 12 V	DC 24 V	DC 12 V	DC 24 V	DC 12-24 V
Max. load	1.2 A/15 W	0.62 A/15 W	2 A/24 W	1.2 A/30 W	4.5 A/54 W	2.5 A/60 W	7.1 A/85	3.8 A/92 W	0.8 A/10 W	0.4 A/10 W	2.5-1.2 A/30 W
Housing	1-MODULE		2-MODULE		3-MODULE		4-MODULE		BOX		3-MODULE
Supply voltage (frequency)	AC 100-240 V (50-60 Hz)								AC 110-250 V (50-60 Hz)		AC 100-250 V (50-60 Hz)
Protective circuits	overload, overvoltage and short circuit								short circuit, current and temperature overload (from 120% of rated power)		
Dimensions	90 x 18 x 58 mm (3.5˝ x 0.7˝ x 2.6˝)		90 x 35 x 58 mm (3.5˝ x 1.4˝ x 2.3˝)		90 x 52.5 x 58 mm (3.5˝ x 2.1˝ x 2.3˝)		90 x 70 x 58 mm (3.5˝ x 2.8˝ x 2.3˝)		49 x 49 x 21 mm (1.9˝ 1.9˝ x 0.8˝)		90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)

PS1M-15/12V: 8047
PS1M-15/24V: 8048
PS2M-24/12V: 8049
PS2M-30/24V: 8050

PS3M-54/12V: 8051
PS3M-60/24V: 8052
PS4M-85/12V: 8053
PS4M-92/24V: 8054

Switching stabilized power supply with output voltage 12 or 24 V DC. High efficiency up to 90%. Low ripple and noise.

PSB-10-12: 4502
PSB-10-24: 4378

PS-30-R: 5158
Adjustable output voltage in the range of 12-24 V.

POWER SUPPLIES | AC & DC   BELL TRANSFORMERS |

8 VA regulated DC 5-24 V

8 VA/24 V unstabilized

8 VA AC 8 V

8 VA AC 12 V

5-15VA
4 V   8 V   12 V

Technical parameters	ZSR-30	ZNP-10-24V	ZTR-8-8	ZTR-8-12	ZTR-15-12		
Output voltage	DC 5-24 V regulated DC 24 V unstabilized AC 24 V	DC 24 V unstabilized AC 24 V	AC 8 V	AC 12 V	AC 4 V	AC 8 V	AC 12 V
Max. load	8 VA/8 W	8 VA/8 W	8 VA		5 VA	10 VA	15 VA
Housing	3-MODULE	3-MODULE	2-MODULE		3-MODULE		
Supply voltage (frequency)	AC 230 V (50-60 Hz)	AC 230 V (50-60 Hz)	AC 230 V (50 Hz)				
Protections	short circuit and current overload	-	short circuit (on primary winding)				
Dimensions	90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)		90 x 36 x 64 mm (3.5˝ x 1.5˝ x 2.6˝)		90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)		
Order code	175	408	3680	3681	3928		

Adjustable output voltage in the range of DC 5-24 V.

Un-stabilized AC + DC output voltage.

For powering doorbells, door locks, etc.

DIMMERS | on DIN rail

universal controlled dimmer
300 VA

staircase switch
with dimming
500 VA

universal controlled dimmer
2000 VA

expanding power module
for DIM-6
1000 VA

Technical parameters	DIM-15	DIM-2	DIM-6	DIM6-3M-P
Dimmable loads	R - L - C - ESL - LED	R - L - LED	R - L - C - LED	R - L - C - LED
Output	2x MOSFET	1x triac	4x MOSFET	2x MOSFET
Output loads	300 VA	R: 10-500 VA, L: 10-250 VA	2000 VA	1000 VA
Protections	overheating and overload	overheating	overheating and overload	overheating and overload
Housing	1-MODULE		6-MODULE	3-MODULE
Supply voltage (frequency)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)		90 x 105 x 65 mm (3.5˝ x 4.1˝ x 2.6˝)	90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)
Order code	4069	**DIM-2:** 1247 **DIM-2-1h:** 3574	3691	3910

MODULE
on DIN rail

The type of light source is set with a switch on the front panel. Setting the minimum brightness with the potentiometer on the front panel eliminates the flickering of some types of energy-saving light bulbs (ESL) and LED.

The gradual increase of brightness, deceleration and duration of illumination can be set by potentiometers on the panel:
- rise and falling length: 1 - 40 s
- light duration: 0 - 20 min
- brightness: 10 - 100%

The dimmer can be controlled in several ways: with buttons, an external potentiometer, and an analog signal 0(1)-10 V or with the iNELS BUS system. Power expandable up to 10 kVA DIM6-3M-P modules.

Expansion module for DIM-6. 8 of these modules expand the power of the DIM-6 up to 10,000 VA.

DIMMERS | flush mounted   on DIN rail

universal dimmer
4-wires
(with NEUTRAL)

dimmer
3-wires
(without NEUTRAL)

lighting intensity
controller, controls
the source directly

IP65

lighting intensity
controller, controls
the 0-10 V ballast

IP65

NEW

universal dimmer
6-channels
6x 150 VA (230 V)

Technical parameters	SMR-M	SMR-S	LIC-1	LIC-2	RFDEL-76M
Dimmable loads	R - L - C - ESL - LED	R - L - LED	R - L - C - ESL - LED	voltage output 0 (1) - 10 V	R - L - C - ESL - LED
Output	2x MOSFET	1x triac	2x MOSFET	1x NO, 16 A	12x MOSFET
Output loads	160 VA	R: 10-300 VA, L: 10-150 VA	300 VA	4000 VA	6x 150 VA (230V) / 6x 75 VA (120V)
Protections	overheating and overload	fuse	overheating and overload	-	overheating and overload
Housing	BOX		1-MODULE		6-MODULE
Supply voltage (frequency)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 230 V (50 Hz)	AC 100-250 V (50 Hz)	230 V (50 Hz) or AC 120 V (60 Hz)
Dimensions	49 x 49 x 21 mm (1.9˝ x 1.9˝ x 0.8˝)	49 x 49 x 13 mm (1.9˝ x 1.9˝ x 0.5˝)	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)		90 x 105 x 65 mm (3.5˝ x 4.1˝ x 2.6˝)
Order code	4377	2351	4493	4531	**230V:** 8205 **120V:** 8209

BOX
flush mounted

The type of light source is set with a switch on the instrument panel.

3-wire connection (without NEUTRAL), but minimum load 10 W.

It automatically maintains the intensity of artificial lighting in the room according to an external outdoor light sensor SKS-100.

As LIC-1, but at the output a continuous analog signal 0 (1)-10 V for controlling electric ballasts.

Universal 6-channel dimmer with an output of 900 VA. The outputs can be connected in parallel and multiply the power at the expense of the number of outputs. Control with wired buttons or wireless iNELS RF.

CONTROLLING AND SIGNALING MODULES |

USS-ZM
Basic module

USS

Designated for switching, control and signaling of auxiliary and power circuits.
USS - "Do-it-yourself" = various types of switching and signaling units can be "snapped" in the basic module.
Units are supplied separately, individual configurations are assembled by the user. It is possible to place up to two units into 1-MODULE (for example 2x switch, 2x signalling lights or combinations) = when compared with competitors it is saving place in a switch board.
Operating temperature -20 to +55℃.

Example of combinations

USS-01 + USS-03

USS-07 + USS-11

USS-11 + USS-01

USS-13 + USS-10

USS-12 + USS-11

USS-07 + USS-00

Types of controlling and signaling units

	Switch	Alternation switch	Switch with central position	Switch + push button with central position	Push button with central position	Push button NO	Push button NC
Name	USS-01	USS-02	USS-03	USS-04	USS-05	USS-06/S	USS-06/R
Order code	2462	2463	2464	2465	2466	2467	3637

	Switch with glow lamp (red)	Switch with glow lamp (green)	Switch with glow lamp (yellow)	Signalling LED (red)	Signalling LED (green)	Signalling LED (yellow)	Signalling LED (white)
Name	USS-07	USS-08	USS-09	USS-10	USS-11	USS-12	USS-13
Order code	2468	2468	2470	2433	2434	2435	2436

	Signalling LED flashing (red)	Signalling LED flashing (blue)	Used to fill an empty position in the front panel
Name	USS-14	USS-15	USS-0
Order code	2489	2437	2461

USS-ZM
2457

PROTECTION AND MONITORING RELAYS

Voltage monitoring relays - overview

Type	Design	Supply from	Features				Phase			Setting			Description
			Phases	Monitored range	>U	<U	Failure	Sequence	Asymmetry	Delay	Hysteresis	Memory	
HRN-33	1-M	monitored voltage	1	AC 48 - 276 V	●	●	x	x	x	●	x	x	For all types, the delay is adjustable from 0 - 10 seconds (to eliminate short-term outages or peaks). The lower voltage level (Umin) is set in % of the upper level (Umax).
HRN-63	1-M	monitored voltage	1	AC 48 - 276 V	●	●	x	x	x	●	x	x	
HRN-35	1-M	monitored voltage	1	AC 48 - 276 V	●	●	x	x	x	●	x	x	
HRN-34	1-M	monitored voltage	1	DC 6 - 30 V	●	●	x	x	x	●	x	x	
HRN-37	1-M	monitored voltage	1	AC 24 - 150 V	●	●	x	x	x	●	x	x	
HRN-67	1-M	monitored voltage	1	AC 24 - 150 V	●	●	x	x	x	●	x	x	
HRN-34	1-M	monitored voltage	1	DC 6 - 30 V	●	●	x	x	x	●	x	x	
HRN-64	1-M	monitored voltage	1	DC 6 - 30 V	●	●	x	x	x	●	x	x	
HRN-41/230 V HRN-41/400 V HRN-41/24 V	3-M	AC 230 V AC 400 V AC/DC 24 V	1	AC/DC 50 V AC/DC 160 V AC/DC 500 V	●	●	x	x	x	●	●	●	Second relay function (independent or parallel). Galvanically separated power supply from measuring inputs.
HRN-42/230 V HRN-42/24 V	3-M	AC 230 V AC/DC 24 V	1	AC/DC 50 V AC/DC 160 V AC/DC 500 V	●	●	x	x	x	●	●	●	
HRN-55	1-M	monitored voltage	3	AC 3 x 300 - 500 V	x	x	●	●	x	●	x	x	Power supply from all phases, i.e. the relay function is preserved even if one phase fails.
HRN-55N	1-M	monitored voltage	3	AC 3 x 172 - 287 V	x	x	●	●	x	●	x	x	Power supply L1-N, i.e. the relay also monitors the neutral wire interruption.
HRN-57	1-M	monitored voltage	3	AC 3 x 300 - 500 V	●	●	●	x	x	●	x	x	Power supply from all phases, i.e. the relay function is preserved even if one phase fails.
HRN-57N	1-M	monitored voltage	3	AC 3 x 172 - 287 V	●	●	●	x	x	●	x	x	Power supply L1-N, i.e. the relay also monitors the neutral wire interruption, replacement for HRN-52.
HRN-54	1-M	monitored voltage	3	AC 3 x 300 - 500 V	●	●	●	●	x	●	x	x	If the supply voltage falls below 60% of Un (OFF lower level), the relay will immediately disconnects with no delay. Power supply from all phases, i.e. the relay function is preserved even if one phase fails.
HRN-54N	1-M	monitored voltage	3	AC 3 x 172 - 287 V	●	●	●	●	x	●	x	x	If the supply voltage falls below 60% of Un (OFF lower level), the relay will immediately disconnects with no delay. Power supply L1-N, i.e. the relay also monitors the neutral wire interruption.
HRN-43/230 V HRN-43/400 V HRN-43/24 V	3-M	AC 230 V AC 400 V AC/DC 24 V	3	AC 3 x 84 - 480 V	●	●	●	●	●	●	●	●	2 output relays, functions of the second relay may be selected (independent/parallel). Galvanically separated power supply.
HRN-43N/230 V HRN-43N/400 V HRN-43N/24 V	3-M	AC 230 V AC/DC 24 V	3	AC 3 x 48 - 276 V	●	●	●	●	●	●	●	●	
HRN-56/208 HRN-56/240 HRN-56/400	1-M	monitored voltage	3	AC 3 x 125 - 276 V AC 3 x 144 - 276 V AC 3 x 240 - 460 V	x	●	●	●	x	●	x	x	Thanks to the power supply from all three phases, the relay is operational even if one phase fails.
HRN-56/480 HRN-56/575	3-M	monitored voltage	3	AC 3 x 228 - 550 V AC 3 x 345 - 660 V	x	●	●	●	x	●	x	x	
HRN-100	2-M	monitored voltage	3	$U_{LN} = 3 \sim 155 - 500\,V$ $U_{LL} = 3 \sim 90 - 288\,V$	●	●	●	●	●	●	●	●	Configurable 3 or 4-wire connection. Extensive setting options. Each output can be configured individually.

VOLTAGE RELAYS | 1-phase, AC

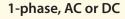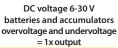| | **1-phase, mains voltage 48-276 V**
overvoltage and undervoltage = 1x output
WINDOW   HYSTERESIS | **1-phase, mains voltage 48-276 V**
overvoltage = 1x output
undervoltage = 1x output | **1-phase, mains voltage 24-150 V**
overvoltage and undervoltage = 1x output
WINDOW   HYSTERESIS |

Technical parameters	HRN-33	HRN-63	HRN-35	HRN-37	HRN-67
Type of monitored voltage	AC		AC	AC	
Monitored levels	undervoltage and overvoltage		undervoltage and overvoltage	undervoltage and overvoltage	
Functions	WINDOW	HYSTERESIS	WINDOW	WINDOW	HYSTERESIS
Monitoring range	48-276 V		48-276 V	24-150 V	
Output	1x CO, 16 A		2x CO, 16 A	1x CO, 16 A	
Housing	1-MODULE				
Power supply	from monitored voltage				
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)				
Order code	1563	3062	1565	3061	3064

1x common output contact for overvoltage and undervoltage.
Adjustable delay 0 - 10 s to eliminate short-term peaks in the network.

2x independent output contacts, separately for overvoltage and undervoltage.
Adjustable delay 0 - 10 s to eliminate short-term peaks in the network.

1x output contact for overvoltage and under-voltage.
Adjustable delay 0 - 10 s to eliminate short-term peaks in the network.

VOLTAGE RELAYS | 1-phase, DC   1-phase, AC or DC

| | **DC voltage 6-30 V**
batteries and accumulators
overvoltage and undervoltage
= 1x output | **DC voltage 6-30 V**
batteries and accumulators
overvoltage and undervoltage
= 1x output | **with three input ranges for AC / DC**
monitoring in 1-phase network
Umin =
% of set Umax | **with three input ranges for AC / DC**
monitoring in 1-phase network
Umin =
% of nominal input |

Technical parameters	HRN-34	HRN-64	HRN-41	HRN-42
Type of monitored voltage	DC		AC / DC	
Monitored levels	undervoltage and overvoltage		undervoltage and overvoltage	
Functions	WINDOW	HYSTERESIS	WINDOW	
Monitored range	6-30 V		3 inputs: 10-50 V; 32-160 V; 100-500 V	
Supply voltage	1x CO, 16 A		2x CO, 16 A	
Housing	1-MODULE		3-MODULE	
Power supply	from monitored voltage		AC/DC 24 V, 230 V, 400 V	AC/DC 24 V, 230 V
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)		90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)	

HRN-34: 1564   **HRN-64:** 3063

1x output contact for overvoltage and undervoltage.
Adjustable delay 0 - 10 s to eliminate short-term peaks in the network.

HRN-41/24V: 4041   **HRN-42/24:** 4723
HRN-41/230V: 4721   **HRN-42/230V:** 4725
HRN-41/400V: 4722

Independent supply voltage galvanically separated from the measured one, optional function of the 2nd relay, optional hysteresis 5% / 10%, Memory function.

VOLTAGE RELAYS | 3-phases

| | 3 x 300-500 V **without NEUTRAL** | 3 x 172-287 V **with NEUTRAL** | 3 x 300-500 V **without NEUTRAL** | 3 x 172-287 V **with NEUTRAL** | 3 x 300-500 V **without NEUTRAL** | 3 x 172-287 V **with NEUTRAL** | 3 x 84 - 480 V **without NEUTRAL** | 3 x 48 -276 V **with NEUTRAL** |

Technical parameters	HRN-55	HRN-55N	HRN-57	HRN-57N	HRN-54	HRN-54N	HRN-43	HRN-43N
Phase failure	●	●	●	●	●	●	●	●
Phase sequence	●	●	x	x	●	●	●	●
Adjustable overvoltage	x (fixed)	x (fixed)	●	●	●	●	●	●
Adjustable undervoltage	x (fixed)	x (fixed)	●	●	●	●	●	●
Asymmetry	x	x	x	x	x	x	●	●
Monitored range	AC 3 x 300-500 V	AC 3 x 172-287 V	AC 3 x 300-500 V	AC 3 x 172-287 V	AC 3 x 300-500 V	AC 3 x 172-287 V	AC 3 x 84 - 480 V	AC 3 x 48 -276 V
Output	1x CO, 8 A						2x CO, 16 A	
Housing	1-MODULE						3-MODULE	
Power supply	from monitored voltage						AC/DC 24 V, AC 230 V, AC 400 V	
Dimensions	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)						90 x 52 x 65 mm (3.5″ x 2″ x 2.6″)	
Order code	7512	7513	7514	7515	7498	7511	**24 V:** 4731 **230V:** 4729 **400V:** 4730	**24 V:** 4731 **230 V:** 4733 **400 V:** 4734

VOLTAGE RELAYS | 3-phases

| | 3 x 125-276 V | 3 x 144-276 V | 3 x 240-460 V | 3x 228-550 V | 3 x 345-660 V | voltage monitoring relay with LCD display |

monitors 3 phases (without NEUTRAL) with adjustable undervoltage level

Technical parameters	HRN-56/208	HRN-56/240	HRN-56/400	HRN-56/480	HRN-56/575	HRN-100
Phase failure	●	●	●	●	●	●
Phase sequence	●	●	●	●	●	●
Adjustable overvoltage	x	x	x	x	x	●
Adjustable undervoltage	●	●	●	●	●	●
Asymmetry	x	x	x	x	x	●
Monitored range	AC 3x 125-276 V	AC 3x 144-276 V	AC 3x 240-460 V	AC 3x 228-550 V	AC 3x 345-660 V	$U_{LL} = 3 \sim 155\text{-}500$ V $U_{LN} = 3 \sim 90\text{-}288$ V
Supply voltage	1x CO, 8 A					
Housing	1-MODULE			3-MODULE		2-MODULE
Power supply	from monitored voltage					
Dimensions	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)			90 x 52 x 65 mm (3.5″ x 2″ x 2.6″)		90 x 36 x 64 mm (3.5″ x 1.5″ x 2.6″)
Order code	3710	3711	3712	3018	3019	7122

CURRENT RELAYS | 1-phase, AC

A AC 1P

monitors the overcurrent of the conductor through the hole in the front panel

monitors undercurrent using a connected current transformer X/5 A
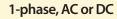
monitors overcurrent on measuring terminals in 7 ranges

monitors the overcurrent of the conductor through the hole in the body of the device

Technical parameters	PRI-32	PRI-35	PRI-51	PRI-52
Voltage type	AC	AC	AC	AC
Monitored levels	overcurrent	undercurrent	overcurrent	overcurrent
Monitored range	1 - 20 A (50-60 Hz)	0.5-5 A (50-60 Hz)	0.05 - 16 A (50-60 Hz) in 7 ranges	0.5 - 25 A (50-60 Hz)
Output	1x CO, 8 A	1x CO, 16 A	1x CO, 8 A	1x CO, 8 A
Housing	1-MODULE			
Supply voltage (frequency)	AC 24-240 V, DC 24 V (AC 50-60 Hz)	AC/DC 24-240 V (AC 50-60 Hz)	AC 24-240 V, DC 24 V (AC 50-60 Hz)	AC 230 V (50-60 Hz)
Dimensions	90 x 17.6 x 80.5 mm (3.5″ x 0.7″ x 3.2″)		90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)	

PRI-32: 2196

Monitor current level in single-phase AC circuits. The device has also in-built current transformer on the front panel.

PRI-35: 8271

Serves to protect a motor of a pump (submersible pump) against dry running.

Choose from 7 ranges:
PRI-51/0.5A: 7037 (AC 0.05-0.5A)
PRI-51 /1A: 7038 (AC 0.1-1A)
PRI-51/2A: 7039 (AC 0.2-2A)
PRI-51/5A: 7040 (AC 0.5-5A)
PRI-51/8A: 7041 (AC 0.8-8A)
PRI-51/0.1-10A: 7072 (AC 0.1-10A)
PRI-51/16A: 7045 (AC 1.6-16A)

PRI-52: 3655

Used to indicate the current flow, e.g. to monitor wire heating cables, rod heating elements, to monitor the consumption of engines… Hole for threaded conductor passes through the body of device.

CURRENT RELAYS | 1-phase, AC   1-phase, AC or DC   3-phase, AC

NEW

A AC 3P

multifunction current monitoring, 8 functions selectable by rotary switch

with three input ranges for AC/DC current

Imin = % of set Imax   Imin = % of nominal input

monitors overcurrent or undercurrent in 3-phases circuits 2x output contacts

Technical parameters	PRI-34	PRI-41	PRI-42	PRI-53	
Voltage type	AC	AC / DC		AC	
Monitored levels	overcurrent and undercurrent	overcurrent and undercurrent		overcurrent or undercurrent	
Function	eight, selectable by rotary switch	WINDOW		-	
Monitored range	0.1 - 16 A (50-60 Hz) in 3 ranges	3 inputs: 0.32-1.6 A, 1-5 A, 3.2-16 A (AC 50-60 Hz)		0.4-1,2 A (50-60 Hz)	2-6 A (50-60 Hz)
Output	1x CO, 16 A	2x CO, 16 A		2x CO, 8 A	
Housing	1-MODULE	3-MODULE		6-MODULE	
Power supply	AC/DC 24 - 240 V (AC 50-60 Hz)	AC/DC 24 V, AC 110 V; AC 230 V; AC 400 V (AC 50-60 Hz)		AC/DC 24 - 240 V (AC 50-60 Hz)	
Dimensions	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)	90 x 52 x 65 mm (3.5″ x 2″ x 2.6″)		90 x 105 x 64 mm (3.5″ x 4.1″ x 2.6″)	
Order code	**2A:** 8282, **5A:** 8283, **16A:** 8284	**24V:** 4741 **230V:** 4743	**24V:** 4747 **230V:** 4745	4213	4214

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.

Independent supply voltage galvanically separated from the measured one, optional function of the 2nd relay, optional hysteresis 5% / 10%, Memory function.

AC/DC 24-240 V power supply galvanically separated from the circuit of the monitored current. Selectable function: UNDER or OVER current.
2 types according to the rated current In (1A, 5A).

LIQUID LEVEL RELAYS |

for monitoring one or two levels

for monitoring one or two levels in IP65 protection

for monitoring one or two levels, or pumping of tanks

NEW

for monitoring up to 6-levels each probe has its own output contact

Technical parameters	HRH-5	HRH-7	HRH-8	HRH-9
Output	1x CO, 8 A	1x CO, 16 A	2x CO, 16 A	6x NO, 10 A
Sensitivity	5-100 kΩ	5-100 kΩ	5-100 kΩ	10-470 kΩ
Functions	2	2	8	10
Housing	1-MODULE	BOX	3-MODULE	6-MODULE
Supply voltage (frequency)	24-240 V AC/ DC (AC 50-60 Hz)	24-240 V AC/DC (AC 50-60 Hz)	AC/DC 24 V; AC 110 V; AC 230 V; AC 400 V (AC 50-60 Hz)	AC/DC 24-240 V (AC 50-60 Hz)
Dimensions	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)	139 x 139 x 56 mm (5.5″ x 5.5 x 2.2″)	90 x 52 x 65 mm (3.5″ x 2″ x 2.6″)	90 x 105 x 65 mm (3.5″ x 4.1″ x 2.6″)
Order code	8093	4947	**230V:** 5542 **24V:** 5556	8133

The relay is designed for monitoring the level of conductive fluids with the option of selecting functions: pump-up or pump-down. Optionally set configurations: single-level or double level switch.	Suitable to operate/work in harsh conditions due to the high degree of protection IP65. The same functions as for HRH-5.	Within one device, the following configurations can be selected: - 2x one-level monitoring (in separate tanks) - 1x two-level monitoring (in one tank) - pumping from one tank to another.	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.

LIQUID LEVEL RELAYS |

for controlling 5-levels in IP65 protection

LIQUID LEVEL SETS |

set of HRH-5 relay and contactor

PROBES AND CABLES |

Probes

SHR-1/1-M/1-N   SHR-2   SHR-3

Wire D05V-K   Cable D03VV-F

Technical parameters	HRH-6/DC HRH-6/AC	
Output	1x NO, 10 A	
Sensitivity	10 - 200 kΩ	
Functions	2	
Housing	box IP65	
Supply voltage (frequency)	DC 12-24 V (AC 50-60 Hz)	AC 230 V (AC 50-60 Hz)
Dimensions	110 x 130 x 72 mm (4.3″ x 5.1″ x 2.8″)	
Order code	3740	3699

Device monitors 5 levels by using six probes (one probe is common). Level indication by six LED's on the front panel of the device.

HRH-4

HRH-4/230V 209970800023

It is a complete unit consisting of HRH-5 level relay and VS425 contactor.
Designated for an automatic operation in 1-phased and 3-phased pumps.

HRH-5   +   VS425 contactor

ACCESSORIES

SHR-1-M: 209970800002 brass sensor.
SHR-1-N: 209970800001stainless steel sensor.
SHR-2: 209970800003
Stainless steel sensor in PVC housing with hanging cord. Seal with IP67 grommet.
SHR-3: 209970800004
Stainless steel sensor. for use in harsh and industrial environments.

D03VV-F 3x0.75/3.2: 209970500106
Cable for probes SHR-1 and SHR-2, 3x 0.75 mm^2

D05V-K 0.75/3.2: 6594
Wire for probes SHR-1 and SHR-2, 1x 0.75 mm^2

All types (excluding SHR-3) meet the requirements for continuous contact with a drinking water.

THERMOSTATS | on DIN rail

single-level thermostats

double thermostat

thermostat for monitoring temperature of motor winding

digital thermostat with build in time switch

Technical parameters	TER-3A	TER-3B	TER3-C	TER-3D	TER-3E	TER-3H	TER-3F	TER-3G	TER-4	TER-7	TER-9
Monitored range	-30 to 10℃	0 to 40℃	30 to 70℃	0 to 60℃	0 to 60℃	-15 to 45℃	0 to 60℃	0 to 60℃	-40 to 110°C	1.8 - 3.3 kΩ	-40 to 110°C
Thermosensor type	external, TC/TZ						built-in	Pt100	external, TC/TZ	external, PTC	external, TC/TZ
Output	1x NO, 16 A								2x CO, 16 A	2x CO, 8 A	2x CO, 8 A
Housing	1-MODULE								3-MODULE	1-MODULE	2-MODULE
Supply voltage (frequency)	AC/DC 24-240 V (AC 50-60 Hz)								AC/DC 24 V, AC 230 V (AC 50-60 Hz)	AC/DC 24 V-240 V (AC 50-60 Hz)	AC/DC 24 V, AC 230 V (AC 50-60 Hz)
Dimensions	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)								90 x 52 x 65 mm (3.5″ x 2″ x 2.6″)	90 x 17.6 x 64 mm (3.5″ x 0.7″ x 2.5″)	90 x 35 x 64 mm (3.5 x 1.4 x 2.5″)

Temperature sensors TC/TZ/PT100
more on page 23

TER-3A 3839
TER-3B 3840
TER-3C 3841
TER-3D: 3842

Simple thermostat for monitoring and regulating the temperature in 8 ranges from -30 to + 70 ° C. Possibility of setting the "heating" / "cooling" function. Choice of external temperature sensors TC/TZ with double insulation in standard lengths of 3, 6 and 12 m.

TER-3E: 3843
TER-3F: 3844
TER-3G: 3845
TER-3H: 3846

TER-4/230V: 5539
TER-4/24V: 4749

Double thermostat for monitoring and regulating the temperature. 2 inputs for TC/TZ sensor. Galvanically isolated power supply.

TER-7: 3716

It monitors motor winding temperature. PTC sensor built-in in motor winding is used as a sensing element.

TER-9/230V: 4698
TER-9/24V: 4699

Digital thermostat with 6 functions.

THERMOSTATS | with IP65 protection

IP65

IP65

IP65

IP65

two-level thermostat in IP65 protection

single-level thermostat in IP65 protection

single-level thermostat in IP65 protection

single-level thermostat for outdoor use with IP65 protection

Technical parameters	TEV-1	TEV-2	TEV-3	TEV-4
Monitored range	-20 to +20℃	-20 to +20℃	+5 to +35℃	-30 to +60 °C
Thermosensor type	external TC/TZ			built-in
Output	1x CO, 16 A			1x NO, 12 A
Housing	enclosure IP65			IP65
Supply voltage (frequency)	AC 230 V (50-60 Hz)			AC 230 V (50-60 Hz)
Dimensions	110 x 135 x 66 mm (4.33 ″x 5.3 ″x 6.6 ″)			153 x 62 x 34 mm (6″ x 2.4″ x 1″)
Order code	2912	2925	2926	4057
	Window function = monitors temperature between two set levels	Transparent cover to see setting and wiring.	Selectable function: cooling/heating. Setting of the monitored temperature on enclosure	Selectable function: cooling/heating. Option of voltage or potential - free contact

	programmable multifunction chronothermostat	multifunction thermostat	hygrothermostat optional functions	hygrostat

Technical parameters	21235	21236	RHT-1	RHV-1
Monitored temperature range	-9 to +35°C	-9 to +35°C	0 to +60°C	-
Monitored humidity range	-	-	50 to 90°C	0 to 90 %
Output	1x CO, 16 A	1x CO, 16 A	1x NO, 16 A	1x NO, 12 A
Housing	LOGUS⁹⁰	LOGUS⁹⁰	1-MODULE	IP65
Supply voltage (frequency)	AC 100-240 V (50-60 Hz)	AC 100-240 V (AC 50-60 Hz)	AC/DC 24-240 V (AC 50-60 Hz)	AC 230 V (50-60 Hz)
Dimensions	KU68 box	KU68 box	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)	153 x 62 x 34 mm (6˝ x 2.4˝ x 1.3˝)
Order code	21235	21236	5045	4058
	Allows you to manually or automatically control heating or air conditioning in relation to the daily or weekly program and the set temperature.	Controls heating or air-conditioning systems depending on the selected temperature. It is possible to connect a floor temperature sensor to automatically detect and connect to it.	Hygro-thermostat for temperature monitoring and control - range 0 to +60 °C and relative humidity - range 50..90 %. Sensor is part of device - designated for measuring in switchboard.	A basic hygrostat to monitor and control the relative humidity 0-90 %. Outdoor version IP65, box for wall mounting, removable lid without screws.

THERMO-VALVES |

TEMPERATURE SENSORS |

		for range 0 to 70°C PVC insulation	for range -40 to +125°C silicone insulation	for range -30 to +200°C double isolation
energy saving digital radiator thermo-valve	thermo-drive			
ATV-1	TELVA-2	TC	TZ	Pt100

ATV-1: 6088

This energy-saving digital radiator thermo-valve is a programmable regulation device for various heaters, but mainly radiators. Intervals of heating and energy-saving operation can be set using a freely adjustable time program.

8 individually programmable switching times per day:
- 4 heating intervals
- 4 energy-saving intervals.
The device features very quiet operation and long battery life (up 5 years). Quick and easy installation.

TELVA-2 230V, NO: 8196
TELVA-2 230V, NC: 8197
TELVA-2 24V, NO: 8198
TELVA-2 24V, NC.: 8199

Thermodriver Telva-2 is a suitable control unit for a wide range of thermostatic valves. Visual indicator of valve position.
Design:
NO - without voltage open
NC - without voltage closed

NTC thermistor 12 kΩ.
4 cable lenghts: 10 cm, 3 m, 6 m and 12 m.

TC-0: 209970800010
TC-3: 209970800011
TC-6: 209970800012
TC-12: 209970800013

NTC thermistor 12 kΩ.
4 cable lenghts: 11 cm, 3 m, 6 m and 12 m.

TZ-0: 209970800014
TZ-3: 209970800015
TZ-6: 209970800016
TZ-12: 209970800017

PTC sensor.
3 cable lenghts: 3 m, 6 m and 12 m.

PT100-3: 3613
PT100-6: 3614
PT100-12: 3615

**optical signalization
of 3-phase network
(with NEUTRAL)**

**for power factor monitoring
in two levels**

**for frequency monitoring
in two levels**

Technical parameters	MPS-1	COS-2	HRF-10
Circuit monitoring	3-phase	3/1-phase	1-phase
Adjustable range	fixed levels, indicated by colored LED: yellow: 50-207 V, green: 207-265 V, red: 265-276 V	COS φ 0.1-0.99	40-60 Hz, 48-72 Hz, 320-480 Hz
Output	-	2x CO, 16 A	2x CO, 8 A
Housing	1-MODULE	3-MODULE	
Power supply	AC 3x400/230 V (50-60 Hz)	AC/DC 24 V, AC 230 V, AC 400 V (AC 50-60 Hz)	AC 161-500 V (50/60/400 Hz)
Dimensions	90 x 17.6 x 64 mm (3.5˝ x 0.7˝ x 2.5˝)	90 x 52 x 65 mm (3.5˝ x 2˝ x 2.6˝)	

MPS-1: 4597

Used for optical signaling of the voltage level in 3-phases. 4-wire connection - L1, L2, L3, N. Monitors phase voltages against neutral wire. LED indicator - for every phase 1 LED.

COS-2/24V: 5544
COS-2/230V: 5543
COS-2/400V: 5236

Relay monitors phase off-set between current and voltage in 3-phase or also 1-phase networks - it evaluates cos-φ.
The relay is predestined for motor overloading / relief monitoring.

HRF-10: 5011

The relay is designed for monitoring the frequency of AC voltage, eg in photovoltaic power plants and generators.

RF
WIRELESS
ELECTRO-INSTALLATION

iNELS®
RF Control

Wi-Fi

RF

RF

Wi-Fi

CONTROLLERS | a wall switch design

SHARP

ROUND

LOGUS⁹⁰

On-wall button controllers
2 buttons

4 buttons

Glass touch controllers
2 or 4 buttons (SHARP edges)
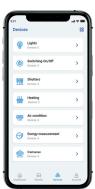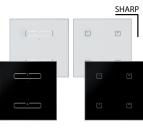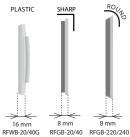
Glass touch controllers
2 or 4 buttons (ROUND edges)

Technical parameters	RFWB-20/G	RFWB-40/G	RFGB-20	RFGB-40	RFGB-220	RFGB-240
Number of channels	2	4	2	4	2	4
Power supply	3 V battery CR 2032		2x 3 V batteries CR 2032		2x 3 V batteries CR 2032	
Design	LOGUS⁹⁰		glass - sharp		glass - round	
Colour	in LOGUS⁹⁰ variations		W - white, B - black		W - white, B - black	
Dimensions	85 x 85 x 16 mm		94 x 94 x 8 mm		100 x 100 x 8 mm	
Protocol	RFIO2		RFIO2		RFIO2	
Order code	8136	8098	**20/B:** 7679 **20/W:** 7678	**40/B:** 7681 **40/W:** 7680	**220/B:** 7684 **220/W:** 7683	**240/B:** 7686 **240/W:** 7685

PLASTIC

SHARP

ROUND

16 mm
RFWB-20/40G

8 mm
RFGB-20/40

8 mm
RFGB-220/240

Wireless controller in LOGUS⁹⁰ design.
Standard BASE design (white plastic), but can be combined with glass, wood, metal or stone in the frame design.

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 with 2 or 4 buttons, in black or white glass with sharp edges.

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 touch controllers with 2 or 4 buttons, in black or white glass with round edges.
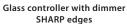
CONTROLLERS | with dimmer   outdoor   compact

SHARP

INNOVATION RF KEY

INNOVATION RF KEY

IP65

Glass controller with dimmer
SHARP edges

Outdoor 2-buttons
controller

Key fob - 4 buttons
black   white

Key fob - 6 buttons
black   white

Controller with display
anthracit   white

Technical parameters	RFDW-71	RFOWB-20	RF KEY-40		RF KEY-60		RF PILOT	
Number of channels	4	2	4		6		40	
Power supply	AC 230 V or 120 V AC	3 V battery CR 2032	3 V battery CR 2032				2x batteries 1.5 V AAA/R03	
Design	glass sharp	IP65	key fob				remote controller	
Colour	W - white, B - black	white	B - black	W - white	B - black	W - white	A - anthracit	W - white
Dimensions	94 x 94 x 36 mm	64 x 74 x 44 mm	64 x 25 x 10 mm				130 x 41 x 18 mm	
Protocol	RFIO2	RFIO2	RFIO2				RFIO	
Order code	**71/B:** 4178 **71/W:** 5983	8147	8075	8074	8077	8076	4516	4376

SHARP

25 mm
RFDW-71

Glass controller with integrated dimmer R - L - C - ESL - LED for loads up to to 160 VA (for 230 V). 4 buttons can control the dimmer or other iNELS RF wireless units. Flush mounted in the installation box.

Wireless pushbutton controller with IP65 protection designed for outdoor and humid environments.

Controller in the size of a keychain comes in black and white colour. 4 or 6 buttons allows you to control an unlimited number of units.

Remote controller with OLED display allows to control up to 40 units. Provides the ability to divide elements into Rooms, Favourites or Scenes.

SWITCHES | flush mounted

BOX-SL

PUSH IN

RELASE

**Screwless terminals
for faster wiring**

INNOVATION RFSA-11B

INNOVATION RFSA-61B

INNOVATION RFSAI-62B

HRESK

	Multifunction 1-channel	Single function 1-channel	Multifunction switching units with inputs for external buttons 1-channel	2-channels	Lighting control unit with detectors
Technical parameters	**RFSA-61B**	**RFSAI-11B-SL**	**RFSAI-61B-SL**	**RFSAI-62B-SL**	**RFSAI-161B**
Output	1x NO, 8 A		1x NO, 8 A	2x NO, 8 A	1x NO, 18 A
Supply voltage (frequency)	AC 230 V (50-60 Hz)		AC 230 V (50-60 Hz)		AC 230 V (50-60 Hz)
Design	BOX	BOX-SL			BOX
Dimensions	49 x 49 x 21 mm	43 x 44 x 22 mm			49 x 49 x 21 mm
Protocol	RFIO2				
Order code	4995	8375	8204	8201	4934

BOX-SL
flush mounted

- 6 functions
- 1 output

- switch on/off
- 1 output

- 6 functions
- 1 output contact 8A
- 1 input for external button

- 6 time functions
- 2x output contacts 8A
- 2 inputs for wired buttons

As RFSA-161B, but with a pre-set algorithm for lighting control (e.g. hotel room) based on upstream wireless detectors. Input for connecting a wire button. Part of the HRESK system.

SWITCHES | shutters   on DIN rail

INNOVATION RFSA-32B

INTEGRATED ANTENNA

HRESK

	Switch unit with external input	Multifunction 1-channel	Multifunction 6-channels	Fancoil controller 6-channels
Technical parameters	**RFJA-32B-SL**	**RFSA-61MI RFSA-61M**	**RFSA-66MI RFSA-66M**	**RFSA-166M**
Output	2x NO, 8 A	1x CO, 16 A	3x CO / 3x NO, 8 A	3x CO / 3x NO, 8 A
Supply voltage (frequency)	230 V AC (50-60 Hz)	110-230 V AC (50-60 Hz)	AC 110-230 V (50-60 Hz), or AC/DC 12-24 V SELV	AC 110-230 V (50-60 Hz)
Design	BOX-SL	1-MODULE	3-MODULE	3-MODULE
Dimensions	43 x 44 x 22 mm	90 x 17.6 x 64 mm	90 x 52 x 65 mm	90 x 52 x 65 mm
Protocol	RFIO2	RFIO2	RFIO2	RFIO2

MODULE
on DIN rail

RFJA-32B/230V: 8254

2 independent outputs for control of two-way motors: garage doors, gates, blinds, shutters, ...
Inputs for connecting external control wired buttons.

RFSA-61MI: 8154
RFSA-61M: 7721

MI - integrated antenna
M - SMA connector for external antenna.
AN-I antenna is part of the unit.

RFSA-66MI/24V: 8156
RFSA-66MI/110-230V: 8155

RFSA-66M/24V: 5291
RFSA-66M/110-230V: 7723

MI - integrated antenna
M - SMA connector for external antenna.
AN-I antenna is part of the package.

RFSA-166M/230V: 3432

Fancoil control:
- heating / cooling mode
- 3 speed levels

The last channel can be switched by any appliance (e.g. lights).
It is controlled by the RFTC-150/G thermostat.
It can have detectors in front (window / door openers (RFWD-100).

DIMMERS | flush mounted   on DIN rail

Technical parameters	RFDAC-71B	RFDEL-71B-SL	RFDALI-32B-SL	RFDEL-71M		RFDA-73M/RGB	RFDEL-76M	
	Analog controller 0(1) - 10V	**Universal dimmer 1x 300 VA**	**32 DALI adress**	**Universal dimmer 1x 600 VA**		**Dimmer for LED (RGB strips) 3-channels**	**Universal dimmer 6x 150 VA**	
Output	0(1) - 10 V contact 16 A	R - L - C - LED - ESL 160 VA	32x DALI units	R - L - C - LED - ESL 600 VA	300 VA	3x 5 A	R - L - C - LED - ESL 6x 150 VA	6x 75 VA
Supply voltage (frequency)	AC 110-230 V (50-60 Hz)	AC 230 V (50 Hz)	100-230 V (50 Hz)	AC 230 V (50 Hz)	AC 120 V (60 Hz)	DC 12-24 V stabilized	AC 230 V (50 Hz)	AC 120 V (60 Hz)
Design	BOX	BOX-SL		3-MODULE			6-MODULE	
Dimensions	49 x 49 x 21 mm	43 x 44 x 22 mm		90 x 52 x 65 mm			90 x 105 x 65 mm	
Protocol	RFIO2			RFIO2			RFIO2	
Order code	4993	8361	8434	4897	5304	4916	8205	8209
	Used to control devices with analog control voltage 0(1) -10V. Included is a relay contact to turn off the ballast light.	The light source is selected by a switch on the front panel, potentiometer for minimum brightness, input for wired button.	It should dimm up to 32 DALI drivers powered from DALI BUS. Configuration via bluetooth from the app.	As version "RFDEL-71B", but DIN rail designed inputs for external control by potentiometer or analog voltage 0 (1) - 10 V.		The dimmer for LED strips is used for independent control of 3 single-colour LED strips or one RGB LED strip.	Universal six-channels dimmer with an output of 150 VA / 75 VA channel. The outputs can be connected in parallel and multiply the power at the expense of the number of outputs (up to 900 VA / 230 V) when connecting all 6 outputs together.	
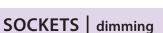
SOCKETS | dimming   switching

Technical parameters	RFDSC-71N	RFSC-61N	RFUS-61
	Dimming socket-plug	**Switching socket-plug**	**Switching unit for outdoor use**
Type of load	R - L - C - LED - ESL max. 300 W/150 W	1x NO, 16 A/AC	1x CO, 12 A/AC1
Supply voltage (frequency)	AC 230 V (50-60 Hz)	AC 230-250 V (50-60 Hz)	AC 230 V (50-60 Hz)
Design	socket-plug	socket-plug	IP65
Dimensions	63 x 110 x 74 mm	63 x 110 x 74 mm	136 x 62 x 34 mm
Protocol	RFIO2	RFIO2	RFIO2
	French: 8359 **Schuko:** 8360 **British:** 8358	**French:** 8251 **Schuko:** 8250 **British:** 8252	**RFUS-61/120V:** 5256 **RFUS-61/230V:** 5853 Switching component with 1 output channel in a box with increased coverage for outdoor environments.

| | Level switch | Flood | Twilight | Magnetic (Window/door) | Motion |

Technical parameters	RFSF-1B	RFSF-100	RFSOU-1	RFWD-100	RFMD-100
Battery power	1x 3 V battery CR 2477	2x batteries 1.5 V AAA	2x batteries 1.5 V AAA	1x 3 V battery CR 2032	2x batteries 1.5 V AAA
Design	BOX	disc box	IP65	interior	interior
Dimensions	49 x 49 x 13 mm	Ø 89 x 23 mm	72 x 62 x 34 mm	25 x 75 x 16 mm / 15 x 75 x 14 mm	72 x 62 x 34 mm
Protocol	RFIO	RFIO2	RFIO	RFIO2	RFIO2
Order code	4860	7682	4707	5027	5029

FP-1

Liquid probe

External probe designed for Level sensor RFSF-1B for flood monitoring. 1 m cable can be extended by 30 m.

Conductivity probes (recommended FP-1) can be connected to the INPUT terminals to monitor flooding or the level in the tank. When activated, it sends a command to the actuator or eLAN.

The flood detector is used to detect water leaks - activation occurs when the contacts located on the bottom of the detector are flooded.

2 functions in 1 unit:
Twilight switch for range 1-1.000 lx or
Light switch for the range 100-100,000 lx

Setting the values of the potentiometers inside. Enclosure with increased IP65 protection for demanding environments.

Main device (wider part) and Magnet (narrower part) glued to the moving parts (door, window, gate ...).
Activation occurs when the detector is moved away from the magnet.

The motion detector PIR is used to detect persons moving inside the building interior.

Detection angle 105°
Detection distance max: 12 m
Working height: 2.4 m

Integrated light sensor and tamper against unwanted opening of the cover.

DRY CONTACTS CONVERTERS |

2 contacts converter - permanent switching	4 contacts converter battery powered	4 contacts converter AC 230 V powered	1 contact converter - permanent switching	Pulse converter
RFIM-20B	**RFIM-40B/BP-SL**	**RFIM-40B/230-SL**	**RFSG-1M**	**RFTM-1**
1x 3 V battery CR2477	batterie CR2032	AC 230V (50-60 Hz)	AC 10-230 V (50-60 Hz)	2x 1.5 batteries AAA
BOX	BOX-SL	BOX-SL	1-MODULE	BOX
49 x 49 x 13 mm	43 x 44 x 22 mm	43 x 44 x 22 mm	90 x 17.6 x 64 mm	72 x 62 x 34 mm
RFIO	RFIO2	RFIO2	RFIO2	RFIO
8281	8406	8407	8240	4315

Converts 2 potential-free inputs that can be permanently closed (switch, relay contact) to RF signal.

Converts 4 potential-free inputs that can be closed for a short time (buttons) or permanently (switch, contact) on the RF signal.

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

This wireless contact converter is especially appropriate for wireless transmission of information on switching HDO. Thanks to the network supply, it can also be used for partial transmission of information for control of an appliance or device. Bidirectional communication RFIO2.

Allows conversion of pulses produced by energy meters. Via LS sensors (detects flashing LEDs on the meter) or MS (magnetic sensor for water meter handle or gas meter dial). It has a terminal for connecting the pulse output (open contact, S0 terminals of the electricity meter).

TEMPERATURE CONTROL | thermostats

Covers:

Simple temperature controller

Autonomous temperature controller

Thermostat for fancoil control via RFSA-166M

AL - aluminium

GE - ice

IS - gray

MF - ivory

PE - pearl
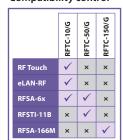
Technical parameters	RFTC-10/G	RFTC-50/G	RFTC-150/G
Battery power	2 x 1.5 V battery AAA		
Design	LOGUS90		
Dimensions	85 x 85 x 16 mm / 94 x 94 x 16 mm		
Protocol	RFIO		
Order code	RFTC-10/G/BR	RFTC-50/G/BR	RFTC-150/G/BR

Compatibility control

	RFTC-10/G	RFTC-50/G	RFTC-150/G
RF Touch	✓	✗	✗
eLAN-RF	✓	✗	✗
RFSA-6x	✓	✓	✗
RFSTI-11B	✗	✓	✗
RFSA-166M	✗	✗	✓

RFTC-10/G: design BASE, white cover, white frame, **order code:** RFTC-10/G/BR
- used for temperature measurement (in the range of 0 to 55 ° C) and correction of the pre-set temperature in RF Touch or eLAN-RF system devices in the range of ± 5 ° C.

RFTC-50/G: design BASE, white cover, white frame, **order code:** RFTC-50/G/BR
- is a separate thermostat that allows wireless control of up to 4 switching elements, eg. RFSA-6x / RFUS-61 / RFSTI-11B.

RFTC-150/G: design BASE, white cover, white frame, **order code:** RFTC-150/G/BR
- thermostat for controlling the RFSA-166M switching component for fan coil control.

Thermostat **covers** are available in: Pearl (PE), Ivory (MF), Gray (IS), Ice (GE) and Aluminium MF(AL) colour. It is thus possible to combine them with all LOGUS90 frames.

TEMPERATURE CONTROL | sensors and actuators

Switching unit with temperature sensor

Temperature sensor

Overheating/overcooling switch unit with advanced functions

Wireless thermal head

Technical parameters	RFSTI-11B-SL	RFTI-10B	RFSTI-111B		RFATV-2
Supply voltage (frequency)	AC 230 V	1x 3 V battery CR 2477	AC 230 V (50-60 Hz)		battery 2x 1,5 V AA
Design	BOX-SL	BOX			thread on the valve
Dimensions	43 x 44 x 22 mm	49 x 49 x 13 mm	49 x 49 x 21 mm		52 x 52 x 70 mm
Protocol	RFIO2	RFIO	RFIO2		RFIO2
Order code	8404	3175	4915	3409	8259

Temperature sensors TC/TZ
more on page 23

Switching component (16 A relay contact) with input for external temperature thermosensors TC /TZ.
It can be combined with units: eLAN-RF, RF Touch and RFTC-50/G.

The internal or external TC / TZ sensor measures the temperature in the range -20 to + 50 °C and sends it to the system device (eLAN-RF or RF-Touch) at regular intervals (5 min).

Most suitable for hotel rooms. The components support communication with RF detectors. Range 160 m.

The wireless thermal head measures the room temperature with an internal sensor, and opens / closes the radiator valve based on the set program in the system component.

| Wireless touch unit on the wall | Wireless touch unit flush mounted (eLAN-RF included) | Smart RF Gateway with LAN | Smart RF Gateway with WiFi & LAN | Repeater (socket-plug) |

Technical parameters	RF Touch-W	RF Touch-2/B	eLAN-RF-103	eLAN-RF-Wi-103	RFRP-20N
Number of connectable components*	40	70	70	70	20
Supply voltage (frequency)	AC 100–230 V (50-60 Hz) or 12 V DC adapter	24 V DC (terminals) USB-C (external adapter) PoE (through LAN)	adapter 5V DC / 1A		AC 230 V (50-60 Hz)
Design	on the wall	flush mounted	aluminum box		socket-plug
Dimensions	94 x 94 x 24 mm	86 x 86 x 10 (37)mm	90 x 52 x 65 mm		63 x 110 x 74 mm
Protocol	RFIO2		RFIO2		RFIO2
Order code	5174	8266	8044	8084	**French:** 8423 **Schuko:** 8424 **British:** 8425

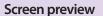| * allow to control the units independently | It includes simple automation functions, such as temperature and time programs, control of RGB strips and light bulbs, quick control and more. | Like RF Touch-B with new display (diagonal 4", 480x480 px, multi touch). Communication: iNELS radio, wi-fi and LAN. Including eLAN-RF for direct or indirect (iNELS Cloud) control from iNELS app. | The RF Smart box is a gateway between iNELS RF components and applications: smartphone, tablet, watch, television, voice assistants (Google Home & Alexa) and other third party devices. Allows remote control: direct or via Cloud. It is available in two versions: a) eLAN-RF-103: LAN communication b) eLAN-RF-Wi-103: LAN communication and WiFi in AP mode or in Client mode. | | The signal repeater is used to increase the range between the controller and the component by up to 200 meters. It is designed for signal transmission to up to 20 components. |

Device description

wiring box

Metal holder

Display 4" multi touch 480x480 px 64 million colors

Power terminal block

LAN connector (PoE power supply)

Temperature and humidity sensor

Safety lock

USB-C

Screen preview

ACCESSORIES |

Service Key	Internal antenna with SMA connector	External antenna with magnetic base	External antenna with magnetic base and IP67 protection	
RFAF/USB	**AN-I**	**AN-E**	**AN-E3**	**Extension cable**
RFSAF/USB: 4503	**AN-I:** 6180	**AN-E:** 209930606056	**AN-E3:** 8219	**EC-10:** 8191
The RFAF / USB Service Key (in conjunction with the RF_analyzer) is designed for iNELS RF Control system partners.	Polarization: vertical Gain: 2.1 dBi Dimensions: 17 x 44 x 8,5 mm Impedance: 50 Ω Colour: black	Cable length: 3 m Polarization: vertical Gain: 5 dBi Impedance: 50 Ω Colour: black Dimensions: Ø 30 x 280 mm	Cable length: 3 m Polarization: vertical Gain: 3 dBi Impedance: 50 Ω Colour: black Dimensions: Ø 50 x 88 mm	SMA connectors (male/female) Cable length: 10 m Colour: white

SMART KITS | PREPROGRAMMED FOR EASY INSTALLATION

WIRELESS SWITCH

WIRELESS SWITCH - LUXURY

- Glass touch controller - SHARP design, white
- Switch unit with ON / OFF function (for lights, sockets, electric heating, gates,...)

2 WIRELESS SWITCHES - CLASSIC

- On-wall button controllers duo - plastic, white
- 2 pcs switching unit with ON / OFF function (for lights, sockets, electric heating, gates,...)

2 WIRELESS SWITCHES WITH KEY-FOB

- Pocket wireless controller - 4-button, white
- 2 pcs switching unit with ON / OFF function (for lights, sockets, electric heating, gates,...)

WIRELESS SWITCH SOCKET - LUXURY

- Glass touch controller - ROUND design, black
- Wireless switch socket-plug

WIRELESS SWITCH SOCKET - CLASSIC

- On-wall button controllers - plastic, white
- Wireless switch socket-plug

DIMMERS KITS

WIRELESS LIGHT DIMMER - LUXURY

- Glass touch controller - 4-button, ROUND design, white
- Universal dimmer for light source control (R, L, C, ESL, LED)

2 WIRELESS LIGHT DIMMERS - LUXURY

- Glass touch controller - 4-button, SHARP design, black
- 2 pcs universal dimmer for light source control (R, L, C, ESL, LED)

2 WIRELESS LIGHT DIMMERS - CLASSIC

- On-wall button controllers duo - plastic, white
- 2 pcs universal dimmer for light source control (R, L, C, ESL, LED)

WIRELESS LIGHT DIMMER - LUXURY

- Glass touch controller - 4-button, SHARP design, white
- Universal dimmer for light source control (R, L, C, ESL, LED)
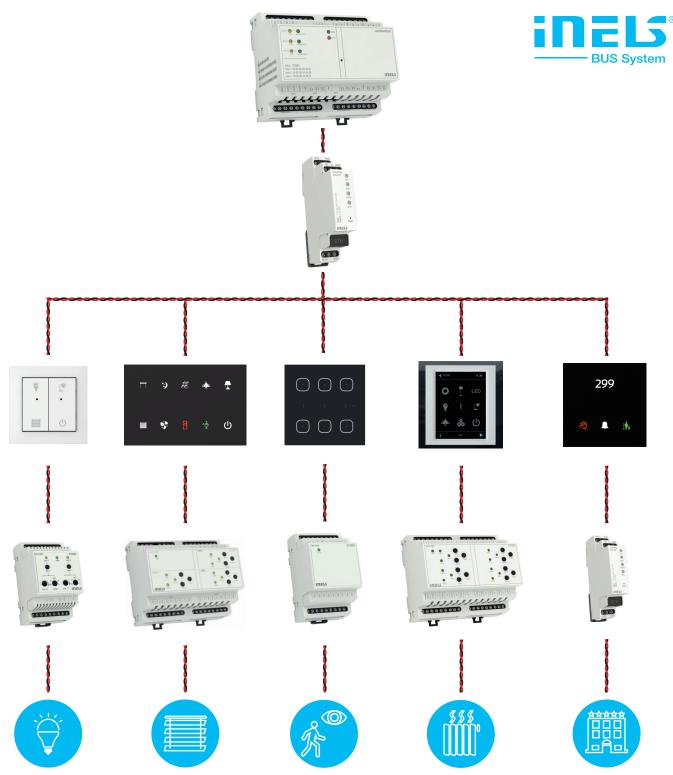
WIRELESS DIMMING SOCKET - LUXURY

- Glass touch controller - 4-button, ROUND design, black
- Wireless dimmable socket-plug

WIRED
ELECTRO-INSTALLATIONS
iNELS BUS

CENTRAL UNITS |

NEW
BUS1: 32 units
RS485

NEW
BUS1: 32 units
BUS2: 32 units

COMING SOON
BUS1: 32 units
DALI: 64 units

NEW

Basic central control unit iNELS BUS

Extended central control unit iNELS BUS

Central unit for control of DALI ballasts

Superior central control unit projects using iNELS IP protocol

CU3-07M	CU3-08M	CU3-09M/DALI	CU3-IPMASTER

Order Code: 8010

- 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.

Order Code: 8440

- 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.

Order Code: 8465

- 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.
- The system unit is equipped with one BUS, one DALI bus and one RJ45 connector.
- Up to 32 elements from the iNELS BUS portfolio can be connected to the BUS system.
- The DALI system bus allows the control of up to 64 independent DALI ballast addresses for fluorescent, LED and other luminaires.

Order Code: 8448

- 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. Using the iNELS IP protocol, the unit communicates with the centralized iNELS Cloud environment, which can be used to connect multiple large projects into a centrally controlled project.
- The iNELS IP protocol also allows the use of the iNELS mobile application to control all devices included in the project.
- Communication and links between individual system elements are set up in the iNLES Designer Manager configuration software environment, which is designed for Window 7, 8 and 10 systems.

SYSTEM UNITS |

NEW

Power supply 30 W with BUS separator

Power supply 100 W

BUS separator from power supply

BUS separator from power supply

Technical parameters	PS3-30/iNELS	PS3-100/iNELS	BPS3-01M	BPS3-02M
Output	27 V / 1A	27.6 V / 3.6 A, 12.2 V / 0.35 A	1x BUS	2x BUS
Supply voltage (frequency)	100-250 V AC (50-60 Hz)	100-250 V AC (50-60 Hz)	BUS 27 V DC	
Rated current	-	-	8 mA (at 27 V DC)	15 mA (at 27 V DC)
Dimensions	90 x 52 x 65 mm	90 x 105 x 65 mm	90 x 17.6 x 64 mm	
Order code	8011	4889	3244	3243

PS3-30/iNELS: power 30 W, integrated bus separator BPS3-01M.

PS3-100/iNELS: power 100W, inputs for connecting backup batteries 2x12 V and the possibility of recharging them with adjustable current.

This separator serve for impedance separation of BUS from supply voltage power.

BPS3-01M: allows you to connect one BUS with max. load 3 A.

BPS3-02M: allows you to connect two separate BUS1 and BUS2 with max. load 1 A for each line.

SWITCHING ACTUATORS |

Switching actuator 1-channel

Switching actuator 2-channels

Switching actuator 4-channels

Switching actuator 6-channels

Switching actuator 12-channels

Technical parameters	SA3-01B	SA3-02B	SA3-04M	SA3-06M	SA3-012M	
Number of contacts	1x NO, 16 A	2x CO, 8 A	4x CO, 16 A	6x CO, 8 A	12x NO, 8 A	
Switching current	16 A / AC1	8 A / AC1	16 A / AC1	8 A / AC1	8 A / AC1	
Switching output	4000 VA	2000 VA	4000 VA / AC1, 384 W/DC	2000 VA / AC1, 192 W/DC	2000 VA	
Supply voltage (frequency)	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC	230 V AC (50-60 Hz)	120 V AC (60 Hz)
Rated current from BUS	30 mA (at 27 V DC)	50 mA (at 27 V DC)	70 mA (at 27 V DC)	60 mA (at 27 V DC)	5 mA (at 27 V DC)	
Housing	BOX		3-MODULE		6-MODULE	
Dimensions	49 x 49 x 21 mm		90 x 52 x 65 mm		90 x 105 x 65 mm	
Order code	3235	3236	3238	3287	3246	3302

1-channel/2-channel switching actuator for switching appliances, e.g. lighting, thermo drives and sockets. 1x temperature input TC / TZ.	4-channel switching actuator for switching appliances and controlling blinds, 4x changeover contact 16 A, LED signalling of relay status, manual control.	6-channel switching actuator for switching appliances, lighting and thermo drives, 6x changeover contact 8 A, LED signalling of relay status, manual control.	12-channel switching actuator for switching appliances, lighting and thermo drives, 12x switching contact 8 A, LED signalling of relay status, manual control.

SWITCHING ACTUATORS | SHUTTER ACTUATORS |

Switching actuator, 22-channels without control and indication components

Roller shutter (blind) actuator, 2-channels (1 controller)

Roller shutter (blind) actuator, 18-channels (9 controllers)

Technical parameters	EA3-022M	JA3-02B/DC	JA3-018M
Number of contacts	20x NO + 1x CO with blocking (for shutters)	DC 1x 12-24 V	9x CO with blocking
Switching current	according to the output (6 A/10 A)	0.85 A	4 A/AC15
Switching output	according to the output	-	1000 VA
Supply voltage (frequency)	BUS 27 V DC	BUS 27 V DC	100-250 V AC (50-60 Hz)
Rated current from BUS	100 mA (at 27 V DC)	60 mA (at 27 V DC)	5 mA (at 27 V DC)
Housing	6-MODULE	BOX	6-MODULE
Dimensions	90 x 105 x 65 mm	49 x 49 x 13 mm	90 x 105 x 65 mm
Order code	3523	3271	7446

Actuator for controlling light circuits, appliances, thermo drives and 1 shutter (2 relays with blocking). Unit is equipped with 20x switching outputs and 1x changeover contact for controlling blinds or shutters.	Actuator for controlling blinds, rollers, shutters and other motors powered by 24 V DC. Unit has 2x analog or 2x digital input.	Actuator designed for controlling rollers, shutters, blinds, awnings, garage door on entrance gates. This unit can control up to 9 motors.

DIMMING ACTUATORS |

NEW

**Dimming actuator
2-channels**

**Dimming actuator
6-channels**

**Dimming actuator for electronic ballasts
2-channels**

Technical parameters	DA3-22M		DA3-66M		LBC3-02M
Output	load R - L - C - LED - ESL 2x 400 VA (230 V) / 200 VA (120 V)		load R - L - C - LED - ESL 150 VA (230 V) / 75 VA (120 V)		2x 0(1)-10 V 2x CO, 16 A
Input	2x wire buttons, 1x temperature		6x wire buttons		-
Supply voltage (frequency)	230 V AC (50-60 Hz)	120 V AC (60 Hz)	230 V AC (50 Hz)	120 V AC (60 Hz)	BUS 27 V DC
Rated current from BUS	5 mA (at 27 V DC)		100 mA (at 27 V DC)		60 mA (at 27 V DC)
Housing	3-MODULE		6-MODULE		3-MODULE
Dimensions	90 x 52 x 65 mm		90 x 105 x 65 mm		90 x 52 x 65 mm
Order code	3262	3303	8206	7445	3268

2-channel actuator for dimming ESL, LED and RLC loads, 2x 400 VA, 2x input for wired button, 1x input for temperature sensor TC/TZ.

Output power 150 VA / channel. The outputs can be connected in parallel and multiply the power at the expense of the number of outputs (up to 900 VA when all 6 inputs for wired buttons.

Analog 2-channel actuator for dimming electronic ballasts. This unit has 2x analog output 0(1)-10 V, 2x changeover contacts 16 A, LED signalization of relay status.

LIGHTING CONTROL |

DALI

ONLY WITH CU3/01-02M

DALI

DALI

**Gateway
iNELS-DALI/DMX**

**Combined
detector**

**Luminescence
sensor**

Technical parameters	EMDC-64M	DMD3-1	DLS3-1
iNELS BUS/EBM	EBM	BUS	BUS
DALI/DMX BUS	64 channels / 64 channels	yes/no	yes/no
Supply voltage	AC 230 V (50-60 Hz), max. 100 mA	BUS 27 V DC	BUS 27 V DC
Rated current from BUS	-	18 mA (at 27 V DC)	12 mA (at 27 V DC)
Housing	3-MODULE	ceiling mounting	IP65 box
Dimensions	90 x 52 x 65 mm	Ø 76 x 73 mm	96 x 62 x 34 mm
Order code	5030	5751	5750

The converter supplies the DALI BUS - 16 V, 250 mA. The EMDC-64M unit is designed to control electronic DALI ballasts and DMX receivers from the iNELS system. It allows controlling of up to 64 independent electronic DALI ballasts or 64 independent DMX receivers.

The motion detector is used to detect movement in the area using the passive infrared scanning spectrum for detection. Integrated luminescence sensor can be used for sensing current luminescence at the point of installation of the unit. This unit can be installed also on DALI BUS.

DLS3-1 is for sensing the current luminescence in the place of installation the unit.
The DLS3-1 is supplied in IP65 protection box and can be installed outdoors. The unit supports DALI BUS.

Binary input unit 4-channels | Binary input unit 8-channels | Binary input unit 14-channels | Temperature input 4-channels | Temperature input 6-channels

Technical parameters	IM3-40B	IM3-80B	IM3-140M	TI3-40B	TI3-60M
Number of inputs	4x binary	8x binary	14x binary	4x temperature	6x temperature
Temperature sensors	1x TC/TZ		-	TC, TZ, Ni1000, Pt1000, Pt100	TC, TZ, Ni1000, Pt1000, Pt100
Supply voltage	BUS 27 V DC		BUS 27 V DC	BUS 27 V DC	BUS 27 V DC
Rated current from BUS	20 mA (at 27 V DC)		25 mA (at 27 V DC)	20 mA (at 27 V DC)	45mA (at 27 V DC)
Housing	BOX		3-MODULE	BOX	3-MODULE
Dimensions	49 x 49 x 13 mm		90 x 52 x 65 mm	49 x 49 x 13 mm	90 x 52 x 65 mm
Order code	3231	3232	3245	3269	3289

This unit is designed for connection of 4 or 8 devices with potential-free contacts (PIR, button, etc.), 1x temperature input for TC/TZ sensor, output for powering detectors by 12 V DC/75 mA.

This input module connects up to 14 devices with potential-free contact (PIR, button etc.). 14x binary input, output for powering detectors by 12 V DC/ 150 mA.

Temperature input unit TI3-40B is designed for connecting 4x temperature sensors TC, TZ, Ni1000, PT1000 or PT100.

Temperature input unit TI3-60M is designed for connecting 6x temperature sensors TC, TZ, Ni1000, PT1000 or PT100.

CONVERTERS |

Analog - digital converter 6 inputs | Digital - analog converter 4 inputs

Technical parameters	ADC3-60M	DAC3-04M
Output	-	4x 0(1) - 10 V / 10 mA
Input	1x temperature, 6x analog.; 0-10 V; 0-20 mA	1x temperature
Supply voltage	BUS 27 V DC	BUS 27 V DC
Rated current from BUS	100 mA (at 27 V DC)	50 mA (at 27 V DC)
Housing	3-MODULE	3-MODULE
Dimensions	90 x 52 x 65 mm	90 x 52 x 65 mm
Order code	3301	3256

Analog signal converter is iNELS3 device which converts analog to digital signal (e.g. for weather station connection), 6x analog input, 2x temperature input for TC or TZ sensor.

Converter from a digital signal to an analog voltage signal 0(1)-10 V, for controlling electronic ballasts, thermo drives, etc, 4-channel, 1x temperature input for TC/TZ sensor.

COMBINED UNITS |

	Room controller with DALI dimmer	Room controller with PHASE dimmers	Combined actuator 10 inputs, 8 outputs	Fan coil control actuator
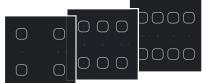
Technical parameters	RC3-610M/DALI	RC3-612M	IOU3-108M	FA3-612M
Output	8x NO contacts (10 A), 2x analog (0-10 V), 32/64 DALI adress	8x NO contacts (10 A), 2x analog (0-10 V), 2x PHASE dimmers (150 VA)	8x switching, 10 A	4x (0)-10V, 4x switching, 4x SSR
Input	6x digital (NO/NC)	6x digital (NO/NC)	1x temperature, 8x digital	3x analog, 3x digital
Supply voltage	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC
Rated current from BUS	110 mA (at 27 V DC)	110 mA (at 27 V DC)	110 mA (at 27 V DC)	5 mA (at 27 V DC)
Housing	6-MODULE	6-MODULE	6-MODULE	6-MODULE
Dimensions	90 x 105 x 65 mm	90 x 105 x 65 mm	90 x 105 x 65 mm	90 x 105 x 65 mm
Order code	8466	8467	8188	3257
	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.	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.	Actuator can switch the appliances, light circuits, thermodrives, etc., possibility of connecting wired buttons and temperature sensors. Outputs supports zero-crossing mode.	Actuator is designed to control fan coil units using analog/digital inputs and analog/relay outputs. The unit has 3 analog inputs and 3 galvanically separated digital inputs.

WALL UNITS AND CONTROLLERS |
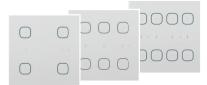
	Control unit with touch screen	Glass switch button controllers (SHARP edges)		
		4 buttons	6 buttons	8 buttons

Technical parameters	EST3	GSB3-40	GSB3-60	GSB3-80
Number of buttons	2x2 / 2x3 / 3x3 / 3x4	4	6	8
Supply voltage	BUS 27 V DC	BUS 27 V DC		
Rated current from BUS	150 mA (at 27 V DC)	25-40 mA (at 27 V DC)		
Internal temp. sensor	-	yes		
Inputs	-	2x temperature or 2x digital		
Dimensions	94 x 94 x 36 mm	94 x 94 x 36 mm		
Order code	in the pricelist	40/B: 3290 40/W: 3295	60/B: 3291 60/W: 3298	80/B: 3292 80/W: 3299
	EST3 is equipped with a 3.5" color touch screen. On the screen you can have 2x2, 2x3, 3x3 or 3x4 buttons for controlling anything. In Logus[90] design.	The glass switch with touch buttons in series GSB3 is a design element (controller) in the system iNELS3 with elegant and comfortable control options. Controllers are available in black (e.g. GSB3-40/B, 60/B and 80/B) and white (e.g. GSB3-40/W, 60/B and 80/B) variants.		

WALL UNITS AND CONTROLLERS |

Wall switch button 2 buttons

Wall switch button 4 buttons

Digital room thermo-regulator

Wall card reader 2 buttons

Glass wall card reader 6 buttons

Technical parameters	WSB3-20, WSB3-20H	WSB3-40, WSB3-40H	IDRT3-1	WMR3-21	GMR3-61
Number of buttons	2	4	2 (for temperature correction)	2	6
Supply voltage	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC	BUS 27 V DC
Rated current from BUS	25 mA (at 27 V DC)	25 mA (at 27 V DC)	20 mA (at 27 V DC)	50 mA (at 27 V DC)	50 mA (at 27 V DC)
Internal temp. sensor	yes	yes	yes	-	yes
Inputs	2x temperature or 2x digital	2x temperature or 2x digital	2x temperature or 2x digital	-	-
Dimensions plastic	85.6 x 85.6 x 42 mm	85.6 x 85.6 x 42 mm	85.6 x 85.6 x 42 mm	85.6 x 85.6 x 42 mm	94 x 94 x 36 mm
Dimensions other materials	94 x 94 x 36 mm	94 x 94 x 36 mm	94 x 94 x 50 mm	94 x 94 x 36 mm	
Order code - electronics*	**20:** 3234* **20H:** 3247*	**40:** 3233* **40H:** 3304*	**device + cover:** IDRT3-1/BR**	3275*	**61/B:** 5585 **61/W:** 5579

* Covers and frames for the devices must be ordered separately
** Frame must be ordered separately.

Order code of all color combinations are available in the price list.

Wall controllers, 2x button, built-in temperature and humidity sensor (version H), 1x LED indication. In LOGUS^{90} design.

Wall controllers, 4x button, built-in temperature and humidity sensor (version H), 2x LED indication. In LOGUS^{90} design.

Control unit for heating/cooling. Temperature correction ±5 °C or direct input of requested temperature. Built-in temperature sensor. In LOGUS^{90} design

Wall reader with RFID can read chip cards, key fobs and control the entrace. Available in black and white color in Logus^{90} design.

Glass wall reader with RFID and buttons can read chip cards, key fobs and control the entrace. Available in black and white color in Logus^{90} design.

HOSPITALITY SOLUTION - GRMS |

Glass card reader

Glass door bell

Glass switch panel 10 buttons

Technical parameters	GCR3-11		GDB3-10		GSP3-100	
Number of buttons	3		1		10	
Supply voltage	BUS 27 V DC		BUS 27 V DC		BUS 27 V DC	
Rated current from BUS	100-130 mA (at 27 V DC)		100-130 mA (at 27 V DC)		100-130 mA (at 27 V DC)	
Inputs	internal temperature and brigtness sensor		internal temperature sensor, 1x external input for TC/TZ		internal temperature sensor, 1x external input for TC/TZ	
Dimensions	94 x 94 x 36 mm		94 x 94 x 36 mm		142 x 94 x 36 mm	
Order code	**11/B:** 5747	**11/W:** 5748	**10/B:** 5726	**10/W:** 5727	**100/B:** 5628	**100/W:** 5632

Glass card reader GCR3-11 is designed for reading smart cards, which are intended to enter the hotel room or any other part of the building. The GCR3-11 unit is a design component of the iNELS system and is available in elegant black (GCR3-11/B) and white (GCR3-11/W) variants.

Glass info panel GDB3-10 is part of a comprehensive series of glass iNELS control units for guest room management system (GRMS), and is used to indicate the requested status of guest room - "Do Not Disturb" and "Make Up Room".
It is available in elegant black (GCR3-11/B) and white (GCR3-11/W) variants.

The GSP3-100 is equipped with ten touch buttons whose functions can be easily adjusted. Button symbols can be changed and adapted to the client's requirements upon a request. The buttons can be backlit in red, green, blue, yellow, pink, turquoise and white. The panel is available in elegant black (GSP3-100/B) and white variants (GSP3-100/W).

**Glass switch button with symbols
2 buttons**

**Glass switch button with symbols
4 buttons**

**Glass switch button with symbols
6 buttons**

Technical parameters	GSB3-20/S		GSB3-40/S		GSB3-60/S	
Number of buttons	2		4		6	
Supply voltage	BUS 27 V DC		BUS 27 V DC		BUS 27 V DC	
Rated current from BUS	27-35 mA (at 27 V DC)		27-35 mA (at 27 V DC)		27-35 mA (at 27 V DC)	
Inputs	internal temperature and brightness sensor, 1x external input for TC/TZ		internal temperature and brightness sensor, 1x external input for TC/TZ		internal temperature and brightness sensor, 1x external input for TC/TZ	
Dimensions	94 x 94 x 36 mm		94 x 94 x 36 mm		94 x 94 x 36 mm	
Order code	**20/SB:** 5621	**20/SW:** 5622	**40/SB:** 5623	**40/SW:** 5624	**60/SB:** 3291	**60/SW:** 3298

The glass switch with touch buttons in series GSB3 is a design element (controller) in the system iNELS3 with elegant and comfortable control options. Controllers are available in black (e.g. GSB3-40/B, 60/B and 80/B) and white (e.g. GSB3-40/W, 60/B and 80/B) variants.

The glass switch with touch buttons with symbols in GSB3 series are equipped with two, four or six touch buttons, the functions of buttons can be easily adjusted. Button symbols can be changed and adapted to the client's requirements upon a request. The buttons can be backlit in red, green, blue, yellow, pink, turquoise and white. Touch panels are a design components of the iNELS3 system and are available in elegant black (GSB3-20/SB, GSB3-40/SB, GSB3-60/SB) and white variants (GSB3-20/SW, GSB3-40/SW, GSB3-60/SW).

HOSPITALITY SOLUTION - GRMS |

**Glass bedside panel
- right and left**

Technical parameters	GBP3-60R	GBP3-60L
Number of buttons	6	
Supply voltage	BUS 27 V DC	
Rated current from BUS	25-50 mA (at 27 V DC)	
Measurement	1x external input for TC/TZ or 1x digital, brightness sensor	

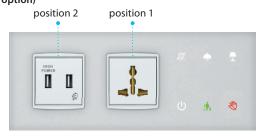**Order code:** 5728   **Order code:** 3533

GBP3-60 is available in several designs and is very flexible and efficient solution for a wide range of projects.
The following variants are available:
- Left / right design providing the same comfort of control from both sides of the bed.
- Accessories like power sockets, network sockets, HDMI or USB can be easily added in the bedside panel by changing the VIMAR modules.
- Black / white elegant design suitable for almost any interior.
GBP3-60 can be equipped with a number of modules, eg:
- AC power sockets: UNI, Schuko, French, British.
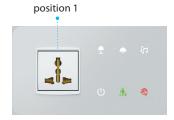- other types of modules: 2xUSB, USB, LAN, HDMI

GBP3 variants

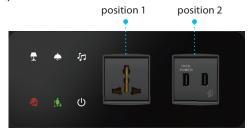Configure bedside panel according to your request.

L (left option)

position 2   position 1

GBP3-60/WL/2F-26W-20W

position 1

GBP3-60/WL/1F-21W45W

R (right)

position 1   position 2
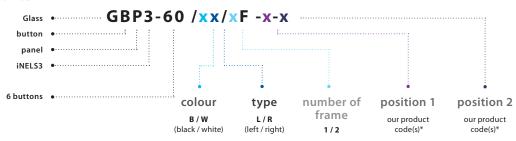
GBP3-60/BR/2F-26B-11B44B

position 1

GBP3-60/BR/1F-26B

Part number

G B P 3 - 6 0 / x x / x F - x - x

- Glass
- button
- panel
- iNELS3
- 6 buttons

colour	type	number of frame	position 1	position 2
B / W (black / white)	**L / R** (left / right)	**1 / 2**	our product code(s)*	our product code(s)*

* In case of 1-MODULE choice it is necessary to pick 2x 1-module to fi ll up the 1 position, for example GBP3-60/WL-**21W45W**.

HOSPITALITY SOLUTION - GRMS |

Hotel control unit with touch screen

Glass room thermo-regulator

Glass card holder

Technical parameters	EHT3	GRT3-50		GCH3-31	
Input	-	-		1x changeover, 8 A	
Number of buttons	touch screen	7		3	
Supply voltage	BUS 27 V DC	BUS 27 V DC		BUS 27 V DC	
Rated current from BUS	150 mA (at 27 V DC)	85 mA (at 27 V DC)		100-120 mA (at 27 V DC)	
Measurement	-	internal thermometer and humidity sensor, 1x external input for TC/TZ or 1x digital		brightness sensor	
Dimensions	94 x 94 x 36 mm	94 x 94 x 36 mm		142 x 94 x 36 mm	
Order code	available in the price list	**50/B:** 5630	**50/W:** 5634	**31/B:** 5627	**31/W:** 3494

The control unit with touch screen EHT3 is a suitable control element for iNELS3 in places where it is required to control multiple devices. The unit replaces multiple controllers and reduces the number of switches on the wall. In LOGUS[90] design.

Glass room thermo-regulator GRT3-50 is part of a comprehensive range of glass iNELS3 control units for guest room management system (GRMS) and serves to regulate the temperature in the room. Thermo-regulator is also equipped with 3 symbols for controlling fancoil speed.

GCH3-31 serves for inserting the RFID card into the holder, whereby the system acquires the information about whether the hotel guest is present in the room. With this information it is possible to ensure for example exit function with relation to energy savings in the absence of a guest in the room.

**converter IP
=>3x infrared transmitter**

eLAN-IR-003

**gateway for connecting protocols
and devices by a third party**

Home Assistant GW

Order code: 3283

- The applications iHC-MAIR and iHC-MIIR provide universal control for all audio/video devices (including air conditioning).
- The application directly control the eLAN-IR over the network.
- The intuitive application environment makes it simple for anyone to control.
- What all can you control? Home theater, TV, DVD or Blue-ray player, amplifier, set-top box, satellite receiver, air-conditioning, projector and more.
- It can control up to 100 arbitrary commands with various controllers that you normally have at home.
- The scenes function - you can perform multiple functions simultaneously by a single command (e.g. you are going to bed you and switch off all AV appliances in the entire home with a single press).
- It is possible to integrate into a single application an unlimited number of IR boxes, meaning that in one application you can have eLAN-IR in the living room, children's rooms, etc.
- It is also possible to control remotely from anywhere using a Wi-Fi network (e.g. from work or vacation).
- Thanks to auto-IP acquisition from the DHCP server, you don't need to set up a network configuration again.
- You can connect three IR lenses to the smart IR box eLAN-IR-003 for three directions of controlling.

Order Code: 8464

Third party integration server.
- 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 platform is supported by its own community and the number of integrations is constantly growing. Thanks to the Open Source architecture, it is possible to create your own integration driver for new devices if necessary.
- 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.
- The Home Assistant GW uses Raspberry Pi hardware. The package also includes an SD card with a pre-installed Linux operating system and the necessary software.

INTEGRATION |

**converter IP
=>RS-485/232**

eLAN-RS-485/232

**converter IP
=>RS-485/232**

Connection Server

Order code: 7026

- The eLAN-RS485/232 allows you to control air-condition from your smart phone, tablet, or it can read a data from electronic security systems (Jablotron, Paradox).
- The eLAN-RS485/232 is connected to the router or switch and communicates with a smartphone over the network.
- Intuitive application environment offers centralized control from one place.
- If you don't have a fixed IP address, the converter will automatically get it from the DHCP server.
- Power converter with 10-27 V DC adapter is included
- Possibility of PoE 24 V DC.
- You need a Connection Server (to communicate with the application) to install.
- Set up via web interface.

Order code: 5803

- The connection server is providing a communication between iNELS BUS System with the third party devices, smartphone or tablet.
- The iHC application's environment enables us to control all these technologies from just one app.
- If Connection server is present in the installation, you can control your household with the smartphone app, check your CCTV system, regulate the air-conditioning, control Miele appliances or control recuperation.
- It also allows the communication with the domestic voice intercom 2N. It can also arrange the information from the weather station GIOM or data from energy meters (electricity, water, gas), which is visualized in clear graphs.
- Connection server uses the Raspberry Pi hardware and the apps requires a license which is paired with the MAC address of the device.
- As a part of the package, we also included SD card where we previously installed Linux OS and its needed software equipment.
- The configuratution is happening on its own web interface, where the default IP address is not fixed. (The IP address is assigned from the DHCP server and it's needed to be known when we're connected to the network).

Music and internet radio player

Music and internet radio player with intercom and videophone features

Technical parameters	LARA Radio	LARA Intercom
Power supply	Passive PoE 24 V DC/1.25 A	Passive PoE 24 V DC/1.25 A
Min. /max. input	1.4 W / 26 W (peak at maximum playback performance)	1.4 W / 26 W (peak at maximum playback performance)
Display	Color OLED, Resolution: 128 x 128 pixels	Color OLED, Resolution: 128 x 128 pixels
Microphone	no	yes

Order code: LARA-R
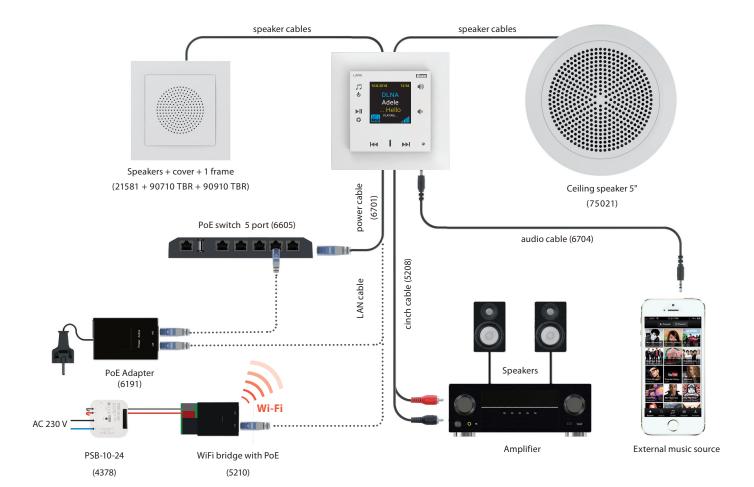
- Music and internet radio player - all in the dimension of a switch and a luxurious LOGUS^{90} design.
- LARA Radio - when connected to the Internet, it can play streaming radio stations and you can store up to 40 of them. But you can also select from thousands of radio stations from across the globe, which provide data for correct connection.
- LARA Radio can play content from an external music source, which can be an smart phone or e.g. an MP3 player. These devices are connected to a 3.5mm stereo jack audio input, located underneath the front panel.
- LARA Radio can also play audio files from central data storage.

Order code: LARA-IC

- LARA Intercom offers users 5 different functions and expands even more options to LARA Radio - music players and internet radio stations within the range of LOGUS^{90} switch designs.
- LARA Intercom provides an extra functionality and videophone intercom.
- Thanks to videophone function, now it is possible to have a voice communication between LARA and IP intercoms. So if someone ring the doorbell, you can see the picture of the visitor on the screen. Controlling of electronic door lock from LARA is the easiest thing.
- LARA Intercom is equipped with an OLED colored display with the size of 1.5", which is used to transfer images and sounds from the door camera properly.

Wiring example

speaker cables

speaker cables

Speakers + cover + 1 frame
(21581 + 90710 TBR + 90910 TBR)

Ceiling speaker 5"
(75021)

audio cable (6704)

PoE switch 5 port (6605)

power cable (6701)

LAN cable

cinch cable (5208)

PoE Adapter
(6191)

Wi-Fi

Speakers

AC 230 V

PSB-10-24
(4378)

WiFi bridge with PoE
(5210)

Amplifier

External music source

The application allows you to easily control connected devices such as switch sockets, dimming lights, controlling blinds or garage doors, heating circuits and compatible air conditioning. Of course there is a display of the available values such as temperature, motion status, window, door or flood detectors, or the current status of all controlled devices.
It now brings a clear Dashboard where it is possible to view 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 automatically with the possibility to connect new devices, new system and central units and third-party devices. With the new iNELS mobile application, enter a completely new world in the expansion of functions and integration possibilities with the iNELS 2022 system.
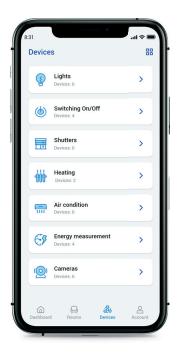
Category	Feature	Phase 1	Phase 2	Phase 3
Electroinstallation	Lighting control	✔	✔	✔
	Garage doors and gates	✔	✔	✔
	Switching appliances	✔	✔	✔
	RGB bulbs and LED strips	✔	✔	✔
	Scenes	✔	✔	✔
	Detectors/sensors	✔	✔	✔
HVAC	Heating	✔	✔	✔
	Air conditioning	✘	✔	✔
	Recuperation	✘	✔	✔
Audio	LARA	✘	✔	✔
	NAS	✘	✘	✔
3rd party	Cameras	✔	✔	✔
	Weather station	✘	✔	✔
	Intercoms	✘	✔	✔
	Home appliances	✘	✘	✔
Energy management	Energy dashboard	✘	✔	✔
	History report (charts & graphs)	✘	✘	✔
Voice assistants	Google Home	✔	✔	✔
	Amazon Alexa	✔	✔	✔
Others	Automation	✘	✔	✔
	Notification	✘	✔	✔
	Widgets	✘	✔	✔
	Favourites/overview	✔	✔	✔
	Log history	✘	✔	✔
	eLAN-IR	✘	✔	✔
	Geolocation	✘	✔	✔
	Weather data	✘	✔	✔
	Home Assistant	✘	✔	✔
	Users management	✔	✔	✔

iNELS RF Control
iNELS BUS System

GET IT ON
Google Play
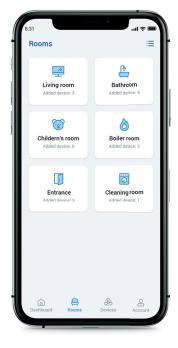
Download on the
App Store

Overview
Dashboard of the state of all devices.

Device list
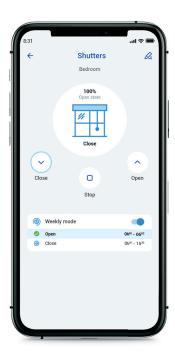Control the device from anywhere.

Rooms management
Settings according to individual rooms.

Colour setting
Easy adjustment of the light scene with one
touch - switching, dimming, colour.

Shutters/Blinds
Possibility of individual or joint control of
shading technology.

Temperature
You can set the temperature in each room
exactly as you like.

LOGUS⁹⁰

Luxurious design for any interior

Logus
90

Luxurious design for any interior

DESIGN LINES

We offer you switches, sockets and accessories in standard design, plastic or metallic, but you are also sure to be enchanted by the luxurious designs of frames made from natural materials: solid wood, metal, granite or hardened glass - crystal.

The frame is complemented by a button cover in the shades of pearl, aluminum or e.g. dark gray or ice - where many combinations come alive based on the customer's wishes and personal taste. Not just their refined design, but also long service life and resilience are the hallmarks of these switches.

You will see quality not only in the visible parts of the covers, but also in the switch mechanism itself. The mechanisms excel for their many features that make installation quick and easy, and guarantee safe operation. Thanks to their special design, they can even deal with potential wall unevenness.

BASE
Smart finish. Discrete shape of function.

BR - White MF - Ivory

AQUARELLA
Distinct colors.
Shades that characterize the space.

GE - Ice PE - Pearl AL - Aluminium IS - Gray PM - Black DU - Gold

ANIMATO
Large selection of colors,
modern design and pleasant price.

BB - White/White MM - Ivory/Ivory RG - Yellow/Ice DG - Green/Ice ZG - Blue/Ice JG - Orange/Ice VG - Red/Ice

EE - Ice/Ice PP - Pearl/Pearl TS - Brick/Gray BS - Wine/Gray AA - Aluminium/Aluminium AS - Aluminium/Gray SS - Gray/Gray

PG - Black/Ice PA - Black/Aluminium PS - Black/Gray RR - Black/Černá UG - Gold/Ice UU - Gold/Gold

CRYSTAL
Brightness and clarity.
Shades that bring the shine of crystals into a honed experience.

CG - Cristal/Ice CP - Cristal/Pearl CA - Cristal/Aluminium CS - Cristal/Gray EC - Glass-black/Pearl EG - Glass-black/Ice EA - Glass-black/Aluminium ES - Glass-black/Gray EP - Glass-black/Black

METALLO
Distinction and modern feel.
The refinement and brightness of metal enhance the value of the surroundings, and lend inspiration to great moments.

TP - Titan/Pearl IA - Inox/Aluminium OP - Gold/Pearl QS - Nikl/Gray US - Aluminium/Gray RS - Chrome/Gray OU - Gold/Gold

ARBORE
Selection of natural materials.
Warm shades of wood with their varying structures create a room full of happiness and sincere comfort.

FP - Beech Wood/Pearl JP - Cherry Tree/Pearl MS - Mahogany/Gray NA - Walnut Tree/Aluminium

PETRA
The beauty and stability of nature.
Stone with its uneven patterns, shaped by time and nature, represent the sense of firm and unending existence.

GG - Granite/Ice GP - Granite/Pearl GA - Granite/Aluminium GS - Granite/Gray

The entire design series are available from 1 frame up to 4 frames.
The BASE and AQUARELLA series are available from 1 frame up to 5 frames.
Horizontal or vertical position of the frame is possible thanks to their symmetrical shape.

Device covers in red, orange, green for hospital environments.

DEVICES OVERVIEW

Switch one-pin	Switch two-pin	Switch three-pin	Rotary dimmer	Movement detector	Card switch	Button with LED lamp symbol KEY	Blinds	Switch

UNITS OF THE iNELS SYSTEM IN LOGUS⁹⁰ DESIGN

Wall-mounted controller	Multifunction unit	Digital room temperature controller

DEVICES OVERVIEW

- switches
- switches with lock
- time switches
- over-switches
- rotary switches
- dimming switches
- two-pole switch
- pushbuttons
- switch, pulling switch

- orientation lighting
- shutters controllers
- shutters controllers with IR sensor
- digital time switch motion detectors
- card switch
- standard socket
- sockets Schuko, EURO-USA
- RJ45 connectors
- data sockets Cat 5, Cat 6

- sockets radio, TV, satellite, data
- telephone sockets
- double button (2NO+2NC)
- programmable thermostat (space/floor)
- simple thermostat (space/floor) with infrared control automatic relay for controlling blinds
- multimedia sockets

ADVANTAGES MECHANISMS

Mechanism are made of special alloy of non-flammable plastics that prevent in destruction or damage of device body thanks to their strenght and elasticity. The plastic design of the mechanism simultaneously ensures safe insulation from conductive parts of installation. The mounting frame is an integral part of the device. The device is compact, lightweight and enables easy and quick installation without using any tools.

Quick Clips allow installation to adjust the frame on an uneven wall (two positions for the "snap" frame). Inequality walls will allow the deal and floating fingerboard.

Ability to test electrical functionality of your device without disassembly.

Shaped edge of the body mechanism to align the mounting multiple devices.

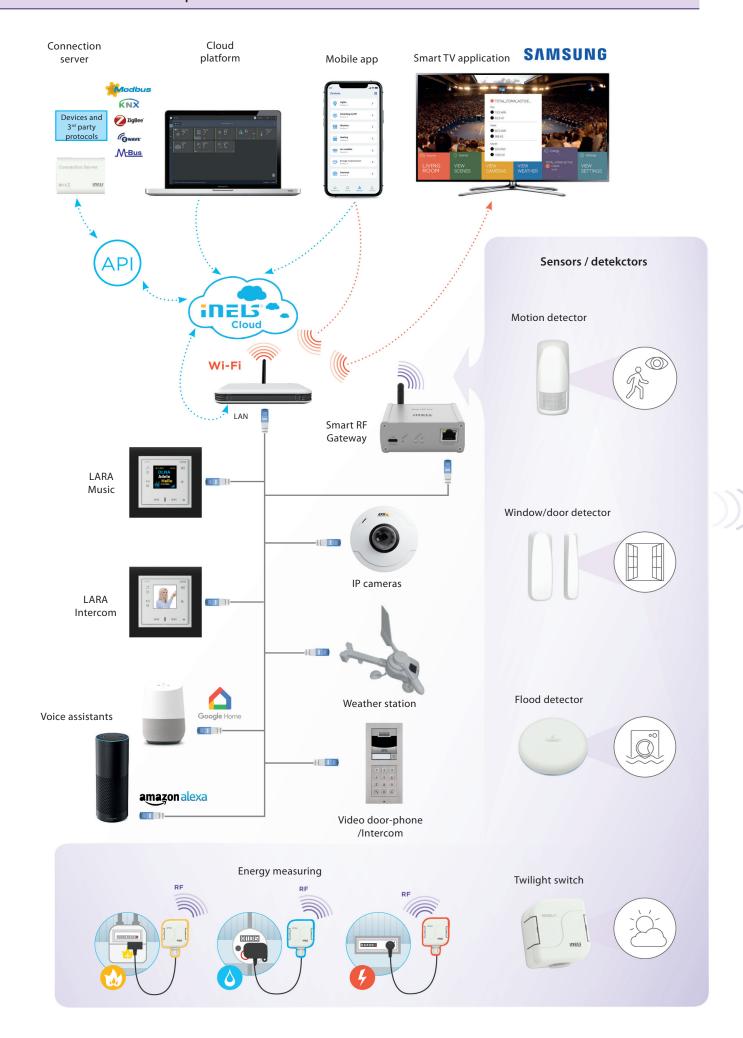Depth 20 mm only alows mounting to instrumentation device / box.

Screwless terminals provide fast and quality connection without need of instrument usage. Double terminals on every pole provide multiple connection withoutneed of extra terminals usage.

Ability to test electrical functionality of your device without disassembly.

Order code	Box (Un)			Order code	Colour	Box (Un)

Card-System Timer Switch
16 A - 100-240 V~

| 21033 | 1 |

Cover Plate for Card-System Timer Switch

| 90733 T | BR MF GE PE AL IS PM DU | 1 |

Timer Switch
16 A - 100-240 V~

| 21040 | 1 |

Rocker for Timer Switch

| 90745 T | BR MF GE PE AL IS PM DU | 1 |

Motion Detector - Wall Installation 1000 W
- Power: 100-240 V~ - 50-60 Hz;
- Compatible with any kind of load
- Possibility of two external inputs: ON/AUTO and Timed

| 21403 | 10 |

Motion Detector - Wall Installation 400 W
- Power: 100-240 V~ - 50-60 Hz;
- Compatible with any kind of load
- Possibility of two external inputs: ON/AUTO and Timed.

| 21404 | 10 |

Cover Plate for Motion Detector - Wall Installation

| 90403 T | BR MF GE PE AL IS PM DU | 1 |

Rotary Thermostat
- Power: 100-240 V~ - 50-60 Hz;
- Maximum load: 16A (3680W, cosφ =1);
- Compatible with any kind of load
- Systems Control: Heating and/or Cooling;
- Temperature settings: 5˚C to 30˚C;
- Possibility of connecting theTC-03

| 21234 | 1 |

Cover Plate for Rotary Thermostat

| 90746 T | BR MF GE PE AL IS PM DU | 1 |

RLC Dimmer Press Switch
100-240 V~

| 21218 | 1 |

Rocker for RLC Dimmer Press Switch

| 90747 T | BR MF GE PE AL IS PM DU | 1 |

White Orientation Light
- Two lighting levels:
L1 - 0,2 W; L2 - 0,4 W
- 230 V ~ - 50-60 Hz

| 21388 | 10 |

White Orientation Light with battery
- Two operating functions
- 230 V ~ - 50-60 Hz

| 21389 | 10 |

Cover Plate for Orientation Light

| 90782 T | BR MF GE PE AL IS PM DU | 20 2 |

Double USB Charger Type A with Output at 20º
- Voltage: 100-240 V~.
- Frequency: 50-60 Hz.
- Output voltage: 5 V.
- Output current: 2.4 A.
- Two USB type A outlets.

| 21384 | 1 |

Cover Plate for Double USB Charger Type A with outlets at 20º

| 90673 T | BR MF GE PE AL IS DU PM | 1 |

Connection server

Cloud platform

Mobile app

Smart TV application

SAMSUNG

Modbus
KNX
ZigBee
Z-WAVE
M-Bus

Devices and 3rd party protocols

Connection Server

API

iNELS Cloud

Wi-Fi

LAN

LARA Music

LARA Intercom

Voice assistants

Google Home

amazon alexa

Smart RF Gateway

IP cameras

Weather station

Video door-phone /Intercom

Sensors / detekctors

Motion detector

Window/door detector

Flood detector

Energy measuring

RF   RF   RF

Twilight switch

RFSDU-1

Actuators

Switching socket

Universal dimmer
R - L - C - LED - ESL

Switch unit for shutters

Thermovalve

Switch unit 6-channels

Analog controller 0(1)-10 V

Switch unit for outdoor use

Controllers

On wall button

Glass touch
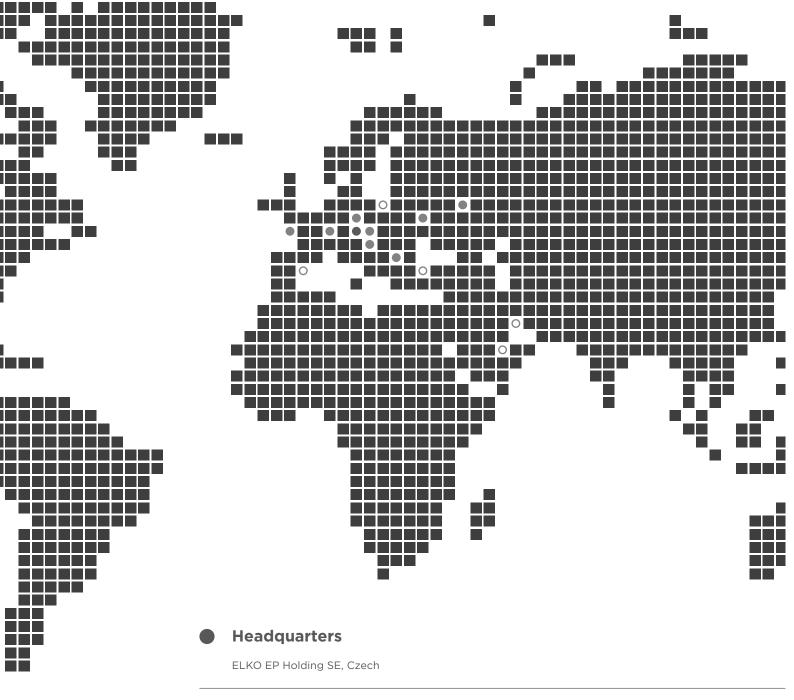

Glass touch with dimmer

Key fob

Contact converter

Outdoor 2-buttons controller with increased protection

Wireless touch unit

Temperature controller

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ELKO EP Holding SE, Czech

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