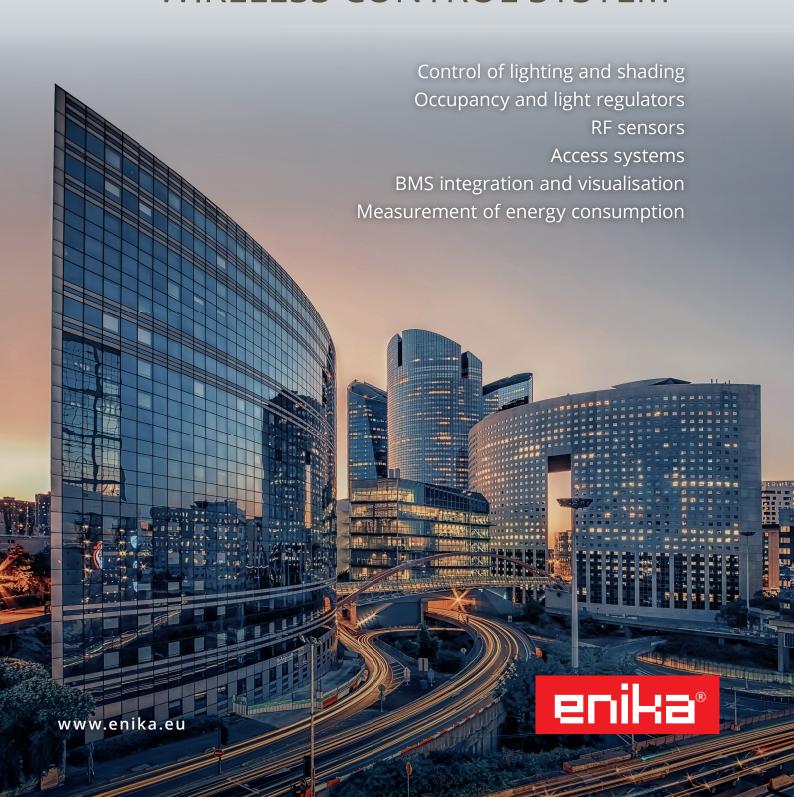


### WIRELESS CONTROL SYSTEM





Welcome to the world of ENIKA.CZ – where innovation, quality, and decades of tradition converge to deliver exceptional solutions in installation electronics. Since 1990, we have grown into a leading manufacturer of control and wireless management systems, backed by our in-house development, testing center, and state-of-the-art production facilities.

**ENIKA.CZ** is a leading manufacturer of installation electronics and control systems, equipped with our own R&D, testing, and production facilities. With over 35 years of experience in developing and producing lighting and shading control systems, we serve a diverse range of applications, including offices, administrative buildings, manufacturing halls, warehouses, and logistics centers.

Our building automation solutions also feature wireless sensors and gateways, facilitating seamless integration and visual control development. Drawing on our expertise in control systems and wireless radio technology, we custom-design and deliver a wide array of OEM solutions for national and international clients. These include manufacturers of LED lighting, HVAC systems, sliding doors, wall-mounted switches, and window blinds.

Our success is driven by our dedicated team of employees, whose knowledge, expertise, and passion for innovation continually enhance the value of the solutions we provide. Additionally, our commitment to high quality and a robust infrastructure, ensuring seamless business

processes and services, forms the foundation of our ongoing development. Our goal is to be a reliable partner and agile innovator, delivering efficient, user-centered solutions.

Since 1990, ENIKA.CZ has expanded its dealership activities, representing a wide range of international manufacturers in lighting, industrial automation, and electromechanical components. Our customer base consists primarily of top electrical contractors and specialized wholesalers across the Czech and Slovak markets.

In 2012, we significantly enhanced our production and development capacities with the opening of a new, state-of-the-art production and administrative center spanning over 5,500 m². The building showcases ENIKA. CZ-developed technologies, including smart electrical installations for lighting, heating, and window blinds control. Not only does it offer a comfortable working environment for our employees, but it also generates substantial energy savings.

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- basic
- general-purpose
- exclusive

- basic
- general-purpose
- exclusive



Wireless lighting and shading control system for building automation

Control the world around you in a modern and effective way.

Experience our solution for lighting control of your lighting systems in production halls, warehouses, logistic centers or at your offices.

Enjoy the comfort and flexibility of control, increased safety and well-being of users and energy costs savings.

Use Poseidon® wireless sensors and control system for lighting control and building automation.

# Control the world around you in a modern and effective way.

Poseidon® is a user-friendly and energy-saving solution for wireless lighting control within building automation systems. It is designed so as to be compatible and integrable into the higher-level systems of building automation as much as possible.

Poseidon® can be operated with lighting systems composed of all common types of light fittings such as fluorescent, LED, halogen, incandescent, and discharge lamps.



Poseidon® is easy to extend, and can be used to control the lighting, for example, in one office, of a particular floor or even of the entire building. It brings energy costs savings which may, in certain cases, even exceed 70 %.

Poseidon® is environmentally friendly and offers investors an interesting solution for the certification of sustainable buildings acc. to LEED and BREEAM. The Poseidon® Asistent software allows comfortable configuration, remote administration and changes in lighting control depending on the requirements of users and owners of buildings.

### Poseidon® 868 MHz

### Wireless lighting and shading control system



#### **TRANSMITTERS**

allow the user to control electronic systems. Pressing the respective pushbutton generates a command to be sent to the connected receiver that will subsequently perform the desired operation, e.g. it will turn on the light or close the louver. Commands from the transmitter are sent using proprietary wireless protocol Poseidon®.

- Easy to install using double-sided adhesive tape
- Range 150 m in open area
- Battery life 10 years
- Smart design
- Signalisation of the command received
- Easy to integrate into other systems

#### **RECEIVERS**

are connected to the power circuit of electronic systems and used for their direct on/off switching, dimming or controlling. The receivers receive commands from transmitters or sensors via the Poseidon® proprietary wireless protocol.

- Extended functionality using Poseidon® Asistent software
- Suitable for switching of all kinds of load
- It can be used as a signal repeater
- Easy to set
- Possibility of external antenna connection
- Compact dimensions

#### **SENSORS**

send the current information on the temperature, humidity, CO<sub>2</sub> concetration, lighting and presence of persons using proprietary wireless protocol Poseidon® to the higher-level system for further processing.

### Lighting control

TRANSMITTER - RECEIVER - SENSOR

# Integration of the lighting control into the building automation system

TRANSMITTER - RECEIVER - SENSOR - INTERFACE TCP/IP



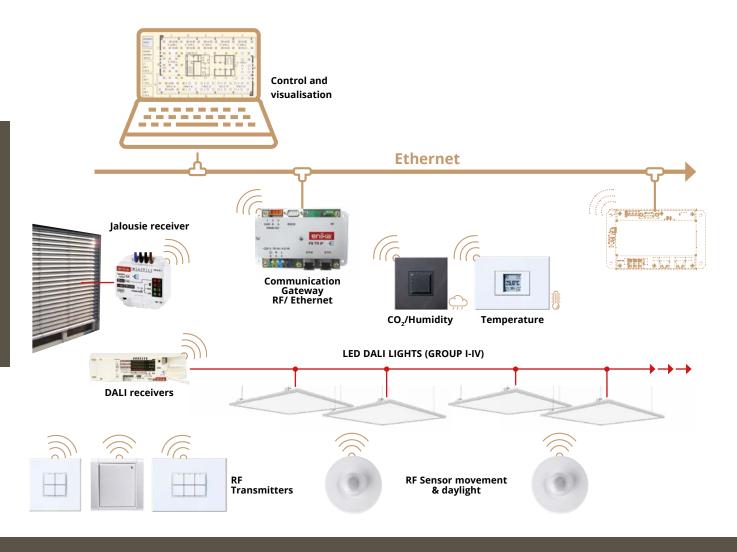






#### INTERFACE

is used for the communication between Poseidon® components and a building management system.



### How does the system work? A Poseidon® Office case study

The office is equipped with a lighting control consisting of a presence detector, a wall-mounted transmitter and receivers with DALI outputs. Each light fitting is controlled separately because of the requirement for subsequent simple changes in the interior layout.

A person entering the room switches the light on using either wall-mounted or mobile transmitters. The occupancy and light regulator will maintain the level of artificial lighting at a set level depending on the intensity of natural light. If nobody is present in the monitored area, the device will automatically switch off the lighting. This is to ensure that no light fitting is turned on unnecessarily.

Temperature transmitters provide the information on current temperatures in the office via Ethernet interface for measurement and control systems.

The roller shutter receiver can be controlled using a wall-mounted transmitter (either locally or centrally) or via Ethernet interface as required by the measurement and control system.

The control of interior lighting depending on the daylight intensity is the most advanced way of lighting control. In this way up to 70 % of energy needed for the operation of light fittings can be saved.

#### SYSTEM CONFIGURATION AND ADMINISTRATION

For convenient settings and making any changes, you can use the Poseidon® Asistent configuration software which communicates with all system components via Ethernet interface or universal USB transmitter.



wall-mounted | mobile | I/O | analogue values

Wireless controllers are designed so as to meet the needs of users. Great emphasis is placed on ergonomics, mutual compatibility and ability to combine both shapes and colours of transmitters and frames. Building administrators, system integrators and electrical fitters will appreciate the ease of installation, flexible deployment in the interior and traditionally excellent technical parameters – long battery life and long signal range. Poseidon® transmitters present a reliable assistant to control the lighting, louvers and roller shutters, air-conditioning, heating, or access to the buildings.



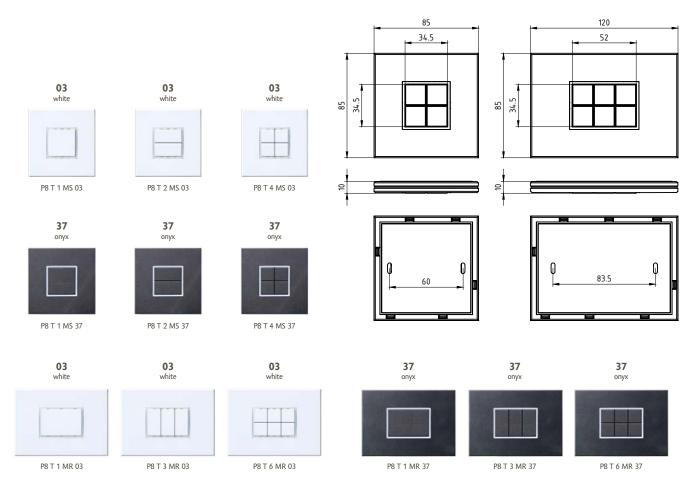
### P8 T \_ MS, P8 T \_ MR

### Wall mounted 1-, 2-, 4- (1-, 3-, 6-) channel transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

With its low profile and sleek modern design we are pleased to offer this new wall-mounted transmitter from the Maurito® series.

Power supply	3 V CR2450
Number of channels	1, 2 or 4 (1, 3 or 6)
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g (MS), 85 g (MR)
Operating frequency	868 MHz
Range	up to 150 m (open area)





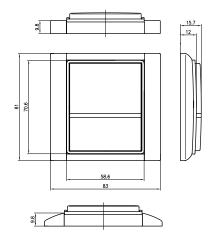


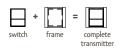
### P8 T 2 Time, P8 T 2 Element 2-channel wall-mounted transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

Design is the main advantage of the Time and Element transmitters. The transmitter design matches the classic ABB switch range. It can be used alone or in multiple frames and the color versions can be combined as desired. It is designed to control up to two appliances. The frame is not included in the package.

Power supply	3 V CR2430
Number of channels	2
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g
Operating frequency	868 MHz
Range	up to 150 m (open area)









3901F-A00110 03

03



3901F-A00110 08

04



3901F-A00110 32



P8 T 2 Time 33

3901F-A00110 33





P8 T 2 Time 34 3901F-A00110 34



EMENT







3901E-A00110 03

3901E-A00110 04



### P8 T 2 Levit

### 2-channel wall-mounted transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

A completely new design range that features an interesting appearance and is available in many colour hues. It can be used separately or in multiple frames and in any colour combinations. It is designed to control up to two appliances.

The frame is not included in the package.

Power supply	3 V CR2430
Number of channels	2
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g
Operating frequency	868 MHz
Range	up to 150 m (open area)



### P8 T 4 Time, P8 T 4 Element 4-channel wall-mounted transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

32

P8 T4 Time 32

33

P8 T4 Time 33

3901F-A00110 33

34

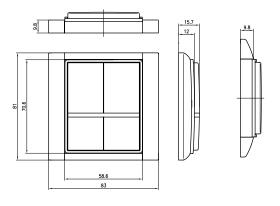
P8 T4 Time 34

3901F-A00110 34

Design is the main advantage of the Time and Element transmitters. The transmitter design matches the classic ABB switch range. It can be used alone or in multiple frames and the color versions can be combined as desired. It is designed to control up to two appliances.

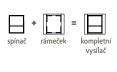
The frame is not included in the package.

Power supply	3 V CR2430
Number of channels	4
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g
Operating frequency	868 MHz
Range	up to 150 m (open area)



36

P8 T 4 Time 36 3901F-A00110 36







### P8 T 4 Levit

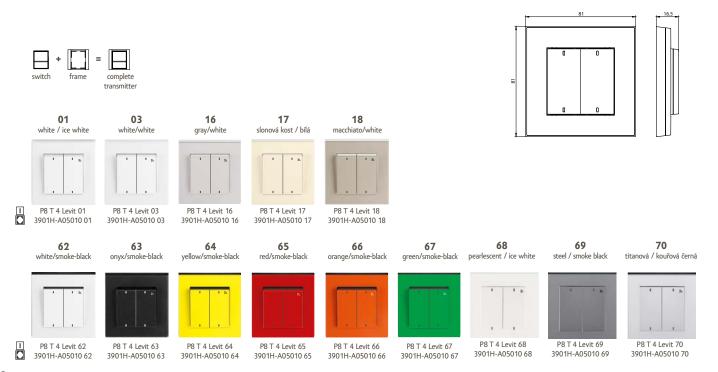
### 4-channel wall-mounted transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

A completely new design range that features an interesting appearance and is available in many colour hues. It can be used separately or in multiple frames and in any colour combinations. It is designed to control up to four appliances.

The frame is not included in the package.

Power supply	3 V CR2430
Number of channels	4
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g
Operating frequency	868 MHz
Range	up to 150 m (open area)



### P8 T 4 NS, P8 T 8 NS

### 4-, 8- channel wall-mounted transmitter Poseidon®

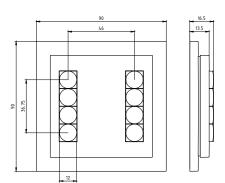
easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

Simple universal design of wall-mounted transmitter with a central area for custom printing. It can be used for controlling of up to eight appliances.

The transmitter can be fixed on the electrical installation box or on any place by the double side adhesive tape.

	P8 T 4 NS	P8 T 8 NS	
Power supply	3 V CR2430		
Number of channels	4	8	
Protection	IP 20 acc to EN 60529		
Operating temperature	-20 to +55 °C		
Weight	75 g		
Operating frequency	868 MHz		
Range	up to 150 m (open area)		







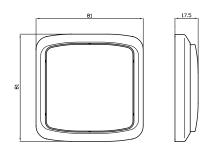
### P8 T 4 Tango 4-channel wall-mounted transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

A classic design. Tango combines the very best features, i.e. design tried and tested by generations, excellent ergonomics, and a variety of features. Thanks to these characteristics and classic colours, it will easily become an integral part of any interior. Suitable for control of up to four appliances.

The frame	is n	ot inc	luded i	in 1	the	packag	e.

Power supply	3 V CR2450
Number of channels	4
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	60 g
Operating frequency	868 MHz
Range	up to 150 m (open area)







### P8 T 1 Disc, P8 T 1 Uni

### 1-channel mobile transmitter Poseidon®

range up to 150 m | compatible with Poseidon® | battery life 10 years

#### P8 T 1 Disc

The Disc transmitter is well suited for use in harsh conditions; it is equipped with an IP65 case. The transmitter is protected from dust, spraying water and mechanical damage.

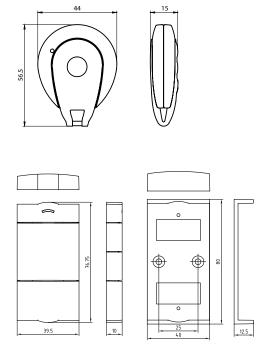
So it will become a useful device during movement outdoors or wherever a higher resilience is required.

#### P8 T 1 Uni

As dynamic as your world. Thanks to its wall-mounted holder, the UNI transmitter has its firm place in interiors; but you can remove it at any time and start using it as a mobile controller. By doing so you get a versatile device with smart appearance that combines the very best of wall-mounted and portable controllers.

	P8 T 1 Disc	P8 T 1 Uni	
Power supply	3 V CR1632	3 V CR2430	
Number of channels	1		
Protection	IP65	IP20	
Operating temperature	-20 to +55 °C		
Weight	16 g	24 g	
Operating frequency	868 MHz		
Range	up to 150 m (open area)		







## P8 T 2 Alien, P8 T 2 Key, P8 T 2 Disc, P8 T 2 Uni 2-channel mobile transmitter Poseidon®

range up to 150 m | compatible with Poseidon® | battery life 10 years

#### P8 T 2 Alien, P8 T 2 Key

Stylish transmitters with an unusual appearance for those who go their own way. The case featuring an ergonomic design without sharp edges does not obstruct at all, e.g. in your pocket, and is specifically adapted so as to be put on a keyring.

#### P8 T 2 Disc

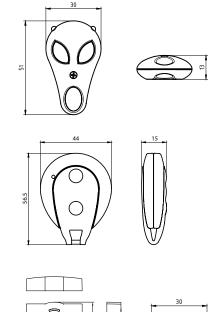
The Disc transmitter is well suited for use in harsh conditions; it is equipped with an IP65 case. The transmitter is protected from dust, spraying water and mechanical damage. So, it will become a useful device during the movement outdoors or wherever a higher resistance is required.

#### P8 T 2 Uni

As dynamic as your world. Thanks to its wall-mounted holder, the UNI transmitter has its firm place in interiors; but you can remove it any time and start using it as a mobile controller.

By doing so, you get a versatile device with smart appearance that combines the very best of wall-mounted and portable controllers.

	P8 T2 Alien P8 T 2 Key	P8 T2 Disc	P8 T 2 Uni	
Power supply	3 V CR1632		3 V CR2430	
Number of channels	2			
Protection	IP20 IP65		IP20	
Operating temperature	-20 to +55 °C			
Weight	10 g	16 g	24 g	
Operating frequency	868 MHz			
Range	up to 150 m (open area)			







### P8 T 3 Disc, P8 T 3 Uni 3-channel mobile transmitter Poseidon®

range up to 150 m | compatible with Poseidon® | battery life 10 years

#### P8 T 3 Disc

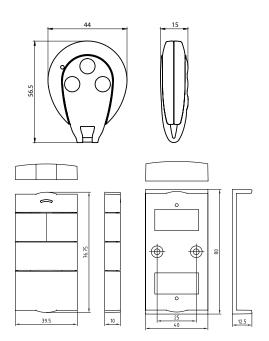
The Disc transmitter is well suited for use in harsh conditions; it is equipped with an IP65 case. The transmitter is protected from dust, spraying water and mechanical damage. So it will become a useful device during movement outdoors or wherever a higher resilience is required.

#### P8 T 3 Uni

As dynamic as your world. Thanks to its wall-mounted holder, the UNI transmitter has its firm place in interiors; but you can remove it at any time and start using it as a mobile controller. By doing so you get a versatile device with smart appearance that combines the very best of wall-mounted and portable controllers.

	P8 T 3 Disc	P8 T 3 Uni		
Power supply	3 V CR1632	3 V CR2430		
Number of channels	3			
Protection	IP65	IP20		
Operating temperature	-20 to +55 °C			
Weight	16 g	24 g		
Operating frequency	868 MHz			
Range	up to 150 m (open area)			







### P8 T 4 Cross, P8 T 4a Cobra, P8 T 4 Disc, P8 T 4 Uni Mobile 4-channel transmitter Poseidon®

range up to 150 m | compatible with Poseidon® | battery life 10 years

#### P8 T 4 Cross

Minimum size for maximum number of functions.

Control 4 separate circuits intuitively, with one finger using the cross button. You will appreciate in particular the compact dimensions, possibility of having it hung on the keyring, and rounded edges. Ideally suited for carrying in a pocket and controlling of garage doors, gates and other access systems.

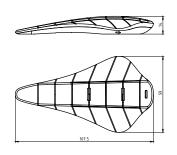
#### P8 T 4a Cobra

Be enchanted by its unique design. Cobra will ensure control of up to 4 different circuits. Control the outdoor or indoor lighting or louvers. Control the world around you in a stylish and confident way. The mobile transmitter Cobra is equipped with a visual confirmation of the receipt of the command sent.

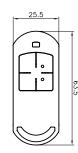
#### P8 T 4 Disc

P8 T 4 Uni

	P8 T4 Cross	P8 T4 Disc	P8 T 4 Uni	P8 T 4 Cobra	
Power supply	3 V CR1632		3 V CR2430	3 V CR2450	
Number of channels	4				
Protection	IP20	IP65	IP20		
Operating temperature	−20 to +55 °C				
Weight	10 g	10 g 16 g 24 g			
Operating frequency	868 MHz				
Range	up to 150 m (open area)				

















P8 T 4 Disc



P8 T 4 UNI

www.enika.eu



MT8 holder

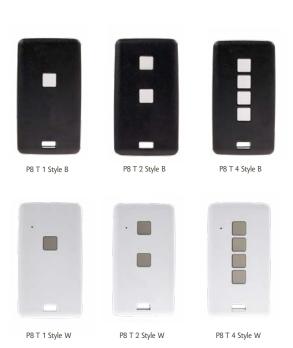
### P8 T \_ STYLE

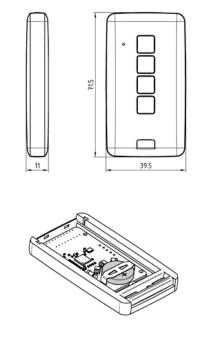
### Poseidon® – mobile 1-, 2-, 4-channel transmitter

range up to 150 m | Compatible with Poseidon® receivers | Battery life 10 years

A modern and stylish remote control with a polished chrome metal side, providing an exclusive look. Its rounded edges offer comfortable handling. A green LED ensures indication of the transmitted signal. It comes with a practical clip for attachment to a keyring. Additionally, there is an option to purchase a wall holder, making it a versatile tool that combines the best features of wall-mounted and mobile controllers.

Power supply	CR1632 3V lithium	
Number of channels	1, 2, 4	
Battery life	10 years	
Protection	IP 20 according to CSN EN 60529	
Operating temperature	-20 ÷ +55 °C	
Weight	55 g	
Operating frequency	868.3 MHz	
Dimensions	40 × 72 × 11 mm	
Range	up to 150 m (in open space)	





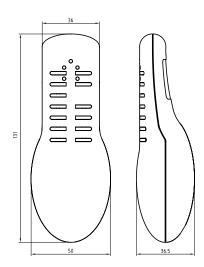


### P8 T 4 × 8a Multiple channel mobile transmitter Poseidon®

signalisation of commands received | range up to 150 m | compatible with Poseidon® | battery life 10 years

The greatest number of functions in one controller. Thanks to the controller divided into eight control channels in four groups, you can keep control over a larger number of electrical appliances. Thanks to the ergonomic design, it fits perfectly in your hand.

Power supply	3V CR2450 lithium	
Number of channels	16 (ON-OFF + CENTRAL OFF)	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Weight	50 g	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	







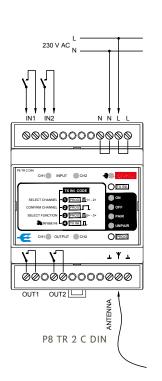
### P8 TR 2C DIN, P8 TR 2U DIN

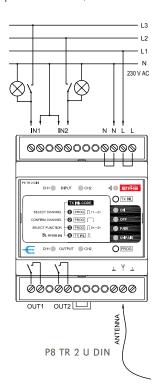
### 2-channel transmitter of input information Poseidon®

easy to install | range up to 150 m | DIN rail | signal receipt confirmation | external antennas

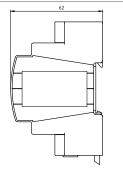
It offers a completely unique solution for transmitting the input information (e.g. ripple control signal). In practical terms it is a receiver and transmitter all-in-one. If an input is closed on the transmitting side, this information will be sent, and the other device on the receiving side will evaluate it and close the respective output. Two-way communication between both the devices is ensured, which provides a maximum transmission reliability. This feature allows, among other things, a feedback signalling of the state of the equipment being controlled.

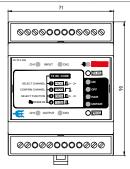
When the transmitter signal is lost, it is possible to define the output state on the receiving side. This will ensure the maximum reliability of connection, e.g. in the applications such as monitoring the maximum value, control of pumps in waterworks, etc.





	P8 TR 2C DIN P8 TR 2U DIN	P8 TR 2C DIN>24V
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %
Inputs: P8 TR 2C DIN		
Loop current	max. 5 mA	
Open loop voltage	12 V	
Circuit impedance for - "NC" state - "NO" state	max. 1 kΩ min. 5 kΩ	
P8 TR 2U DIN		
Input voltage range for - "NC" state - "NO" state	180 to 250 V, 50 Hz 0 to 30 V, 50 Hz	
Input impedance:	48 kΩ	
	250 V 50 Hz	
Mavierus avitabies saves	750 W for conventional bulbs	
Maximum switching power	500 VA for halogen bulbs with transformer	
	350 VA for uncorrected fluorescent lamps	
Switching elements	relay	
Insulation distance between to	erminals	
N+L<>ANT<>IN1+IN2 <>OUT1+OUT2	min. 6.5 mm (P8 TR 2C DIN)	
N+L<>ANT<>IN1<>IN2 <>OUT1+OUT2	min. 6.5 mm (P8 TR 2U DIN)	
OUT1<>OUT2	min. 3 mm	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Dimensions	4 M	
Weight	100 g	
Connection terminals	screw-type, max. 2.5 mm	n²
Receiver operating frequency	868 MHz	
Range	up to 150 m (open area)	
	be connected	







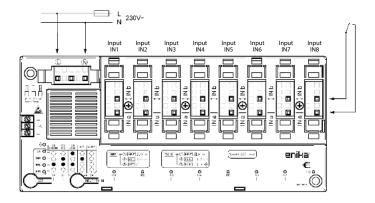
### P8 T 8C S

### Poseidon® 8-channel contact status transmitter

easy installation | range up to 150 m | ceiling-mounted installation | external antennas connection

It offers a unique solution for transmitting input information (contact status). When the input on the transmitting side is activated, this information is transmitted, and the second device on the receiving end evaluates this information and activates the corresponding output. In case of signal loss from the transmitter, it is possible to define the output status on the receiving end. This ensures maximum reliability of the connection, for example, in applications such as window contact monitoring, maximum monitoring, pump control in waterworks, etc.

Number of channels	8	
Supply voltage	230 V ±10 % 50 Hz	
Inputs		
Loop current	max. 10 mA	
Open loop voltage	12 V	
Circuit impedance for ON state	max. 1 kΩ	
Circuit impedance for OFF state	min. 10 kΩ	
Protection level	IP20 according to CSN EN	
	60529	
Operating temperature	-20 ÷ +55 °C	
Dimensions	226 × 100 × 42 mm	
Weight	365 g	
Screwless terminals	0.5 mm <sup>2</sup> + 1.5 mm <sup>2</sup>	
Operating frequency	868.3 MHz	
Range	up to 150 m (in open space)	
Number of codes	224	



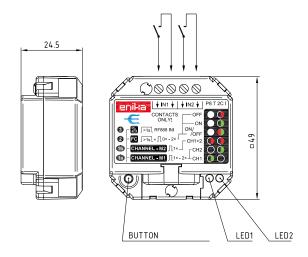


### P8 T 2C I Universal built-in transmitter Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | battery life 10 years

The battery powered universal built-in transmitter is designed for installation in a junction box. It is available in a dual-channel design. You can change your existing switch to a wireless one very easily. Alternatively, it can be used to transmit the information on the state of a sensor, pushbutton, etc. without an external power supply.

Power supply	3 V CR2032 lithium
Number of channels	2
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	50 g including battery
Operating frequency	868 MHz
Range	up to 150 m (open area)





### P8 T 2AN DIN

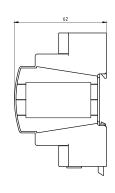
### 2-channel transmitter of analogue values Poseidon®

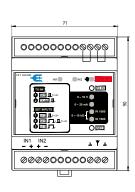
easy to set up | DIN rail mounted | possibility to connect external antenna

It is designed for a DIN rail mounting. When connected with a suitable receiver it is used for a wireless transmission of information on the size of the analogue values of the connected voltage or current source or resistance temperature detectors (RTD). The analogue values can be also transmitted in conversion to the 0 - 100 % range, or as the output of the comparator in the ON/OFF format.

	230 V AC N .	N N L L
	000000	00000
	PR T 204 CDF	0-10 ×0 P 1000 0-10 ×0 SST1
	IN1 IN2 - + + -	т ¥ т
	000000	00000
Pt 1000		AERIAL

	P8 T 2AN DIN	P8 T 2AN DIN>24V	
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %	
Preset input range	0 - 10 V		
input resistance	20 kΩ		
Preset input range	0 - 20 mA		
input resistance	100 Ω	100 Ω	
Preset input range	0 – 10 kΩ		
measuring current	max. 1 mA		
Preset input ranges	Pt 1000 (Tk 3850)		
range of measurement	-50 to +250 °C		
User-defined ranges	Nt 1000 (Tk 6180)		
range of measurement	-50 to +150 °C		
Insulation distances between terminals N+L<> IN1+IN2	min. 6.5 mm		
Protection	IP20 acc. to EN 60529		
Operating temperature	-20 to +55 °C		
External dimensions	90 × 71 × 58 mm		
Weight	100 g		
Connection terminals	screw-type, max. 2.5 mm <sup>2</sup>		
Operating frequency	868 MHz		
Signal range with the supplied antenna	150 m (open area)		







# P8 T Keyboard Transmitting keyboard Poseidon®

high ingress protection IP65 | up to 10 000 transmitting channels | range up to 150 m | battery life more than 10 years

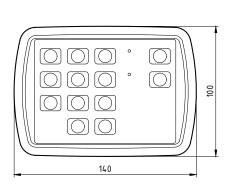
The keyboard is used to control Poseidon® receivers. It is possible to lay or to stick the keyboard on a suitable area. Thanks to the power supply from a battery it can be used as a mobile transmitter. The keyboard can work in a direct transmission mode (single button) or as a transmitter of numerical codes (multi button).

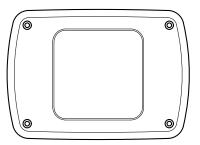
Power supply	2× 1,5 V, lithium AA
Number of channels	13 (single button mode), 0 – 9999 (multi button mode)
Protection	IP65 acc. to EN 60 529
Operating temperature	-20 to +55 °C
Weight	200 g
Operating frequency	868 MHz
Range	up to 150 m (open area)

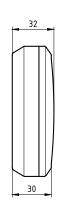


P8 T Keyboard









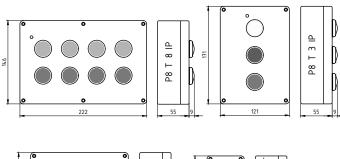


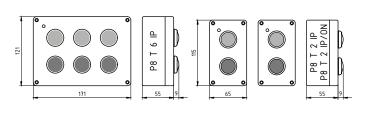
### P8 T \_ IP 2, 3, 4, 6, 8-channel mobile transmitter Poseidon®

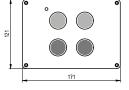
large buttons | battery life 10 years | compatible with Poseidon® | range up to 150 m

The transmitter is designed to provide comfortable and reliable control in demanding, especially industrial environments. The large buttons can be easily operated even while wearing protective gloves. The IP65 box provides excellent mechanical protection against dust, water and dirt. The offer also includes the P8 T 4 IP/VCT, P8 T 4 IP/LOCK and P8 T 2x4 IP/LOCK variants, which have transmission deactivated in the OFF key position and therefore the transmitter does not respond to pressing any button.

Power supply	3 V CR2450 lithium
Number of channels	2, 3, 4, 6, 8
Protection	IP65 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	190, 350, 370, 540 g
Operating frequency	868 MHz
Range	150 m (open area)





















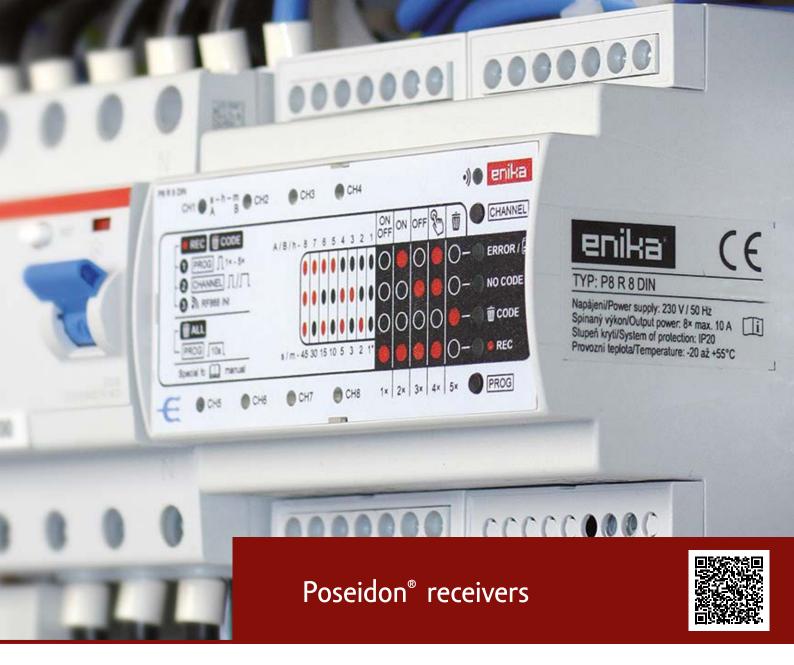


P8 T 2 IP P8 T 3 IP

P8 T 4 IP

P8 T 6 IP

P8 T 8 IP

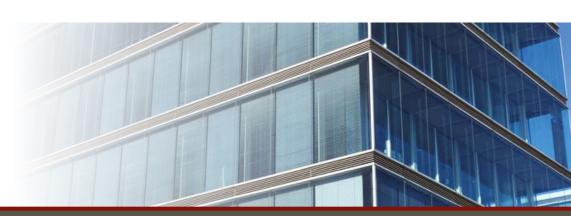


relay | jalousie | analoque | DALI

Poseidon® receivers represent actuating units (actuators) of the wiring system that are connected to the power circuit and directly control the connected light fitting, louver motor or other electrical systems. The receivers are controlled by transmitters and sensors.

In order to communicate one to another, they use the proprietary communication protocol at a frequency of 868 MHz which is characterised by high speed of message transmission and high level of security. The Poseidon® receivers offer standard functions, i.e. ON, OFF, ON/OFF, dimming 1-10 V/0-10 V and DALI, control using timers and time tags, and fine positioning of louver slats, as well.





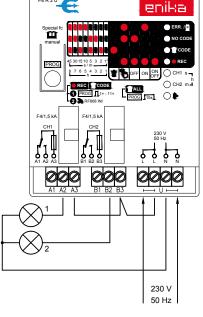
### P8 R 2 U

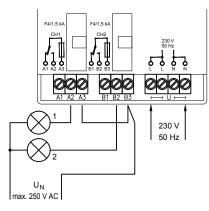
### 2-channel universal surface mounted receiver Poseidon®

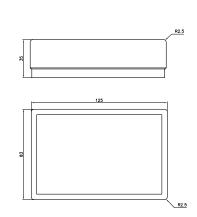
easy to set | suitable for switching of all kinds of load | easy to set | RF signal repeater

It is designed for mounting on the wall onto a standard junction box (KU68). It is used to control of two independent circuits using a relay with changeover contacts. In addition to normal functions (ON, OFF, Timer, Push), it can also be used as a signal repeater.

	P8 R 2 U	P8 R 2 U>24V
Power supply	230 V ±10 % 50 Hz	24 V= ±20 %
	750 W (incandescent lamps, halogen lamps)	
Max. switching power	500 VA (inductive loads, eletronic ballasts	
	350 VA / 64 μF (fl	uorescent tubes)
	300 W (compact fluorescent lamps, compact LED lamps)*	
Switching elements	relay with changeover contacts	
Number of channels	2	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	F 4/1500 A 250 V	
Connection terminals	screw-type, max. 2.5 mm <sup>2</sup>	
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open area)	
Maximum number of codes stored in the memory	32	
* a maximum of 20 bulbs of	an be connected	







### P8 R 2 DIN

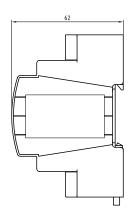
### 2-channel universal receiver Poseidon®

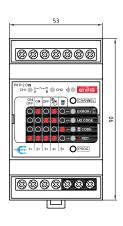
easy to setup | control by a large number of transmitters | external antenna connection | RF signal repeater

A module-type receiver for easy installation in switchboards with two output channels. In addition to conventional functions, it can also be used as a signal repeater. So, it is well suited when a request to extend the number of control circuits occurs or wherever the propagation of RF signals is a problem. For more complicated installations, it can be configured using the configuration software the Poseidon® Asistent.

L 230 V AC
A1 A2 A3 B1 B2 B3
'/- '\\$230 V AC\$
P8 R 2 DIN CH1
ON OFF CHANNEL
ERROR /
- NO CODE
□—@1code
- REC
1× 2× 3× 4× 5× OPROG
2\
C1 C2 C3 D1 D2 D3
† <b>,</b> — \
(X)
AERIA /
THE CONTACTS ARE SHOWN IN IDLE STATE
IN IDLE STATE

	P8 R 2 DIN	P8 R 2 DIN>24V	
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %	
	2300 W (incandescent lamps, halogen lamps)		
Max. switching power	1750 VA (inductive loads, eletronic ballasts		
	500 VA / 64 μF (flu	500 VA / 64 μF (fluorescent tubes)	
	400 W (compact fluorescent lamps, compact LED lamps)*		
Power dissipation	max. 2,5 W		
Number of channels	2		
Protection	IP20 acc. to EN 60529		
Operating temperature	-20 to +55 °C		
Output protection	external (max. 16 A) per group of contacts		
Dimensions	3 M		
Weight	100 g		
Terminal blocks	screw-type, max. 4 mm <sup>2</sup>		
Operating frequency	868 MHz		
Range with the supplied antenna	up to 150 m (open area)		
Maximum number of codes stored in the memory	32		
* a maximum of 20 bulbs can be connected			







### P8 R 4 DIN

### 4-channel universal receiver Poseidon®

easy to setup | suitable for switching of all kinds of load | external antenna connection | RF signal repeater

A module-type receiver for easy installation in switchboards with four output channels. In addition to conventional functions, it can also be used as a signal repeater. So it is well suited when a request to extend the number of control circuits occurs or wherever the propagation of RF signals is a problem.

L 230 V AC
A1 A2 A3 A4 B1 B2 B3 B4
888888888
/1 /2 N <sub>230 V A C<sup>L</sup></sub>
PBR4DN CH1 A-h-m B CH2 CH3 CH4 CH4
TREE COOR    FORM   PARKET   P
1× 2× 3× 4× 5× ○ PROG
3 4/ 1 4
C1 C2 C3 C4 D1 D2 D3
ANTENNA
THE CONTACTS ARE SHOWN IN IDLE STATE

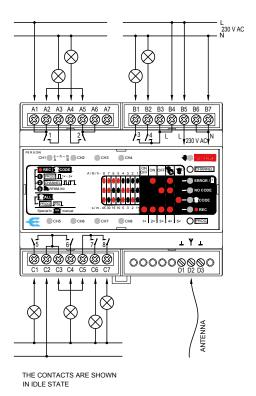
	P8 R 4 DIN	P8 R 4 DIN>24V
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %
Max. switching power	2300 W (incandesco	ent lamps,
	1750 VA (inductive ballasts	loads, eletronic
	500 VA / 64 μF (flu	orescent tubes)
	400 W (compact flu	
Power dissipation	max. 3,5 W	
Number of channels	4	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	external (max. 16 A contacts	A) per group of
Dimensions	4 M	
Weight	270 g	
Terminal blocks	screw-type, max. 4	$mm^2$
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open	area)
Maximum number of codes stored in the memory	32	
* a maximum of 20 bulbs o	an be connected	

### **P8 8 DIN**

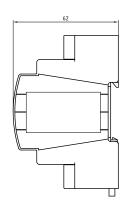
### 8-channel universal receiver Poseidon®

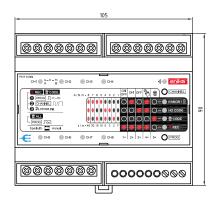
easy to setup | suitable for switching of all kinds of load | external antenna connection | RF signal repeater

A module-type receiver for easy mounting on a DIN rail enables to control eight channels and is available in a compact size. In addition to conventional functions, it can also be used as a signal repeater. It is well suited when a request to extend the number of control circuits occurs or wherever the propagation of RF signals is a problem.



	P8 R 8 DIN	P8 R 8 DIN>24V
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %
	2300 W (incandesce lamps)	nt lamps, halogen
Max. switching power	1750 VA (inductive ballasts	loads, eletronic
	500 VA / 64 μF (flu	orescent tubes)
	400 W (compact flu compact LED lamps)	
Power dissipation	max. 5,5 W	
Number of channels	8	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	external (max. 16 A) of contacts	) per group
Dimensions	6 M	
Weight	430 g	
Terminal blocks	screw-type, max. 4 i	nm²
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open a	area)
Maximum number of codes stored in the memory	32	
* a maximum of 20 bulbs of	an be connected	







### P8 R 8 E3, P8 R 8 W3

### 8-channel receiver Poseidon® to install in a suspended ceiling

easy to setup | suitable for switching of all kinds of load | external antenna connection | RF signal repeater

#### P8 R 8 E3

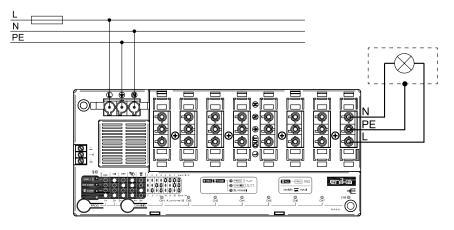
The receiver is primarily intended for applications in commercial buildings where emphasis is placed on the compatibility with Ensto-net connector system. It enables control of eight channels. It can also be used as a signal repeater or wherever the propagation of RF signal is a problem.

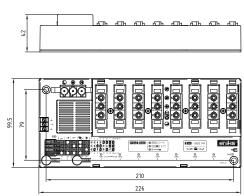
#### P8 R 8 W3

The main advantages of this receiver are reliability and compatibility with Wieland connector system. It is primarily intended for applications in commercial buildings. You can also use it as a signal repeater or wherever the propagation of RF signal is a problem.

	P8 R 8 E3	P8 R 8 W3
Power supply terminals	GST18i3LS1VSW	NAC31. W
Power supply	230 V ±10 % 50 Hz	
Output terminals	GST18I3LB1VSW NAE32V. W	
	2300 W (incande lamps)	scent lamps, halogen
Max. switching power	1750 VA (inductive loads, eletronic ballasts)	
	500 VA / 64 µF (fluorescent tubes)	
	400 W (compact	fluorescent lamps,
	compact LED lam	ps)*
Number of channels	8	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	external (max. 16 A)	
Weight	490 g	
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open area)	
Maximum number		
of codes stored	32	
in the memory		
* a maximum of 20 bulbs	can be connected	

The maximum current for all channels shall not exceed 16 A!







### P8 R 8 S3

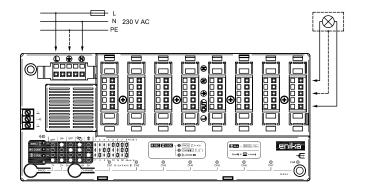
### 8-channel receiver Poseidon® to install in a suspended ceiling

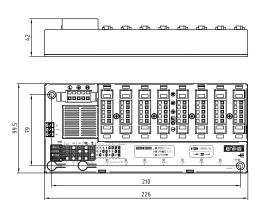
easy to setup | suitable for switching of all kinds of load | external antenna connection | RF signal repeater

The main advantages of this receiver are reliability and simple connection using screwless terminals. It is primarily intended for applications in commercial buildings. You can also use it as a signal repeater or wherever the propagation of RF signal is a problem.

Power supply	230 V ±10 % 50 Hz
Max. switching power	2300 W (incandescent lamps, halogen lamps)
	1750 VA (inductive loads, eletronic ballasts)
	500 VA / 64 µF (fluorescent tubes)
	400 W (compact fluorescent lamps, compact LED lamps)*
Number of channels	8
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Output protection	external (max. 16 A)
Weight	490 g
Screwles terminal blocks	0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range with the supplied antenna	up to 150 m (open area)
Maximum number of codes stored in the memory	32
* a maximum of 20 bulbs ca	n be connected

The total maximum current for all channels must not exceed 16 A!





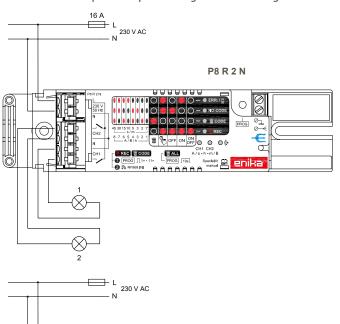


### P8 R 2 N, P8 R 2 N/K

### 2-channel built-in receiver Poseidon®

easy to setup | suitable for switching of all kinds of load | possibility of connecting an external antenna | RF signal repeater

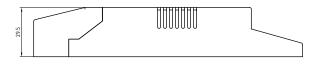
A specifically designed receiver that is suitable for installation in light fittings, suspended ceilings and whenever a confined space exists. It controls two independent circuits; thanks to applied relay types, it is suitable for switching of all kinds of load. Its advantage also rests in the possibility of having the connecting leads fixed.

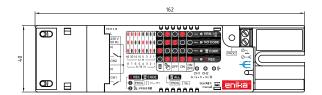


	L 230 V AC . N
	P8 R 2 N/K
1 1 2 20 W CHZ	42 001 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

	P8 R 2 N	P8 R 2 N/K
Power supply	230 V ±10 % 50 Hz	
Max. switching power	2300 W (incandescent lamps, halogen lamps) 1750 VA (inductive loads, eletronic ballasts) 500 VA / 64 µF (fluorescent tubes) 400 W (compact fluorescent lamps, compact LED lamps)*	potential-free contact
Number of channels	2	
Protection	IP20 acc. to EN 605	29
Operating temperature	−20 to +55 °C	
Output protection	external (max. 16 A	)
Weight	120 g	
Screwles terminal blocks	max. 2.5 mm <sup>2</sup>	
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open	area)
Maximum number of codes stored in the memory	32	
* a maximum of 20 bulbs	can be connected	

The total maximum current for all channels must not exceed 16 A!









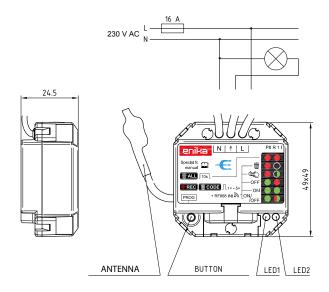
### P8 R 1 I

### 1-channel built-in receiver Poseidon®

compact sizes | suitable for switching of all kinds of load | easy to setup | RF signal repeater

Thanks to its compact size, it is designed for installation in a standard junction box (e.g. KU68). In addition to conventional functions, it can be used as a signal repeater in places with limited access where the propagation of RF signal is a problem.

Power supply	230 V ±10 % 50 Hz	
Max. switching power	2300 W (incandescent lamps,	
	halogen lamps)	
	1750 VA (inductive loads, eletronic	
	ballasts)	
	500 VA / 64 μF (fluorescent tubes)	
	400 W (compact fluorescent lamps,	
	compact LED lamps)*	
Number of channels	1	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	external (max. 16 A)	
Weight	60 g	
Connecting wires	1.5 mm <sup>2</sup> / 80 mm	
Operating frequency	868 MHz	
Range with the supplied	up to 150 m (open area)	
antenna	up to 150 iii (open area)	
Maximum number of codes	32	
stored in the memory	32	
* a maximum of 20 bulbs car	n be connected	







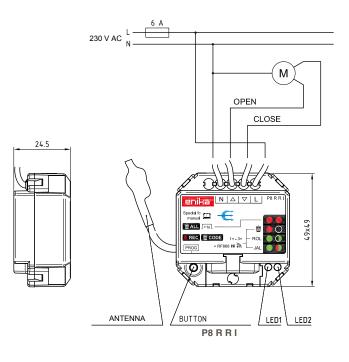
### P8 R R I, P8 R R I 24 V

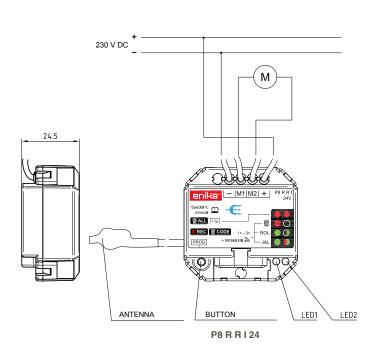
### Jalousie built-in receiver Poseidon®

compact size | fine positioning of jalousie slats | easy to setup | RF signal repeater

A universal control unit specifically designed for roller shutters or louvers. Thanks to its compact size, it is suitable for installation in a standard junction box (e.g. KU68) both for roller shutters and jalousies.

	P8 R R I	P8 R R I 24
Power supply	230 V ±10 % 50 Hz	24 V DC
Maximum switching power	230 V/3 A, coscp>0.8	24 V DC/1 A (1 mF)
Number of channels	1 motor	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Output protection	external (max. 6 A)	
Weight	60 g	
Connecting wires	0.5 mm <sup>2</sup> / 80 mm	
Operating frequency	868 MHz	
Range with the supplied antenna	up to 150 m (open area)	
Maximum number of codes stored in the memory	32	







# P8 R 4R S, P8 R 4R E, P8 R 4R W 4-channel jalousie receiver Poseidon®

easy to setup | control of jalousies, shutters and window blinds | external antenna connection | RF signal repeater

The jalousie receiver is used for remote control of up to four devices, external window blinds and jalousies. Outputs of receiver are four pairs of relays. The jalousie receiver is designed especially for suspended ceiling or built-in mounting in commercial and office buildings.

#### P8 R 4R S

Connection to the power supply as well as to the receiver outputs is done by screwless terminals.

#### P8 R 4R E

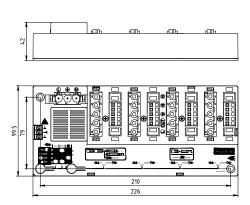
Connection to the power supply as well as to the receiver outputs is made via Ensto-net connectors.

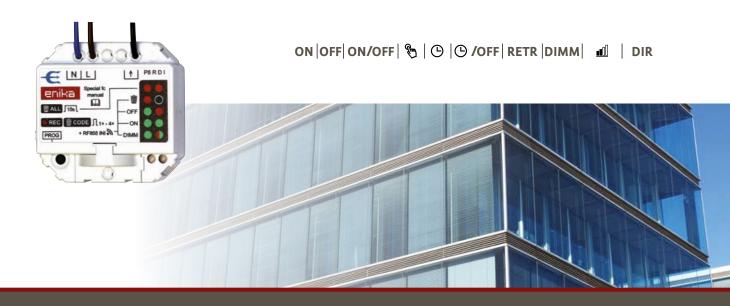
#### P8 R 4R W

Connection to the power supply as well as to the receiver outputs is made via Wieland connectors.

N 230 V AC	M
	UP DOWN

Power supply	230 V ±10 % 50 Hz
Max. switching power	6 A cos φ > 0,8
Number of channels	4× motors
Switching elements	relay
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	490 g
Connecting terminals (P8 R 4R S)	screwless 0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range	up to 150 m (open area)
Number of codes (combinations)	2 <sup>24</sup>
Maximum number of codes stored in the memory	32
Total Maximum Current	16 A





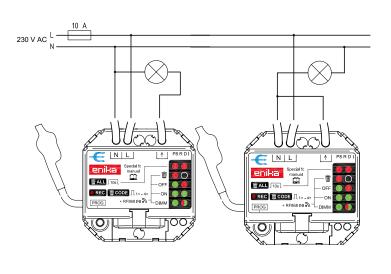
#### P8 R D I, P8 R D I/LED

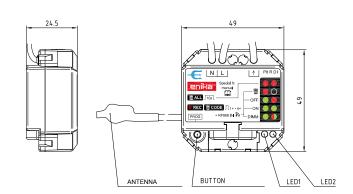
### Universal receiver Poseidon® for control of lighting

easy to setup | RF signal repeater | advanced functions using configuration software Posedion® Asistent | compatible with Poseidon®

It is possible to connect dimmable light sources including LED using two or three wires. These are the main advantages of this compact receiver that is suitable for installation directly into a standard junction box or whenever a lack of space exists.

	P8 R D I	P8 R D I/LED	
Power supply	2230 V ±10 % 50 H		
Switching power range (3-wire)	20 to 200 W resistive load, conventional bulbs, mains halogen bulbs 20 to 175 VA	3 to 40 VA dimmable LED bulbs or compact fluorescent lamps	
	electronic multipliers		
Switching power range (2-wire)	35 to 200 W resistive load, conventional bulbs, mains halogen bulbs 60 to 175 VA electronic multipliers		
Type of control	falling edge (R,C)		
Ambient tempera- ture range	-20 to +40 °C at installation in the junction box -20 to +55 °C at installation inside the switchboard		
Short-circuit fuse	electronic, reversible		
Thermal fuse	electronic, 2-step reversible, (reduction of output power, output off) drop out, non-reversible 117 °C		
Connecting wires	0,5 mm <sup>2</sup> / 80 mm		
Range with the supplied antenna	up to 150 m (open area)		







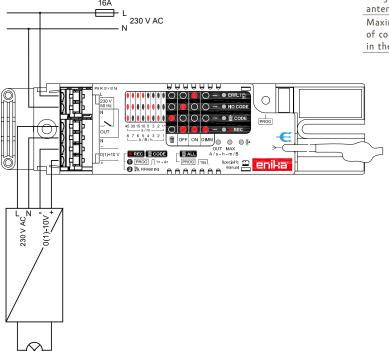
#### P8 R 01-10 N

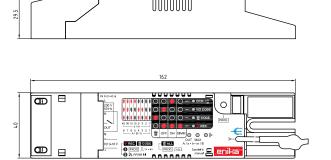
# 1-channel receiver with relay and analogue output

compatible with Poseidon® | suitable for switching of all kinds of load | easy to setup | RF signal repeater

It is designed to control dimmable ballasts by means of analogue signals 1 - 10 V, or instruments that use analogue control 0 - 10 V. It is adapted for installation in light fittings, suspended ceilings and other confined spaces.

Power supply	230 V ±10 % 50 Hz
	2300 W (incandescent lamps, halogen lamps)
	1750 VA (inductive loads, electronic ballasts)
Max. switching power	500 VA / 64µF (fluorescent tubes)
	400 W (compact fluorescent lamps, compact
	LED lamps)
Output control signal	0-10 ±0,25 V= max. 2,5 mA
	1-10 ±0,25 V= max100 mA
Number of channels	1
Protection	IP 20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Output protection	external (max. 16 A)
Weight	120 g
Screwless connection terminals	max. 2.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range with the supplied antenna	up to 150 m (open area)
Maximum number of codes stored in the memory	32







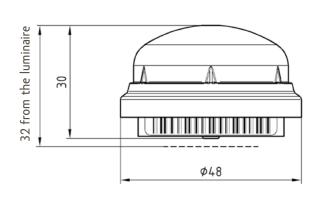
#### P8 R 0110 Z

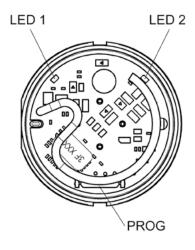
# Receiver with Zhaga ® analogue output

compatible with Poseidon® devices | easy set-up | RF signal repeater | Zhaqa connector

It is designed for controlling dimmable electronic ballasts. The receiver is housed in a plastic enclosure with a ZHAGA connector, which connects to luminaires equipped with an electronic ballast and power supply. The output signal of the receiver is a control signal of 0–10V.

12 to 24V DC ±10%, max. 0.2W
0÷10,0V ±3%, max10mA
max. 0.25V (typ. 0.07V)
IP55 according to CSN EN 60529
-20 ÷ +55°C
Ø48×30mm
27 g
ZHAGA book 18
868,3MHz ±5kHz
up to 100m (in open space)
32









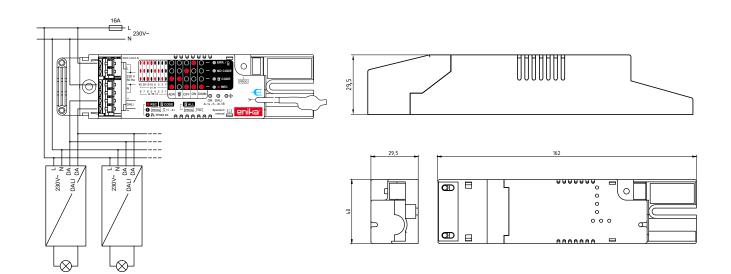
#### P8 R 4 DLA N

### Built-in receiver Poseidon® with DALI output

easy to setup | integrated power supply for DALI bus | RF signal repeater | compatible with Poseidon®

The P8 R 4 DLA N is designed to control the light fittings equipped with DALI ballasts. In basic mode, it enables control of one group of light fittings. If the Poseidon® Asistent software and P8 TR USB configuration transmitter are used, it is possible to take advantage of the DALI bus and set up to 4 separate groups of light fittings. It is adapted for installation in light fittings, suspended ceilings and other confined spaces.

Power supply	230 V ±10 % 50 Hz
DALI bus power supply	max. 20,5 V 130 mA
Output control signal	acc. to ČSN EN 62386-101 ed.2, -102 ed. 2 (DALI)
Number of controlled channels	4
Protection	IP 20 acc. to EN 60529
Operating temperature	-20 to + 55 °C
External dimensions	57 x 44 x 25 mm
Weight	90 g
Screwless connecting terminals	max. 2,5 mm <sup>2</sup>
Operationg frequency	868 MHz
Range	150 m (open area)
Maximum number of codes in the memory	50
Max. number of ballasts	64 in four groups





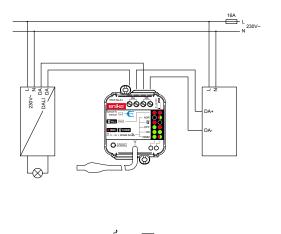
#### P8 R 4 DLA I

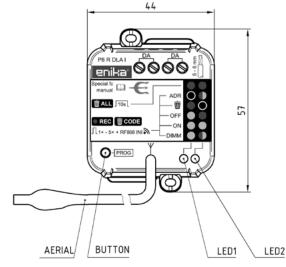
#### Receiver with DALI output, recessed

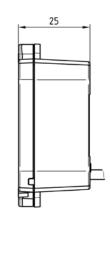
the receiver is powered by the DALI bus | RF signal repeater | small dimensions | easy set-up

It is designed for controlling dimmable DALI ballasts. The receiver is powered by the DALI bus, which can be achieved either through an external power supply or directly from the luminaire's ballast (if the ballast allows it). The device can also be used in combination with P8 R 4 DLA N, which provides power to the bus. It is suitable for integration into luminaires, ceiling grids, and other confined spaces. In basic mode, it allows control of one group of luminaires. When using SW Poseidon® Assistant and the configuration transmitter P8 TR USB it is possible to take advantage of the DALI bus and set up to 4 separate groups of luminaires.

Power supply voltage	DALI 10-22.5V max. 20 mA
Output control signal	according to CSN EN 62386-101 ed. 2, -102 ed. 2 (DALI)
Number of controlled channels	4
Protection	IP20 according to CSN EN 60529
Operating temperature	-20 až +55 °C
External dimensions	57×44×25 mm
Weight	35 g
Connecting terminals	bolts max. 2.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range	150 m (in open space)
Maximum number of codes in memory	50









#### P8 R 2 DLHCL N

DALI receiver for dimming and controlling the colour temperature of white light, recessed

integrated power supply for DALI bus | RF signal repeater | tunable white

The receiver, along with a suitable transmitter, is used for wireless remote control of the light colour temperature and brightness of luminaires connected to a DALI electronic ballast (DT8, Tc), allowing dimming and control of the colour temperature of white light (TUNABLE WHITE) via DALI communication. The receiver supports colour temperature settings ranging from 2700K to 6500K. For automatic control of the light colour temperature according to an adjustable schedule (HCL), the P8 GWA DIN interface with a suitable application version can be used as a suitable transmitter.

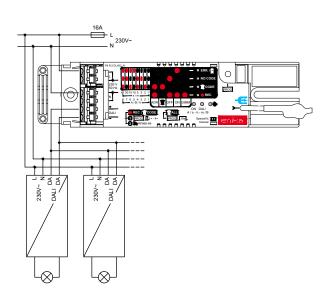
The receiver is housed in a plastic enclosure recommended for direct mounting into the luminaire.

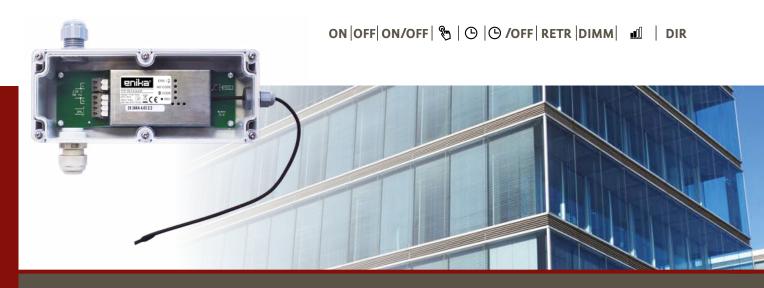
The output of the receiver consists of control commands for the DALI bus. The receiver also serves to power the bus.

In addition to wireless control of the ballast, the receiver can transmit radio signals to other receivers that are out of the transmitter's range (RETR transmission function).

29,5				
07	29,5		62 •••••••• • • • • • • • • • • • • • •	

+
230 V ±10% 50 Hz
max. 20.5 V 130 mA
according to CSN EN 62386-101
ed. 2, -102 ed. 2 (DALI)
1+1
IP20 according to CSN EN 60529
-20 až +55 °C
57×44×25 mm
90 g
bolts max. 2.5 mm <sup>2</sup>
868,3 MHz
150 m (in open space)
50
50
64 in 4 groups



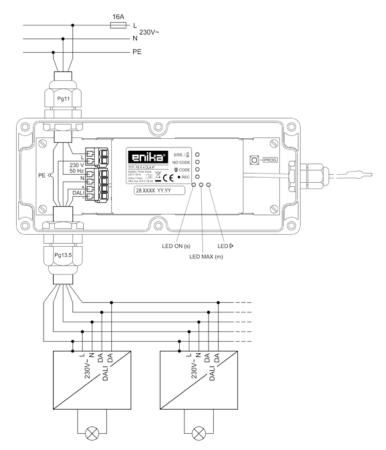


#### P8 R 4 DLA IP

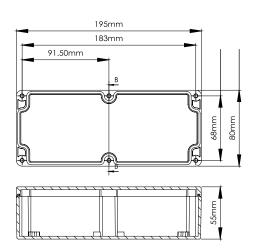
### Industrial receiver with DALI output, IP65 protection

high ingress protection IP65 | integrated power supply for DALI bus | RF signal repeater | compatible with Poseidon®

It is designed to control luminaires equipped with DALI ballasts. In the basic mode, it allows you to control one group of luminaires. By using the Poseidon Asistent software and configuration transmitter P8 TR USB, it is possible to utilise the DALI bus features and set up to 4 separate groups of luminaires. Thanks to its mechanical design, it is suitable for industrial use.



Power supply	230 V ±10 % 50 Hz
DALI bus power supply	max. 20,5 V 130 mA
Max. number of ballasts	64 in four groups
Protection	IP 65 acc. to EN 60529
Operating temperature	-20 to + 55 °C
Weight	375 g
Screwless connecting terminals	max. 2,5 mm <sup>2</sup>
Cable glands	Pg11 (ø5 to ø10 mm) + Pg13,5 (ø6 to ø12 mm)
Operationg frequency	868 MHz
Range	150 m (open area)
Maximum number of codes in the memory:	max. 32



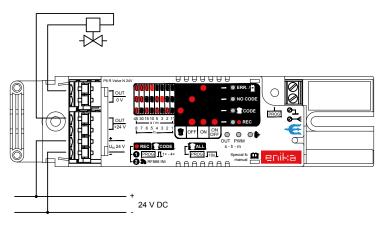
#### P8 R VALVE N 24 V

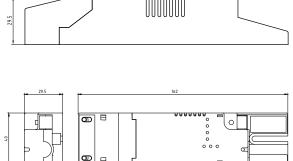
# Built-in receiver Poseidon® with PWM output

compatible with Poseidon® | to control heaters | easy to setup

It is used to control the output power of heating units. Control is performed through PWM signal of the receiver connected to the thermostatic valves.

Power supply	24 V DC ±10 %
Output	24 V DC, max. 2 A resistive load
PWM period setting range	10 sec to 2 hrs
Preset value of PWM period	10 minutes
Preset value of PWM	100 %
Protection	IP20 acc. to EN 60529
Operating temperature	-20 to +55 °C
Weight	80 g
Connection terminals	screwless type, max. 2.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range with the supplied antenna	150 m (open area)
Maximum number of codes stored in the memory	32







ceiling mounted | surface mounted | high bay | built-in

The regulation of indoor lighting depending on the amount of lighting coming into the room from outside is one of the modern ways of lighting control. The integrated movement sensor prevents unnecessary lighting in empty offices, corridors or aisles between warehouse racks. One controller allows you to simultaneously maintain two different lighting levels of two groups of light fittings. In some cases the use of controllers can save more than 70 % of the energy consumed by lighting. The advantages of Poseidon® occupancy and light regulators include: easy installation, precise system of integration into building automation systems, comfortable setting and making changes using Poseidon® Asistent software. The regulators are connected to 230 V standard mains voltage.



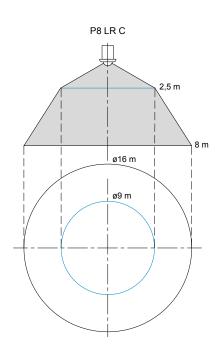
#### P8 LR C

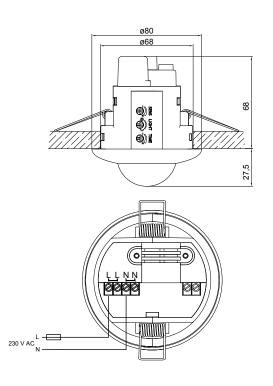
### Ceiling mounted light regulator with occupancy detector

easy to install | savings up to 70 % | movement and light sensors | flexible configuration with Poseidon® Asistent software

Motion sensor with integrated lighting regulator designed especially to control the P8 R 4 DLA N, P8 R 4 DLA I and P8 R 01-10 N receivers. The regulator smoothly controls the level of output depending on the level of external lighting. It therefore contributes to user comfort and the supervision of good working conditions, especially in larger offices, call centres, etc. There is also the possibility of integration into a superior systems (BMS, MaR). Possible to be used as a signal repeater.

Power supply	230 V ±10 % 50 Hz	
Timer settings range	about 5 sec to 105 min	
Range of ambient light influence	0.5 to 12 288 lx	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	
Max. number of codes stored in the memory	32	
Protection	IP23 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Transmitted information	presence	
	curent illumination value (lx)	
	value of the required light output of light fittings (%)	







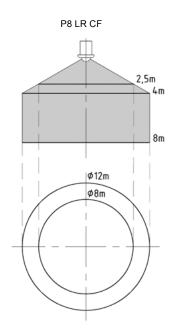
# P8 LR CF Ceiling mounted light regulator with occupancy detector

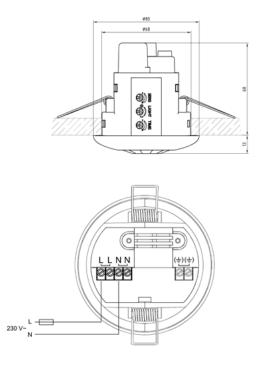
easy to install | flat lens | mounting height upto 8 m | extended functionality

Motion sensor with integrated lighting regulator designed especially to control the P8 R 4 DLA N, P8 R 4 DLA I and P8 R 01-10 N receivers. The regulator smoothly controls the level of output depending on the level of external lighting. It therefore contributes to user comfort and the supervision of good working conditions, especially in larger offices, call centres, etc. There is also the possibility of integration into a superior systems (BMS, MaR).

Possible to be used as a signal repeater. We offer several color designs and with options individual solution of custom-made color variants.

Power supply	230 V ±10 % 50 Hz	
Delayed shutdown setting range	5 sec to 105 min	
Range of ambient light influence	0.5 to 12 288 lx	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	
Max. number of codes stored in the memory	32	
Protection	IP23 acc. to ČSN EN 60529	
Operating temperature	-20 to +55 °C	
Transmitted information	presence current illumination value (lx) value of the required light output of light fittings (%)	





#### P8 LR CF DLM

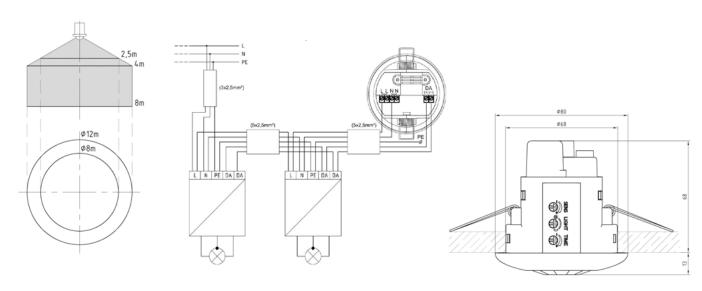
#### Lighting regulator with presence detector via DALI output, recessed

easy set-up | flat lens | controller with DALI output | extended functionality using SW

The device ensures regulation of light intensity to the desired level for up to four independent groups of luminaires. The output of the regulator consists of control commands for the DALI bus. The device also provides power to the bus. The regulator can be used in conjunction with a suitable receiver to function as a motion sensor for remote automatic touchless control.

The DALI lighting regulator is primarily designed for installation in ceiling grids. It contributes to user comfort and ensures good working conditions, especially in larger offices, call centres, etc. Integration into superior systems is possible (BMS, MaR). Signal retransmission. We offer regulators in various colour options with the possibility of individual customization upon request.

Power supply	230 V ±10% 50 Hz
Delayed switch-off range	5 s ÷ 105 min
Sensing light intensity range	0,5 ÷ 12 288 lx
Operating frequency	868,3 MHz
Range	up to 150 m in open space
Number of codes in memory	32
Protection level	IP 23 according to CSN EN 60529
Operating temperature	-20 ÷ +55 °C
Transmitted information	presence current light level value (lx) desired luminaire power value (%)
Output control signal	according to CSN EN 62386-101, -102 (DALI)
Bus power supply	max. 20,5 V, max. 65 mA
Number of controlled channels	4
Number of codes in memory	33





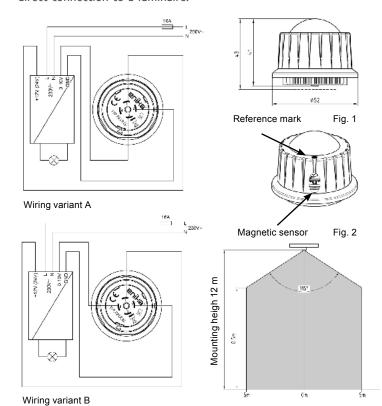
#### P8 LR ZC

#### Occupancy and light regulator with analogue output

easy to install | ZHAGA connector | 1-10V signal | extended functionality

Motion sensor with integrated lighting controller, designed primarily for direct control of electronic ballasts via a 0-10V signal. It continuously adjusts the output level based on motion detection and ambient light levels. This contributes to user comfort and ensures optimal working conditions, especially in warehouse and production hall environments.

The sensor can be integrated into higher-level systems (BMS). Signal retransmission is supported. The device is enclosed in a plastic housing with a ZHAGA connector, allowing direct connection to a luminaire.



Power supply	12 up to 24V DC ±10 %, max. 0,2W	
Output control signal:	0÷10,0V ±3 %, max10mA *	
Control signal to power off:	max. 0,5V (typ. 0,07V)	
Protection:	IP 65 according to ČSN EN 60529 **	
Operating temperature:	-20 ÷ + 55 °C	
Dimensions:	Ø52×41mm (Fig. 2)	
Connector:	ZHAGA book 18 ***	
Range:	up to 100m (in open space) ****	
Codes in memory:	max. 33	
Connector connection:	1. 12 to 24V DC 2. GND 3. Output 0–10V ***** 4. Output 0–10V *****	

- \* To achieve the required level, the sensor loads the control signal with the necessary current (max. -10mA). When the request is off (0%), the control signal is set to the off level (i.e. a value less than 0.5 V). The light requests (0.5% to 100%) are linearly converted to a control signal in the range 1.0 to 10.0V
- \*\* The specified degree of protection applies only if the receiver is properly inserted and secured in the ZHAGA connector on a luminaire that supports this type of protection.
- \*\*\* A connector according to the ZHAGA specification book 18 is used for the mechanical connection of the receiver to the lamp. The electrical connection of the wires to the connector is different from the ZHAGA specification. Therefore, the light fixture must be connected according to the diagram in Fig. 1 (Variant A or B).
- \*\*\*\* Warning! The high sensitivity of the device can cause deterioration or complete loss of connection if there is insufficient distance between the antennas of the cooperating devices (be careful, for example, when testing and setting up the devices before final assembly).
- \*\*\*\*\* The 3rd and 4th pin of the connector have the same electrical potential.



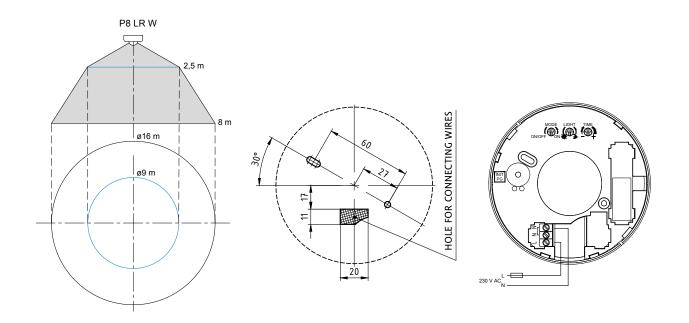
#### P8 LR W

### Surface mounted light regulator with occupancy detector

mounting height up to 8m | circular sensing characteristic | easy and fast installation | RF signal repeater

Motion sensor with integrated lighting regulator designed especially to control the P8 R 4 DLA N, P8 R 4 DLA I and P8 R 01-10 N receivers. The regulator smoothly controls the level of output depending on the level of external lighting. It therefore contributes to user comfort and the supervision of good working conditions, especially in larger offices, call centres, etc. There is also the possibility of integration into a superior systems (BMS, MaR). Possible to be used as a signal repeater.

Power supply	230 V ±10 % 50 Hz	
Timer settings range	about 5 sec to 105 min	
Range of ambient light influence	0.5 to 12 288 lx	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	
Max. number of codes stored in the memory	32	
Protection	IP23 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Transmitted information	presence	
	curent illumination value (lx)	
	value of the required light output of light fittings (%)	



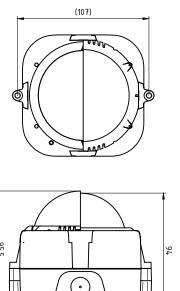


### P8 LR HL Light sensor with integrated curve regulator

easy and fast installation | IP67 protection

Industrial motion sensor with IP 67 protection and integrated curve regulator. It is designed for lighting control dependant on the contribution of daylight. The sensor can manage up to 4 sections with different settings taking into account external light and the internal power requirements. It is mainly suitable for large logistics centres and production halls, and can be integrated into superiors systems (BMS, MaR). The sensor can also be used as a signal repeater.

Power supply	230 V ±10 % 50 Hz
Range of ambient light	0.5 to 12 288 lx
Operating frequency	868 MHz
Range	up to 150 m (open area)
Max. number of codes stored in the memory	32
Protection	IP67 acc. to EN 60529
Operating temperature	-20 to +55 °C
Connection terminals	WAGO 222-412 max. 2,5 mm <sup>2</sup>
	curent illumination value (lx)
Transmitted information	value of the required light output of light fittings (%)



### P8 LR HC, P8 LR HF

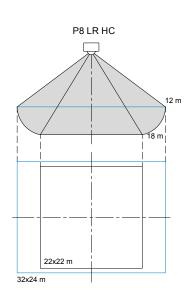
# High bay occupancy and light regulator Poseidon®

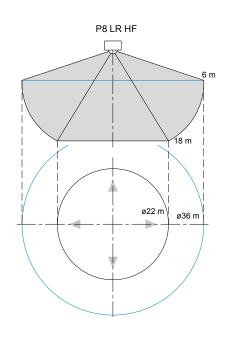
mounting height up to 18m | circular and corridor sensing characteristics | IP67 protection | RF signal repeater

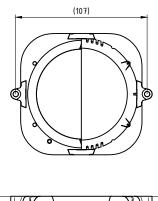
Industrial motion sensor with IP 67 protection and integrated regulator enabling feedback or curve control.

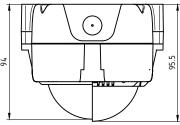
Mounting height of up to 18m. The sensor is available with circular or rectangular sensing characteristics, with the option to define a specific space by means of cover plates. Possibility of integration into superior systems (BMS, MaR).

	P8 LR HC	P8 LR HF
Monitored area	corridor	circular
Power supply	230 V ±10 % 50 Hz	
Range of ambient light	0,5 ÷ 12 288 lx	
Operating frequency	868,3 MHz	
Range	up to 150 m (open area)	
Max. number of codes stored in the memory	32	
Protection	IP67 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Connection terminals	WAGO 222-412 max. 2,5 mm <sup>2</sup>	
Transmitted information	presence	
	curent illumination value (lx)	
	value of the requi	











#### P8 LR HC DLM, P8 LR HF DLM

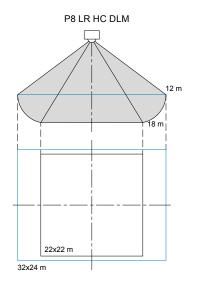
# High bay light regulator with occupancy detector

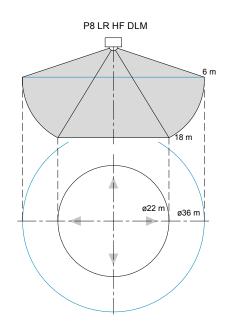
mounting height up to 18m | circular and corridor sensing characteristics | IP67 protection | DALI output | RF signal repeater

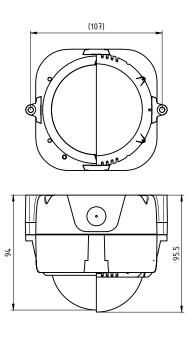
IP67 Industrial motion sensor with integrated regulator for controlling light depending on the external lighting conditions. Can be mounted at a height of up to 18 m and is available with or without DALI output.

The sensor is available with circular or rectangular sensing characteristics, with the option to define a specific space by means of cover plates. Possibility of integration into superior systems (BMS, MaR).

	P8 LR HC DLM	P8 LR HF DLM
Monitored area	corridor	circular
Output	DALI	
Max. number of ballasts	32 in four groups	
DALI bus power supply	YES	YES
Power supply	230 V ±10 % 50 Hz	
Range of ambient light influence	0,5 ÷ 12 288 lx	
Operating frequency	868,3 MHz	
Range	up to 150 m (open area)	
Max. number of codes stored in the memory	32	
Protection	IP67 acc. to EN 60529	
Operating temperature	- 20 ÷ + 55 °C	
Connection terminals	WAGO 222-412 max. 2,5 mm <sup>2</sup>	
	presence	
Transmitted information	curent illumination value (lx)	
	value of the required fittings (%)	l light output of light









temperature | humidity | movement | flooding | CO,

For the building automation and proper functioning of subsystems, the sensors, sometimes also referred to as peripherals of heating, air-conditioning or ventilation systems, play a key role. Properly adjusted and placed sensors ensure effective control of individual functional units of buildings, and thus are directly responsible for the comfort of users. When compared to conventional analogue sensors, the wireless sensors offer comparable connectivity with other parts of the system and also provide maximum flexibility at the start of building operation as well as for changes to the interior. The battery wireless sensors Poseidon® transmit not only the information on main variables, such as temperature, humidity and presence, but also the information on battery condition, and thus allow the building administrators to ensure smooth operation of the buildings.



#### P8 T THCR MS

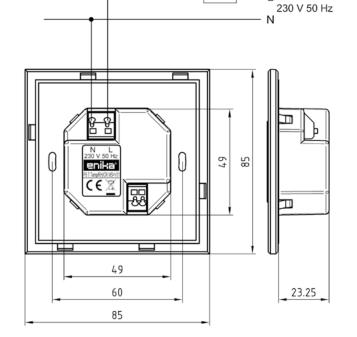
#### Temperature and humidity sensor Poseidon® with correction

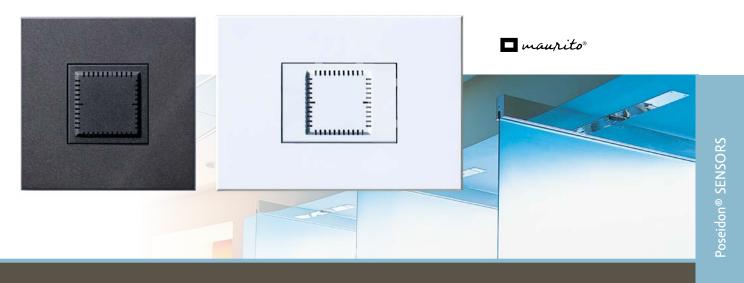
easy to install | range up to 150 m | compatible with Poseidon®

Offering a new type of transmitter with a low profile and an attractive design from series Maurito. The transmitter is used to measure and transmit the temperature and relative humidity in any space using wireless transmission. For the receipt and further processing of information, the P8 TR IP or P8 GWA DIN Ethernet interface is mainly used. The new and modern type of display is suitable for showing live, real-time values of temperature and relative humidity.

Power supply	230 V ±10 % 50 Hz	
Accuracy of temperature measurement	±0,5 K	
Accuracy of relative humidity measurement	±4,5 % in the range 20 to 80 % RH ±7,5 % in the range 0 to 20 and 80 to 100 %RH	
Protection	IP20 acc. to EN 60529	
Operating temperature	0 to 50 °C	
Operating frequency	868 MHz	
Temperature compensation	3 to +3 K, range 0,5 K	
Range	up to 150 m (open area)	







### P8 T Temp/RH MS, P8 T Temp/RH MR

#### Temperature and humidity sensor Poseidon®

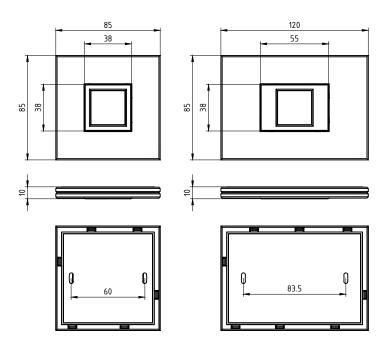
easy to install | range up to 150 m | compatible with Poseidon® | battery life 3 years

Offering a new series of temperature and humidity transmitters with an up-to-date, modern design, the Maurito Temp/RH is used to measure and transmit the temperature and relative humidity in the room using wireless transmission.

For the receipt and further processing of data, the P8 TR IP or P8 GWA DIN Ethernet interface is mainly used.

Power supply	2 x CR2450
Accuracy of temperature measurement	±0.5 K in the range 0 to + 55 °C ±1 K in the range –20 to 0 °C
Protection	IP20 acc. to EN 60529
Operating temperature	−20 to +55 °C
Accuracy of relative humidity measurement	±3 % in the range 20 ÷ 80 % RH ±7 % in the range 0 to 20 %RH and 80 to 100 % RH
Operating frequency	868 MHz
Range	up to 150 m (open area)







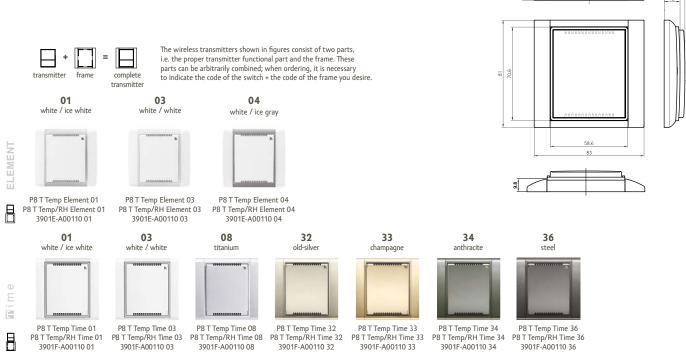
#### P8 T Temp, P8 T Temp/RH

### Temperature and humidity sensor Poseidon®

easy to install | range up to 150 m | compatible with Poseidon® | easy to integrate into other systems

The P8 T Temp transmitter is used to measure and transmit the temperature in the room using wireless transmission. For the receipt and further processing of this information, the P8 TR IP or P8 GWA DIN Ethernet interface is mainly used. The P8 T Temp/RH is used to measure the temperature and relative humidity in the room and to transmit the same using wireless transmission. For the receipt and further processing, the P8 TR IP or P8 GWA DIN Ethernet interface is mainly used. The transmitter also allows you to set a limit value of humidity. In cooperation with an appropriate receiver, it is then used for two-state control (hydrostat).

	P8 T Temp	P8 T Temp/RH
Power supply	2× 1.5 V, alkaline AAA (LR03)	
Accuracy of temperature measurement	$\pm 0.5$ K in the range 0 to + 55 °C $\pm 2$ K in the range $-20$ to 0 °C	
Protection	IP20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Accuracy of relative humidity measurement		±3 % in the range 20 to 80 % RH ±7 % in the range 80 to 100 % RH
Humidity control range		20 ÷ 90 % RH
Operating frequency	868 MHz	
Range	up to 150 m (open area)	





### P8 T Temp/RH IP

### Temperature and humidity sensor Poseidon®

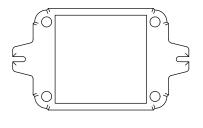
easy to install | IP 67 protection | easy to integrate into other systems | battery life 8 years

The P8 T Temp/RH IP is used to measure the temperature and relative humidity in the room and to transmit the same using wireless transmission. For the receipt and further processing, the P8 TR IP or P8 GWA DIN Ethernet interface is mainly used.

The temperature sensor is in the plastic box with ingress protection IP 67.

The plastic box is possible to screw or stick on any suitable area.

Power supply	2× 1,5 V, lithium AA	
Accuracy of temperature measuring	$\pm 0.5$ K in the range 0 to 55 °C $\pm 2$ K in the range -20 to 0 °C	
Accuracy of relative humidity measurement	±3 % in the range 20 to 80 % RH ±7 % in the range 0 to 20 and 80 to 100 % RH	
Protection	IP67 acc. to EN 60529	
Operating frequency	868 MHz	
Range	up to 150 m	
Weight including batteries	90 g	
Operating temperature	-40 to +55 °C	

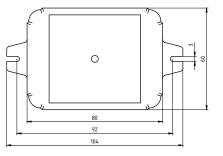








P8 T Temp/RH IP

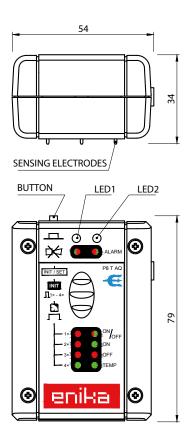




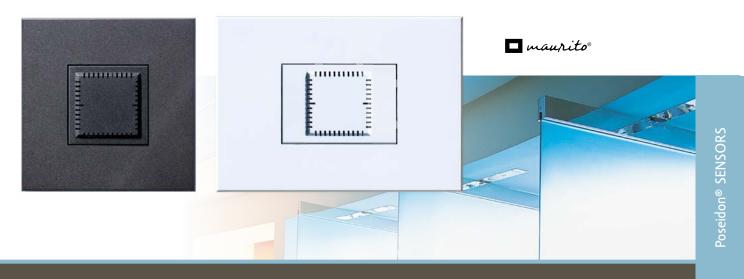
# P8 T AQ Flood and external temperature sensor Poseidon®

easy to install | range up to 150 m | optical and acoustic signalisation | battery life up to 5 years | compatible with Poseidon®

The flood detector is designed for direct installation on the floor. When the monitored area is flooded, it transmits this information. It can be used, for example, to close the water supply or to raise the alarm. The transmitter may also be equipped with an external temperature sensor.



Power supply	2× 1.5 V, alkaline AA
Number of transmitted channels	2 (flood sensor state, measured temperature)
Circuit impedance for the "flood" state	max. 4 MΩ
Circuit impedance for the "dry" state	min. 5 MΩ
Operating frequency	868 MHz
Range	up to 150 m (open area)
Weight	65 g (without batteries)
Temperature measurement range (sensor type 3299U-A90100)	-30 to +70 °C
Operating temperature	-20 to +55 °C
Accuracy of temperature measurement	±2 K in the range 0 to +50 °C ±3 K in the range -30 to 0 and +50 to +70 °C



### P8 T CO2 MS, P8 T CO2 MR

# CO<sub>2</sub> sensor Poseidon®

easy to integrate into other systems | range up to 150 m | compatible with Poseidon®

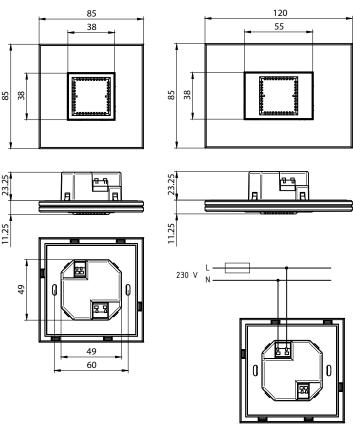
A new universal sensor with a low profile and an attractive design from the series Maurito. This sensor is used to measure the concentration of carbon dioxide (CO2), temperature and relative humidity. This sensor allows the user, two different ways of usage.

Indication exceeding set limits of  ${\rm CO}_2$  by optical or acoustic signalization.

Wireless transmission of measured values are sent to the higher-level systems and the direct control components from Poseidon® system.

<b>03</b> white	<b>37</b> onyx
	THE STATE OF THE S
P8 T CO2 MS 03	P8 T CO2 MS 37
<b>03</b> white	<b>37</b> onyx
	and the second
P8 T CO2 MR 03	P8 T CO2 MR 37

Power supply	230 V ±10 % 50 Hz	
Protection	IP20 acc. to EN 60529	
Operating temperature	0°C to +45 °C	
Measuring range CO <sub>2</sub>	400 - 3 000 ppm	
Accuracy of measured concentration of CO <sub>2</sub>	±50 ppm + ±3% from value	
Accuracy of measured temerature	±0,5 K in the range 0 ÷ +55 °C ±1 K in the range -20 ÷ 0 °C	
Accuracy of measured humidity	±3 % in the range 20 ÷ 80 % RH ±7 % in the range 0 ÷ 20 % RH ±7 % in the range 80 ÷ 100 % RH	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	





#### P8 T CO2 TE

### CO<sub>2</sub> sensor Poseidon®

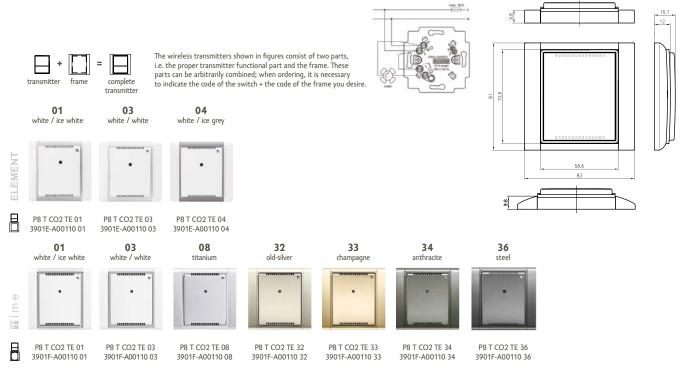
easy to integrate into other systems | compatible with Poseidon® | range up to 150 m | integrated power relay

This Universal Sensor is used to measure the concetration of carbon dioxide (CO<sub>2</sub>), temperature and relative humidity. The sensor allows three different ways of utilization.

- Gives Indication when exceeding set limits of CO<sub>2</sub> by optical or acoustic signalization
- Direct control technology gained by built-in relay
- Sends the measured value to the higher-level systems with the use of the wireless communication protocol and direct control Poseidon® components.

Wireless transmission of measured values to the higher-level systems and direct control components from Poseidon® system.

Power supply	230 V ±10 % 50 Hz	
Protection	IP20 acc. to EN 60529	
Operating temperature	0°C to +45 °C	
Operating temperature	0 to 80 %RH	
Accuracy of measured concentration of CO <sub>2</sub>	±50 ppm + ±3% from value* in range 400 to 3000 ppm	
Accuracy of measured temerature	$\pm 0.5$ K in the range 0 $\div$ +55 °C $\pm 1$ K in the range -20 $\div$ 0 °C	
Accuracy of measured humidity	±3 % in the range 20 ÷ 80 % RH ±7 % in the range 0 ÷ 20 % RH ±7 % in the range 80 ÷ 100 % RH	
Connection terminals	max. 2,5 mm <sup>2</sup>	
Max. switching power	3700 W 250 VAC/750 VA cos >0,8	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	



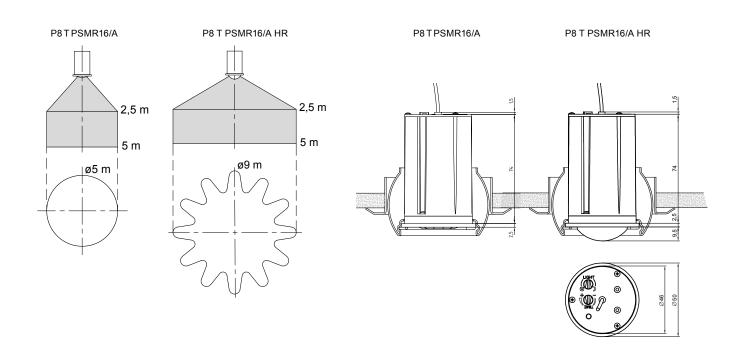
### P8 T PS MR16/A, P8 T PSMR16/A HR

#### Built-in movement sensor Poseidon®

easy to install | compatible with Poseidon® | mounting height max. 8 m

Contactless lighting controller which ensures economical, time-controlled lighting. Suitable for installation in MR16 halogen bulb holders. It is particularly well suited for mounting in suspended ceilings. Functionality is further extended by the possibility of using a tilting frame to cover the blind spots of other sensors, such as corners, niches, large halls, etc. Two variants are available with different characteristics.

Power supply	2× AA 1.5 V alkaline	
Delay setting range	about 20 s to 30 min	
Range of ambient light influence	about 1 to 1 000 lx	
Operating frequency	868 MHz	
Range	up to 150 m (open area)	
Protection	IP40 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Battery life	5 years	





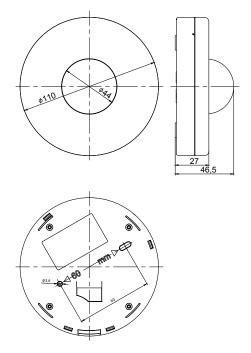
#### P8 T PS W

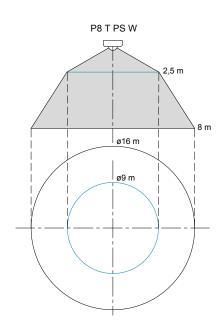
### Movement sensor Poseidon® for surface mounting

easy to install | compatible with Poseidon® | mounting height max. 8 m

The movement sensor is especially suitable for the use in the interior, for mounting on a surface without any mounting holes. Thanks to its parameters, it will cover a relatively large area. So it is ideal for rooms where the lighting is to be ensured only for the necessary period when people are present in it.

Power supply	2× AA 1.5 V alkaline
Delay setting range	about 20 s to 60 min
Range of ambient light influence	about 1 to 1 000 lx
Operating frequency	868 MHz
Range	up to 150 m (open area)
Protection	IP40 acc. to EN 60529
Operating temperature	-20 to +55 °C
Battery life	5 years







ethernet | USB

The building automation system has two basic levels of automation (control), i.e. local and central. The local control ensures an immediate response to current requirements by the users such as an adjustment of temperature, air-conditioning or an increase in the lighting intensity. The central control ensures the use of synergies of cooperation of systems and safe functioning of the building as a whole. Appropriate timing of the shading will allow a delay in the start of air-conditioning units and so save a considerable amount of energy. Damage to outdoors louvers will be avoided if they are pulled up in time when there is a strong wind. The interface represents an essential element for the integration of any system allowing linkage of the local and the central control levels. The interface for the integration of wireless system Poseidon® uses the MODBUS TCP/IP protocol and allows you to control the systems using a computer, tablet, or a mobile phone. The communications interface allows you to transfer the analogue values from wireless sensors, remote configuration of all devices of the Poseidon® system, and offers RS 485 and RS 232 serial interface.



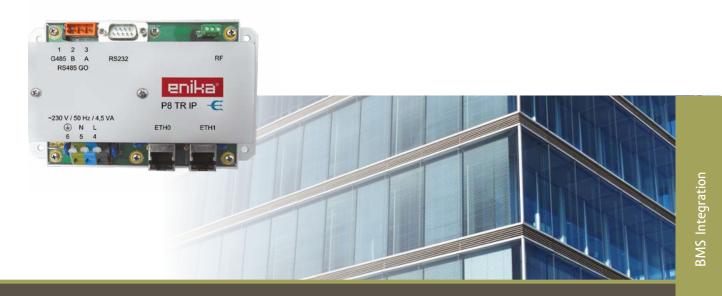
#### P8 TR USB

#### USB transmitter for the configuration of Poseidon® devices

easy system configuration | higher functionality of the equipment | easy control using software applications

Configure the system or directly control the receivers of the Poseidon® system from your PC. As a configuration option, you can "link" transmitters to receivers, and, above all, take advantage of the advanced functionality of the equipment.





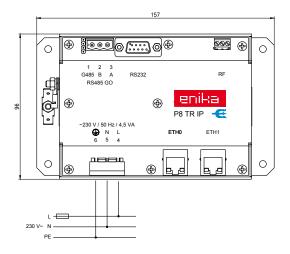
#### P8 TR IP

#### Ethernet interface Poseidon®

easy to integrate into other systems | support of MODBUS TCP/IP and RTU protocol | web server

It is used for the integration of a Poseidon® system into higher-level, e.g. building management systems (BMS) or enables control of the same using a computer, a tablet, or a mobile phone. So it is possible to directly control individual receivers, and receive the information on the state of their outputs or measured values from wireless sensors for further processing. One indisputable advantage consists of the possibility to configure the entire installation practically from anywhere using the Poseidon® Asistent software.

Power supply	230 V ±10 % 50 Hz
Ethernet interface	2× RJ 45 (switch)
Protection	IP20 acc. to EN 60529
Operating temperature	−10 to +55 °C
Baud rate	100/10 MBs
Connection terminals	max. 2.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range	up to 150 m (open area)
Serial interface	RS485 (galvanic isolated) and RS232





#### P8 GWA DIN

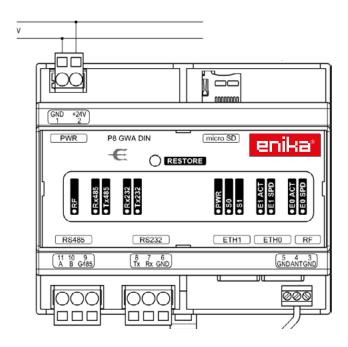
#### Ethernet interface Poseidon®

easy to integrate into other systems | support of MODBUS TCP/IP and RTU protocol | web server | 24V DC power supply

It is used for the integration of a Poseidon® system into higherlevel, e.g. building management systems (BMS) or enables control of the same using a computer, a tablet, or a mobile phone. So it is possible to directly control individual receivers, and receive the information on the state of their outputs or measured values from wireless sensors for further processing.

One indisputable advantage consists of the possibility to configure the entire installation practically from anywhere using the Poseidon® Asistent software. Designed for installation to switchboard with power supply 24V DC.

Power supply	230 V ±10 % 50 Hz
Ethernet interface	2× RJ 45 (switch)
Protection	IP20 acc. to EN 60529
Operating temperature	-10 to +55 °C
Baud rate	100/10 MBs
Insulation strength	300 V AC/1 min (the insulation must not be used for the isolation of hazardous voltage)
Connection terminals	max. 2.5 mm <sup>2</sup>
Operating frequency	868 MHz
Range	up to 150 m (open area)
Serial interface	RS485 (galvanic isolated) and RS232





#### P8 R 2 DIN/DATA

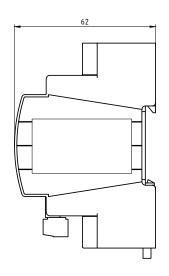
#### Universal 2-channel Poseidon® receiver with communication interface

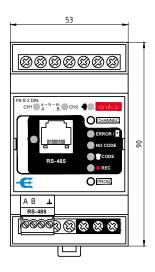
wireless reading of electricity meters | possibility of integration into other systems | support for various protocols including Modbus RTU

Module type receiver for simple DIN rail mounting, with two relay outputs and RS485 data interface. The output relay can be used for direct control of connected appliances. The RS485 communication protocol interface is user adjustable and includes Modbus RTU support. The receiver can be used to control AV technology, as an accessory to control systems or for remote meter reading. It can also be used as a signal repeater.

	$\bigcirc$		1	230V
	A1 A2 A3	B1 B2  S S S S  N 230		
	RS-488	● ER	ROR / DOCODE CODE REC	
2	A B 1	© ——— ¥ ⊥	ROG	
© © © C1 C2 C3	RS-485 C1 C2 C3	© © © D1 D2		
		<u> </u>	AERIAL	
		(		

Power supply	230 V ±10 % 50 Hz	
Number of channels (relays)	2	
Max. switching power	2300 W (incandescent lamps, halogen lamps) 1750 VA (inductive loads, electronic ballasts) 500 VA / 64µF (fluorescent tubes)	
	400 W (compact fluorescent lamps, compact LED lamps)	
Serial interface	RS 485	
Protection	IP 20 acc. to EN 60529	
Operating temperature	-20 to +55 °C	
Dimensions	3 M	
Weight	100 g	
Power dissipation	max. 2,5 W	
Operating frequency	868 MHz	
Range	up to 150 m (in open space)	
* a maximum of 20 bulbs can be connected		
	·	







### AMR-OP83, AMR-OP87/V, AMR-OP87/P02 Programmable control HMIs

programming in DetStudio environment | control panel and control system in one | built-in web server | text and graphic displays

	Туре	Display	Interface
AMR-OP83	graphic, touchscreen, 3,2"	320 x 240 pixels	1x RS485, Ethernet, SD, web server
AMR-OP87/V	graphic, touchscreen, 7"	800 x 480 pixels	1x RS485, Ethernet, SD, web server
AMR-OP87/P02	graphic, touchscreen, 7"	800 x 480 pixels	1x RS485, Ethernet, SD, web server

The AMR-OP87/V touch panel/ programmable terminal is used together with the Poseidon Ethernet Interface P8 TR IP or P8 GWA DIN for lighting control in manufacturing, warehousing or logistics areas. The industrial touch panel provides high standards of use for any operator thanks to its high-performance processor and sufficient memory (2+16 MB Flash, 4 MB RAM) and features a superb 7 display with a resolution of 800 × 480 pixels.

The graphic screens and control algorithms are freely programmable. It also offers a function of an internal webserver. Standard communication protocols MODBUS

RTU and MODBUS TCP can be used for third party systems. The terminal has been designed to be fitted onto the front panel of the switchboard with a cover protection rate of up to IP65. The operating temperature ranges between -20 and 70 °C. In our offer you will also find the new variant AMR-OP87/P02 with a mechanical solution for mounting on the wall above the classic wiring box KU 68 with IP20 protection. In addition, however, it has position for installing a module for communication with the Poseidon® 868 MHz wireless system.

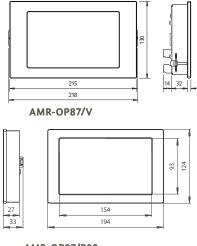


AMR-OP83



AMR-OP87/V

AMR-OP87/P02



AMR-OP87/P02



#### AMR-OP75RHR, AMR-OP75RHRC

### Programmable wall controller

multifunctional controller | Temperature, relative humidity, and CO, measurement | programming in DetStudio environment

	Туре	Display	Interface
AMR-OP75RHR AMR-OP75RHRC	Graphic, touchscreen, 3,5"	320 x 480 pixels	1x RS485, RTD input, 1x relay output

The multifunctional programmable wall controller is used together with the Poseidon® P8 GWA DIN Ethernet interface for lighting control, shading, fan speed control, temperature, humidity, and CO<sub>2</sub> measurement.

The application is part of the product, written in the DetStudio environment. The controller measures current temperature and humidity, allows mode selection, and correction of desired temperature. The RHRC variant allows measuring the CO2 concentration in the space and audible status indication.

MECHANICAL DIMENSIONS		TUB
86	25	60

Power supply	20 V DC to 30 V DC	
Maximum consumption	100 mA at 24 V AC	
Resolution	(320 × 480) pixels	
Display area	(48.9 × 73.4) mm	
Backlight / lifespan	LED / min. 50 000 hrs*	
Control	capacitive touchscreen	
Temperature / humidity measurement range	-10 °C to 50 °C / 20 % to 80 %	
Temperature measurement accuracy	±0.5°C	
Humidity measurement accuracy RH 20% to 60% RH 60% to 80%	±3 % ±{3 + [(RH-60)/10]} %	
CO <sub>2</sub> concentration measurement	NDIR**	
Measurement range	400 ppm to 2 000 ppm**	
Accuracy	±(50 ppm + 5 % from reading)**	
Input type	potential-free / NTC / Ni1000 / Pt1000	
Output type	switching contact	
Maximum switched	0.25 A at 230 V AC / 24 V DC	
current	(resistive load)	
Communication	RS485	
Protection	IP20	
Operating temperature range	-10 °C to 50 °C	
Mounting	wall mounting / KU68 / smooth surface	
Weight	0.19 kg ±5 %	
Dimensions ( $w \times h \times d$ )	(110 × 86 × 24) mm	
*) Luminosity decrease to 5	00%	

<sup>\*\*)</sup> Only for AMR-OP75RHRC variant



They ensure safe access of persons or entry of vehicles into a variety of closed premises, buildings, sites or parking lots. The receivers open the gates, doors or barriers based on commands from wireless transmitters of the Poseidon® system. For each button of the transmitter, it is also possible to set a different function for several receivers.

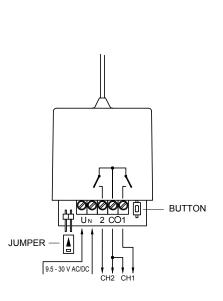


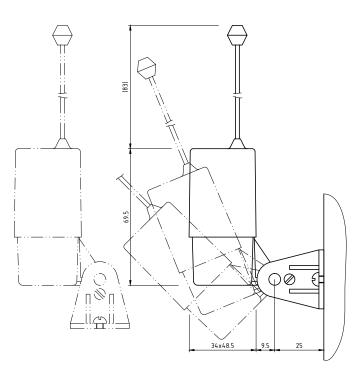
easy to set | possibility of controlling using a large number of transmitters | RF signal repeater | configuration using Poseidon® software

It is used to control any control units for doors and gates made by different manufacturers.

Using one controller, it is then possible to control the access gate, parking lot barrier and garage doors. It can also be used as a signal repeater.

Power supply	9.5 - 30 V AC/DC
Max. load of output contacts	max. 350 mA / 140 V / 7 W
Output pulse length	1 s
Number of channels	2
Protection	IP33 acc. to EN 60529
Operating temperature	-30 to +70 °C
Weight	80 g
Connection terminals	screw-type, max. 1 mm <sup>2</sup>
Operating frequency	868 MHz
Range with the supplied antenna	up to 150 m (open area)
Maximum number of codes stored in the memory	1 000





Outdoor mounting options

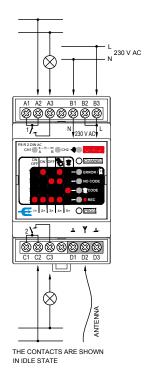


## P8 R 2 DIN AC

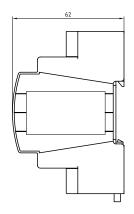
## 2-channel receiver for access systems Poseidon®

easy to set | possibility of controlling using a large number of transmitters | possibility of connecting an external antenna | RF signal repeater

A module type receiver for easy installation in switchboards with two output channels that can be used for direct control of entry doors or barriers. It has an extended memory for up to 1 000 transmitters; therefore, it can be used for control of points of arrival in reserved parking lots of large companies, government buildings, hospitals, and residential buildings. It can also be used as a signal repeater.



	P8 R 2 DIN AC	P8 R 2 DIN AC>24V	
Power supply	230 V ±10 % 50 Hz	24 V~= ±20 %	
	2 300 W conventional bulbs		
	1 750 VA electronic multipliers,		
Max. switching power	halogen bulbs with transformer		
Max. switching power	500 VA/64 µF fluore	escent light fittings	
	400 W (compact flu	orescent lamps,	
	compact LED lamps)	*	
Number of channels	2		
Protection	IP20 acc. to EN 60529		
Power dissipation	max. 2,5 W		
Operating temperature	-20 to +55 °C		
Output protection	external (max. 16 A)		
Dimensions	3 M		
Weight	100 q		
Connection terminals	screw-type, max. 4	mm²	
Operating frequency	868 MHz		
Range with the supplied antenna	up to 150 m (open area)		
Maximum number of codes stored in the memory	1 000		







## P8 A INT1, P8 A INT2, P8 A EXT1, P8 A EXT2 Antennas and extension cables Poseidon®

use in case of problems with the range | use in case of a long distance between the transmitter and the receiver

If there are problems with the range or when a great distance exists between the transmitter and the receiver, it is possible to use external antennas. They are supplied with a 2 m cable with an SMA connector and an adapter for the connection to the device.

It is ideal for ensuring the required range, especially

#### **P8 A EXT2**

for P8 TR 2C/U DIN transmitters of input information. It enables an increase in the range up to a distance of 3 km if there is a direct line of sight between antennas. The antenna only propagates/captures the signal in a narrow corridor; so it must be oriented towards the transmitter/receiver, or transmitting/receiving antenna (horizontal polarisation). It is supplied with a 5 m cable with an SMA connector and an adapter for the connection to the device. If the antenna needs to be installed at a greater distance from the transmitter/receiver, a 5 m or 10 m extension cable may be used.



#### Attenuation of the signal when passing through given materials

Wooden structures, gypsum boards, drywall, OSB	5 - 15 %
Brick wall	10 - 40 %
Glazed surfaces with regular glass	10 - 30 %
Reinforced concrete structures	50 - 80 %
Steel and all-metal structures and surfaces	80 - 100 %

Signal attenuation is just approximate. The real range will depend on the number of obstacles, moisture of the material through which the signal passes, and local interference from other sources, if any. Data subject to change.

## Poseidon®

## Explanatory notes

### Switching receivers

Whenever the transmitter pushbutton is pressed, the receiver relay is closed and remains closed.

#### **FUNCTION OFF**

Whenever the transmitter is pressed, the receiver relay is opened and remains opened

#### **FUNCTION ON/OFF**

#### Single-pushbutton mode

Pressing of the transmitter pushbutton will alternately close and open the receiver relay.

#### Two-pushbutton mode

Whenever the upper pushbutton of the transmitter is pressed, the receiver relay is closed. Whenever the lower pushbutton of the transmitter is pressed, the receiver relay is opened.

#### FUNCTION PUSH

The receiver relay will remain closed until the transmitter is released.

#### FUNCTION TIMER

After the transmitter pushbutton is pressed, the receiver relay is closed for a preset period of time (1 sec to 8 hrs). Any other pressing of the transmitter pushbutton will reset the time.

### Off function timer /off

#### Single-pushbutton mode

If the receiver relay is opened, it will be closed for a preset period of time (1 sec to 8 hrs) once the transmitter pushbutton is pressed. If the relay is closed, it will be opened.

#### Two-pushbutton mode

Once the upper pushbutton of the transmitter is pressed, the receiver relay will be closed for a preset period of time (1 sec to 8 hrs). Whenever the lower pushbutton of the transmitter is pressed, the receiver relay is opened.

#### RETR FUNCTION RETR

This function is only used to send the code of the programmed transmitter pushbutton when the range of instruments is insufficient. It does not affect the state of the relay. Min. distance between the instruments shall be 2 m!

#### Roller shutter receivers

#### JAL FUNCTION LOUVER (two- or three-pushbutton mode of control)

A long press of the transmitter pushbutton (>0.5 sec) will close the output relay (3 min), i.e. it will get moved to the end position. A short press of the transmitter pushbutton is used for louver positioning. The upper (left) pushbutton is used to control the output relay for opening, while the lower (right) pushbutton is used to control the output relay for closing. It is also possible to use the three-pushbutton made of control whenever to use the three-pushbutton mode of control; whenever the third pushbutton is pressed, the louver will stop.

#### ROLL FUNCTION ROLLER SHUTTER (single-, twoor three-pushbutton mode of control)

A short press of the transmitter pushbutton will close the output relay (3 min), i.e. it will be moved to the end position.

repeated short press of the transmitter pushbutton will open the relay (stop). A long press (>0.5 sec) of the pushbutton will close the output relay (travel) only for the time of its holding. The upper (left) pushbutton is used to control the output relay for opening, while the lower (right) pushbutton is used to control the output relay for closing. It is also possible to use the three-pushbutton mode of control; whenever the third pushbutton is pressed, the roller shutter will stop.

#### CO FUNCTION CENTRAL OPEN

A short press of the transmitter pushbutton = travel to the end position "open". It is not possible to stop travel by repeated pressing of the pushbutton.

#### CC FUNCTION CENTRAL CLOSE

A short press of the transmitter pushbutton = travel to the end position 'closed'. It is not possible to stop travel by repeated pressing of the pushbutton.

#### STOP FUNCTION STOP

When the transmitter pushbutton is pressed, the closed output relay will be opened. For functions programmed in three-pushbutton mode, this function will be automatically assigned to the lower pushbutton (pushbuttons) and will be activated by simultaneous pressing of opening and closing pushbuttons.

#### POS FUNCTION POSITION

The relay will be closed for such a period of time as allows the louver to reach the position corresponding to the value of 0-100% (provided that time constants of the louvers have been set properly).

#### Receivers with analogue output P8 R 01-10 N and receivers with DALI output P8 R 4 DLA N, P8 R 4 DLA I and P8 R 2 DLHCL N

#### DIMM FUNCTION DIMMER

#### Single-pushbutton mode

A short press of the transmitter pushbutton will close the output relay and alternately change the output signal from min. to max. and vice versa. A long press of the transmitter pushbutton will result in gradual rise/drop of the output signal.

#### Two-pushbutton mode

A short press of the upper (left) transmitter pushbutton will close the output relay and set the max, value of the output signal. A short press of the lower (right) transmitter pushbutton will open the output relay and set the min. value of the output signal.

A long press of the upper (left) transmitter pushbutton A long press or tne upper (left) transmitter pushbut will close the output relay, and the output signal will gradually rise. A long press of the lower (right) transmitter pushbutton will open the output relay, and the output signal will gradually drop.

#### ADJUST WHITE - TWO-BUTTON MODE (only for P8 R 2 DLHCL N)

Short press of the top button of the transmitter sets the light color to the warmest white. Short press of the bottom button of the transmitter sets the light color to the coldest white. Long press of the top button of the transmitter gradually increases the light color to the warmest white. Long press of the bottom button of the transmitter gradually decreases the light color to the coldest white to the coldest white.

Whenever the transmitter pushbutton is pressed, the receiver relay will be closed and remain closed. The output signal will be set to the maximum value.

#### **FUNCTION OFF**

Whenever the transmitter pushbutton is pressed, the receiver relay will get switched off and remain off.
The output signal will be set to the minimum value

#### **FUNCTION ON/OFF**

#### Single-pushbutton mode

The pressing of the transmitter pushbutton will close and open the receiver relay alternately.

#### Two-pushbutton mode

When the upper pushbutton of the transmitter is pressed, the receiver relay will get closed. Whenever the lower pushbutton of the transmitter is pressed, the receiver relay is opened.

### <u>FUNCTION TIMER</u>

After the transmitter pushbutton is pressed, the output relay will get closed and the value of the output signal will be set to the maximum value for a preset period of time (1 sec to 8 hrs). Any other pressing of the transmitter pushbutton will reset the time.

#### () /OFF FUNCTION TIMER /OFF

#### Single-pushbutton mode

If the receiver relay is open, it will be closed once the transmitter pushbutton is pressed, and the value of the output signal will be set to maximum for a preset period of time (1 sec to 8 hrs). If the relay closed,  $\,$ the output signal will be set to the minimum value and the relay will open.

#### Two-pushbutton mode

A short press of the upper transmitter pushbutton will close the output relay, and the value of the output signal will be set to its maximum for a preset period of time (1 sec to 8 hrs). Any other pressing of the transmitter pushbutton will reset the time.

A short press of the lower transmitter pushbutton will set the output signal to its minimum value, and the relay will be opened.

#### ADDTIMER /LTOFF

After pressing the transmitter button, the brightness of the luminaires connected to the ballast is set to maximum for a pre-programmed time ranging from 1 to 45 minutes. Each subsequent short press of the transmitter button extends  $\,$ the time by the same amount up to a maximum of four times. After a long press of the transmitter button, the luminaires  $\,$ connected to the ballast are turned off.

#### **function** Level

This function is used to set the required value of the control signal for switching on (functions DIMM, ON and TIMER) for the given transmitter.

#### DIR FUNCTION DIRECT

Output will be set to a received value of 0-100 %.



The **Poseidon® City** system offers not only an efficient but also a very comfortable way to control outdoor lighting. Thanks to technology that enables long-distance communication, it controls outdoor LED lighting in places such as public spaces in cities and municipalities, corporate campuses, parking lots, residential areas, train stations and sports fields.

For example, you can easily adjust the lighting intensity in the desired places and thus increase safety in a given section or save energy. Each luminaire can be controlled individually or you can set up groups of luminaires that you control collectively. The system can operate completely autonomously thanks to the possibility of using astro mode or creating time schedules.

A clear visualization provides information about the current status of individual luminaires, including fault reporting and data of the energy consumption of individual luminaires.

Our offer includes modules for the NEMA socket designed to control ballasts with an analog or DALI output, modules for the ZHAGA socket with a DALI output and built-in or external variants.

The system is designed to be very versatile and, in addition to its basic functions, can also control other technologies. For example, a lighting sensor can be used, which turns on the lighting and fountain pump, park irrigation or triggers a message about the end of visiting hours.

The **Poseidon® City** system will not only save you a significant portion of your energy costs, but will also reduce maintenance costs.



## L8 R DL10 V, L8 R DL10 VG Universal receiver LoRa DALI / 01-10 V

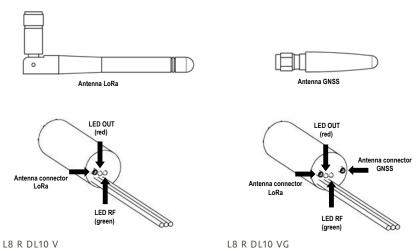
Luminaires equipped with a universal receiver can be integrated into a wireless network managed by the Poseidon® City application or another LoRaWAN network operating at 868 MHz. It offers flexible outputs for both the DALI bus and an analog 0-10V signal while also providing power to the bus. With its robust IP67-rated construction, it is ideal for direct installation inside the lighting pole and withstands harsh environmental conditions.

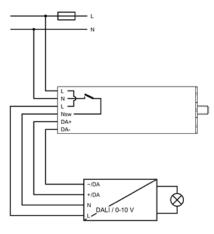
The flexible installation allows placement outside the luminaire as well, which is beneficial for luminaires without standard connectors. The receiver measures the power consumption of the connected device and supports a wide range of luminaires thanks to its compatibility with DALI and 0-10V protocols.

The device is capable of determining its position using localization services (only for the L8 R DL10 VG variant), or the position can be entered into the device from a mobile phone with NFC using the application.

The position is then transmitted to the superior control system.

Power supply	230 V, 50Hz
Number of controlled channels	1
Output control signal	according to CSN EN 62386- 101, -102 (DALI)
DALI: Guaranteed supplied current	75 mA
DALI: Maximum supplied current	250 mA
0-10V: Maximum output load	-10mA (provides the controlled device)
Switched power	max. 1000 W
Electrical lifetime of the contact (AC1)	1x105
Operating temperature	-20 ÷ + 75 °C
Protection level	IP 67 according to CSN EN 60529
Dimensions	Ø 45 x 154 mm
Weight	cca 460 g
Connection	Labeled cables
Communication protocols	LoRaWAN®, NFC (ISO/IEC 15693)
Operating frequency	863 MHz - 870 MHz
Range	up to 5 km in open space





L8 R DL10 V, L8 R DL10 VG



## L8 R DLA Z, L8 R DLA ZG

## Receiver with DALI output and autonomous position determination

The receiver is used to control individual light points of outdoor lighting (OL). It is designed to control DALI ballasts using commands for the DALI bus. The receiver allows control in the range of 0-100%.

Each luminaire equipped with a wireless OL control receiver can be integrated into a wireless network managed by the Poseidon® City application or another LoRaWAN network operating at 868 MHz. The application then allows controlling each receiver individually or grouping receivers into groups. These groups can be controlled using configured schedules.

The receiver provides information about maximum, minimum, and current temperature, as well as the time exceeding the maximum temperature, device operating hours, and light source operating hours.

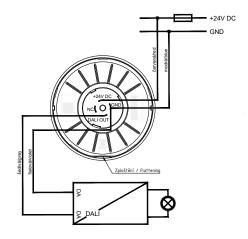
The device is capable of determining its position using localization services (only for the L8 R DLA ZG variant), or the position can be entered into the device from a mobile phone with NFC using the application.

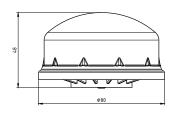
The position is then transmitted to the superior control system.

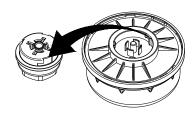
The receiver is able to detect light source errors, ballast errors, and bus errors. Error reports are periodically transmitted to the control system.

After a network or power outage, the receiver sets the output to the same value as it was at the same time on the previous day.

Number of channels	1
Maximum number of connected devices	8
Power supply	24 V ±10% DC
Maximum bus load	max. 2mA
Output control signal	according to CSN EN 62386- 101, -102 (DALI)
Protection level	IP 65 according to CSN EN 60529
Operating temperature	-20 ÷ +55°C
Weight	84 g
Dimensions	Ø 80 × 48 mm
Connecting terminals	ZHAGA socket
Communication protocols	LoRaWAN®, NFC (ISO/IEC 15693)
Operating frequency	863 MHz - 870 MHz
Range	up to 5 km in open space









# L8 R DALI NEMA Receiver with DALI output

The receiver is used to control individual light points of outdoor lighting (OL). It is designed to control DALI ballasts using commands for the DALI bus. The receiver also serves to power the bus.

The receiver allows control in the range of 0-100%.

Each luminaire equipped with the wireless OL control receiver must be integrated into the wireless network managed by the Poseidon® City application. The application then allows controlling each receiver individually or grouping receivers into groups. These groups can be controlled using configured schedules.

The receiver provides information about the current temperature and the operating hours of the light source.

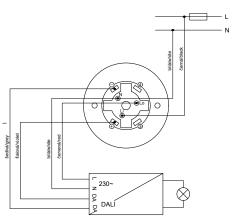
After calibration, the receiver is able to detect light source errors and ballast errors.

In the event of a power outage or control interruption, the receiver activates a safety mode and illuminates the controlled luminaires to the pre-set value.



Number of channels	1
Maximum number of connected devices	8
Power supply	230 V ±10% 50 Hz
Bus power supply	max. 20.5 V 20.5 mA
Output control signal	according to CSN EN 62386- 101, -102 (DALI)
Protection level	IP 54 according to CSN EN 60529
Operating temperature	-20 ÷ +40°C
Weight	190 g
Dimensions	Ø 84 x 98 (107) mm
Connecting terminals	NEMA socket
Protocol	LoRaWAN
Operating frequency	863 MHz – 870 MHz
Range	up to 5 km in open space

### Wiring diagram





## L8 R 0110 NEMA

## Receiver with analogue output

The receiver is used to control individual light points of outdoor lighting (OL). It is designed for controlling dimmable ballasts with an analogue signal of 1–10 V.

The receiver allows control in the range of 0–100% or ON/ OFF.

Each luminaire equipped with the wireless OL control receiver must be integrated into the wireless network managed by the Poseidon® City application. The application then allows controlling each receiver individually or grouping receivers into groups.

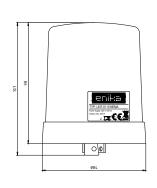
These groups can be controlled using configured schedules.

The receiver provides information about the current temperature, the operating hours of the light source and current input.

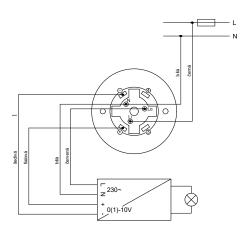
After calibration, the receiver is able to detect light source errors and ballast errors.

In the event of a power outage or control interruption, the receiver activates a safety mode and illuminates the controlled luminaires to the pre-set value.

Number of channels	1
Power supply	230 V ±10 % 50 Hz
Output voltage	230 V
Maximum switched output	450 W
Output control signal	1-10 ± 0.25 V= max100 mA
Protection level	IP 54 according to CSN EN
	60529
Operating temperature	-20 ÷ +40°C
Weight	190 g
Dimensions	Ø 84 x 98 (107) mm
Connecting terminals	NEMA socket
Protocol	LoRaWAN
Operating frequency	863 MHz – 870 MHz
Range	up to 5 km in open space



### Wiring diagram





# L8 Network server Single-board computer

This is a highly powerful single-board computer designed for installing the Poseidon City® control application.

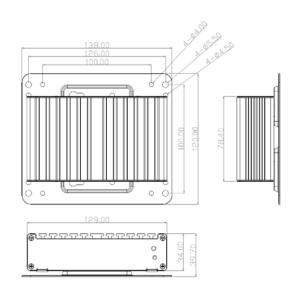
It offers an excellent balance between price and performance. Thanks to its small dimensions, it is easy to install and place. The server can be placed independently or using accessories for wall or DIN rail mounting.

Its performance combined with the Poseidon City® control application ensures safe and convenient control of your IoT network.

- Robust fanless design
- DDR3L support up to 8GB
- Powerful Intel® Apollo Lake N3350/N4200 processor
- Option to install custom OS
- Mounting accessories included
- Supported OS Win10, Linux



CPU	Intel® Apollo Lake N3350/N4200
BIOS	AMI Flash ROM
Internal memory	DDR3L max 4 GB
Power supply	12 VDC
Connectivity	2x USB 3.0
	1x HDMI
	1x RJ45
	1x Micro SIM
Protection level	IP 20
Operating temperature	0, +50 °C
Weight	
Dimensions	129 (l) × 78.4 (d) × 34(h) mm
Supported OS	Linux





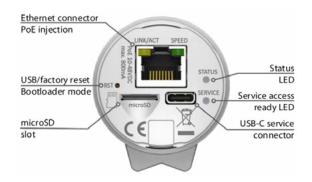
## L8 GW WL1-8XX OUT 5 RF Gate LoRa WAN

It serves to communicate between Poseidon® City receivers and the L8 Server. It can transmit signals over long distances, allowing control and monitoring of individual luminaires according to settings in the Poseidon® City application.

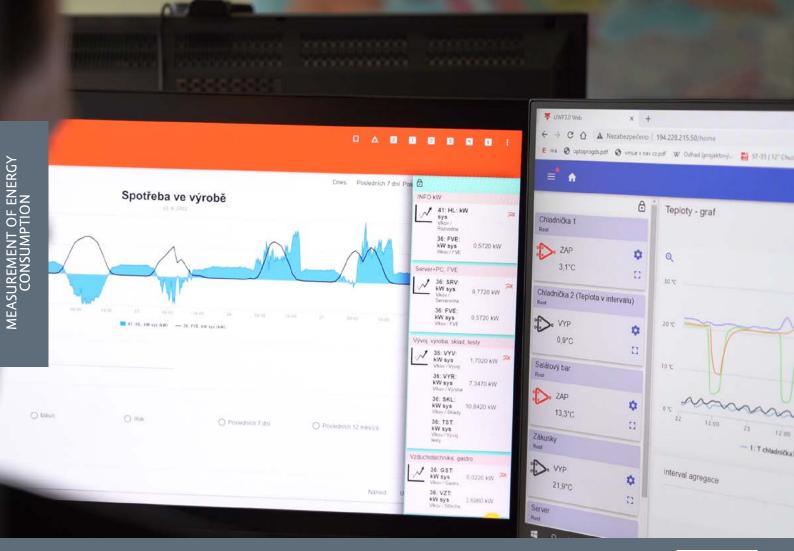
Its shape allows easy installation anywhere, and its thoughtful design and quality materials make it highly robust and resistant to the most aggressive environments.

- easy set-up thanks to the built-in application
- performance and diagnostic tools
- EU868, IN865, RU864 versions
- possibility to integrate custom applications
- optional accessories stainless steel mounting components

CPU	ARM® Cortex-A5		
	600 MHz		
RAM	256 MB		
Internal memory	1024 MB		
Power supply	10-48 VDC PoE		
Ethernet	10/100 Mbps		
Protection level	IP 65		
Operating temperature	-30 +70 °C		
Weight	408 g		
Dimensions	Ø 45 x 198 mm		
RF band	EU 868		
Protocol	LoRaWAN		
Antenna	outdoor IP65		
	500mm		
	5 dBi		
Range	up to 5 km in open space		







# Energy Consumption Measurement Continuous information on energy consumption



three-phase energy meters | single-phase energy meters - DC energy meters

## Keep the energy under control!

Devices for measuring electrical energy consumption are increasingly in demand in switchboards, providing basic consumption measurement, comprehensive network parameter analysis, and continuous average value calculations. The meters are manufactured for single-phase or three-phase alternating current distribution networks and are supplied in a certified version (so-called billing, MID) or for analytical/internal business measurement (sub-metering).

These meters are equipped with communication ports to enable remote data transmission, central processing, and visualization via the user interface. Through continuous measurement and consumption recording, energy is kept under constant control, maximizing savings with an effective tool for monitoring, analyzing, and planning energy consumption for your business. Modern energy consumption measurement devices today are multifunctional and versatile tools, offering much more than basic consumption information

but can also monitor all network parameters in detail and thus detect problems with the power supply of individual devices, faults, or the threat of overloading of power lines. To correctly select the most suitable device for the desired purpose, it is necessary to know a few basic details.

#### **CURRENT RANGE**

Most instruments for direct measurement have a maximum range of 3 × 65 A. Above this value, it is necessary to use a meter with indirect measurement, which is equipped with external current transformers, for the correct selection of which it is necessary to know the current range and the size of the conductor on which the transformer will be threaded.

#### MOUNTING METHOD

It is usually mounted in a switchboard on a DIN rail, which is standard equipment for newly assembled switchboards. If easy access to the device display or its controls is required, some devices are prepared for mounting in the panel of the switchboard.

#### MID OR NON-MID MEASUREMENT

Energy meters are supplied with different levels of metrological certification. If a device is required to be used for financial transactions, it is necessary to use a device certified by an authorized testing laboratory, usually according to the new European Union Directive 2004/22/EC on measuring instruments (MID Directive).

If only measurement for own analytical use and consumption monitoring is required, a billing device does not have to be used, but it is possible to use an energy meter without MID certification.

## COMMUNICATION INTERFACE, INPUTS, AND

Energy meters are equipped with an output communication port, which can be used to transmit measured data remotely. The most common version uses a serial port in the industrial version RS485, or an option with an Ethernet port can be selected for data transmission over LAN.







The basic version offers SO pulse outputs, which transmit only information about the active or reactive energy consumption (kWh, kvarh). It is also possible for the device to have digital inputs, which can be used to switch between tariffs, or for specific models the inputs can be used for pulse signals from water, gas, heating medium flow meters, or from another energy meter.





## **NAVISYS**

## Energy monitoring and measurement system

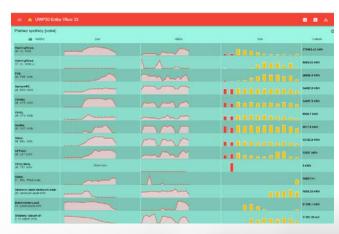
The name Navisys includes all technical elements, such as measuring instruments, inputs and outputs, data infrastructure, converters and software equipment, with which it is possible to set up continuous monitoring of energy consumption, technology operation and building environmental conditions. The main element of the entire system is a central unit, which operates all connected meters via data interface.

#### **NAVISYS BENEFITS:**

- No additional fees: No licensing or management fees.
- Full rights and ownership: The user has full control over the hardware, software and data, as everything is hosted on-premises.
- Free updates: Software updates are provided free of charge.
- Easy access: All information is available to users via a standard web browser, without the need to install additional client software or mobile applications.
- Modular concept: Allows users to purchase only the necessary elements and easily add additional devices and functions when needed.
- Local data storage: The acquired data is stored at the end user and is not accessible outside of defined groups, ensuring information security.
- Fault detection: The system enables early detection of possible faults, which helps to eliminate production outages.
- Efficiency improvement: Provides accurate information on the consumption of the facility, which allows tariff plans and contract optimization with energy suppliers.

#### **CHARTS AND OVERVIEWS:**

Navisys provides user-friendly consumption overviews in the form of summaries, charts, and life data. These features allow users to easily monitor and analyze current consumption, both in the short and long term. With the combination of these features, users can effectively manage their energy resources and minimize costs.



Navisys output

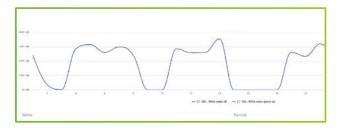


## **UWP**

## Central data processing units

hardware | software | data | free updates | modular concept

UWP central unit is the main element of the system and ensures the processing, storage, and visualization of data obtained directly from the connected measuring instruments and sensors. They are installed in a DIN rail distribution board, usually together with nearby energy meters. More distant meters can also be connected using a local area network (LAN). Access to the user environment is carried out using a web browser. The web interface is localized into several languages, which makes the use even more pleasant. The UWP central unit is easy to use without complex software preparation and installation. The user environment is already prepared in advance for quick and easy use as a monitoring system and can be customized by adding new functions for displaying consumption charts and monitoring alarm situations. The controller can send e-mails or SMS text messages in the event of an alarm situation or send regular reports on consumption. The UWP central unit includes mathematical and logical functions and a large number of available expansion elements. It already contains software for configuring the necessary functions and predefined visualization. This type of monitoring system does not use any remote servers or cloud databases for the operation; therefore, no ongoing fees are charged while using the system. Hardware, software, and data are the property of the end user, who has the entire system under control.





## The system provides the following measurement and recording options:

- » Electrical energy consumption (energy meters)
- Water, natural gas, and compressed air consumption (flow meters)
- » Delivered heat quantity (calorimeters)
- » Recording of temperature, air humidity, and CO<sub>2</sub> levels
- Event logging (frequency of state occurrences, cycle counting, piece counting, personnel tracking, etc.)
- Alarm notifications based on exceeding predefined parameters and values
- Many additional features, such as various timers and cyclers, quantity and operating hour counters, Modbus commands, or astronomical calendars

You can try a real demo installation yourself at:





## EM330 DIN

## Three-phase dual-tariff energy meter 3×5A for DIN rail mounting

energy meter: kWh + kvarh | communication | MID-certified | LCD display

The measurement mode for energy flow direction can be user-configured, allowing both directions to be recorded on a single counter or separate counters for each direction. Dual-tariff metering is available with separate counters, controlled either by the status of control terminals or via a data command.

Order number	Power supply VAC/DC	Pulse output SO	RS485 Modbus	M-Bus
EM330DIN-AV53H-O1X	90-260	1		
EM330DIN-AV53H-S1X	90-260		•	
EM330DIN-AV53H-M1X	90-260			•
EM330DIN-AV53L-O1X	12-60	1		
EM330DIN-AV53L-S1X	12-60		•	
EM330DIN-AV53L-M1X	12-60			•

Note: The listed order numbers are for the most common variants.

All versions are available in the datasheet or on the website www.enika.cz.

- energy meter: ±kWh, ±kvarh, two tariffs
- » optional measurement mode: A = sum of both directions, B = consumption and generation separately
- measurement: V, A, W, W dmd, W dmd max, var, VA, Hz, PF
- » size: 3 DIN
- » LCD display with backlight, touch control
- Communication RS485 Modbus or M-BUS
- > free service software UCS













## EM340 DIN

## Three-phase dual-tariff energy meter 3×65 A for DIN rail mounting

energy meter: kWh + kvarh | communication | MID certification | LCD display

For the unverified version, the energy flow direction measurement mode can be user-configured, allowing both directions to be recorded on a common counter or separate counters for each direction.

For MID-certified versions, however, it is necessary to order the version with measurement A or B. Dual-tariff metering is available with separate counters, controlled either by the status of control terminals or via a data command.

Order number	MID meter	Pulse output S0	RS485 Modbus	M-Bus
EM340DIN-AV23X-O1X		1		
EM340DIN-AV23X-S1X			•	
EM340DIN-AV23X-M1X				•
EM340DIN-AV23X-O1PFB	•	1		
EM340DIN-AV23X-S1PFB	•		•	
EM340DIN-AV23X-M1PFB	•			•

Note: The listed order numbers are for the most common variants. All versions are available in the datasheet or on the website www.enika.cz.

- energy meter: ±kWh, ±kvarh, two tariffs
- >> optional measurement mode: A = sum of both directions, B = consumption and generation separately
- measurement: V, A, W, W dmd, W dmd max, var, VA, Hz,
- » size: 3 DIN
- » LCD display with backlight, touch control
- Communication RS485 Modbus or M-BUS
- free service software UCS



## WM20 96

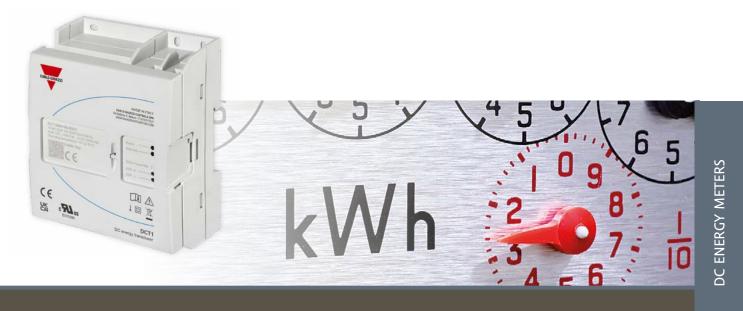
## Three-phase modular power analyzer 3×5 A

Energy meter with higher accuracy (0.5% kWh) in a housing for panel mounting  $96 \times 96$  mm with extended functions.

Order number	Description			
WM20-AV53H	voltage system 230/400V + power supply 100-240VAC/DC			
WM20-AV53L	voltage system 230/400V + power supply 24-48VAC/DC			
WM20-AV363H	voltage system 120/230V + power supply 100-240VAC/DC			
WM20-AV63L	voltage system 120/230V + power supply 24-48VAC/DC			
MO-O2	additional module: 2x output (transistor)			
MO-R2	additional module: 2x output (relay)			
MC-485232	additional module: data port RS232/RS485			
MC-ETH	additional module: data port Ethernet			
MC-BACIP	additional module: data port BACnet IP			
MC-BACMS	additional module: data port BACnet MS/TP			
MC-PB	additional module: data port Profibus DP			

Note: The listed order numbers are for the most common variants. All versions are available in the datasheet or on the website www.enika.cz.

- energy meter: ±kWh, ±kvarh
- » optional measurement mode: A = sum of both directions, B = consumption and generation separately
- measurement: V, A, An, W, W max, var, var max, VA, VA max. Hz. PF
- operating hour counter with optional starting current
- >> two adjustable alarms
- >> THD V/A distortion up to the 32nd harmonic
- additional module two outputs (transistor or relay), usable as SO or alarms
- additional module optional communication ports: RS232, RS485, Ethernet, BACnet, Profibus
- » size: 96x96mm
- » LCD display with backlight
- free service software UCS



## DCT1

## Universal DC energy meter with a wide range of applications

Order number

DC energy meter | accuracy 0.1 Wh | suitable for installation in electric vehicle chargers | communication capabilities

Energy meter with direct connection for DC systems up to 1,000VDC and currents up to 300A or 600ADC, equipped with a Modbus RTU bus or SML communication port. This meter is suitable for installation in electric vehicle charging stations or for measuring DC battery storage systems.

Voltage (Max.) (Max.) DCT1-A30V10-LS1X 1000 V 300 A DCT1-A60V10-LS1X 1000 V 600 A Note: The listed order numbers are for the most common

Measured

currents

Measured

variants. All versions are available in the datasheet or on the website www.enika.cz.

RS-485 Modbus

- class 1 (kWh) according to EN62053-41 or Class A » according to VDE-AR-E 2418-3-100 Appendix A
- accuracy: ±0.5% RDG (current/voltage)
- voltage inputs: 150 to 1000 VDC
- auxiliary power supply: 12 or 24 VDC
- current inputs: direct connection up to 600 A (DCT1A60) or up to 300 A (DCT1A30)
- real-time variables: V, A, W
- energy measurement (total import and export, partial import and export): kWh
- energy resolution: 0.1 Wh
- amp-hour measurement (total imported and exported, partial import and export): Ah
- operating hour counters (relevant for imported/ exported energy, total and partial): Ah
- total operating time measurement (total/partial)
- RS-485 Modbus RTU (S1 without signature, S2 with 256-bit signature, S3 with 384-bit signature) or SML (384-bit signature)
- communication data recovery time: 200 ms
- Eichrechtapproval certificate according to IEC 6205211, IEC 62052 31, IEC 62053 41, VDE AR E 2418 3 100 Appendix A, WELMEC 7.2 THREE-PHASE





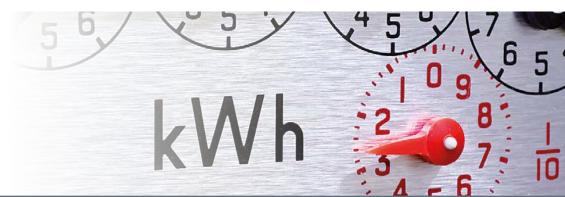












## EM111 DIN

## Single-phase dual-tariff electricity meter 32 A

energy meter: ±kWh, ±kvarh | size 1 DIN | LCD display with backlight

The direction of energy flow measurement can be user-configured, allowing both directions to be recorded on a common counter or separate counters for each direction. Dual-tariff metering is available with separate counters, controlled by the status of control terminals or via a data command.

Order number	MID meter	Pulse Output S0	RS485 Modbus	M-Bus
EM111DIN-AV81X-O1X		1		
EM111DIN-AV81X-S1X			•	
EM111DIN-AV81X-M1X				•
EM111DIN-AV81X-O1PFB	•	1		
EM111DIN-AV81X-S1PFB	•		•	
EM111DIN-AV81X-M1PFB	•			•

Note: The listed order codes are for the most common variants. All versions are available in the datasheet or on the website www.enika.cz.

- energy meter: ±kWh, ±kvarh, two tariffs
- adjustable measurement mode: A = sum of both directions, B = consumption and generation separately
- » measurement: V, A, W, W dmd, W dmd max, var, Hz, PF
- » size: 1 DIN
- » LCD display with backlight, touch control
- Communication Modbus or M-BUS
- free service software UCS

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EN ISO 9001:2016

# **POSEIDON®** WIRELESS CONTROL SYSTEM



