

# PRODUCT OVERVIEW





# **Facts and stats**





30 % Czech 40 % Export 30 % Branches <u>3</u>

330 Employees 16 500 13 000 000

iNELS Manufactured installation products



10 Branches 6 Franchises 70 Exporting countries World leader

in production of relays



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.











# **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.

3-MODULE



# 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.



### 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.





### 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.).



# 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.





### www.elkoep.com/logus90

Switches, sockets and a complete range of devices and accessories - this is the Logus 90 series from the Portuguese manufacturerEfapel. 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!



BOX - flush mounted

1-MODULE

BOX-SL - push-in terminals

2-MODULE







4-MODULE

BOX - into the cover

6-MODULE

5



into 11-Pin Socket

into the panel

Outdoor IP65 protection



72 x 62 x 34 mm

0

63 x 110 x 74 mm









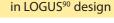
interior

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















**AOUARELLA** 

ARRORE

ANIMATO PFTRA









METALLO

BASE









CRYSTAL







Туре	Single-f	unction	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

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
2 <sup>nd</sup> (3 <sup>rd</sup> ) contact mode selection	no	no	no	no	no	no	yes	no

### Functions

N	umber of function	1	1	6	10	10	11	10	1
	List of function	ZR - ON ZN - INTE BL - FLASHE	RVAL ON	ON DELAY, INTER- VAL ON, FLASHER ON first, OFF DELAY, ON/OFF delay, ME- MORY LATCH with delay, ON DELAY with control signal	ON DELAY, INTERVAL ( FLASHER ON first, OFF SINGLE SHOT falling of MEMORY LATCH, PUL	edge, ON/OFF DELAY,	ON DELAY, INTER- VAL ON, FLASHER ON/OFF first, MEMORY LATCH, OFF DELAY, SINGLE SHOT, PULSE GENE- RATOR 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
1	New functions	OD - OF	F 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)						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"	3.5" x 0.7" x 2.5"	3.5″ x 0.7″ x 2.5″	3.5" x 0.7" x 2.5"	3.5" x 0.7" x 2.5"	3.5″ x 0.7″ x 2.5″	3.5" x 0.7" x 2.5"	3.5" x 0.7" x 2.5"			

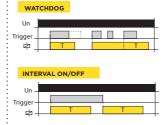








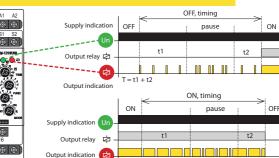






# CONTROL INPUT TYPE: O Un O A1 A2 A1 A2 A1 S A2 Potential-free contact LINE VOLTAGE TRIGGER POWER TRIGGER CONTROL SWITCH TRIGGER Control with potential-free contact external voltage.

# MULTI-FUNCTION LED INDICATION:

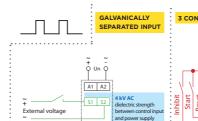


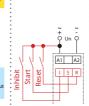


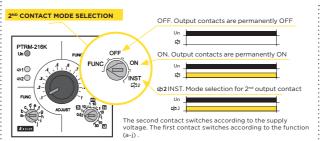
AC/DC 12-240V or AC 230V only (AC 50-60 Hz)	AC/DC 12-240V (AC 50-60 Hz)							
0.1 s - 100 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days	0.05 s - 30 days
SPDT (1x C/O) 16 A/250 V	SPDT (1x C/O) 16 A/250 V	SPDT (1x C/O) 16 A/250 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

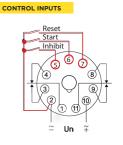
2	11	11	10	10	10	10	10	10
ASYMMETRIC FLASHER - ON FIRST or ASYMMETRIC FLASHER - OFF FIRST	ON DELAY, INTERVAL ON, FLASHER-ON/ OFF first, MEMORY LATCH, OFF DELAY, SINGLE SHOT, PULSE GENERATOR 0.5 s, ON/OFF DELAY	WITH CONTROL SIGNAL: ON DELAY, INTERVAL ON, FLASHER-ON first, OFF DELAY, SINGLE SHOT, PULSE GENE- RATIOR O.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	WATCI INTERVAL		WATC INTERVAI	HDOG, _ON/OFF		HDOG, L ON/OFF

3	5 mm DIN rail (IEC 6071	5)	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 pow	er supply and output co	ntact: 4 kV AC	Between power supply and output contact: 2.5 kV AC					
61 g (2.15 oz)	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 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"



















multifunction,
economy version
of CRM-91H

multifunction

multifunction

multifunction with external

energy saving

	economy version of CRM-91H	1x output contact	3x output contacts	potentiometer	relay
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	<b>UNI:</b> 7521 <b>230V:</b> 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.	use in automation, control a stallations. 10 functions, 10	onal time relay for universal nd regulation or in house in- time ranges, multifunctional ver supply in a wide range of	gulation or in house in- ranges, multifunctional by an external potentiom-	

# TIME RELAYS | multifunction, on DIN rail

MODULE



# TIME RELAYS | single function, on DIN rail



4 functions 1x output contact

4 functions 3x output contacts



STAR / DELTA



1x output contact

CRM-2H/UNI: 7668

CRM-2H/230V: 8395

Asymmetric flasher

with independently ad-

justable output closing

and opening time.

• asymmetric flasher

2 time functions:



with two external potentiometers



2-channel ON DELAY function 2x 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″)									



BL: FLASHER - ON first CRM-181J/UNI OD: 8041 | CRM-183J/UNI OD: 8059

ZR: ON DELAY CRM-181J/UNIZR: 8038 | CRM-183J/UNIZR: 8061 ZN: INTERVAL ON **CRM-181J/UNI ZN:** 8039 | **CRM-183J/UNI ZN:** 8060

**CRM-181J/UNI BL:** 8040 | **CRM-183J/UNI BL:** 8058 **OD:** OFF DELAY





CRM-2T/UNI: 7669 CRM-2T/230V: 8381 CRM-2T/24-480V: 4530 Time t1 **人** (star)

0.1 s do 100 days Time t2 (delay) 人/▲ 0.1 s - 1 s.

> ON first asymmetric flasher OFF first.



CRM-2HE/UNI: 8144

Asymmetric flasher

- · asymmetric flasher ON first asymmetric flasher
- OFF first.



(cascade) switching. 2 x independent ON DELAY outputs. Time adjustable from 0.1 s to 100 days.

It is used for gradual

SJR-2/UNI: 7670

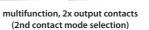
SJR-2/230V: 8396



# TIME RELAYS | multifunction, PLUG-IN









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 voltag	ge trigger	control swi	tch 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			1	0			
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	All functions initiated by cept for the flasher funct input to inhibit the dela	ion, can use the control	Three control inputs – S' All functions start with triggering of control inp			tion, can use the control	

















multifunction









multifunctio	
LED display	
2x output cont	

standard with function ON/AUTO/OFF

on	multifunction
	extending time, signaling
	before switching off

	LCD display 1x output contact		display et contacts	ON/AUTO/OFF	extending time, signaling before switching off
Technical parameters	CRM-100	PDR-2A	PDR-2B	CRM-4	CRM-46
Output	1x CO, 8 A	2x C0	), 16 A	1x CO, 16 A	1x CO, 16 A
Housing	1-MODULE	3-MC	DDULE	1-MODULE	1-MODULE
Supply voltage (frequency)	AC/DC 24-240 V (AC 50-60 Hz)	AC/DC 12-240 V or A	C 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 mn	n (3.5″ x 2″ x 2.6″)	90 x 17.6 x 64 mn	n (3.5″ x 0.7″ x 2.5″)
Order code	7453	UNI: 304 230V: 303	UNI: 306 230V: 305	7077	7491
CRM-100  □ □ □  H □ □ □  H □ □ □	Control input B1 is controlled by the supply voltage. More accurate thanks to digital time setting.	LED display. It is used for app to set the exact time (have a PDR-2A: optional second rela	,	It is used for delayed switching off of lighting on stairs, corridor, entrance It is controlled by the but- ton or several buttons from several places (connected in parallel).	Smart features: - extending time - premature shutdown - impulse relay - signalling before switching OFF. 3 or 4 wire connection.

# TIME RELAYS | flush/cover mounted

BOX flush mounted







3 or 4 wire connection.



multifunction 3-wire (without NEUTRAL)

3-wire (without NEUTRAL)

multifunction 4-wire (with NEUTRAL)

multifunction 4-wire (with NEUTRAL)

	on input: LED bulb	on input: incandescent bulb	contactless output	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 <sub>2</sub> )	
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	
	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 en- ergy 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 <sub>2</sub> , it is also suitable for switching LED bulbs or savings.	















	weekly	
channel		2-cha

annels 1-channel

2-channels

with astronomical with synchronized time (GPS) program 2-channels 1-channel

control 2-channels

Technical parameters	SHT-1	SHT-1/2	SHT-3	SHT-3/2	SHT-4	SHT-6G (GPSR-1)	SHT-7
Program	we	ekly	weekl	y, yearly	weekly, yearly, astro	weekly	y, yearly
Replaceable battery	ı	10	r	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 2x CO, 16 A		2x CO, 16 A
Housing				2-MODULE			
Supply voltage (frequency)	AC/DC 12-240 V or A	C 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 3	5 x 64 mm (3.5" x1.4")	x 2.5″)		
Order code	UNI: 3043 230V: 3042	UNI: 3041 230V: 3040	UNI: 3675 <b>230V:</b> 3676	UNI: 2904 230V: 2901	4475	8239	3549
MNOWATION	and weekly and ann Power backup in ca	control various appliances depending on the real time: with week and annualy (SHT-3) program. cup in case of battery power failure. Backlit LCD display, sealab of automatic summer / winter time transition.			Switches the out- put according to the time of sunrise and sunset based	As SHT-3, but real time can be syn- chronized via GPS receiver.	Settings via smart- phone with NFC communication (An- droid).



**GPS** receiver for SHT-6G GPSR-1



Additional functions: manual control, random switching, and pulse output.











iNELS Home NFC Setter



and power backup

**ANALOG TIME SWITCHES** 



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		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		350	0 VA					
Inductive load		100	0 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 in expensive 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.









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: 3x 16 A contacts

supply: AC/DC 24 V supply: AC 230 V



Technical parameters	VS116B/230	VS116K	VS116U	VS308K	VS308U	VS316/24	VS316/230	
Output		1x CO, 16 A (AgSnO <sub>2</sub>	)	3x CO, 8	A (AgNi)	3x CO, 16 A (AgSnO <sub>2</sub> )		
Housing	BOX			1-M0	ODULE			
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 24V and AC 230V (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			

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

# **INSTALLATION CONTACTORS**



1x20 A



2x20 A



4x25 A



4x40 A



4x20 A

4x63 A







							control	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	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	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 a operation and run	re characterized by ning.	Like VS, but mored					

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

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.

BISTABLE (IMPULSE) RELAYS



contact



2x NO/NC, 16 A

contacts





contacts

with remote control disconnection



contacts



electronic vers	sion - noiseless
1x CO, 16 A	2x CO, 16 A
contact	contacts

MEMORY RELAYS | 13

Technical parameters	BR-2	16-10	BR-2	16-11	BR-2	16-20	BR-2	20-20	BR-23	32-20	MR	-41	MR	-42
Output	1x NC	), 16 A	1x NO+1x	x NO+1x NC, 16 A 2x NO, 16 A			2x NC	2x NO, 20 A 2x NO, 32 A		1x CO, 16 A		2x CO, 16 A		
Housing					1 -MC	DULE						1-MO	DULE	
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	1	x	,	x x		ye	S	ye	es	,	κ .	2	K	
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





analog

with external sensor









digital with build-in time switch

for outdoor use with built-in sensor

external photosensor

			and external sensor			
Technical parameters	so	U-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	
Housing	1-M0	DDULE	2-MODULE	box with IP65	SOU-1, LIC-1, LIC-2	
Supply voltage (frequency)	AC/DC 12-240 V AC 230 V (AC 50-60 Hz) (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 mr	m (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
	50 000 lx), which when the level f	1-100 lx) or (100- closes the output alls below the set asor SKS-100 inclu- ge.	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.	sor SKS-100 for panel or	al photosen- and SKS-200 wall mount- he included



# DIMMERS | on DIN rail











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

flush/cover mounted regulated 12-24V output voltage 12 or 24 V

Technical parameters	PS	1M	PS	2M	PS	3M	PS	4M	PSE	3-10	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-MO	DULE	2-MC	DULE	3-MO	DULE	4-MC	DULE	В	OX	3-MODULE
Supply voltage (frequency)					0-240 V 50 Hz)			AC 110-250 (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		x 58 mm .7″ x 2.6″)		x 58 mm .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 (1.9″x 1.	x 21 mm 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 Switching stabilized power supply with output vol High efficiency up to 90%. Low ripple and noise.				PS3M-54/ PS3M-60/2 PS4M-85/ PS4M-92/2 ge 12 or 24 V I	<b>24V:</b> 8052 <b>12V:</b> 8053 <b>24V:</b> 8054			PSB-10-1 PSB-10-2		PS-30-R: 5158 A d j u s t a b l e output voltage in the range of 12-24 V.
	回於 所以 內於 回於	<b>徊</b> 恐				间 次 段		製		<b>犯</b>	

# 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	4 V	5-15VA 8 V	12 V
Technical parameters	ZSR-30	ZNP-10-24V	ZTR-8-8	ZTR-8-12	ZTR-15-12		2
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-MO	DULE	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)		g)		
Dimensions	90 x 52 x 65 mr	n (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 out- put voltage.	For powering doorbells, door locks, etc.				
	■ (5) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1						







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-MO	DULE	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	n (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	<b>DIM-2:</b> 1247 <b>DIM-2-1h:</b> 3574	3691	3910	
H(CA)	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.	
MODULE	回探回 交替分数 回数序数	回公司 25% 10% 10% 10% 10% 10% 10% 10% 10% 10% 10	回祭 回 発送 回送報		

# DIMMERS | flush mounted

# on DIN rail









lighting intensity lighting intensity



universal dimmer

	(with NEUTRAL)	(without NEUTRAL)	the source directly	the 0-10 V ballast		A (230 V)
Technical parameters	SMR-M	SMR-S	LIC-1	LIC-2	RFDEI	L-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 M	OSFET
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 a	and overload
Housing	ВС	X	1-MODULE		6-MO	DULE
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	<b>230V:</b> 8205	<b>120V:</b> 8209
	The type of light source is set with a switch on the instrument panel.  3-wire co out NEUT mum load		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.	







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 signal-ling lights or combinations) = when compared with competitors it is saving place in a switch board.

Operating temperature -20 to +55°C.

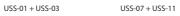


# **Example of combinations**









USS-11 + USS-01







USS-13 + USS-10

USS-12 + USS-11

USS-07 + USS-00

### Types of controlling and signaling units





Alternation



Switch with



Switch + push







**Push button** 

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











Push button with



Push button



	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



flashing (red)







Signalling LED Used to fill an flashing (blue) empty position in the front panel

Name	USS-14	USS-15	USS-0
Order code	2489	2437	2461





# **PROTECTION AND MONITORING RELAYS**

# Voltage monitoring relays - overview

		_	Features			Phase			Setting	9				
Туре	Design	Supply from	Phases	Monitored range	N^	ņ	Failure	Sequence	Asymmetry	Delay	Hysteresis	Memory	Description	
HRN-33	1-M	monitored voltage	1	AC 48 - 276 V	•	•	х	х	х	•	х	х		
HRN-63	1-M	monitored voltage	1	AC 48 - 276 V	•	•	х	х	х	•	х	х		
HRN-35	1-M	monitored voltage	1	AC 48 - 276 V	•	•	х	х	х	•	х	х		
HRN-34	1-M	monitored voltage	1	DC 6 - 30 V	•	•	х	х	х	•	х	х	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	
HRN-37	1-M	monitored voltage	1	AC 24 - 150 V	•	•	х	х	х	•	х	х	(Umax).	
HRN-67	1-M	monitored voltage	1	AC 24 - 150 V	•	•	х	х	х	•	х	х		
HRN-34	1-M	monitored voltage	1	DC 6 - 30 V	•	•	х	х	х	•	х	х		
HRN-64	1-M	monitored voltage	1	DC 6 - 30 V	•	•	х	х	х	•	х	х		
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	•	•	х	х	х	•	•	•	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	•	•	х	х	х	•	•	•	Gaivanically separated power supply from measuring inputs.	
HRN-55	1-M	monitored voltage	3	AC 3 x 300 - 500 V	х	х	•	•	x	•	х	х	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	х	х	•	•	х	•	х	х	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	•	•	•	х	х	•	х	х	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	•	•	•	х	х	•	х	х	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	•	•	•	•	х	•	х	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	•	•	•	•	х	•	х	х	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).	
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	•	•	•	•	•	•	•	•	Galvanically separated power supply.	
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	х	•	•	•	х	•	х	х	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	х	•	•	•	х	•	х	х	operational even if one phase fails.	
HRN-100	2-M	monitored voltage	3	U <sub>LN</sub> = 3 ~ 155 - 500 V U <sub>LL</sub> = 3 ~ 90 - 288 V	•	•	•	•	•	•	•	•	Configurable 3 or 4-wire connection. Extensive setting options. Each output can be configured individually.	





WINDOW





HYSTERESIS

overvoltage and undervoltage = 1x output





overvoltage = 1x output

undervoltage = 1x output





overvoltage and undervoltage = 1x output WINDOW HYSTERESIS

Technical parameters	HRN-33	HRN-63	HRN-35	HRN-37	HRN-67
Type of monitored voltage	А	C	AC	А	C
Monitored levels	undervoltage a	nd overvoltage	undervoltage and overvoltage	undervoltage a	nd overvoltage
Functions	WINDOW HYSTERESIS		WINDOW	WINDOW	HYSTERESIS
Monitoring range	48-2	76 V	48-276 V	24-	150 V
Output	1x CC	), 16 A	2x CO, 16 A	1x CC	), 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.	voltage.	to eliminate short-term

# VOLTAGE RELAYS | 1-phase, DC











DC voltage 6-30 V batteries and accumulators

DC voltage 6-30 V batteries and accumulators

monitoring in 1-phase network

1-phase, AC or DC

with three input ranges for AC / DC with three input ranges for AC / DC monitoring in 1-phase network

	overvoltage and undervoltage = 1x output	overvoltage and undervoltage = 1x output	Umin = % of set Umax	Umin = % of nominal input		
Technical parameters	HRN-34	HRN-64	HRN-41	HRN-42		
Type of monitored voltage	D	C	AC / DC			
Monitored levels	undervoltage a	and overvoltage	undervoltage a	nd overvoltage		
Functions	WINDOW	HYSTERESIS	WINE	WOOW		
Monitored range	6-31	0 V	3 inputs: 10-50 V; 32-160 V; 100-500 V			
Supply voltage	1x CC	D, 16 A	2x CO	, 16 A		
Housing	1-MC	DDULE	3-MODULE			
Power supply	from monit	ored voltage	AC/DC 24 V, 230 V, 400 V	AC/DC 24 V, 230 V		
Dimensions	90 x 17.6 x 64 mn	n (3.5" x 0.7" x 2.5")	90 x 52 x 65 mm	n (3.5" x 2" x 2.6")		
	HRN-34: 1564  1x output contact for overvoltage and Adjustable delay 0 - 10 s to eliminate speaks in the network.			HRN-42/24: 4723 HRN-42/230V: 4725 tally separated from the measured one, optional hysteresis 5% / 10%, Memory		









# **VOLTAGE RELAYS** | 3-phases

















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

Technical parameters	HRN-55	HRN-55N	HRN-57	HRN-57N	HRN-54	HRN-54N	HRN-43	HRN-43N	
Phase failure	•	•	•	•	•	•	•	•	
Phase sequence	•	•	х	х	•	•	•	•	
Adjustable overvoltage	x (fixed)	x (fixed)	•	•	•	•	•	•	
Adjustable undervoltage	x (fixed)	x (fixed)	•	•	•	•	•	•	
Asymmetry	х	х	х	х	х	х	•	•	
Monitored range	AC 3 x 300-500 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 300-500 V AC 3 x 172-287 V						AC 3 x 48 -276 V	
Output			1x C	O, 8 A			2x CO, 16 A		
Housing			1-MC	DULE			3-MC	DULE	
Power supply			from monito	ored voltage			AC/DC 24 V, AC	230 V, AC 400 V	
Dimensions			90 x 17.6 x 64 mm	n (3.5" x 0.7" x 2.5")			90 x 52 x 65 mn	n (3.5″ x 2″ x 2.6″)	
Order code	7512 7513 7514 A 7515 7498 7511						<b>24V:</b> 4731 <b>230V:</b> 4729 <b>400V:</b> 4730	24 V: 4731 230 V: 4733 400 V: 4734	
			□#X □ 7287 - 11 1841 - 12 1842 - 13 1843 - 13						

# **VOLTAGE RELAYS** | 3-phases





3 x 125-276 V











voltage monitoring

relay with LCD display

monitors 3 phases (without NEUTRAL) with adjustable undervoltage level 3 x 345-660 V 3 x 144-276 V 3 x 240-460 V

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	х	х	х	х	х	•	
Adjustable undervoltage	•	•	•	•	•	•	
Asymmetry	х	х	х	х	х	•	
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	$U_{LL} = 3 \sim 155-500 \text{ V}$ $U_{LN} = 3 \sim 90-288 \text{ V}$	
Supply voltage			1x C	O, 8 A			
Housing		1-MODULE		3-M0	DDULE	2-MODULE	
Power supply			from monito	tored voltage			
Dimensions		90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")			x 65 mm 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	





# LIQUID LEVEL RELAYS





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



using a connected current transformer X/5 A



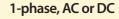
on measuring terminals in 7 ranges



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-MC	DDULE	
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







multifunction current monitoring, 8 functions selectable by rotary switch



with three input ranges for AC/DC current Imin =



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

	by rotary switch	% of set Imax % of nominal input		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 a	nd undercurrent	overcurrent o	or undercurrent
Function	eight, selectable by rotary switch	WIN	DOW		-
Monitored range	0.1 - 16 A (50-60 Hz) in 3 ranges	3 inputs: 0.32-1.6 A, 1-5 A	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-MC	3-MODULE		ODULE
Power supply	AC/DC 24 - 240 V (AC 50-60 Hz)	AC/DC 24 V, AC 110 V; AC 2	30 V; AC 400 V (AC 50-60 Hz)	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		90 x 105 x 64 mr	m (3.5" x 4.1" x 2.6")
Order code	<b>2A:</b> 8282, <b>5A:</b> 8283, <b>16A:</b> 8284	24V: 4741 230V: 4743	<b>24V:</b> 4747 <b>230V:</b> 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.		separated from the ci current. Selectable fur current. 2 types according to t 5A).	ver supply galvanically ircuit of the monitored action: UNDER or OVER the rated current In (1A,
	同%56同	同数间	同线间		<b>域间</b>









or two levels in IP65 protection



for monitoring one or two levels, or pumping of tanks



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 LIQUID LEVEL SETS PROBES AND CABLES



for controlling 5-levels in IP65 protection



set of HRH-5 relay and contactor

HRH-4



ACCESSORIES

Stainless steel sensor in PVC housing with hanging

Stainless steel sensor. for use in harsh and industrial

SHR-1-M: 209970800002 brass sensor. **SHR-1-N:** 209970800001 stainless steel sensor.

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

D05V-K

SHR-2: 209970800003

SHR-3: 209970800004

D05V-K 0.75/3.2: 6594

environments.

cord. Seal with IP67 grommet.



Technical parameters	HRH-6/DC	HRH-6/AC		
Output	1x NO	, 10 A		
Sensitivity	10 - 2	00 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			
Order code	3740	3699		
	Device monit	ors 5 levels by		

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



# HRH-4/230V 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

Wire for probes SHR-1 and SHR-2,  $1x 0.75 \text{ mm}^2$ All types (excluding SHR-3) meet the requirements for continuous contact with a drinking



# THERMOSTATS, HYGROSTATS









double

monitoring temperature

with build in

										of motor winding	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°C	0 to 40°C	30 to 70°C	0 to 60°C	0 to 60°C	-15 to 45°C	0 to 60°C	0 to 60°C	-40 to 110°C	1.8 - 3.3 kΩ	-40 to 110°C
Thermosensor type			externa	I, 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-MOD	ULE				3-MODULE	1-MODULE	2-MODULE
Supply voltage (frequency)		AC/DC 24-240 V (AC 50-60 Hz)				AC/DC 24V, 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")			
	TER-3A 3839 TER-3B 3840 TER-3F: 3844 TER-3C 3841 TER-3C: 3845 TER-3D: 3842 TER-3H: 3846 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-4/230V: 5539 TER-4/24V: 4749 Double thermostat for monitoring and regulating the tem- perature. 2 inputs for TC/TZ sensor. Galvanically isola- ted 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.						
Temperature sensors TC/TZ/PT100 more on page 23		[ ! !				回教 (20) (20)	i回 液 Bi				

# THERMOSTATS | with IP65 protection











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°C	-20 to +20°C	+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		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 tem- perature on enclosure	Selectable function: cooling/ heating. Option of voltage or potential - free contact











multifunction thermostat

hygrothermostat optional functions

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	LOGUS <sup>90</sup>	LOGUS <sup>90</sup>	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 matically control heating of conditioning in relation to the ly or weekly program and the temperature.		Controls heating or air-condition- ing systems depending on the se- lected temperature. It is possible to connect a floor temperature sensor to automatically detect and con- nect to it.	Hygro-thermostat for temperature monitoring and control - range 0 to +60 °C and relative humidity - range 5090 %. 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.
				■漁

# THERMO-VALVES

# **TEMPERATURE SENSORS**









energy saving digital radiator thermo-valve

thermo-drive

for range 0 to 70°C PVC insulation

for range -40 to +125°C silicone insulation

for range -30 to +200°C double isolation

V-1	TELVA-2	TC	TZ	Pt100
	TELVA-2 230V, NO: 8196	NTC thermistor 12 kΩ.	NTC thermistor 12 kΩ.	PTC sensor.

**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 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 posi-

tion. Design:

NO - without voltage open NC - without voltage closed and 12 m.

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

TC-12: 209970800013

and 12 m.

**TZ-0:** 209970800014 **TZ-3:** 209970800015 **TZ-6:** 209970800016

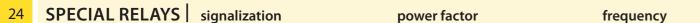
**TZ-12:** 209970800017

4 cable lenghts: 11 cm, 3 m, 6 m 3 cable lenghts: 3 m, 6 m and 12 m. **PT100-3:** 3613

PT100-6: 3614 **PT100-12:** 3615















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 mr	n (3.5″ x 2″ x 2.6″)	
	MPS-1: 4597	COS-2/24V: 5544	HRF-10: 5011	

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-2/230V: 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.



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





# **RF WIRELESS ELECTRO-INSTALLATION**











































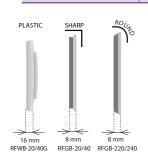






	2 buttons	4 buttons	2 or 4 buttons	(SHARP edges)	2 or 4 bu
echnical parameters	RFWB-20/G	RFWB-40/G	RFGB-20	RFGB-40	RFGB-22
lumber of channels	2	4	2	4	2

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 C	2x 3 V batteries CR 2032		2x 3 V batteries CR 2032		
Design	LOGUS	glass - sharp		glass - round		
Colour	in LOGUS <sup>90</sup> va	W - white, B - black		W - white, B - black		
Dimensions	85 x 85 x 10	6 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	<b>40/B:</b> 7681 <b>40/W:</b> 7680	220/B: 7684 220/W: 7683	240/B: 7686 240/W: 7685



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 but-

tons, in black or white glass with round



outdoor compact











ey fob - 4 buttons		Key fob -	6 buttons	Controller with display		
lack	white	black	white	anthracit	white	

Technical parameters	RFDW-71	RFOWB-20	RF KEY-40 RF KEY-60		Y-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			RF	Ю	
Order code	<b>71/B:</b> 4178 <b>71/W:</b> 5983	8147	8075	8074	8077	8076	4516	4376
SHARP	Class controller with integrated dimmer	Wireless pushbutton con	Controller in the size of a knychain somes in		Domoto cor	trallar with		



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.

Glass controller with dimmer

SHARP edges

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 OLED display allows to to control an unlimited number of units.

control up to 40 units. Provides the ability to divide elements into Rooms, Favourites or Scenes.







# SWITCHES | flush mounted













Screwless terminals for faster wiring

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 N0	O, 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		ВОХ	
Dimensions	49 x 49 x 21 mm		43 x 44 x 22 mm		49 x 49 x 21 mm	
Protocol	RFIO2			RFIO2		
Order code	4995	8375	8204	8201	4934	
The state of the s	• 6 functions • 1 output	• switch on/off • 1 output	6 functions     1 output contact 8A     1 input for external button	<ul> <li>6 time functions</li> <li>2x output contacts 8A</li> <li>2 inputs for wired buttons</li> </ul>	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.	
BOX-SL flush mounted						

# SWITCHES | shutters













Switch unit with external input

Multifunction 1-channel

Multifunction Fancoil controller 6-channels 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
RFJA-32B/230V: 8254		RFSA-61MI: 8154	RFSA-66MI/24V: 8156	RFSA-166M/230V: 3432



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.

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

RFSA-61M: 7721

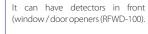
RFSA-66M/110-230V: 7723 MI - integrated antenna antenna.

M - SMA connector for external

RFSA-66MI/110-230V: 8155

RFSA-66M/24V: 5291

AN-I antenna is part of the package.



The last channel can be switched by

It is controlled by the RFTC-150/G

Fancoil control:

• 3 speed levels

thermostat.

• heating / cooling mode

any appliance (e.g. lights).









Analog controller 0(1) - 10V Universal dimmer 1x 300 VA



Universal dimmer 1x 600 VA



Dimmer for LED (RGB strips) 3-channels

1,02000 2.00	1 1000 B
	T T
1	Universal
	dimmer
	6x 150 VA

necting all 6 outputs together.

Technical parameters	RFDAC-71B	RFDEL-71B-SL	RFDALI-32B-SL	RFDEL-71M RFDA-73M/RGB		RFDA-73M/RGB RFDEL-		
Output	0(1) - 10 V contact 16 A	R-L-C-LED-ESL 160 VA	32x DALI units	R - L - C - 600 VA	LED - ESL 300 VA	3x 5 A	R - L - C - 6x 150 VA	LED - ESL 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 BOX-SL		3-MODULE			6-MODULE	
Dimensions	49 x 49 x 21 mm	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			RFIG	02
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, po- tentiometer for minimum bright- ness, input for	It should dimm up to 32 DALI drivers powered from DALI BUS. Configuration via bluetooth from the app.	DIN rail des for external potentiomet	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.		with an outpu VA channel. The connected in p tiply the powe of the numbe to 900 VA / 23	hannels dimmer at of 150 VA / 75 e outputs can be parallel and mul- r at the expense of outputs (up 0 V) when con- utputs together.

32 DALI

adress

# SOCKETS | dimming





socket-plug

wired button



Switching socket-plug



Switching unit for outdoor use

Technical parameters	RFDSC-71N	RFSC-61N	RFUS-61
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





**Schuko:** 8250



British: 8252





Switching component with 1 output channel in a box with increased coverage for outdoor environments.



# **DETECTORS**



Level

switch







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	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 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 po-	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
External probe designed for Level sensor RFSF-1B for flood monitoring. 1 m cable can be extended by 30 m.	the actuator or eLAN.		tentiometers inside. Enclosure with increased IP65 protection for demanding environments.		Integrated light sensor and tamper against unwanted opening of the cover.

# DRY CONTACTS CONVERTERS



2 contacts converter





4 contacts converter





1 contact converter - permanent switching

Pulse converter

- permanent switching	battery powered	AC 230 V powered	- permanent switching	
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

4 contacts converter

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

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).











# **SYSTEM UNITS**



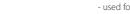




Simple temperature Autonomous temperature controller controller

Thermostat for fancoil control via RFSA-166M

Technical parameters	RFTC-10/G	RFTC-50/G	RFTC-150/G
Battery power		2 x 1.5 V battery AAA	
Design		LOGUS <sup>90</sup>	
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



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Compatibility control

RF Touch

eLAN-RF

RESA-6x

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  $\pm$  5  $^{\circ}$  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

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 LOGUS<sup>90</sup> frames.











Al - aluminium







MF - ivory



PE - pearl

# 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
	Switching component (16 A relay	The internal or external TC / T7	Most suitable f	or hotel rooms	The wireless thermal head measures



Temperature sensors TC/TZ more on page 23

contact) with input for external It can be combined with units:

eLAN-RF, RF Touch and RFTC-



sensor measures the temperature in the range -20 to + 50  $^{\circ}\text{C}$ and sends it to the system device (eLAN-RF or RF-Touch) at regular intervals (5 min).

The components support communication with RF detectors. Range 160 m.

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



Cloud) control from iNELS

app.

flush mounted (eLAN-RF included)



Smart RF Gateway Smart RF Gateway with LAN with WiFi & LAN

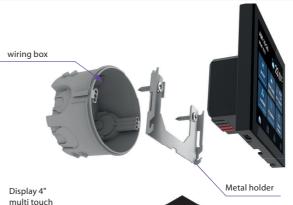


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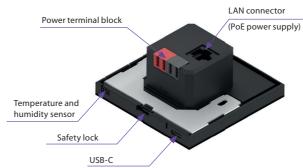
Repeater (socket-plug)

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	63 x 110 x 74 mm	
Protocol	RFIO2		RF	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	The RF Smart box is a gate ponents and applications: si evision, voice assistants (Goc third party devices. Allows Cloud. It is available in two v a) eLAN-RF-103: LAN commu b) eLAN-RF-Wi-103: LAN coi	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** 







# Screen preview

mode or in Client mode.











**ACCESSORIES** 



Service Key



Internal antenna with SMA connector



External antenna with magnetic base

AN-E



External antenna and IP67 protection

AN-E3



with magnetic base

**WIRED ELECTRO-INSTALLATIONS INELS BUS** 







...















# RFAF/USB

### RFSAF/USB: 4503

The RFAF / USB Service Key (in conjunction with the RF\_analyzer) is designed for iNELS RF Control system partners.

# **AN-I:** 6180

Polarization: vertical Gain: 2.1 dBi Dimensions: 17 x 44 x 8,5 mm Impedance: 50 Ω Colour: black



### AN-E: 209930606056 Cable length: 3 m

Polarization: vertical Gain: 5 dBi Impedance:  $50 \Omega$ Colour: black Dimensions: Ø 30 x 280 mm

### **AN-E3:** 8219

Cable length: 3 m Polarization: vertical Gain: 3 dBi Impedance: 50 Ω Colour: black Dimensions: Ø 50 x 88 mm

# **Extension cable** EC-10: 8191

SMA connectors (male/female) Cable length: 10 m Colour: white





# 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 • Wireless switch socket-plug

# **DIMMERS KITS**



### WIRELESS LIGHT DIMMER - LUXURY

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



2 WIRELESS LIGHT **DIMMERS - LUXURY** 

- · Glass touch controller - 4-button, SHARP design,
- · 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

- 4-button, SHARP design,
- · Universal dimmer for light source control (R, L, C, ESL,



WIRELESS DIMMING **SOCKET - LUXURY** 

- 4-button, ROUND design,
- Wireless dimmable socket-plug



Basic central control unit **INELS BUS** 



**Extended central** control unit **INELS BUS** 

CU3-08M



Central unit for control of **DALI** ballasts

CU3-09M/DALI



Superior central control unit projects using iNELS IP protocol

**CU3-IPMASTER** 

# Order Code: 8010

• Cu3-07M is one of the basic system control units of iNELS BUS installations.

CU3-07M

- · 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  $\ensuremath{\mathsf{BUS}}$ 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
- The unit can work independently, as an autonomous project, or it can be controlled by the CU3-IPMAS-TER 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)

- control units of iNELS BUS installa-
- from the iNFLS BUS portfolio.

### Order Code: 8465

- CU3-09M/DALI is a special version of the minified central unit and is designed to control DALL 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
  - The DALI system bus allows the control of up to 64 independent DALI ballast addresses for fluorescent, LFD and other lumi-



### 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
- 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**









Power supply Power supply **BUS** separator from BUS separator from 30 W with BUS 100 W power supply power supply separator PS3-100/iNELS **Technical parameters** PS3-30/iNELS BPS3-01M BPS3-02M 27.6 V / 3.6 A. 27 V / 1A Output 1x BUS 2x BUS 12.2 V / 0.35 A 100-250 V AC 100-250 V AC Supply voltage BUS 27 V DC (50-60 Hz) (50-60 Hz) (frequency) 8 mA (at 27 V DC) 15 mA (at 27 V DC) Rated current 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 100 W, 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  $\,$ 

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 N	O, 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	200	0 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	ВС	XC	3-MODULE		6-M0	DDULE
Dimensions	49 x 49 x	c 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 ac- tuator for switching app- liances and controlling blinds,	6-channel switching actu- ator for switching app- liances, lighting and thermo	for switching ap	itching actuator opliances, lighting ves, 12x switching







status, manual control.

4x changeover contact 16 A, LED signalling of relay



drives, 6x changeover

contact 8 A, LED signalling of

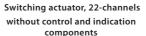
contact 8 A, LED signalling of relay status, manual control.



# **SWITCHING ACTUATORS**

# SHUTTER ACTUATORS







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	Actuator for controlling blinds, rollers, shutters and other motors pow-	Actuator designed for controlling roll- ers, shutters, blinds, awnings, garage

with 20x switching outputs and 1x changeover contact for controlling blinds or shutters.



ered by 24 V DC. Unit has 2x analog or 2x digital input.

door on entrance gates. This unit can control up to 9 motors.















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	5 mA (at 27 V DC)		at 27 V DC)	60 mA (at 27 V DC)	
Housing	3-MODULE		6-MODULE		3-MODULE	
Dimensions	90 x 52 x	c65 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.	
			回答 22號 回名		回答(B) 医多及 回答(B)	

# LIGHTING CONTROL





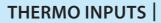


Combined detector



Luminescence sensor

		200000	50.50
Technical parameters	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.
	<b>■秋</b> ■ (40.5-45	26.75C	■名楽画 Stead Stead













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	ВОХ		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 conn potential-free contacts (PIR, t input for TC/TZ sensor, output 12 V DC/75 mA.	outton, etc.), 1x temperature	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 T13-40B is designed for connecting 4x temperature sensors TC, TZ, Ni1000, PT1000 or PT100.	Temperature input unit T13-60M 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
	A 1	6 . 6 . 1::1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1:

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.











Room controller with PHASE dimmers

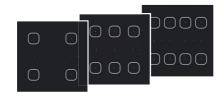


Fan coil control actuator

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)

Combined actuator

10 inputs, 8 outputs

		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	<b>40/B:</b> 3290 <b>40/W:</b> 3295	<b>60/B:</b> 3291 <b>60/W:</b> 3298	<b>80/B:</b> 3292 <b>80/W:</b> 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<sup>90</sup> 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







4 buttons



Digital room thermo-regulator



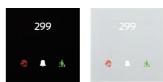
2 buttons



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	04 - 04 - 26
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	94 x 94 x 36 mm
Order code - electronics*	<b>20:</b> 3234* <b>20H:</b> 3247*	<b>40:</b> 3233* <b>40H:</b> 3304*	device + cover: IDRT3-1/BR**	3275*	<b>61/B:</b> 5585 <b>61/W:</b> 5579
* Covers and frames for the devices must be ordered separately ** Frame must be ordered separately.	Wall controllers, 2x button, built-in temperature and humidity sensor (version H), 1x LED indication. In LOGUS <sup>50</sup> design.	Wall controllers, 4x button, built-in temperature and humidity sensor (version H), 2x LED indication. In LOGUS <sup>90</sup> design.	Control unit for heating/ cooling. Temperature co- rrection ±5 °C or direct input of requested tempe- rature. Built-in temperature sensor. In LOGUS® design	Wall reader with RFID can read chip cards, key fobs and control the entrace. Available in black and white color in Logus <sup>90</sup> 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 <sup>50</sup> design.
Order code of all color combinations are available in the price list.		□ (4)(□ 70 (2) □ (4)(2)		■ 64 2	

# **HOSPITALITY SOLUTION - GRMS**











Glass door

Glass switch panel

	Glass card reader		Glass door bell		Glass switch panel 10 buttons	
Technical parameters	GCR3-11		GDB	3-10	GSP3-100	
Number of buttons	3	3		1	1	0
Supply voltage	BUS 27	7 V DC	BUS 2	7 V DC	BUS 2	7 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	nternal temperature and brigtness sensor		r, 1x external input for TC/TZ	internal temperature sensor	r, 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	<b>10/B:</b> 5726	<b>10/W:</b> 5727	<b>100/B:</b> 5628	<b>100/W:</b> 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.		tons whose functions of Button symbols can be to the client's requirer The buttons can be ba yellow, pink, turquoise	changed and adapted ments upon a request. cklit in red, green, blue, and white. The panel black (GSP3-100/B) and

# **HOSPITALITY SOLUTION - GRMS**







Glass switch button with symbols

4 buttons





Glass switch button with symbols 6 buttons

Technical parameters	GSB3	GSB3-20/S		GSB3-40/S		-60/S
Number of buttons	2		4		6	
Supply voltage	BUS 27	BUS 27 V DC		BUS 27 V DC		7 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 a 1x external in	,	internal temperature a 1x external in	,
Dimensions	94 x 94 x 36 mm		94 x 94 x 36 mm		94 x 94 x 36 mm	
Order code	<b>20/SB:</b> 5621	<b>20/SW:</b> 5622	<b>40/SB:</b> 5623	<b>40/SW:</b> 5624	<b>60/SB:</b> 3291	<b>60/SW:</b> 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	VDC
Rated current from BUS	25-50 mA (at	27 V DC)
Measurement	1x external input for TC/TZ or 1:	x digital, brightness sensor

### Order code: 5728

GBP3-60 is available in several designs and is very flexible and efficient solution for a wide range of projects.

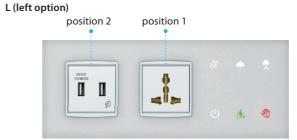
The following variants are available:

- 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.



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



GBP3-60/WL/1F-21W45W

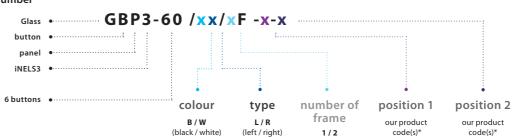


GBP3-60/BR/2F-26B-11B44B



GBP3-60/BR/1F-26B

### Part number



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

# **HOSPITALITY SOLUTION - GRMS**







Glass room thermo-regulator



Glass card holder

Technical parameters	EHT3	GRT3-50		GСН	3-31		
Input	-	-		1x change	eover, 8 A		
Number of buttons	touch screen	7		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		brightne	ss 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	<b>50/B:</b> 5630	<b>50/W:</b> 5634	<b>31/B:</b> 5627	<b>31/W:</b> 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 LOGUS90 design.

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.

Glass room thermo-regulator GRT3-50 is part

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

GCH3-31 serves for inserting the RFID card into







converter IP =>3x infrared transmitter

# COMING Home Assistant

gateway for connecting protocols and devices by a third party

Home Assistant GW

### eLAN-IR-003

# 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 application directly control the examination 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, settop 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 pagessary.
- 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



converter IP =>RS-485/232

**Connection Server** 

# eLAN-RS-485/232

# Order code: 7026

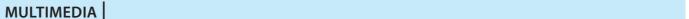
- •The eLAN-RS485/232 allows you to control air-condition from your smart phone, tablet, or it can read a data from electronic security systems (Jablotron, Paradox).
- The eLAN-RS485/232 is connected to the router or switch and communicates with a smartphone over the network.
- $\bullet$  Intuitive application 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).









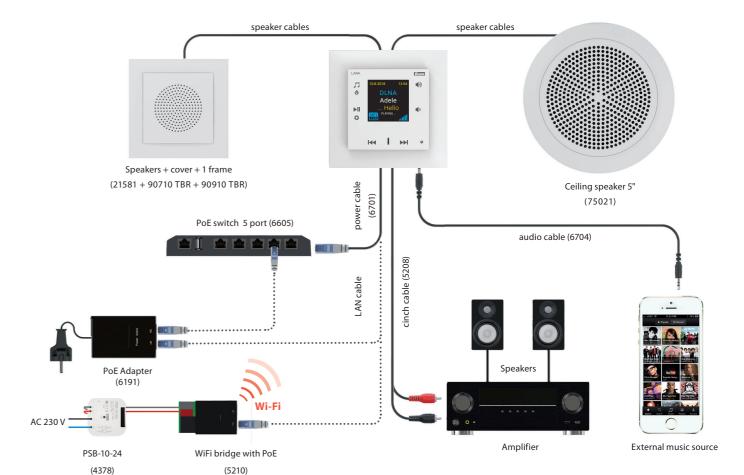
Music and internet radio player



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		
	<ul> <li>Order code: LARA-R</li> <li>Music and internet radio player - all in the dimension of a switch and a luxurious LOGUS<sup>50</sup> design.</li> <li>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.</li> <li>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.</li> <li>LARA Radio can also play audio files from central data storage.</li> </ul>	Order code: LARA-IC  LARA Intercom offers users 5 different functions and expands even mo options to LARA Radio - music players and internet radio stations with the range of LOGUS <sup>50</sup> switch designs.  LARA Intercom provides an extra functionality and videophone interco Thanks to videophone function, now it is possible to have a voice co munication between LARA and IP intercoms. So if someone ring the do bell, you can see the picture of the visitor on the screen. Controlling electronic door lock from LARA is the easiest thing.  LARA Intercom is equipped with an OLED colored display with the size 1.5", which is used to transfer images and sounds from the door came properly.		

### Wiring example



# Mobile application iNELS

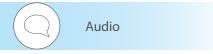
The application allows you to easily control connected devices such as switch sockets, dimming lights, controlling blinds or garage doors, heating circuits and compatible air conditioning. Of course there is a display of the available values such as temperature, motion status, window, door or flood detectors, 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.

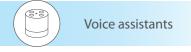
Electroin	stallation	
RF Control	BUS System	
	222	

HVAC	





Ene	rgy m	anage	ement	





Others

	Phase 1	Phase 2	Phase 3
ighting control	v ·	✓ ×	✓ ×
Garage doors and gates	V	<b>~</b>	<b>~</b>
Switching appliances	V	<b>~</b>	<b>~</b>
RGB bulbs and LED strips	<b>~</b>	<b>~</b>	<b>~</b>
Scenes	V	<b>~</b>	V
Detectors/sensors	V	<b>~</b>	<b>~</b>
Heating	<b>✓</b>	<b>~</b>	V
Air conditioning	×	<b>~</b>	V
Recuperation	×	<b>~</b>	<b>~</b>
ARA	×	<b>~</b>	~
NAS	×	×	<b>~</b>
Cameras	<b>~</b>	<b>~</b>	~
Veather station	×	<b>~</b>	<b>~</b>
ntercoms	×	V	V
Home appliances	×	×	<b>~</b>
energy dashboard	×	<b>~</b>	<b>~</b>
History report (charts & graphs)	×	×	V
Google Home	V	<b>~</b>	<b>~</b>
Amazon Alexa	<b>~</b>	<b>~</b>	<b>~</b>
Automation	×	<b>V</b>	V
Notification	×	<b>~</b>	~
Vidgets	×	<b>~</b>	~
avourites/overview	<b>~</b>	<b>~</b>	<b>~</b>
og history	×	<b>~</b>	<b>~</b>
LAN-IR	×	<b>~</b>	<b>~</b>
Geolocation	×	V	V
Veather data	×	<b>~</b>	<b>~</b>
Home Assistant	×	<b>~</b>	~
Jsers management	<b>✓</b>	<b>~</b>	<b>~</b>



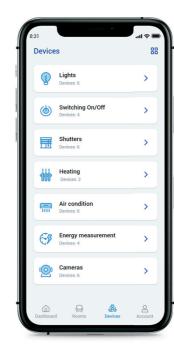




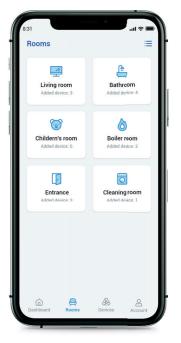




Overview Dashboard of the state of all devices.



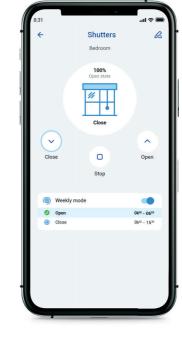
Device list Control the device from anywhere.



Rooms management Settings according to individual rooms.



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



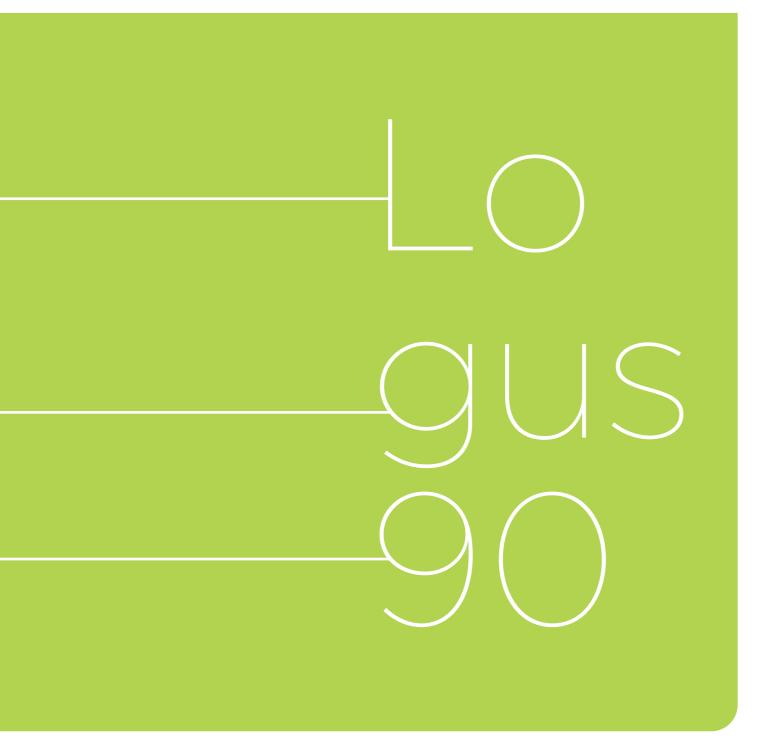
Shutters/Blinds Possibility of individual or joint control of shading technology.



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



Luxurious design for any interior



SWITCHES AND SOCKETS

# **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.









Distinct colors. Shades that characterize the space

















Large selection of colors, modern design and pleasant price.















































### METALLO

CRYSTAL Brightness and clarity.

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

Shades that bring the shine of crystals

into a honed experience.















### ARBORE

PETRA

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

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























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.

SWITCHES AND SOCKETS

# **DEVICES OVERVIEW**







Switch two-pin





Switch three-pin



Rotary dimmer



Movement

detector

Card switch



Blinds



Button with LED lamp symbol KEY

Switch

### UNITS OF THE INELS SYSTEM IN LOGUS<sup>90</sup> DESIGN



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

• data sockets Cat 5, Cat 6

- RJ45 connectors

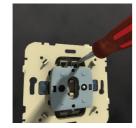
- · sockets radio, TV, satellite, data
- telephone sockets
- double button (2NO+2NC)
- programmable thermostat (space/floor)
- simple thermostat (space/floor) with infrared control automatic relay for controlling blinds
- multimedia sockets

# **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 (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 multiple devices.



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



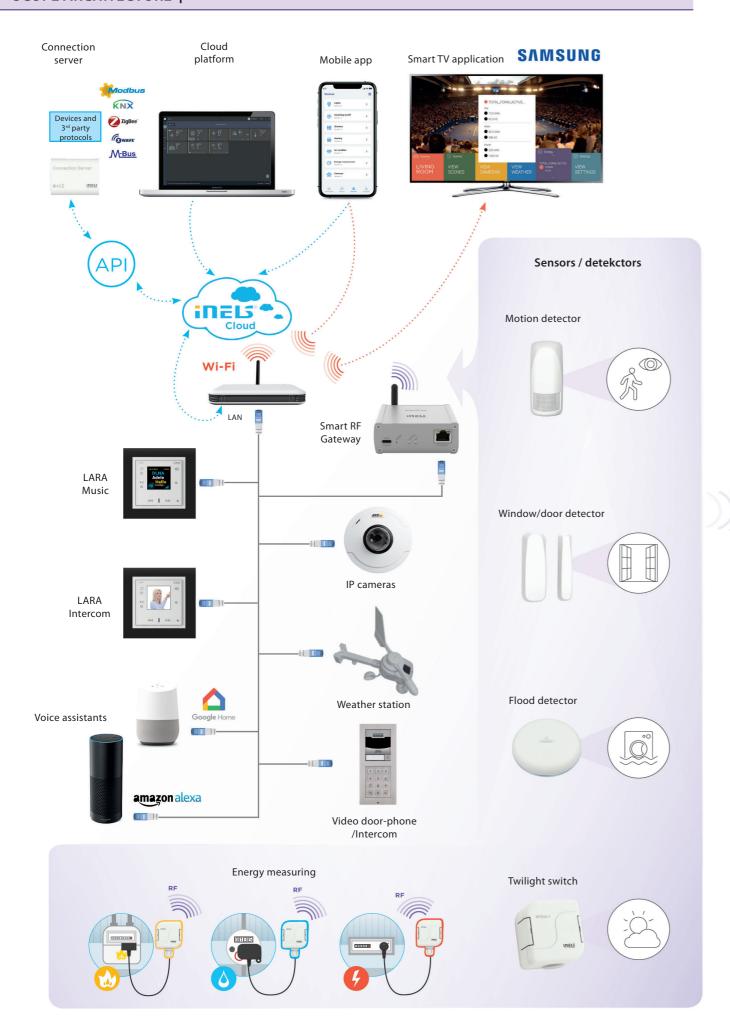
Screwless terminals provide fast and quality connection without need of instrument usage. Double terminals on every pole provide multiple connection withoutneed of extra terminals usage.

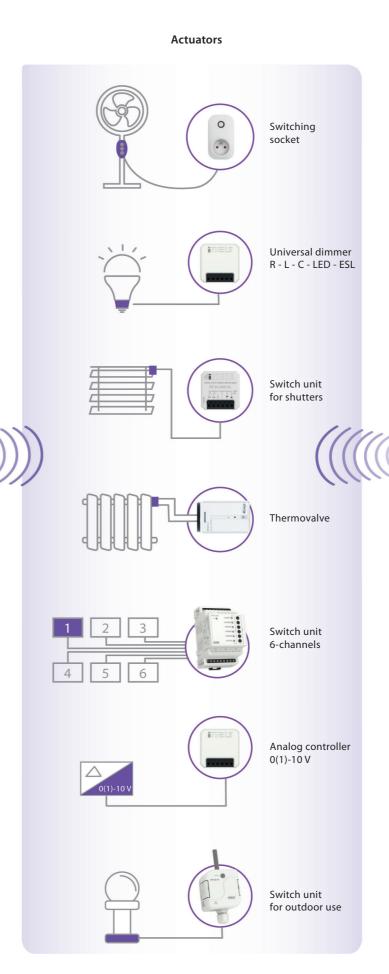


Ability to test electrical functionality of your device without disassembly.

# SWITCHES AND SOCKETS

		Order code	Box (Un)			Order code	Colour	Box (Un)
	Card-System Timer Switch 16 A - 100-240 V~	21033	1	CARD	Cover Plate for Card-System Timer Switch	90733 T	BR MF GE PE AL IS PM DU	1
O DATE OF	Timer Switch 16 A - 100-240 V~	21040	1	⊙ OFF	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		Cover Plate for Motion Detector - Wall Installation	90403 T	BR MF GE PE AL IS PM DU	1
	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					
	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
To mod	RLC Dimmer Press Switch 100-240 V~	21218	1	0 0	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		Cover Plate for	90782 T	BR MF GE PE AL IS	20 2
	White Orientation Light with battery - Two operating functions - 230 V ~ - 50-60 Hz	21389	10		Orientation Light		PM DU	-
	Double USB Charger Type A with Output at 20° - Voltage: 100-240 V~ Frequency: 50-60 Hz Output voltage: 5 V Output current: 2.4 A Two USB type A outlets.	21384	1	Lagg-J cos	Cover Plate for Double USB Charger Type A with outlets at 20°	90673 T	BR MF GE PE AL IS DU PM	1







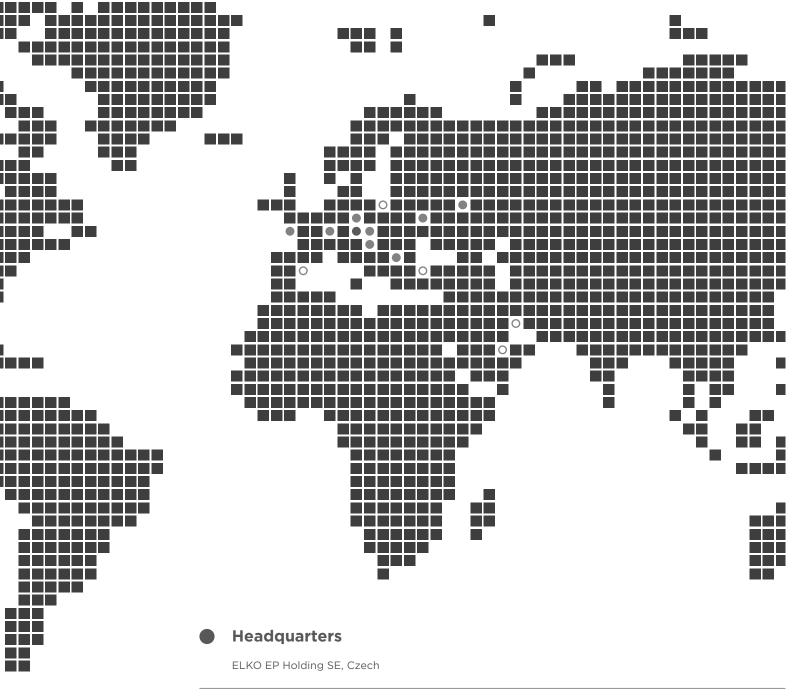
Wireless

touch unit

Temperature

controller

51



# **Branches**

ELKO EP Germany, GmbH, Germany ELKO EP Hungary Kft., Hungary ELKO EP Poland, sp. z.o.o., Poland ELKO EP RUS LLC, Russia

ELKO EP UKRAINE LLC, Ukraine ELKO EP UK, United Kingdom ELKO EP Serbia, Serbia ELKO EP SLOVAKIA, s. r. o., Slovakia

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