

Catalog for partners

We care about
warmth and safety
of your home



ZUBR

voltage monitoring relay

terneo
smart heating control

Voltage monitoring relay for professionals



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Watch this video to
learn how to sell your
product effectively





Voltage monitoring relay ZUBR provides professional protection of equipment from dangerous voltage fluctuations

The ZUBR relay provides professional protection of household and industrial appliances against dangerous voltage, current and power fluctuations in the mains. After normalizing the network parameters, the relay will automatically supply power to the load.

The quality of the mains voltage must comply with the state standards of 230 V with a slight deviation. This is the voltage that home appliance manufacturers use when designing and manufacturing their appliances. However, the actual mains voltage does not always meet these standards.

Voltage fluctuations from 160 to 380 V may occur, caused by a number of factors:



Breakage

or ingress of neutral wire on one of the phases in overhead power lines



Phase distortion

caused by overloading of one of the phases by any powerful consumer



Outdated equipment

substations, which does not correspond to the increased capacity of consumers



Professional load switch-off model

This model allows you not to turn off the equipment in case of voltage deviations that are safe in size and duration. This reduces the number of emergency shutdowns with short-term and insignificant voltage output outside the established limits.



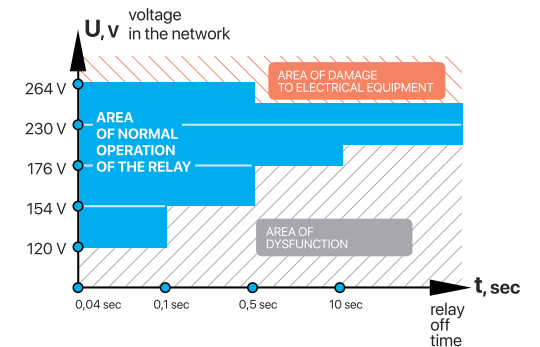
True RMS

True RMS reduces the effect of network interference on the accuracy of voltage measurement when the voltage shape is different from the sinusoid. Thanks to this algorithm, the relay will turn off the load before the voltage surge negatively affects the connected devices.

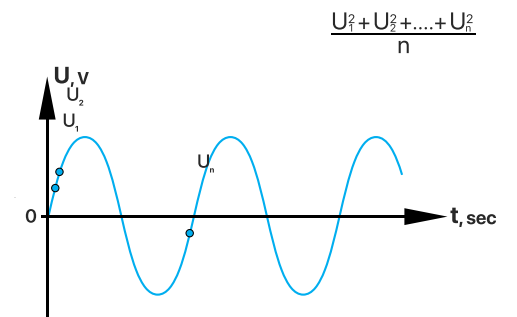


Overheating protection

If the temperature inside the housing exceeds the norm, an emergency shutdown will occur until the temperature drops below 60 °C. If the protection works more than 5 times during the day, the relay will be blocked, until you switch it on manually.



Relay trip time diagram when the voltage goes beyond the limits



Sinusoidal AC voltage

Possible causes of temperature rise inside the case:

- poor contact in the terminals of the device
- high environmental temperature
- exceeding the power of the switched load.

Voltage relay with control of current and power control

Purpose:

Protection of the single-phase power supply against unacceptable voltage deviations and excessive current and active load.

With ZUBR MF2, you can limit the active load of the connected equipment. In the event of an emergency, the device switches off the load. It is additionally equipped with overheating protection.



ZUBR MF2



White
indication



Red
indication

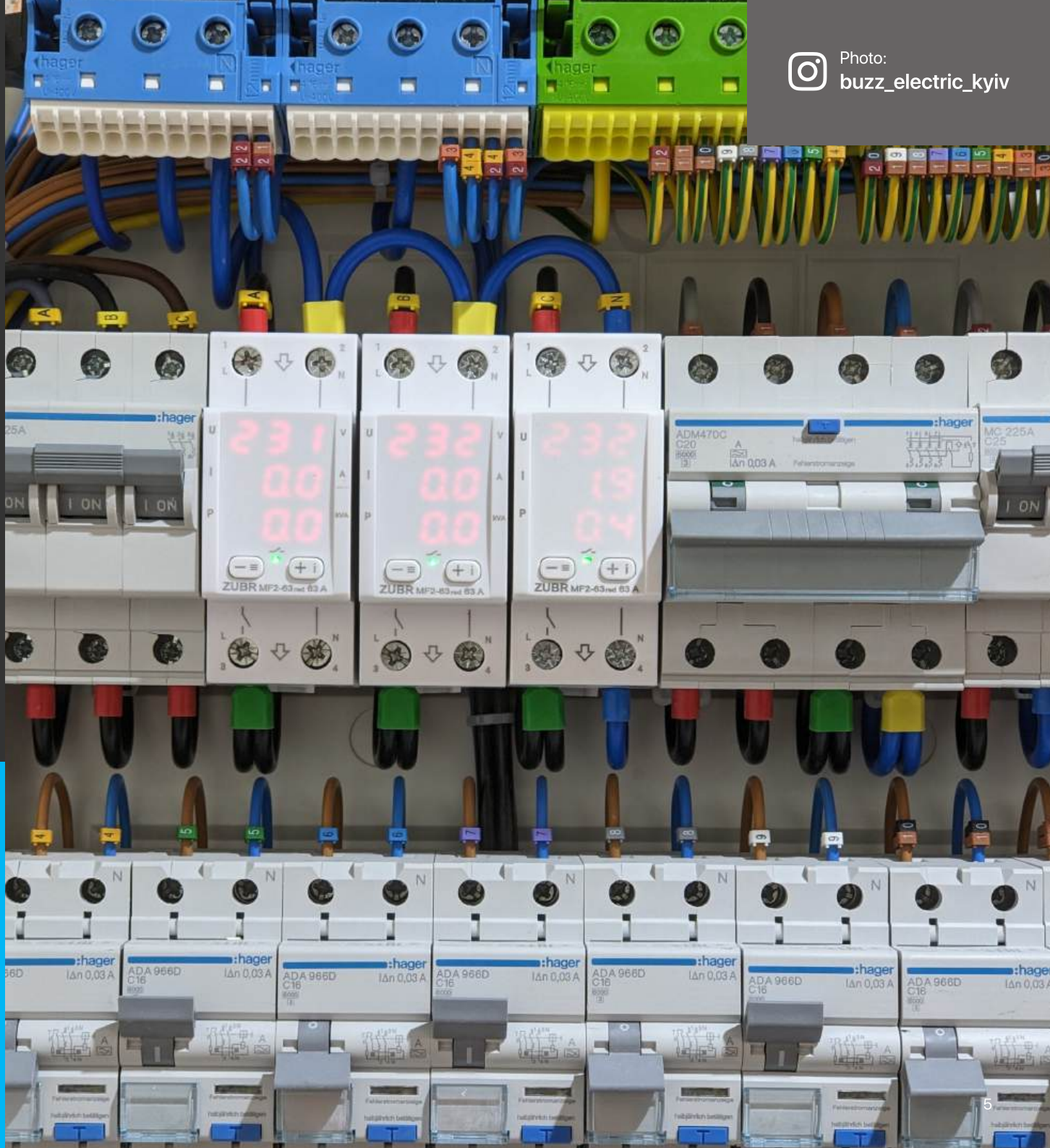


Photo:
buzz_electric_kyiv

Voltage relay with control of current

Purpose:

Protection of single-phase power supply against unacceptable voltage deviations and overcurrent. In the settings, you can display active power instead of current on the second screen. In the event of an emergency, it switches off the load.

Compact body and maximum functionality

Numerous functions for individualized settings in case of network instability. For more information, see pages. 14-15.



ZUBR CV2 red



Voltage monitoring relay **with maximum functions**

Purpose:

Protects equipment from excessive voltage fluctuations. In the event of an emergency, the device switches off the load. Over the years, this relay has become a recognizable trademark of the ZUBR brand.

Compact body and maximum functions

Numerous functions for individualized settings in case of network instability. See pages. 14-15.



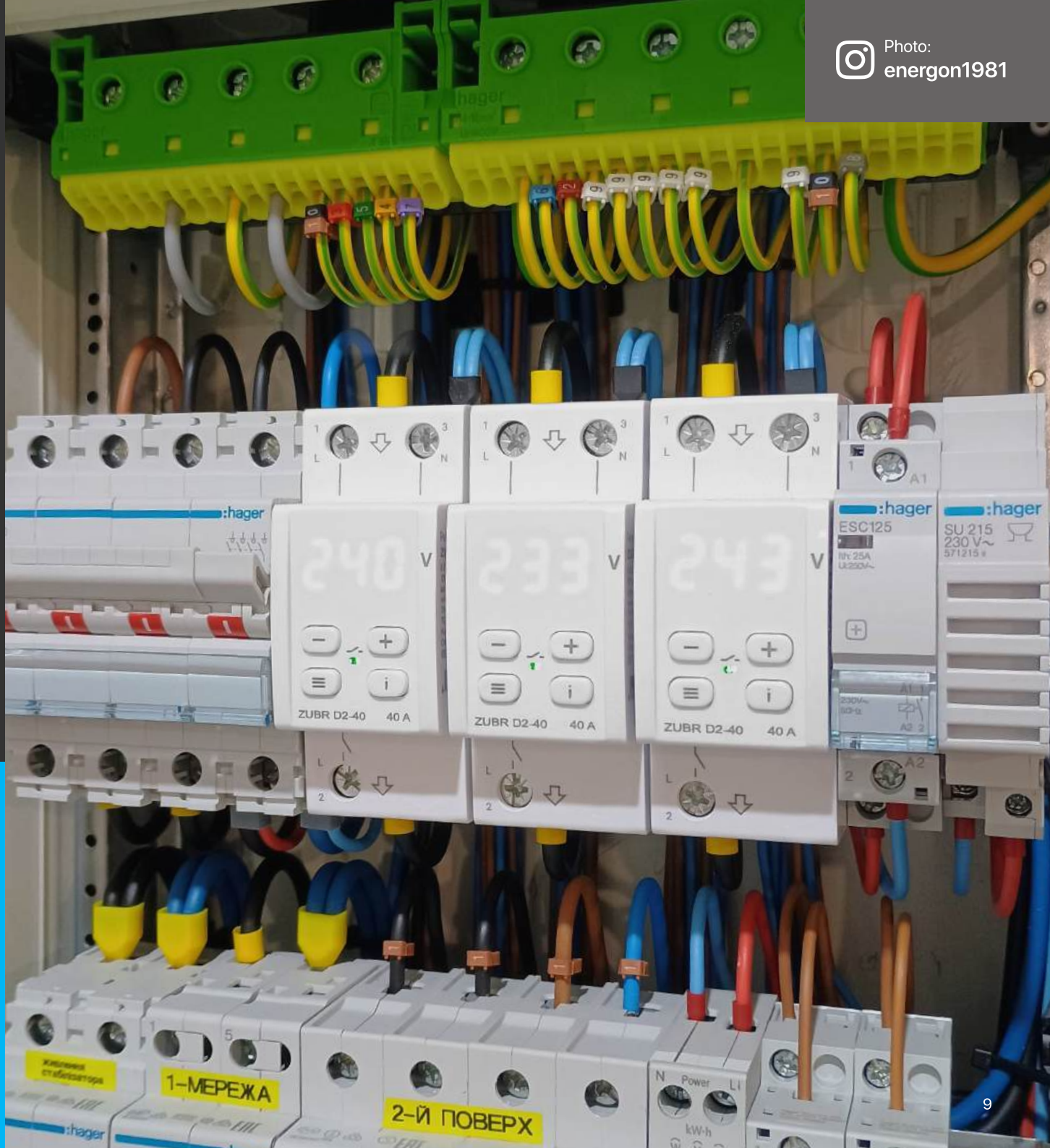
ZUBR D2



White indication



Red indication



Why do professionals prefer ZUBR D2?

High reliability and durability

Using a switching power supply **increases** the life of devices. Absence of metal film capacitors, which eventually lose their properties (their capacity) as a result of dielectric degradation.

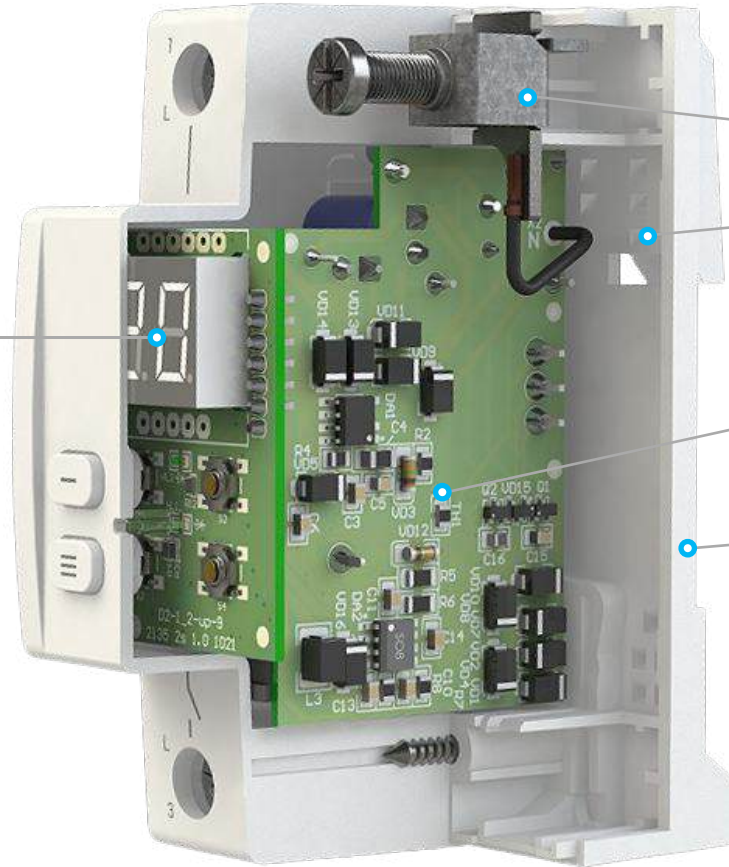
Decreased energy consumption. The use of a switching power supply reduces its own energy consumption.

Correction of screen indications.

The factory setting is 100%, it can be reduced to 0%. In case of an emergency, the screen will light up to 100%.

Professional electricians value us for quality and functionality

Watch detailed review of ZUBR D2 and its installation in the switchboard for the apartment in the video on YouTube — Mesteru' Dexter



Well-designed construction of the case

The **compact body** saves space in the panel. Takes up 2 places on a DIN rail.

- **Powerful crimp terminals**
- Specially shaped **ventilation holes** for heat dissipation from the device.

Increased security

- **Internal temperature sensor.** If the temperature inside the enclosure exceeds 80 °C, the relay will cut off the voltage until the temperature returns to normal.
- **Non-combustible housing** made of self-extinguishing European polycarbonate with the addition of flame retardants that prevent combustion.

👉 Please note that in the voltage relay released in 2024, the connection is made using 3 terminals. In the second quarter of 2025, it is planned to return 4 terminals.



Anna Nizeika
Commercial Director

Sales of the ZUBR D2 voltage relay are growing rapidly, which demonstrates how quickly this product is gaining the love and trust of users. If D2 were a stock, I would definitely invest in it! 📈📈📈



Basic voltage relay for three modules

Purpose:

Protects equipment from excessive voltage fluctuations. In the event of an emergency, the device switches off the load. For many years, this model has been the best-selling ZUBR voltage relay.

Two series: with and without thermal protection

The ZUBR Dt series has a thermal protection sensor inside the housing, in case of overload or poor contact in the terminals, the relay will turn off the load to prevent an emergency.



ZUBR D



ZUBR Dt with thermal protection

The Dt model, compared to the D model, has additional thermal protection as well as a Professional Load Shutdown Time model to reduce the number of shutdowns of equipment that is stable under certain supply voltage deviations.

Functional of single-phase DIN rail voltage monitoring relays

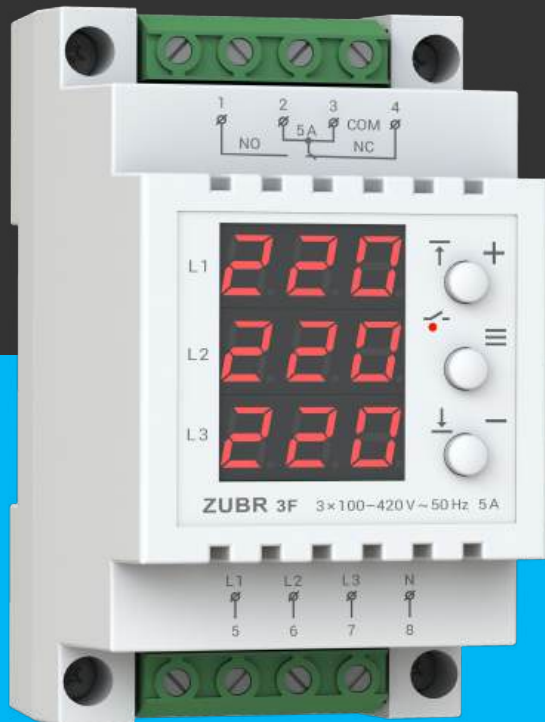
					
	MF2	CV2	D2	Dt	D
Rated load current	40, 50, 63 A	32, 40, 50, 63 A	32, 40, 50, 63 A	25, 32, 40, 50, 63 A	16, 25, 32, 40, 50, 63 A
Housing width	2 modules	2 modules	2 modules	3 modules	3 modules
Voltage protection	✓	✓	✓	✓	✓
Current and power protection	✓	✓	✗	✗	✗
Alarm log A very useful feature. You will be aware of all cases when the ZUBR worked due to voltage, current or power exceeding the established limits.	100 values	100 values	100 values	50 values	50 values
Switch-on load delay Adjustable time before switching on the load after an accident. It is used to protect compressor equipment, such as refrigerators to increase the service life.	✓	✓	✓	✓	✓
Professional load switch-off model You can activate a professional switch-off time delay model to reduce the number of outages of modern equipment that works stably under certain power voltage deviations.	✓	✓	✓	✓	✗
Protection from frequent operations in case of unstable network Limits the number of repeated relay operations in a row to eliminate their detrimental effect on protected equipment sensitive to frequent operations, such as a refrigerator or air conditioner.	✓	✓	✓	✓	✗
High accuracy of voltage measurements with TrueRMS The total number of outages will be reduced! But in all cases thanks to this algorithm, ZUBR will turn off the load before the voltage surge negatively affects the connected devices.	✓ by current and voltage	✓ by current and voltage	✓ by voltage	✗	✗
Adjustable hysteresis by voltage Hysteresis makes it possible to optimize the number of trips, making sure that the voltage has become more stable and less than the established limit.	✓	✓	✓	✗	✗
Overheating protection The temperature sensor inside the case ensures safety and turns off the load if the temperature inside up to 80 °C.	✓	✓	✓	✓	✗
Correction of screen indications	✓	✓	✓	✓	✓

Three phase voltage monitoring relay

Purpose:

For protection of industrial (including three-phase motors) and household three-phase electrical equipment against overvoltage, asymmetry (load difference between phases), sticking and phase sequence.

Three-phase motors are used in various pumping and compressor equipment, industrial ventilation, etc.



ZUBR 3F ! Used with contactor

Photo: [sao-electric_lutsk.ua](https://www.instagram.com/sao-electric_lutsk.ua)



Use cases of voltage relay in socket

Purpose:

Designed to protect household appliances (TV, refrigerators, video and audio equipment, etc.) from dangerous voltage deviations.

Socket relays are a great solution, if it is not possible to install a relay on the DIN rail in the switchboard or you want to set a longer delay for compressor equipment, such as a refrigerator.



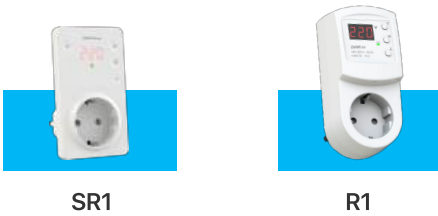
ZUBR R1



**Protect from unsafe voltage
and increase the service life
of your favorite equipment**

For equipment sensitive to frequent voltage outages (for example, refrigerators or air conditioners), we recommend setting the delay duration to 2-3 minutes. It will allow to increase the service life of the compressor.

Comparative characteristics of socket voltage monitoring relays



Rated load current	16 A	16 A
Overall dimensions	106 x 60 x 76 mm	124 x 57 x 83 mm
Alarm log	1 value	50 values
Switch-on load delay Adjustable time before switching on the load after an accident. It is used to protect compressor equipment, such as refrigerators to increase the service life.	✓	✓
Thermal protection	✓	✓
True RMS	✓	✓
Professional load switch-off model	✓	✓
Correction of screen indications	✓	✓
Button block	✓	✓
Screen brightness adjustment	✓	✗
Switching power supply	✓	✗



Vladyslav Fomichov
Business Development Manager

If you are not an electrician or there is no place in the switchboard, or the repair works have been already done, you can protect expensive equipment by purchasing a voltage relay in socket.



Voltmeter-ammeters

Purpose:

Designed for domestic or industrial use, to improve the electrical panel and for visual indication of network parameters. For example, you can install it in an apartment where there is already a voltage monitoring relay, but without indication. These devices are indicators, they do not protect, only measure and show.



V1



V3



VA-1 red

Number of phases	1	3	1
Housing width	3 modules	3 modules	2 modules
Measurement of voltage, V	✓	✓	✓
Measurement of current, A	✗	✗	✓
Measurement of reactive power, kVar	✗	✗	✓
Measurement of active power, kW	✗	✗	✓
Measurement of full power, kVA	✗	✗	✓
cos φ measurement	✗	✗	✓
Network deviation log	✗	✗	✓
Storage of min and max voltage	✓	✓	✗
Correction of screen indications	voltage	voltage	voltage and current
Control of phase alternation	✗	✓	✗
Screen brightness adjustment	✗	✗	✓

Underfloor heating for professionals



25 years
warranty



Both conductors in the cable are heating

The even temperature distribution ensures longer operation of underfloor heating.



Coupling with insulator and heat shrinkage

A dielectric insulator arranges the position of the two conductors and the core screen.



Protection with double-layer insulation

Each conductor is covered with a layer of FEP and HDPE high-density polyethylene.



Uniform external insulation along the entire length

Ensures uniform heating and no thin spots along the entire length.



Watch this video to
learn how to sell your
product effectively



ZUBR DC MAT 160 W/m²

- Cable diameter of the mat 3,6 mm
- Mat width 50 cm
- Corrugated tube with copper plug included
- External insulation XLPE — 0,45 mm
- High water protection class IPX7
- Warranty 25 years



Power, W	Laying area, m ²	Mat length, m	ABC-analysis
160	1,0	2	A
240	1,5	3	A
320	2,0	4	A
400	2,5	5	B
480	3,0	6	A
560	3,5	7	B
640	4,0	8	A
800	5,0	10	B
960	6,0	12	B
1 120	7,0	14	C
1 280	8,0	16	C
1 600	10,0	20	C
1 920	12,0	24	C
2 240	14,0	28	C
2 640	16,5	33	C

ZUBR DC CABLE 17 W/m

- Cable diameter 5 mm
- Corrugated tube included
- External insulation PVC 1 mm
- High water protection class IPX7
- Warranty 25 years



Power, W	Laying area, m ²		Length, m	ABC-analysis
	136 W/m ² pitch 12,5 cm	170 W/m ² pitch 10 cm		
140	1,0	0,8	8	B
170	1,3	1,0	10	A
210	1,6	1,3	12,5	B
270	2,0	1,6	16	A
345	2,5	2,0	20	A
440	3,2	2,6	25,5	A
565	4,0	3,2	32	A
620	4,6	3,7	37	B
720	5,3	4,2	42	B
890	6,5	5,2	52	B
970	7,0	5,6	56	C
1 070	7,9	6,3	63	C
1 210	8,9	7,1	71	C
1 340	9,9	7,9	79	C
1 500	11,1	8,9	89	C
1 670	12,1	9,7	97	C
2 010	14,6	11,7	117	C
2 550	18,6	14,9	149	C



All ZUBR cables and mats are manufactured according to our technical specifications at a specialized factory in the EU

Heating mat

European quality at a Ukrainian price

The main advantages of a mat over a cable

Easy to install and can be installed in tile adhesive. The heating cable is already laid out in the mat in uniform 9 cm increments on a self-adhesive fiberglass reinforcing mesh, which ensures even, comfortable heating.

Very convenient when it is no longer possible to raise the floor height

If you don't have the option of raising the floor level, or if you need a simple and quick installation, a heating mat is the only and best choice.



ZUBR DC MAT 160 W/m²



The set includes a corrugated tube with a copper plug

Copper is a better temperature conductor than plastic, so the sensor inside the copper plug reacts faster to changes in underfloor heating temperature and maintains comfort more accurately.

Smart heating control



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Watch this video to learn how to sell your product effectively



Smart Wi-Fi thermostats terneo

Smart functions of Wi-Fi thermostats terneo

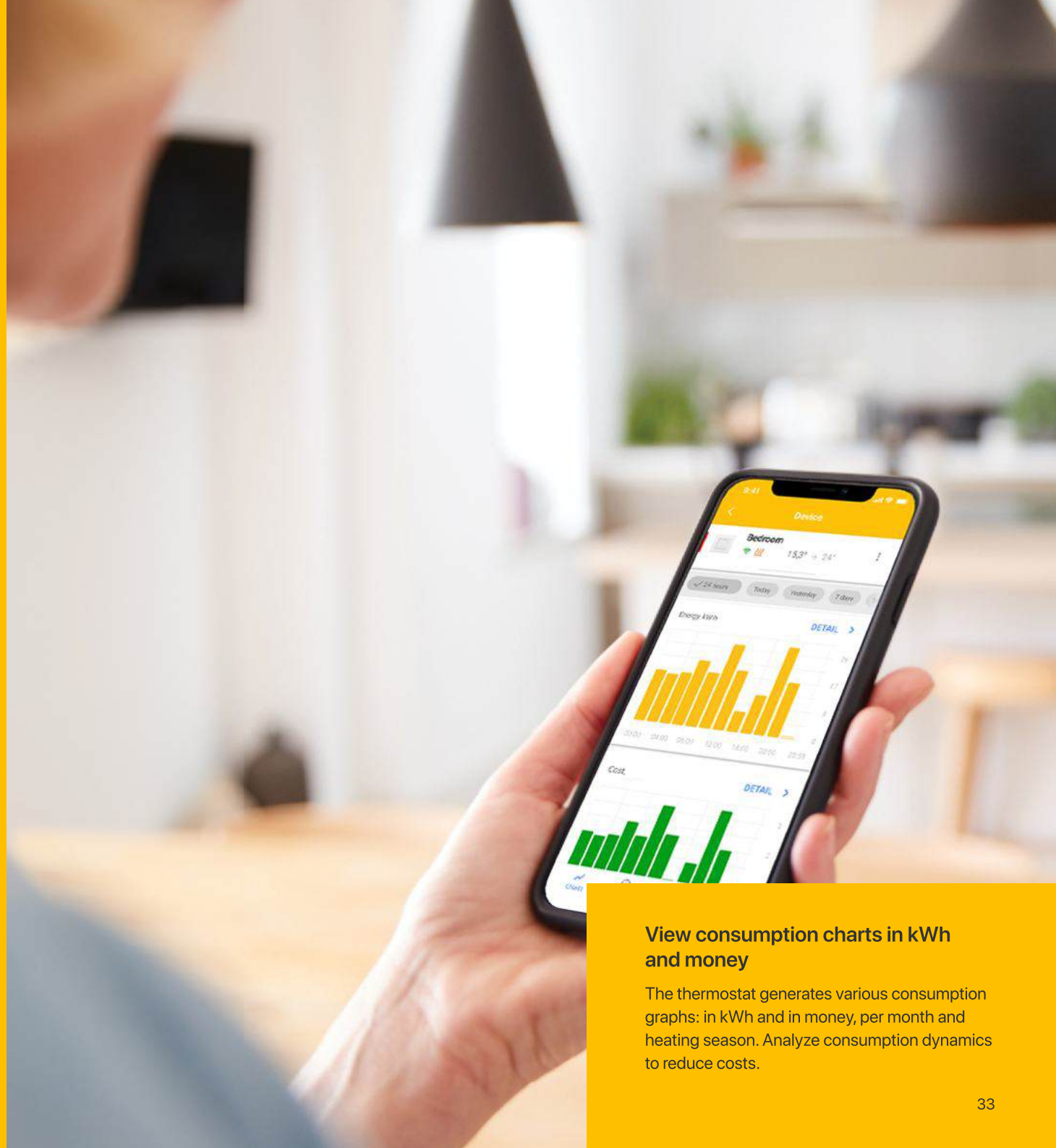
- Weekly schedule
- Smart Geofencing function for maximum savings
- Energy savings of up to 50% due to programming
- Cost statistics in kWh and money
- Ability to connect to the Smart Home system
- Manage multiple devices as if they were one
- Access for the whole family

terneo Wi-Fi thermostats are suitable for any type of installation

Easy to install in a junction box or electrical panel.



Scan to download
the terneo app



View consumption charts in kWh and money

The thermostat generates various consumption graphs: in kWh and in money, per month and heating season. Analyze consumption dynamics to reduce costs.

Smart heating is now on your smartphone

Geofencing for maximum savings

The heating depends on your location and will only be turned on when you are at home or on your way home.

Heating will automatically resume when you return home

Don't want to constantly monitor the underfloor heating? Now, owners of Smart terneo thermostats can relax while the thermostat itself takes care of optimizing energy costs for underfloor heating.

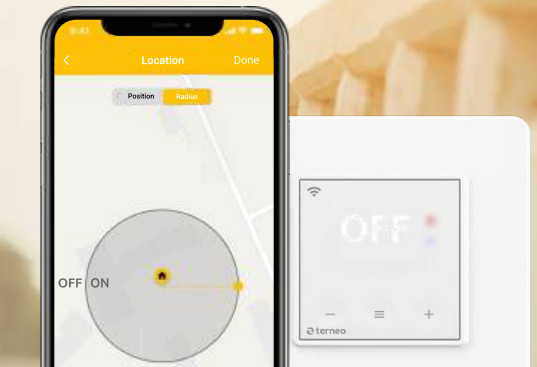
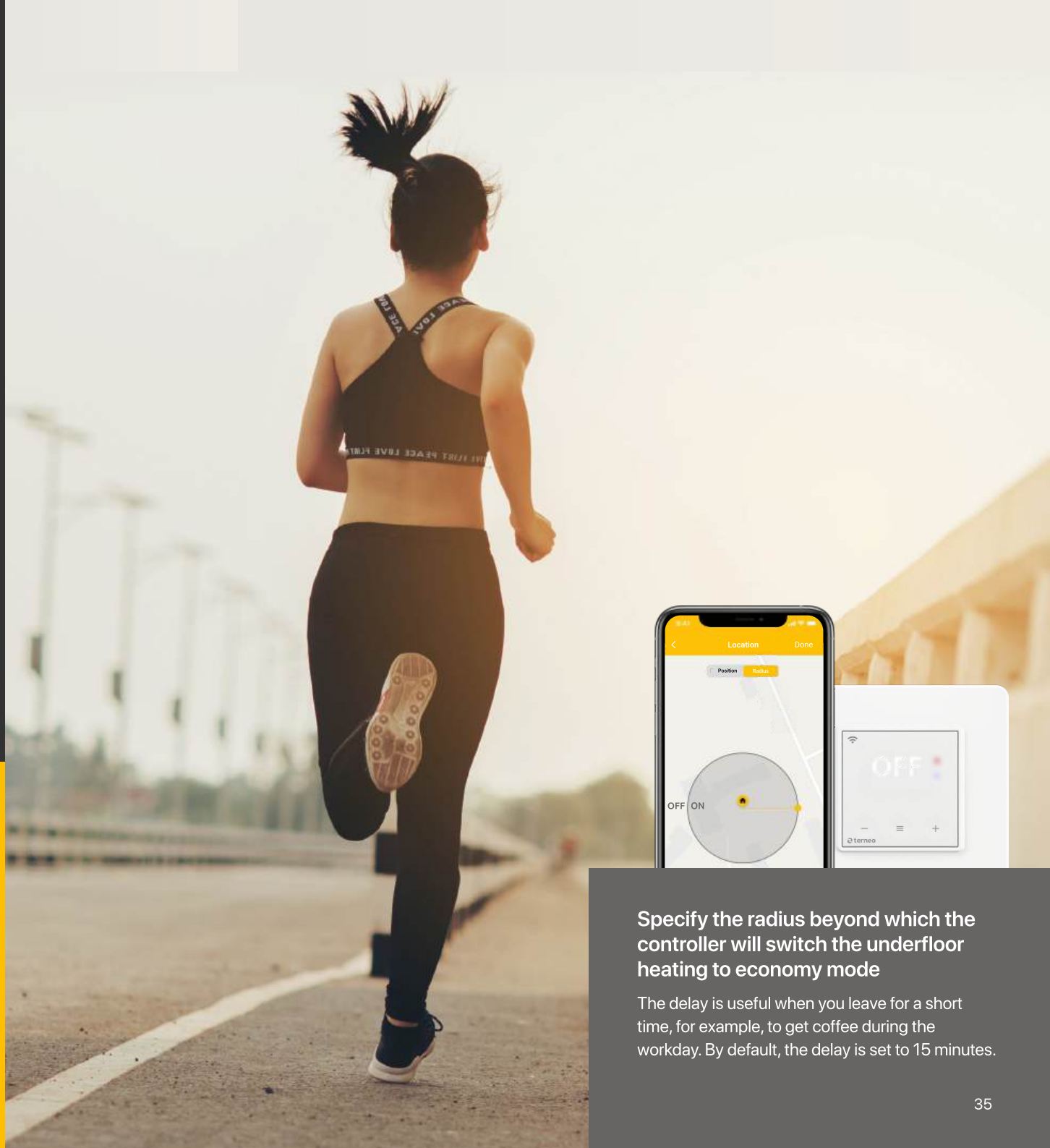


Significant savings

With high electricity tariffs



terneo sx



Specify the radius beyond which the controller will switch the underfloor heating to economy mode

The delay is useful when you leave for a short time, for example, to get coffee during the workday. By default, the delay is set to 15 minutes.

Smart Wi-Fi flush-mounted thermostat

Not visible in the interior, because it is hidden in the shield

terneo BX is placed in the panel together with other automation and does not create an unnecessary accent in the interior. You get a modern underfloor heating with smart smartphone control.

Suitable for a large heating area

It has a power of up to 7 000 VA. It is convenient when you need to heat a large area or several zones at the same time.



terneo bx



Smart Wi-Fi thermostat



terneo sx

🔋 Reasonable consumption

Heating based on:

Heating cable, infrared film, water floor heating

Temperature maintenance:

By floor temperature 5...45 °C

Power:

3 000 VA



terneo bx

🔋 Reasonable consumption

Heating based on:

Heating cable, infrared film, water floor heating

Temperature maintenance:

By floor temperature 5...45 °C

Power:

⚠️ 7 000 VA

Functional:

Maximum savings thanks to Wi-Fi control and Geofencing function

Management is carried out through mobile applications for iOS, Android and the desktop application my.terneo.ua. The terneo app is our own intellectual property.

Schedule

You can add up to 16 temperature periods to each day. For example, when you are at work, you can set the temperature to save money, and when you are at home, you can set the temperature to be comfortable.

Graphs of energy consumption in kWh and money

Be sure to fill in the connected capacity and your electricity tariff to generate statistics. You can view data for any period of time, such as the heating season. terneo also supports multi-tariff.

Group control

If you have several thermostats, they are easy to control as one. Combine them into a group, such as Home, and create a single schedule. See expenses in money by group: for example, separately at Home and separately at the Country house.

Share access

Share access and give rights to other users: view or control.

"Preheating" function

terneo will pass self-training and will be able to turn on the preheating so that the desired temperature has already been reached by the beginning of each temperature period.

"Departure" mode

You can set a return date and terneo will heat the room just before your arrival.

Offline mode in case of Internet problems

In case of Internet loss, the thermostat will continue to control the heating according to the preset settings. Once the Internet connection is restored, all settings will be synchronized.

Thermal protection

If the temperature inside the housing increases to 85 °C, the thermostat will automatically stop working. This gives extra safety during operation.

Possibility to continue operation in case of sensor damage

The sensor is the main indicator of the heating system. This emergency mode will ensure the operation of the heating floor without a sensor before the repair is done.

Screen temperature correction

If you want to adjust the indications, for example, by 1 °C.

Copy settings to another day or thermostat



Scan the QR code to access the interactive web version of the manual

The web version is a more convenient and modern format than a paper manual.

Your life with terneo



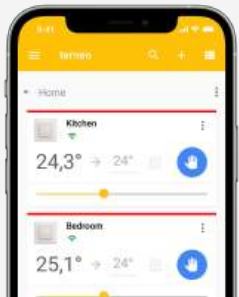
Connect in 5 minutes

Download free App terneo in App Store or Google Play. Put the thermostat in Access Point mode. In the application click "Add a thermostat". Choose the created Wi-Fi network by the thermostat and enter your Wi-Fi password.



Turn on self-learning

Activate the preheating function and terneo will calculate the time for which the heating should be switched on in advance! Thus, by the beginning of each schedule period, the desired temperature will have been reached.



Add all your terneo to the mobile app and group by location

If you have several thermostats, you can quickly control them as one. For example, you go to the country house and with one click you can turn on the heating on all the thermostats in the Country house group, and then turn it off.



Using cost charts in kWh and money to optimize your schedule

You can optimize your schedule by analyzing the dynamics of electricity consumption for the month or heating season. There is a support for multiple tariffs.



Set a comfortable schedule

Create up to 16 temperature periods per day. This is a record number among analogs! Create a schedule for Monday, and if necessary, copy it to other weekdays. You can also copy the week timetable from one thermostat to another.



Contribute for the good of the planet — replace the ordinary thermostat with a smart one

terneo thermostats are compatible with analog (R10) and digital (D18) sensors of most manufacturers. Remote control, expenses schedules, and the ability of terneo to self-learning provide greater heating savings and superior comfort.



Turn on Geofencing for automatically saving when nobody at home

Thanks to Geofencing, the heating will only work when one of the users is at home. For example, if you had to leave urgently, then terneo will turn off the heating while you are not at home. Isn't that awesome?



Scan

For your convenience, we have prepared a video tutorial — How to connect terneo sx to the mobile app

Programmable thermostat

For underfloor heating



terneo pro

🔋 Reasonable consumption

Purpose:

Underfloor heating based on heating cable, infrared film, water floor heating.

Temperature maintenance:

By floor temperature 5...60 °C /

By air temperature 5...35 °C

Power:

3 000 VA

For electric and gas boilers



terneo pro dry contact

🔋 Reasonable consumption

Purpose:

Electric and gas boilers, water floor heating.

Temperature maintenance:

By floor temperature 5...60 °C /

By air temperature 5...35 °C

Power:

3 000 VA

Functional:

Weekly heating schedule

Select the temperature the thermostat should maintain in the morning, afternoon, evening, and night. You can increase the number of temperature periods to 16.

Energy consumption statistics in kWh

Enter the connected power in the settings. terneo accumulates data on the system operation time and converts it into kWh. Statistics are available for a day, week, month, and total.

Settings wizard

When you turn it on for the first time, terneo pro guides you step by step through the basic thermostat settings and saves you time.

"Preheating" function

terneo will pass self-training and will be able to turn on the preheating so that the desired temperature has already been reached by the beginning of each temperature period.

Holidays

Activate feature Holidays, if you are going to spend the national holidays at home. We have developed an editable template for Moldova, Romania, Poland, Germany, The Czech Republic.

"Departure" mode

You can set a return date and terneo will heat the room just before your arrival.

"Open window" function

terneo is able to recognize when a window is open in room after a sharp drop in temperature and turn off heating for 30 min, avoiding excessive electricity consumption during ventilation.

Thermal protection

If the temperature inside the housing increases to 85 °C, the thermostat will automatically stop working. This gives extra safety during operation.

Possibility to continue work in case of sensor damage

The sensor is the main indicator of the heating system. This emergency mode will ensure the operation of the heated floor without a sensor before the repair is done.

Screen temperature correction

If you want to adjust the indications, for example, by 1 °C.

Copy settings to another thermostat

2 modes: heating and cooling

Button lock

Comfort on your individual schedule

Save up to 50% on underfloor heating costs

Savings are achieved due to the fact that the heating floor heats only when needed. You can view the consumed electricity in the statistics section, compare costs by weeks, months or for any period. To calculate for a certain period, first reset the previous statistics.

Exploring the world in comfort

To make it comfortable for a little explorer to crawl barefoot on the tiles, turn on the "Air temperature control with floor restriction" mode in terneo pro. The thermostat will maintain the air temperature, preventing the floor from overheating or cooling too much.



terneo pro



2 sensors: floor and air

If you plan to use terneo pro to control heating based only on air temperature, you can purchase it without a floor sensor.

terneo supports your favorite floor temperature

Timer to turn on heating

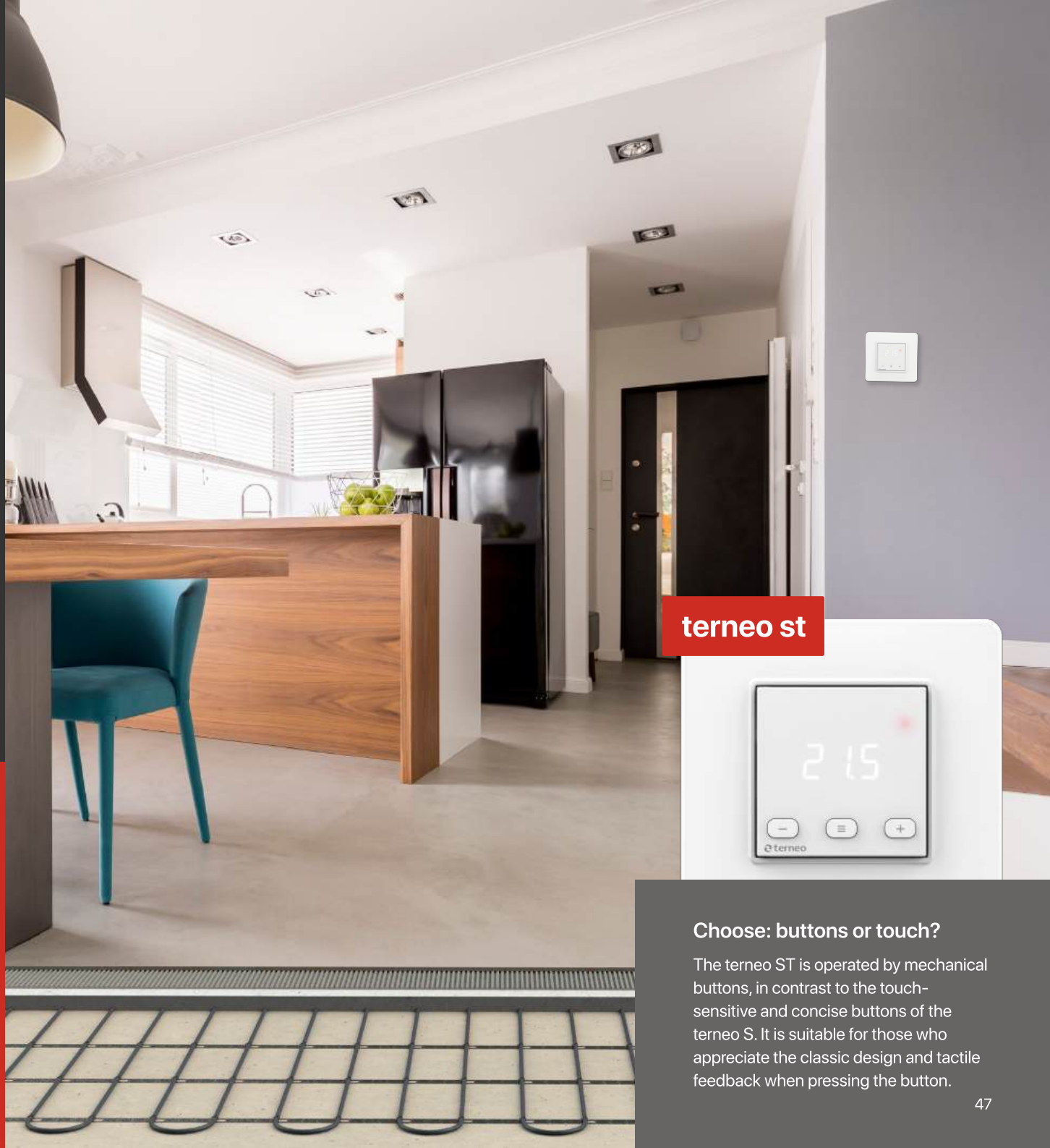
If you are going to leave, set the Timer for up to 4 days and terneo will heat the room until your return. It is a simple tool for saving without losing basic comfort.

Load operating time counter

The cost of underfloor heating can be calculated by multiplying the operating time of underfloor heating under the load on the floor capacity and tariff. Agree, this is a very interesting information.



terneo s



terneo st



Choose: buttons or touch?

The terneo ST is operated by mechanical buttons, in contrast to the touch-sensitive and concise buttons of the terneo S. It is suitable for those who appreciate the classic design and tactile feedback when pressing the button.

Thermostats for underfloor heating



	terneo sx/bx	terneo pro/ pro dry contact	terneo s/st	terneo k2	terneo b	terneo mex	terneo rtp
Floor temperature maintenance	5...45 °C	floor — 5...60 °C air — 5...35 °C	5...40 °C	-9...+99 °C	5...40 °C	10...40 °C	10...40 °C
Power	sx — 3 000 VA bx — 7 000 VA	3 000 VA	3 000 VA	2 × 3 000 VA	7 000 VA	3 000 VA	3 000 VA
Wi-Fi control with Geofencing	✓	✗	✗	✗	✗	✗	✗
Weekly schedule	✓	✓	✗	✗	✗	✗	✗
Energy statistics in kWh	✓	✓	✗	✗	✗	✗	✗
Expenses in money	✓	✗	✗	✗	✗	✗	✗
“Departure”, “Preheating” functions	✓	✓	✗	✗	✗	✗	✗
Group control	✓	✗	✗	✗	✗	✗	✗
Button lock	✓	✓	✓	✗	✗	✗	✗
Thermal protection	✓	✓	✓	✓	✓	✗	✗
Possibility to continue work in case of sensor damage	✓	✓	✓	✗	✓	✗	✗
Screen temperature correction	✓	✓	✓	✗	✓	✗	✗
Timer to turn on heating up to 4 days	✓	✓	✓	✗	✓	✗	✗
Load operating time counter	✓	✓	✓	✗	✓	✗	✗
Two modes: heating and cooling	✓	✓	✗	✓	✗	✗	✗
Controls water floor heating with servo-type drives: NC — normal close, NO — normal open	NC NO	NC	NC	NC NO	NC NO	NC	NC

Thermostats for infrared panels and convectors

Control heating by air temperature

Timer to turn on heating

If you are going to leave, set the Timer for up to 4 days and terneo will heat the room until your return. It is a simple tool for saving without losing basic comfort.

Load operating time counter

The cost of underfloor heating can be calculated by multiplying the operating time of underfloor heating under the load on the floor capacity and tariff.

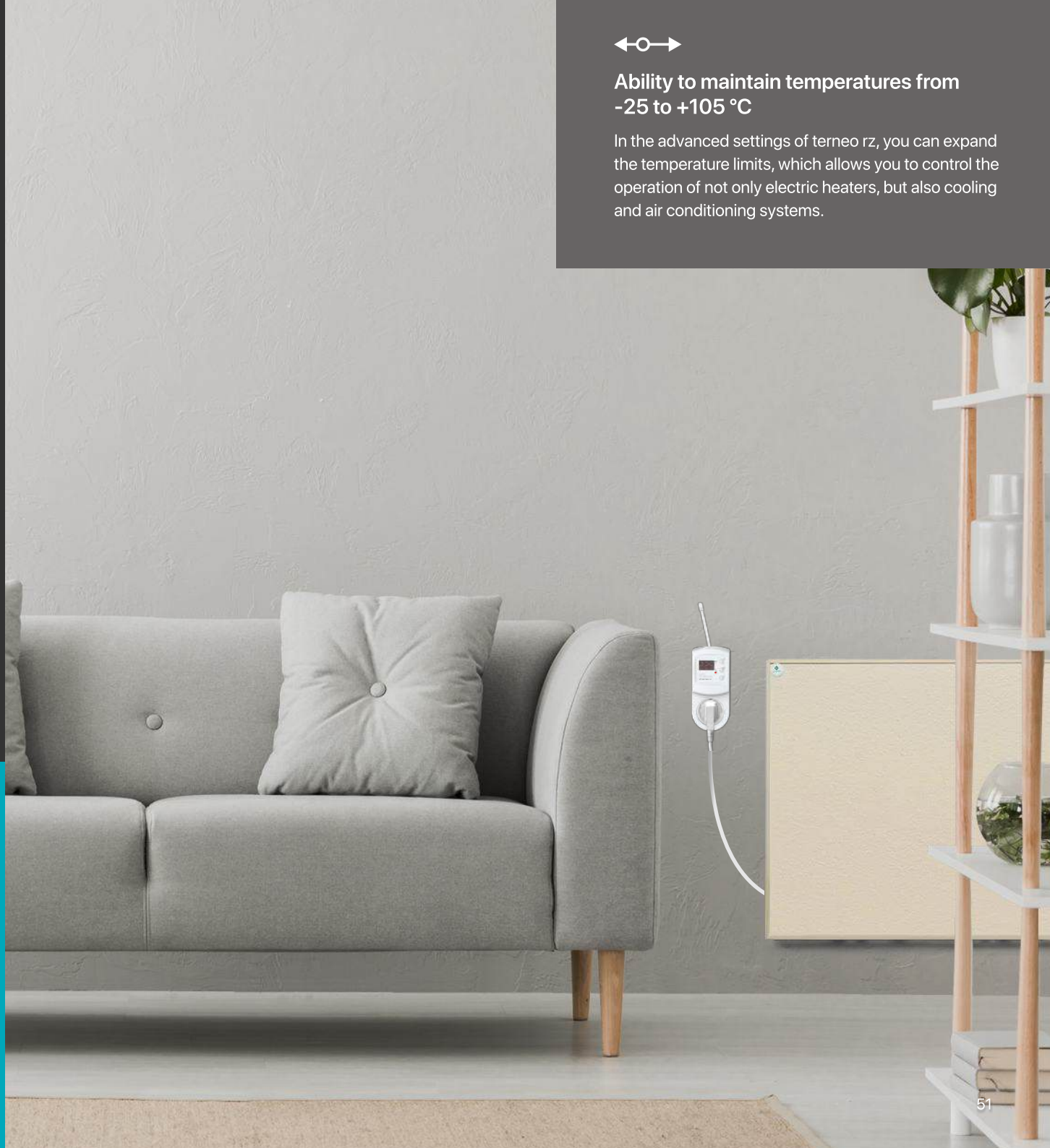


terneo rz



**Ability to maintain temperatures from
-25 to +105 °C**

In the advanced settings of terneo rz, you can expand the temperature limits, which allows you to control the operation of not only electric heaters, but also cooling and air conditioning systems.



Thermostats for infrared panels and convectors



terneo pro



terneo rz



terneo rol

Air temperature maintenance Default / additional settings	5...35 °C	0...30 °C / -25...+105 °C	0...35 °C
Power	3 000 VA	3 000 VA	3 000 VA
Weekly schedule There are three periods of comfortable temperature during the week and one on the weekend, between which the temperature is maintained at an economical level.	✓	✗	✗
Energy statistics in kWh Enter the connected power in the settings. terneo accumulates data on the system operation time and converts it into kWh. Statistics are available for a day, week, month, and total.	✓	✗	✗
"Departure", "Preheating", "Open window" functions	✓	✗	✗
Button lock	✓	✓	✗
Thermal protection If the temperature inside the housing increases to 85 °C, the thermostat will automatically stop working. This gives extra safety during operation.	✓	✓	✓
Screen temperature correction	✓	✓	✗
Timer to turn on heating up to 4 days	✓	✓	✗
Load operating time counter	✓	✓	✗
Two modes: heating and cooling	✓	✓	✗
Standby brightness adjustment	✓	✗	✗
Hysteresis Default / additional settings	0,5 °C	1 °C / 0,5...25 °C	1 °C

Effective snow and ice cleaning

Purpose:

Keeps the surrounding area, roof, and gutters free of ice and snow. The heating will only turn on if two conditions are met: the temperature is within the set limits and the moisture sensor detects the presence of snow or ice.

A perfect result

Timely melting improves the safety of people and vehicles and reduces damage to buildings and property during cold weather and the off-season.

Temperature and precipitation sensors

Two sensors are included: temperature and precipitation. The moisture sensor is available in 2 types to choose from: soil and drainage.



terneo sneg



Precipitation sensor to choose from:

- Sensor for installation in the VOL gutter for roof cleaning.
- The OSA Ground Sensor for cleaning porches, sidewalks, or outdoor production areas.

Thermostats for snow melting systems



terneo kt



terneo sn



terneo sneg

🔋 Reasonable consumption

Temperature limits	upper — 0...+10 °C lower — -20...-1 °C	upper — 0...+10 °C lower — -20...-1 °C	upper — 0...+10 °C lower — -20...-1 °C
Power	3 000 VA	7 000 VA	3 000 VA
Button lock Protection of settings from children and in public places.	✓	✗	✗
Thermal protection	✓	✓	✓
Possibility to continue work in case of sensor damage The sensor is the main indicator of the heating system. This emergency mode will ensure the operation of the heating floor without a sensor before the repair is done.	✓	✓	✓
Screen temperature correction If you want to adjust the indications, for example, by 1 °C.	✓	✓	✓
Load operating time counter You can calculate the energy consumption for a certain period! To start a new period, you need to reset the counter to zero!	✓	✓	✓
Forced heating It is convenient, for example, if dry precipitation has fallen during severe frost, and you want to remove them. Or you need to check the health of the system during commissioning.	✗	✓	✓
Precipitation detection The system will only turn on when needed! After the temperature falls within the desired limits, the thermostat begins to check for precipitation. And if snow or ice is detected, it gives a signal to turn on the heating cable.	✗	✗	✓

💡 Thanks to two sensors, heating is carried out exactly when it is really needed, allowing you to use electricity efficiently.



Lyudmila Zueva
Business Development Manager

Wide limits of regulation and hysteresis

Purpose:

Maintaining a constant temperature in piping systems. Ensuring stable operation of high-power electric boilers. Modernization of an old electric boiler. Heating of the sewage system. Heating of greenhouses.



terneo rk

Temperature maintenance:
-55...+125 °C
Hysteresis:
0,5-25 °C
Current:
32 A

Functional:

Thermal protection	✓
Possibility to continue work in case of sensor damage	✓
Screen temperature correction If you want to adjust the indications, for example, by 1 °C	✓
Timer to turn on heating up to 4 days	✓
Load operating time counter	✓



Nataliia Pogorela
Business Development Manager

This is a universal "soldier" among terneo thermostats! Temperature adjustment is possible from -55 to +125 °C, hysteresis 0,5 ... 25 °C and maximum power 32 A. Therefore, the scope of the rk thermostat is limited only by your imagination!



To control two heating or cooling zones

Purpose:

An excellent solution for controlling two underfloor heating systems. The terneo k2 is also designed to control two different heating or cooling systems. The set includes two sensors in a 4-meter long heat shrinkable cable.



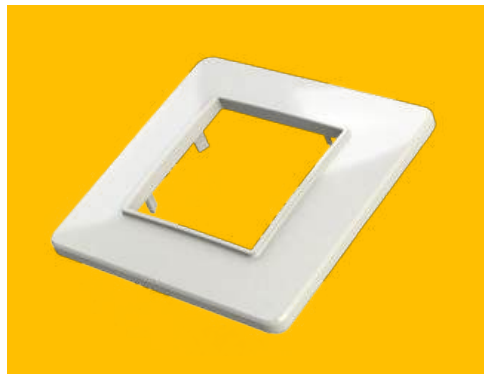
terneo k2

Temperature maintenance:
-20...+100 °C
Hysteresis:
0,1-10 °C
Current:
2 x 16 A

Functional:

Wide range of temperature settings -20...+100 °C	✓
Control of two separate heating and cooling zones If you place both sensors in the same place and connect one channel to heating and the other to cooling, you can maintain a comfortable temperature all year round.	✓
Timer to turn on heating up to 4 days If you are going away, set the Timer for up to 4 days and terneo will heat the room until you return. Or, on weekdays, when you leave for work, set the timer for 8 hours to save money without sacrificing comfort.	✓
Load operating time counter You can calculate electricity consumption over a certain period.	✓
Screen temperature correction	✓
Thermal protection	✓

Installation elements



**Original
terneo frame**

Dimensions:
85 x 81 mm

Purpose:

All terneo thermostats with concealed installation are supplied with our original frames. The terneo frame is designed in the style of minimalism and fits perfectly into any interior.



terneo adapter

Dimensions:
85 x 81 x 28,5 mm

Purpose:

For on-surface installation of terneo thermostat, when:

- You do not want to destroy the wall and perform quite complex work on laying a channel for wiring in the wall.
- The repair in the room has already been done and you do not want to spoil the wallpaper or other wall decoration.
- In private houses and cottages, where many types of walls and heaters do not allow "to sink in" electrical wiring because of fire safety.

Compatible furniture with terneo

terneo is compatible with all **Schneider-Electric** frames of **Unica** series

The Unica series includes over 100 types of frames. They are convenient to use for mounting in a single frame with a switch or socket.



Cover frame:

Schneider Electric Unica • 2 gangs • anthracite



Cover frame:

Schneider Electric Unica • 3 gangs • white

We manufacture ZUBR and terneo at a modern full-cycle factory

Kyiv, Ukraine

location of the manufacturer

Since 2003

producing devices

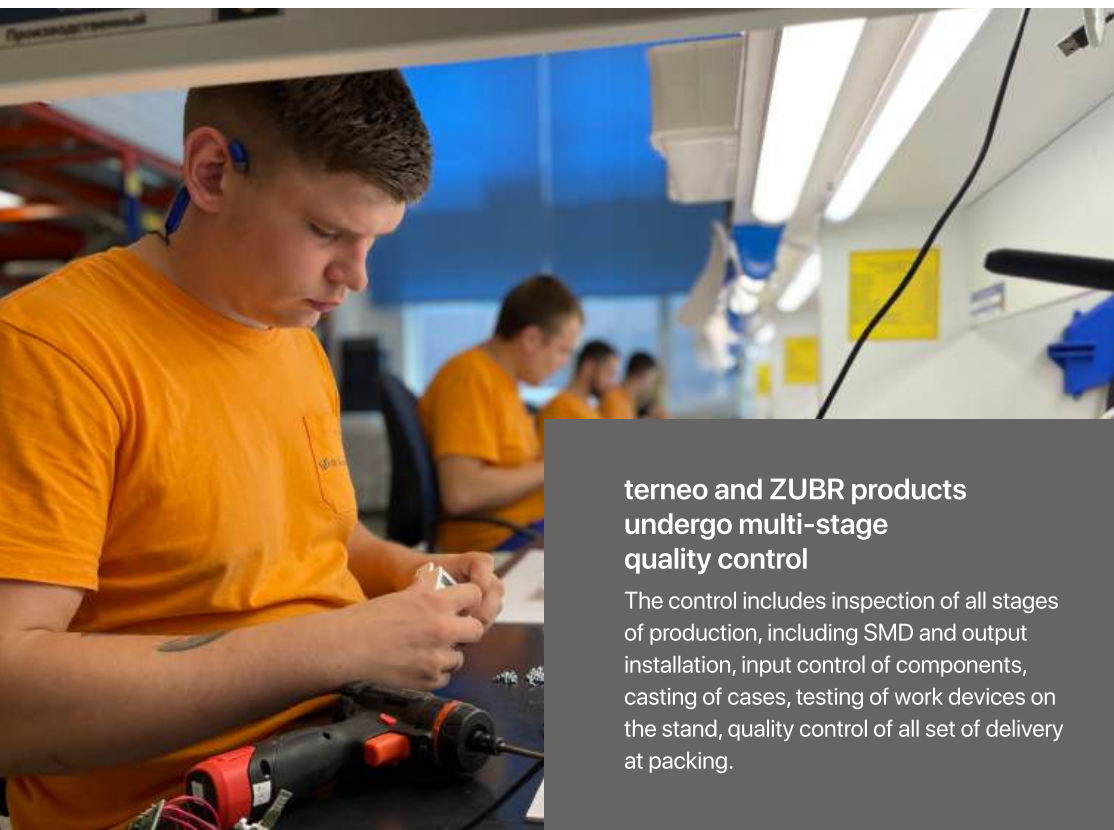
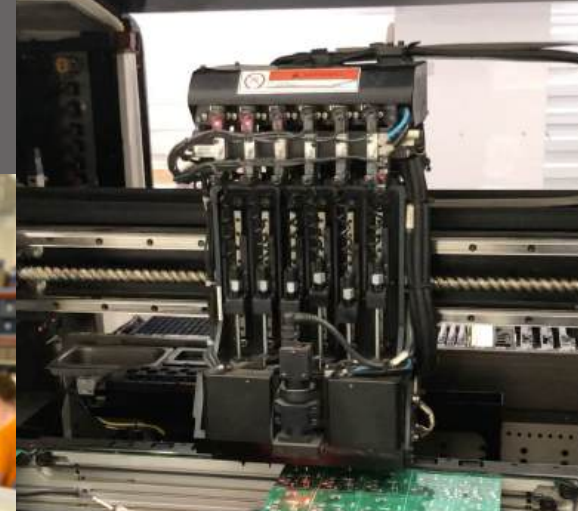
Plant in Kyiv

Total area over 1 700 m²



Own SMD board assembly line

The installer takes all the necessary elements one by one and quickly and meticulously places them on the solder paste.



terneo and ZUBR products undergo multi-stage quality control

The control includes inspection of all stages of production, including SMD and output installation, input control of components, casting of cases, testing of work devices on the stand, quality control of all set of delivery at packing.



Own injection molding machine for casting cases

This gives us independence from third-party contractors, the ability to fully control the quality of products, supply of materials and quality of production.

Robots for high-quality soldering

The robotization of production increases the accuracy of technological processes and minimizes the influence of the human factor.



Laser application on housings



Each device is tested according to an individual program

To guarantee quality protection, the relay passes the test at normal and non-normal voltage.



You can always ask us any question in a convenient way for you

Contacts

Phone

+380 (91) 481-91-81

Viber, Telegram, WhatsApp

E-mail

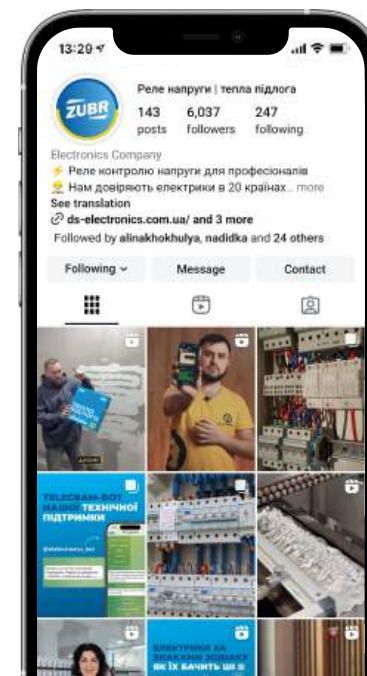
support@dse.com.ua

Working hours

mon-fri 9:00–17:30

Kyiv time UTC+2

More information about our products and plant on social networks



www.ds-electronics.com.ua

Full description of functions and technical characteristics, instructions for installation and operation you will find in the card of each product on our website.

The manufacturer reserves the right to change the specifications of the devices without additional messages. In order to avoid confusion when purchasing the devices, follow the installation and operation manual and information from the sellers.