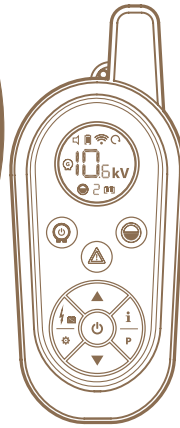



Smart Farm fencee Cloud System is protected in the EU utility model.



230V ~ / 12V 

- > fencee **power DUORF PDX10**
- > fencee **power DUORF PDX20**
- > fencee **power DUORF PDX30**
- > fencee **power DUORF PDX40**
- > fencee **power DUORF PDX50**
- > fencee **power DUORF PDX70**

	STORED ENERGY	OUTPUT ENERGY	OUTPUT VOLTAGE	OUTPUT VOLTAGE 500 Ω	SWITCHING ON/OFF				
fencee power DUORF PDX10	1,4 J	1 J	9000 V	5000 V	✓	35 km	8 km	2 km	1,5 km
fencee power DUORF PDX20	3 J	2 J	12 000 V	6000 V	✓	60 km	15 km	3 km	1,5 km
fencee power DUORF PDX30	4,5 J	3 J	11 200 V	6400 V	✓	100 km	23 km	5 km	2 km
fencee power DUORF PDX40	5,7 J	4 J	10 000 V	5500 V	✓	120 km	30 km	8 km	3 km
fencee power DUORF PDX50	7,5 J	5 J	11 000 V	6600 V	✓	140 km	40 km	10 km	4 km
fencee power DUORF PDX70	10 J	7 J	10 500 V	7500 V	✓	180 km	70 km	17 km	8 km

DECLARATION OF CONFORMITY

Manufacturer:

VNT electronics s.r.o.
Dvorská 605, 563 01 Lanškroun
Company ID-No.: 64793826

declares that the below listed products:

ENERGIZERS FOR ELECTRIC FENCES

fencee **power DUO RF PDX10**, fencee **power DUO RF PDX20**
fencee **power DUO RF PDX30**, fencee **power DUO RF PDX40**
fencee **power DUO RF PDX50**, fencee **power DUO RF PDX70**

are in accordance with requirements of standards
and regulations relevant for given type of devices:

2014/35/EU

2014/30/EU

2014/53/EU



Products are safe under condition of their conventional use
in accordance with instructions for use. Declaration
of conformity is issued pursuant to these materials:

Test Report No.:

38 139

Issued by accredited **Státní zkušebnou strojů a.s.**,
Třanovského 622/11, 163 00, Praha 6.

This declaration is issued at explicit responsibility of the manufacturer.

In Lanškroun March 7th. 2019

Ing. Jan Horák
Executive Head of the Company
Phone: +420 730 893 828
info@fencee.eu
www.fencee.eu



fencee



Thank you for purchasing the product fence of the company **VNT electronics s.r.o.**
The equipment conforms to safety regulations in accordance with valid legislation as well as relevant EU (CE) regulations.

We also ask you to read these instructions for use before using the device carefully and to keep it for possible application in the future.

Electric fence must be constructed so that persons are protected against unintentional contact with pulses conductors under normal operating conditions.

From the point of view of legislation relate to the fences especially the standard **2014/35/EU - 2014/30/EU** and **R&TTE EN300-220 a EN 61000-6-3:2007 + A1:2011**

1. CONTENT

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2. IMPORTANT RECOMMENDATIONS



We recommend that this manual is read thoroughly and fully understood before using the device and that it is retained for future reference!

- The energizer will provide better protection for your animals and land. Local conditions and surroundings always affect the device function and for that reason the manufacturer is not able to guarantee full protection against damage to the enclosure fence.
- Only use the original 14 V / 1 A adapter to supply the energizer. The supply voltage must not exceed 16 V. Controller must be used if the solar panel is used as the energizer must not be connected directly to the solar panel.
- Switch off the energizer before carrying out any work on the electric enclosure fence.
- Read thoroughly the Safety Guidelines paragraph.
- Strictly observe all safety guidelines during installation work.
- Do not connect the device on one enclosure fence to another appliance. Damage to all connected devices and appliances may occur in the event of lightning strike.
- The device may only be repaired by the manufacturer's qualified personnel.
- Please dispose all waste in accordance with your country's code of practice.
- Do not let the unconnected battery cable hang freely as the short circuit and the consequent destruction of the energizer may take place.
- **The displayed output voltage tolerance is $\pm 10\%$.**

3. PACKAGE CONTENTS

- Energizer fencee **power DUO RF PDX**
- Basic RF antenna
- Remote controller
- CR2 battery
- Earthing cable 150 cm
- Connecting cable to the fence system 100 cm
- 14 V/1 A power supply adapter for mains connection
- Battery cable 170 cm
- fencee warning sign – Warning! Electric fence!
- 2 installation self-tapping screws and rawlplugs
- User Manual

4. FUNCTION ELECTRIC FENCE

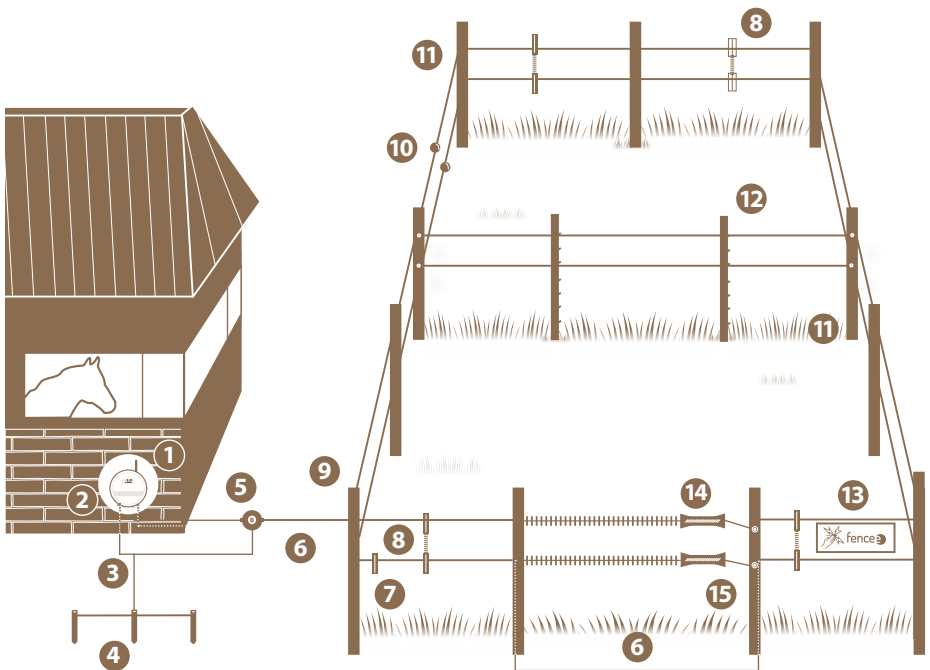
How the electric fence works

Electric fence system consist from the energizer and fencing marked with posts and conductors. The energizer creates regular high-voltage impulses that generate a voltage between the conducting material and the ground. When an animal (or a person, vegetation or similar) creates a connection between the ground and the conducting material, the circuit is completed.

Generated impulses are unpleasant, but not dangerous to people or animals as they only act for a short period of time and results in the desired deterrent effect. The impulse lasts for a matter of milliseconds. These fences serve not only to enclose an area, but also act as a deterrent e.g. to protect against wild boars.

Benefits of electric fence systems:

- Electric fences are long-lasting, simple to put up and great value for money compared with normal fences.
- It is easy to assembly and flexible for using.
- Designed for guarding and protecting different animals.
- Compared to other fences, such as barbed wire, it does not cause any damage to the animals.



1	Energizer fence
2	ON/OFF button on energizer
3	Earthing cable
4	Anticorrosive earthing rod
5	Lightning diverter

6	High-voltage connecting cable
7	Conductor
8	Line connector
9	Fixed post
10	Tensioner

11	Insulators
12	Flexible post
13	Warning sign
14	Gate
15	Insulator of gate

5. INTRODUCTION

Energizers **power DUO RF PDX** may be either powered from 230 V mains using 14 V power supply adapter (include in the package contents) or appropriate 12 V battery.

The integrated microprocessor fully controls the operation and ensures optimal performance taking into account the condition of the fence system and the current situation.

The fence load is continuously measured during the fence systems operation. The energizers power output is then automatically adjusted to keep the required output voltage in the widest possible load range. This control significantly aids in saving energy when using quality fence system with a low load. It also optimises energy consumption to maintain adequately high fence system voltage, which is, for example, overgrown with grass (high load).

LED indicator lights and BARGRAF on the front of the energizer show the power supply status and fence system voltage and also signal any potential faults on the fence.

5.1 Remote control

Energizers **power DUO RF PDX** may be remotely controlled using RF technology and Cloud application; it is also essential to install FENCE WiFi GATEWAY GW100, which centrally controls and monitors all connected devices. The PDX energizer is paired with the FENCE WiFi GATEWAY GW100 thus the energizer may be remotely controlled using the fencee Cloud application from mobile phone or via web interface.

UP-TO-DATE INFORMATION

Online up-to-date information on all devices.

CONTROL FROM PHONE

Control and monitor using mobile application.

ALARM SIGNALLING

Immediate warning sent to the phone and e-mail relating to the problem.



SAVING TIME

Using remote control means that walk around the fence system is no longer required. All is monitored and controlled from the phone, web site or gateway.



The PDX remote controller can be used for energizers power DUO RF PDX.

However, the energizers power DUO RF PDX can also be paired and controlled using the remote controller for energizers energy DUO RF EDX

5.2 Energizers PDX with power output higher than 5 J

Standard's special requirements must be observed for energizers with power output higher than 5 J, namely time cut-off limit when the power output is increased and thus ensuring safety.

Products must be identified by mark. 

fencee energizers have time cut-off limit of 50 seconds, which means that whilst the fence system is under load and its resistance drops below 500 Ohm (overgrown grass, fallen branches, etc.), the energizer will supply the maximum of 5 J for 50 s. If the fence system resistance does not increase during this time (carrying out corrective measures), the energizer will gradually increase the power output.

Acoustic and visual warning when the fence system is suddenly under load is another feature. If the fence resistance drops abruptly during one pulse from over than 1000 Ohm to less than 400 Ohm (fallen branches, tangled animal or human, etc.), alarm is triggered after six pulses, acoustic warning and red LED indicator light flashes. At the same time, the pulse period is shortened to 3 s. The alarm is switched off after increasing the fence resistance to more than 600 Ohm or after the time limit of 10 min. Both functions are independent and separate.

5.3 List of main advantages



Control from phone

Control and monitor using the fencee Cloud mobile application.



Power switching

Manual switching between the high and low power output; option for reducing demand on the battery.



Combined power supply

Power supply is either from 230 V mains or standard 12 V battery, which may also be used as the backup power supply.



LED Bargraph

Provides visual information on fence system status.

Additional functions of fencee **power DUO RF PDX** with remote control



Transmitter range **up to 10 km**



Alarm signalling



Current information about the fence



No **SIM CARD** needed



Comfort - saves unnecessary trips to the fence

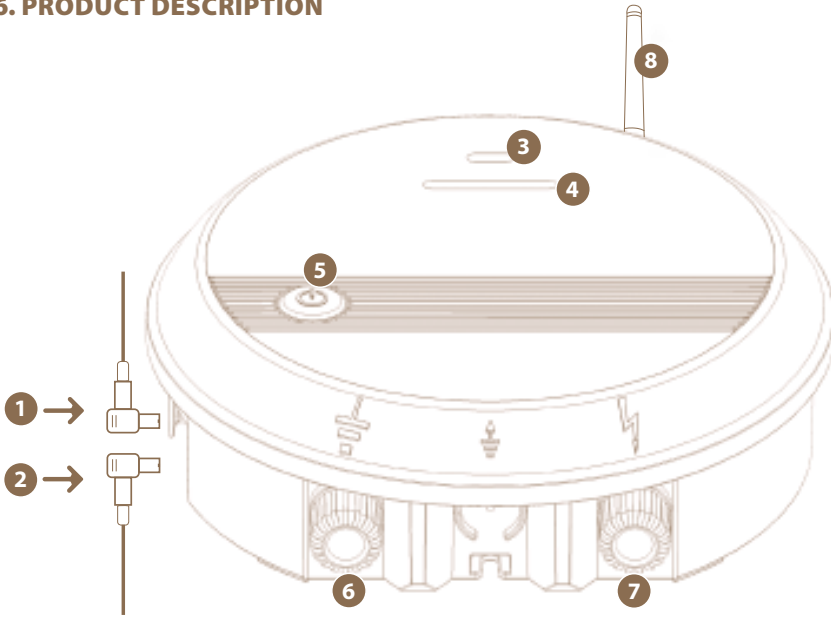


The package
power DUO PD / power DUO RF PDX
contains an AC adapte



Award Zlatý Klas 2019
Energizer **power DUO RF PDX50**

6. PRODUCT DESCRIPTION



1	Connector for connecting adapter (14 V \overline{DC} /1 A)
2	Connector for connecting battery (12 V)
3	LED control of connecting energizer and status indication
4	BARGRAPH Indicator – indication of voltage on fence system
5	ON/OFF switch button
6	Earthing (black)
7	Connection to fence system (red)
8	Antenna

Meaning of displayed symbols

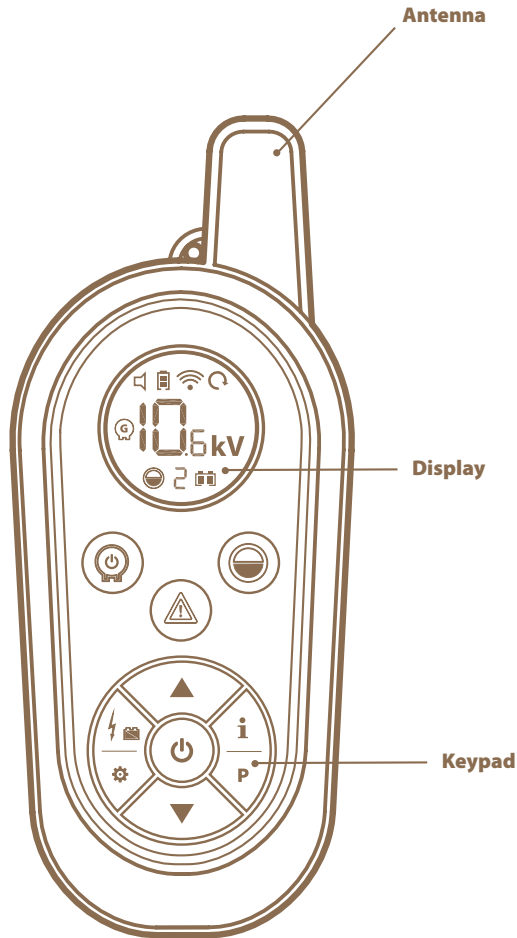


Earthing connection for connecting to your earthing system.



Full voltage fence system connection for connecting to your fence system.

REMOTE CONTROLLER

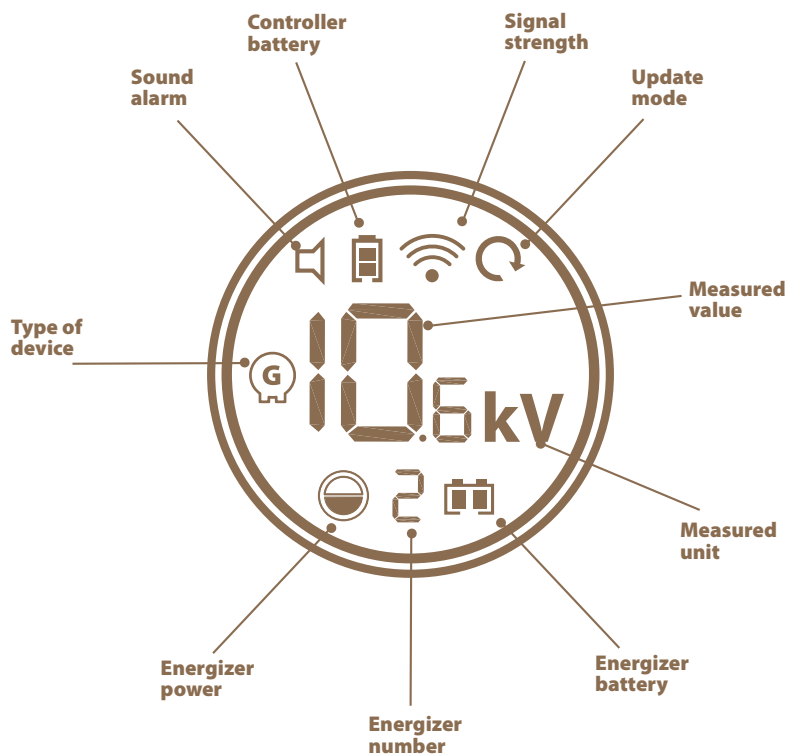


fencee **power DUO RF PDX** can be used for up to 10 km (with direct visibility between the controller and the energizer). However, the maximum range and accuracy are affected by a number of factors – weather, terrain, vegetation, etc. In a densely forested, or built-up terrain the range will be shorter - which is not due to a defect of the device, but by the laws of physics and technical possibilities (within the permitted European standards).

Ensuring maximum range and accuracy of the device:
Check if the battery in the controller is sufficiently charged.
Hold the controller as high as possible, the RF antenna must point up and be almost perpendicular to the ground.



DISPLAY





Sound alarm

Controller alarm sound turned ON/OFF. Can be changed in the settings.



Controller Battery

Current battery capacity in the controller.

Displays three states - **FULL 100 %** | **HALF 50 %** | **EMPTY**



Signal strength

Indication of the quality of connection between the controller and the energizer.



Data Update Mode

Indicates the set data update mode.

Round arrow – automatic mode with a frequency of 1 minute.

Round arrow with letter i – mode with a frequency of 1 hour.

The mode setting affects the battery life in the controller.



Energizer power

Indicates the status of the energizer – **ON 100 %** | **ON 50 %** | **OFF**



Energizer number

Number of the selected energizer. It is possible to assign up to 6 energizers to one controller.



Energizer battery

Current battery capacity of the energizer.

Displays three states - **FULL 100%** | **HALF 50%** | **EMPTY**



Type of device

Icon indicating the type of the selected device.

When communicating with the energizer, the icon will flash.

Currently, only the **G** - energizer icon is used.

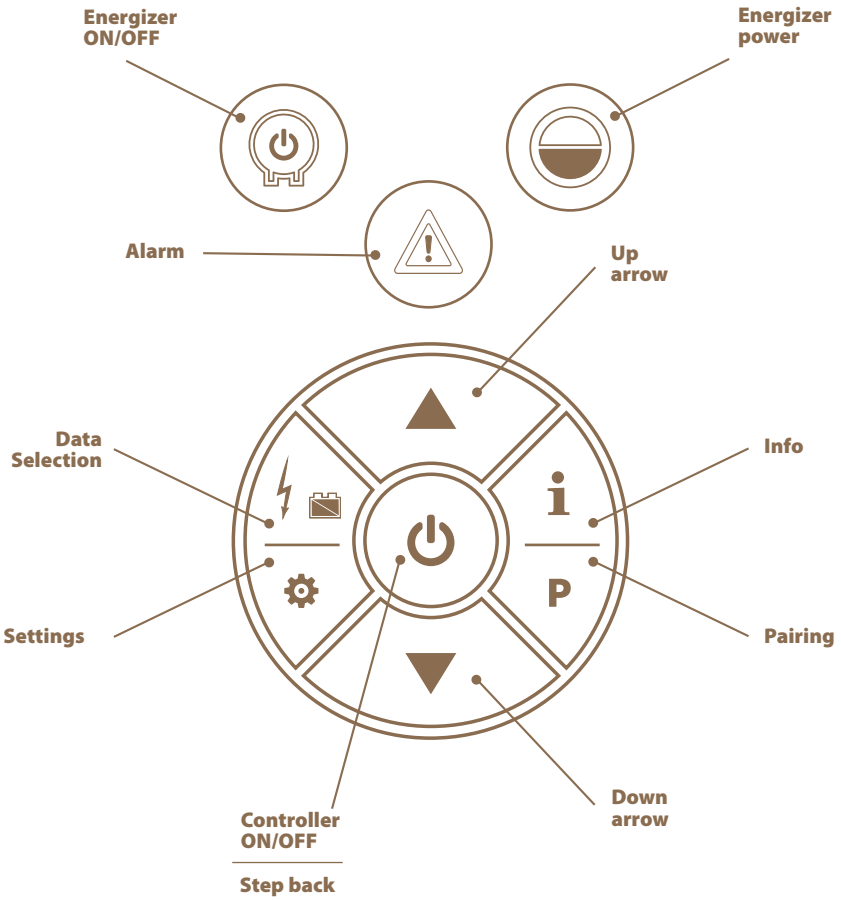
Measured value

The value measured by the energizer and sent to the controller.

Measured unit

Unit of the measured value. Here you can see **kV** - voltage of the output pulse, or **V** - battery voltage of the energizer.

KEYPAD



**UP Arrow / DOWN Arrow (short press)**

Selection of device. Change the values in the settings mode.

**Data selection (short press)**

Toggles the data displayed on the controller. You can display the pulse voltage (kV) or the energizer battery voltage (V).

**Settings (long press)**

Switches the controller to the settings mode where you can set the behaviour of the controller.

Settings (short press)

Switching individual items in the settings mode.

**ON/OFF controller****Turn on (short press)**

Exit the current mode. Goes back from pairing mode, or from setup mode back to the main screen.

Turn on (long press)

Turns the controller on or off.

**Info (short press) – manual data update**

Updates the information of the selected energizer.

**Pairing (long press)**

Switches the remote controller into the pairing mode.

**Energizer ON/OFF (short press)**

Turns the selected energizer on or off.

**Energizer power (short press)**

Switches energizer power (50 % or 100 %).

**Alarm (short press)**

A short press turns off the controller's beep.

Alarm (long press)

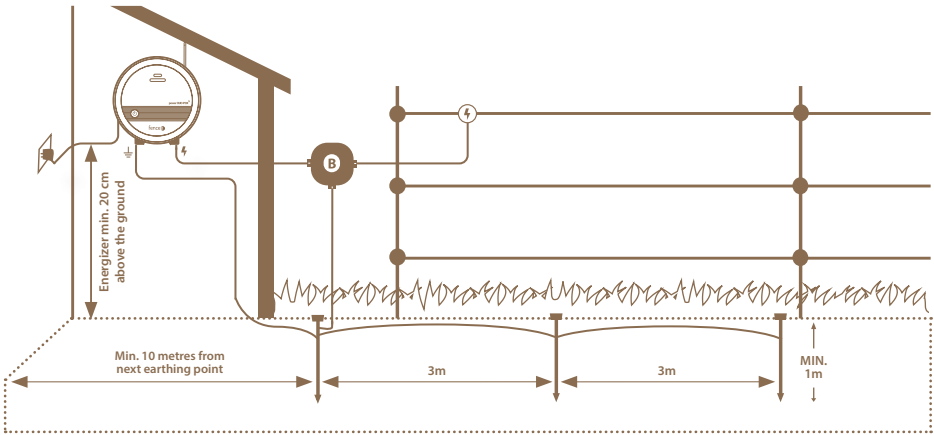
Long press clears the alarm notification.

7. READY TO USE

Choose a place suitable for installation of energizer.

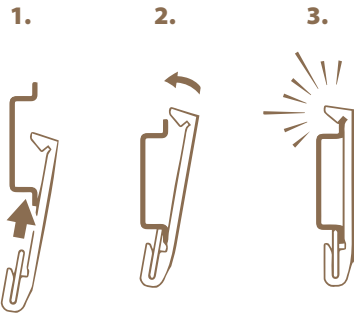
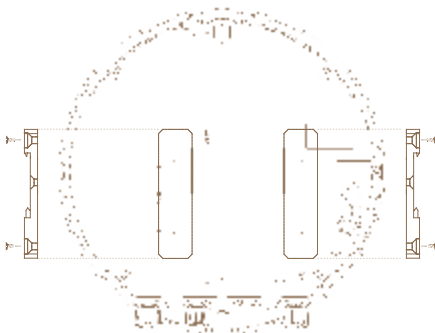
- where you can achieve a good earthing.
- which is distant enough from children and animals
- where energizer is well accessible.
- where permanent water stream is avoided.

To mount energizer on wall, use attached screws, on which you can hang the energizer easily.



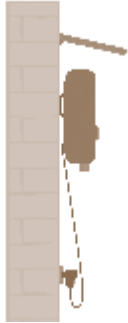
Assembly of energizer by using DIN rail

Energizer can be easily and practically mounted by using DIN rail and mounting bracket. Set for assembly on DIN rail can be ordered as separate accessories.





- Energizers must be installed in a dry place.
- Never put energizer on ground – in moist or wet environment.
- Fasten energizer by means of hanging screw or DIN rail with mounting bracket in vertical position – at least 20 cm above ground.
- Never expose energizer to continuous water stream.



VERTICAL ON THE WALL IDEALLY WITH A CANOPY

We recommend mounting on DIN rail 80 mm (Art.Nr. 8043)



NEVER EXPOSE TO A CONTINUOUS STREAM OF WATER!



NEGATIVE ANGLE



ON THE GROUND - IN A PUDDLE



ON THE GROUND - UPSIDE DOWN

Earthing

Correct earthing is very important because total function of the fence system is dependent on it!

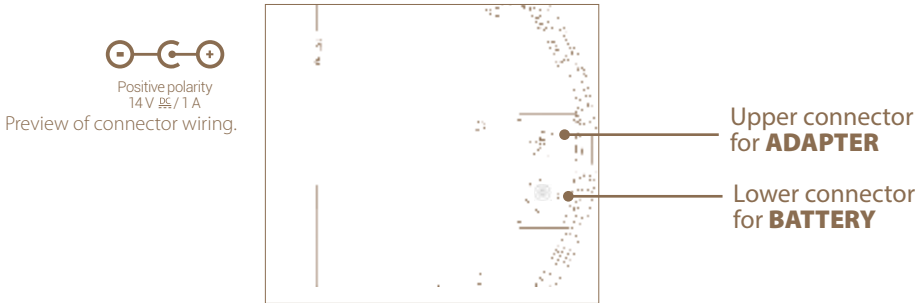
Beat earthing rod with corrosion protection into ground completely at place with maximum and permanent humidity. On dry pieces of land or in case of soils with lower electric conductivity, use one or several supplementary earthing rods (with length of minimum of 1 m) and place them at distance of approximately 3 metres from each other.

Exceptions are fence system powered by battery energizer or working with low output. Here minimum length of earthing rod of 50 cm is recommended. Distance of at least 10 metres must be between earthing rod of fence system and another earthing system, for example earthing of a house, protective earthing of electric supply system or earthing of violation alarm.

Do not connect the energizer to already existing earthing.

Connecting connectors

Models fencee **POWER DUO RF PDX** have two waterproof input connectors; upper one for adapter connection and lower one for battery connection. Connectors may be wrongly connected thus always make sure that the correct connections taken place. This design has preference for connecting to the mains voltage with the option of connecting to the battery, as a backup power supply in the event of power failure. Running the energizer for a long time just from the battery is not desirable due to the higher energy consumption and low capacity of conventional batteries.



If the adapter and battery are connected to wrong connectors, charging and the low battery indication will not work and the battery will not be discharging.

Connecting output terminals

⏚ Connect **the black earthing output** to the earthing rod using earthing cable.

⚡ Connect **the red output** to the fence system using the connecting cable.

Remote controller

- Open the device back cover.
- Insert the CR2 battery, take care about correct polarity.
- Return the cover to its original position.
- Switch on the controller by red button in the front.

The remote controller is not waterproof, keep it in a dry place.

After switching on the controller and if no energizers are paired, then different device symbols flash alternately on the side of the display. This only means that no energizer has been paired yet. Pairing described on page 20, chapter 8.2 Pairing.

8. CONTROL

fencee **power DUO RF PDX** models behave similarly to fencee DUO PD, but with several states for radio communication operation added. Switching between states is done using the button on the energizer. Transitions between states are indicated on the diagram below.

OFF State

The energizer is completely off. It consumes almost no energy. It is not possible to control it remotely. No LED is active.

ON State

The energizer produces impulses and communicates with the remote controller. Status LED is lit (adapter) or flashing (battery).

BLUE colour – 100 % output

PURPLE colour – 50 % output

RED colour – error

OFF state RF active - Standby mode

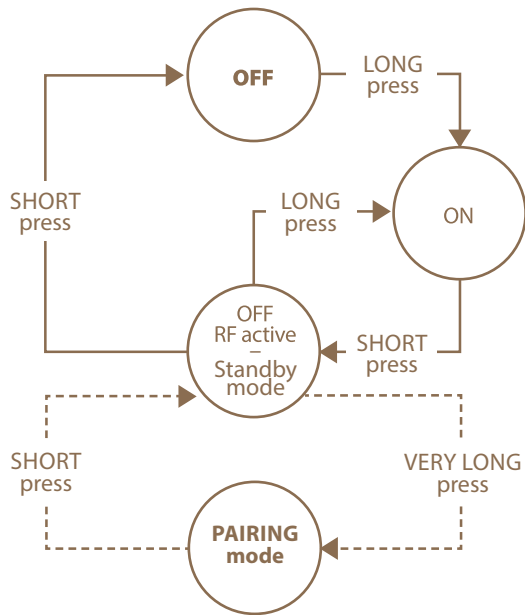
The energizer does not produce a pulse, but it can be controlled remotely. The status LED flashes every 3 seconds.

BLUE colour – normal state

RED colour – low battery voltage

Pairing mode

Special mode designed for assigning the energizer to the remote control. Status LED flashes BLUE very quickly.



8.1. Control of energizer

OUTPUT SWITCHING – ON/OFF SWITCH BUTTON

Compared to power models, the ON/OFF switch button has extended functionality here. After first switch-on of energizer, blue LED is burning or blinking indicating operation at higher output. After each other switch-on, the generator remembers selected mode.

IN SWITCHED-OFF CONDITION OF THE ENERGIZER



Long press (> 2 s) → **Energizer is switched on.**

Short press → **No response.**

IN SWITCHED-ON CONDITION OF THE ENERGIZER



Long press (> 2 s) → **manual switching between high and low output (approximately 50%)** – optional by user for example when using it for more sensitive animals or in case of battery saving.

Short press → **switching energizer off to RF active mode (Standby mode).**

Short press → **Energizer is fully switched off.**

8.2. Control of remote controller

MAIN SCREEN

The energizer is controlled from the main screen.

Use the **UP** and **DOWN** arrows   to select the desired energizer.

When the **Energizer ON/OFF**  or **Energizer Power**  button is pressed the controller immediately sends the command to the energizer.

Pulse voltage, or battery voltage can be monitored on the display.

To switch battery or pulse information, press the **Data Selection**  button.

SETTINGS

To enter the settings mode, press (long) the **Settings**  button.

There are currently 3 items available in the settings menu. To select the desired item, shortly press the **Settings**  button.

To change the settings of the selected item, press the **UP** or **DOWN** arrow  .

To exit the setting mode, shortly press the red button  **ON**.



The settings will be saved.

Alarm sound (letter "A")

Audio notification of the controller can be enabled or disabled. The setting is indicated by the speaker icon.

Update mode (letter "U")

Sets the data update interval.

-  Automatic mode updates the data every minute but has a higher power consumption.
-  Automatic mode updates the data every hour, saving battery.

TIP

You can update the current energizer data at any time outside the interval by pressing the button  on the controller.

Limit of the voltage of the fence


Pulse voltage limit on the fence can be set. If the voltage drops below the required limit (3 kV), an alarm is triggered.

PAIRING

To connect the energizer to the controller, it is necessary to perform “pairing”.

- Turn on the energizer, and then turn it off with one short press of the button. Then press the button for longer time (> 5 seconds) until the status LED starts flashing fast. Now the energizer is in pairing mode.
- Press the **Pairing** (P) button on the controller for a longer time. The letter **P** appears on the display. Now the controller is in pairing mode.
- Use the **UP** and **DOWN** arrows (▲▼) to select the desired position number on which you want to pair.
- Move the controller close to the energizer (up to 20 cm) and press the **Pairing** (P) button.
- If everything went well, the controller is now paired with the energizer. The controller switches back to the main screen and the energizer switches back to the OFF RF state.
- If the pairing process did not go through, perform it again.
- If you want to delete a position on the controller, perform pairing without an energizer.
- If the controller does not find any energizer, it deletes the paired position.
- If you want to exit the pairing mode, press the red button (⏻) **ON**.
- It is possible to pair up to **6 energizers** to one controller – you can control 6 energizers with one controller.
- It is possible to pair up to **3 controllers** to one energizer – you can control one energizer with 3 controllers.

ALARMS

If any problem occurs, an alarm is triggered. The alarm is indicated on the controller by a flashing **triangle** icon  **with an exclamation mark**. At the same time, the controller starts to beep.

Possible errors:

Low pulse voltage

The “**kV**” unit and the **alarm**  icon are flashing.

Low battery voltage of the energizer

The **energizer battery**  icon and the **alarm**  icon are flashing.

No signal

On the main screen, the letter **E**, is displayed, the **signal**  and **alarm**  icon flashes.


General alarm

Only the **alarm**  icon flashes.

There may be more causes. One of them is a step change in the resistance of the fence. In this case, the fence requires physical inspection.

Press any button on the controller to turn off the sound of the alarm.

The alarm sound can be disabled in the settings.

If the problem is solved (battery replacement, fence repair...), press the **alarm**  button for a longer time and alarm notification will be removed.

9. EXPLANATION OF LED INDICATING LIGHTS AND BARGRAPH INDICATOR

LED control:

BURNING / BLINKING

- **blinking** – operation on battery only
- **permanent burning** – operation with adapter

COLOR

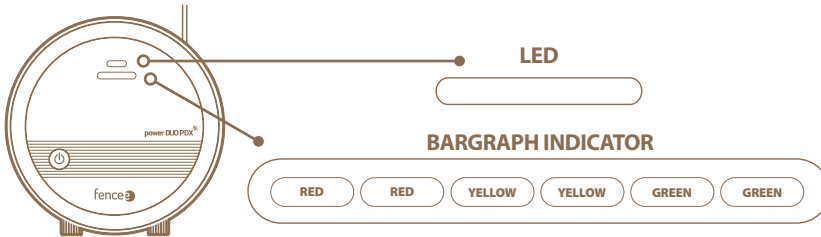
- **blue** – operation at higher output (100 %)
- **purple** – operation at lower output (c. 50 %)
- **red** – it lights up when battery voltage drops below 12 V.

When battery voltage drops below 11,6 V, warning siren is started (beeping). When battery voltage drops below 11,4 V, energizer is switched off. Reason is protection of battery from deep discharge of the battery (battery destruction). If discharged battery and adapter are connected simultaneously, red LED is burning, until battery is charged at 12 V at least.

BARGRAPH INDICATOR:

To indicate input voltage at fence system, **power DUO RF PDX** models are equipped with BARGRAPH indicator. It consists of six LEDs - **2× RED | 2× YELLOW | 2× GREEN** – ordered from left to right. BARGRAPH indicator always goes through LEDs from the first red one up to indicated position where it stops for a while.

Indicating statuses are as follows:



• voltage **< 3 kV** - 1× RED



• voltage **3-5 kV** - 2× RED



• voltage **5-6 kV** - 1× YELLOW



• voltage **6-7 kV** - 2× YELLOW



• voltage **7-8 kV** - 1× GREEN



• voltage **> 8 kV** - 2× GREEN



10. SAFETY GUIDELINES

Install and operate the electric fence systems in such a way that they do not pose the risk of electric shock to humans, animals or disturb the environment.

Avoid using the electric fence systems that could trap animals or people.

One electric fence system must not be powered by two or more energizers or by independent power supply devices designated for electric fence systems of the same equipment.

When operating two or more different electric fence systems and if they are powered by different energizers, the minimum distance between the electric fences must be 2,5 m. Use electrically non-conductive material if this distance is required to be smaller.

Do not use barbed or razor wire or any other types of sharp-edged wire to install the electric fence system. Non-conductive additional fencing in which barbed or razor wire is used must be at least 150 mm from the electric fence system wire and must be earthed at regular intervals.

All electric fence system sections installed along the public roads must be marked with warning signs attached to poles or fences at regular intervals and visible from the road.

Warning sign

- It is of yellow colour with minimum dimensions of 100 × 200 mm
- It is either standard warning sign or contains the following Inscription on both sides: **"WARNING! ELECTRIC FENCE"**
- Letters must be at least 25 mm high and indelible
- One warning sign is included in the package contents



Power supply and connecting cables

- Cables that are rated for voltages higher than 1 kV and are located in buildings must be effectively insulated from the building's earthing features. This may be achieved by using insulated high-voltage cables or by leaving appropriate distance between the cable and the building frame. Do not use standard electrical cables.
- Cables that are laid in the ground (soil) must be protected by solid insulator pipes or use insulated high-voltage cables designed for this purpose. Make sure that the cables will not be damaged by, for example animal hooves or tractor wheels, which can sink into the ground. Do not use standard electrical cables.
- Cables must not be placed in pipes together with other circuit, communication or data cables.

Supply and connecting leads and electric line of fence system:

- Shall not cross above overhead power or communication lines. Crossings with overhead power lines shall be avoided wherever possible. If such a crossing cannot be avoided it shall be made underneath the power line and as nearly as possible at right angles to it.
- If are installed near an overhead power line, the clearances shall not be less than those shown

Power line voltage	Clearance
≤ 1000 V	3 metres
> 1000 ≤ 33000 V	4 metres
> 33000 V	8 metres

- If are installed near an overhead power line, their height above the ground shall not exceed 3 m. This height applies to either side of the orthogonal projection of the outermost conductors of the power line on the ground surface, for a distance of:
 - 2 m for power lines operating at a nominal voltage not exceeding 1000 V
 - 15 m for power lines operating at a nominal voltage exceeding 1000 V
- Being nearby telephone line or telephone cable, must be conducted at a distance of minimum of 2 metres.

Electric animal fences intended for deterring birds household pet containment or training animals such as cows need only be supplied from low output energizers to obtain satisfactory and safe performance.

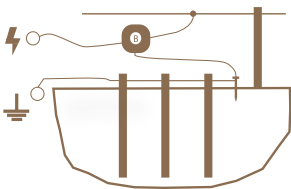
In electrical animal fences intended for deterring birds from roosting on buildings no fence wire shall be grounded if the fence wires are not connected to metal parts. If one wire is connected with a metal part (ie a gutter) or a metal structure of the building these metal parts must be grounded. A warning sign shall be fitted to every point where persons may gain ready access to the conductors.

Where an electric animal fence crosses a public pathway, a non-electrified gate shall be incorporated in the electric animal fence at that point or a crossing by means of stiles shall be provided. At any such crossing, the adjacent electrified wires shall carry warning signs.

Avoid direct contact with fencing, especially with head, neck or upper part of body. Do not creep through the fencing or over it. For passing the fence system, use a gate or another point in installation designed for this purpose.

Overvoltage protective equipment – lightning diverter

To prevent from damages caused by lightning, we recommend leading a circuit of fence system near to building via overvoltage protective equipment – lightning diverter fastened to outer masonry of the building by means of non-combustible materials before its connecting to energizer. This applied also for combined energizers, if they are used together with a network adapter.



Overvoltage caused by storm can cause insulation of electric fence system. In such a case, network voltage can get into electric fence system, and serious danger to people or animals can occur.

Generally, we recommend connecting network powered electric fence system only to such supply networks that are protected with earth-leakage circuit breaker with maximum actuating current of 30 mA. In addition to that, correct installation of energizer with auxiliary discharger and choking coil is necessary, as described within these instructions. It is suitable to disconnect network supplied electric fence system from network as well as from fencing (if possible) during storm.

If a network with earth-leakage circuit-breaker was not used for purposes of supplying energizer, and the energizer was connected to the fence system or the network during storm, it is necessary to check and test it before putting it into operation again.

For this purpose, connection to network with earth-leakage circuit-breaker must be available. For purposes of testing, connect earthing output of energizer to protective conductor of the supply network and connect pin to power socket protected with earth-leakage circuit-breaker then. If energizer beats correctly and does not show any deviations from normal operation subsequently, it can be connected to fence system again. If the earth-leakage circuit-breaker however falls out when energizer is connected, you must not use it and it must be repaired professionally.

If connecting lines of this energizer are damaged, they must be replaced by manufacturer or authorized service or another qualified person so that possibility of danger is excluded. Service and repairs of these energizers must be performed by authorized persons only!

Each user of electric fence system is responsible for its operation and should perform regular checks of energizer and fence system at least once a day, depending on operating conditions

Procedure of checking:

- Visual control of energizer and fence system
- Measuring of minimum voltage of 2500 V in every place of the fence system

If installation is performed inside a building, energizer may not be operated in a room with increased risk of fire in any case (barn, shed, cattle shed). In addition to that, no combustible materials may be stored near to fence system and connectors of energizer. Installation of energizer must be made on a fire-resistant surface.

For stable using, use only energizers designed for that purpose!

Do not connect battery or accumulator energizers to electric power network or devices being connected to network voltage, except for sources determined to that by the manufacturer, in any case. This energizer may not be used by persons (including children) who have limited physical, perceptive or mental abilities or do not possess sufficient experiences and knowledge, when they are not under supervision or are not trained for operating energizer by persons who are responsible for their safety. Children should be under supervision so that there is not chance that they play with the energizer.

Ensure that all connected network supplied auxiliary circuits have at least the same protection class as energizer.

11. TROUBLESHOOTING

If the fence does not give a pulse or the voltage is below 3 kV and the red LED on the BARGRA-PH is flashing, then the causes listed below need to be checked.

Cause	Fault removal
Energizer does not work?	Disconnect the device from the fence system and switch it on again! If blue or violet LED is burning and yellow or green LED is flashing on BARGRAPH indicator, then the device works properly. Otherwise, the device is damaged (contact your salesman). When using battery and accumulator devices, observe correct wiring of poles.
Red LED light is blinking	Battery voltage decreased below 12 V - replace the battery with a sufficiently charged one or connect adapter.
Red LED light is blinking and warning siren sounds (beeping)	Battery voltage decreased below 11,6 V - replace the battery with a sufficiently charged one or connect adapter.
No LED signal is burning	Energizer is switched off manually or battery voltage decreased below 11,4 V and energizer was switched off automatically. Reason is protection of battery from its deep discharge (and battery destruction). Replace the battery with a sufficiently charged one or connect adapter – until battery voltage reaches at least 12 V, red LED will be burning.
Lead-in or short circuit of supply lines of the fence system	Do not use conventional cables for supply lines. Highvoltage cable is recommended.
Conductor has adverse properties (thin diameter, high resistance)	Use high-quality conductor with low resistance and larger diameter. Ensure high-quality correct connection of conductors.
Low-quality earthing, too short earth rod, corrosion, dry soil	Add next rod, moisten.
Lead-in via growth near fence system	Remove the growth (mow it).
Conductor on ground (for example break, insufficient mechanical tension)	Repair fencing, use special connectors, stretch conductor.
Too long fence system. Was correct accessories used for given purpose?	Use accessories suitable for given length of fence system and for animals – in case of need, consult specialized salesman.
Insulator pierces, losses occur	Replace defective and weather-worn insulators.
Conductor is connected via knot, insufficient connection	Use relevant special connectors for the conductor.
Remote controller doesn't work	Empty battery. Replace it with a new one. Put with correct polarity.

12. GUARANTEE

In addition to a guarantee requested by law, we provide you with a guarantee in accordance with below listed conditions:

- Guarantee period begins on the day of its purchase. Guarantee claims are acknowledged explicitly pursuant to submission of bill or cash voucher. Guarantee repair is free of charge, or we reserve the right to deliver a device of the same value.
- Guarantee is valid in case of correct use in accordance with the instructions for use. It expires in case of interferences by unauthorized persons and in case of using spare parts of foreign origin.
- All deficiencies resulting from material defects or manufacturing defects shall be removed in manufacturer's discretion by repairing or free-of-charge replacement of the energizer.
- In case of delivering spare parts or repairing, original guarantee period is not prolonged.
- Guarantee period and address of guarantee provider can be found in attached instructions for use of given type of energizer.
- Accumulators or batteries of any type, damages due to overvoltage (caused by lightning among others) and damages due to spill-over of accumulator acid are not included in the guarantee.

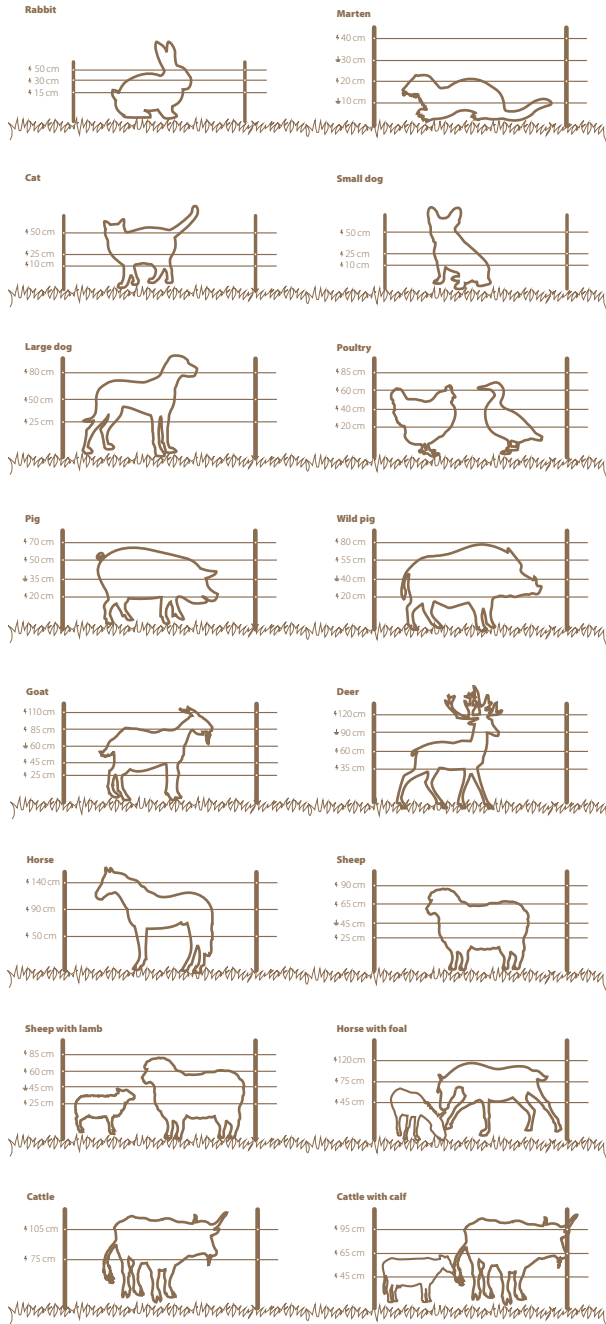
This energizer is provided with guarantee period of 3 years according to our conditions for guarantee! Safety instructions, earthing, putting into operation, care of batteries and accumulator, conditions for guarantee and possible fault sources can be found in attached instructions for use!

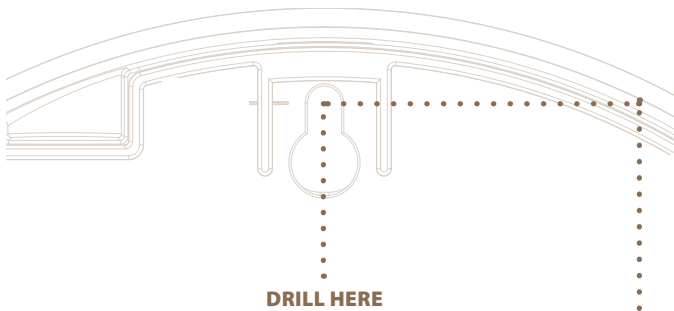
13. TECHNICAL PARAMETERS

	power DUO RF PDX10	power DUO RF PDX20	power DUO RF PDX30
POWER SUPPLY	230 V ~ 3 W	230 V ~ 5 W	230 V ~ 5 W
POWER CONSUMPTION	12 V  40–100 mA	12 V  40–160 mA	12 V  80–260 mA
INPUT ENERGY	1,4 J	3 J	4,5 J
OUTPUT ENERGY	1 J	2 J	3 J
OUTPUT VOLTAGE	9000 V	12 000 V	11 200 V
OUTPUT VOLTAGE 500 Ω	5000 V	6000 V	6400 V
ON/OFF	✓	✓	✓
LED ON/OFF	✓	✓	✓
LED IMPULS	✓	✓	✓
LED LOW BATTERY VOLTAGE	✓	✓	✓
LED POWER LOWER 50%	✓	✓	✓
LED ERROR CHECK	✓	✓	✓
LED IMPULS BARGRAPH	✓	✓	✓
FENCEE CLOUD CONNECTION	✓	✓	✓
EXTERNAL ANTENNA SMA CONNECTOR	✓	✓	✓
REMOTE CONTROL	✓	✓	✓
DATA ENCODING	✓	✓	✓
CONTROLLER BATTERIES	1× CR2	1× CR2	1× CR2
BASE ANTENNA RANGE	10 km	10 km	10 km
RANGE WITH EXTERNAL ANTENNA	30 km	30 km	30 km
TRANSMISSION FREQUENCY	869,525 MHz	869,525 MHz	869,525 MHz
TRANSMITTING POWER	+22 dBm	+22 dBm	+22 dBm
TEOR. MAX CEE	35 km	60 km	100 km
LOW VEGETATION	8 km	15 km	23 km
MEDIUM VEGETATION	2 km	3 km	5 km
HIGH VEGETATION	1,5 km	1,5 km	2 km
MEASURING OF EARTHING 1 m	1×	2×	2×
EL. FENCE NETTING	3×	5×	6×
WEIGHT	1580 g	1599 g	1620 g
DIAMETER	210 mm		
DEPTH	66 mm		

	power DUO RF PDX40	power DUO RF PDX50	power DUO RF PDX70
POWER SUPPLY	230 V ~ 9 W	230 V ~ 9 W	230 V ~ 12 W
POWER CONSUMPTION	12 V  140–340 mA	12 V  100–440 mA	12 V  300–770 mA
INPUT ENERGY	5,7 J	7,5 J	10 J
OUTPUT ENERGY	4 J	5 J	7 J
OUTPUT VOLTAGE	10 000 V	11 000 V	10 500 V
OUTPUT VOLTAGE 500 Ω	5500 V	6600 V	7500 V
ON/OFF	✓	✓	✓
LED ON/OFF	✓	✓	✓
LED IMPULS	✓	✓	✓
LED LOW BATTERY VOLTAGE	✓	✓	✓
LED POWER LOWER 50%	✓	✓	✓
LED ERROR CHECK	✓	✓	✓
LED IMPULS BARGRAPH	✓	✓	✓
FENCEE CLOUD CONNECTION	✓	✓	✓
EXTERNAL ANTENNA SMA CONNECTOR	✓	✓	✓
REMOTE CONTROL	✓	✓	✓
DATA ENCODING	✓	✓	✓
CONTROLLER BATTERIES	1× CR2	1× CR2	1× CR2
BASE ANTENNA RANGE	10 km	10 km	10 km
RANGE WITH EXTERNAL ANTENNA	30 km	30 km	30 km
TRANSMISSION FREQUENCY	869,525 MHz	869,525 MHz	869,525 MHz
TRANSMITTING POWER	+22 dBm	+22 dBm	+22 dBm
TEOR. MAX CEE	120 km	140 km	180 km
LOW VEGETATION	30 km	40 km	70 km
MEDIUM VEGETATION	8 km	10 km	17 km
HIGH VEGETATION	3 km	4 km	8 km
MEASURING OF EARTHING 1 m	3×	3×	3×
EL. FENCE NETTING	6×	8×	14×
WEIGHT	1608 g	1618 g	1726 g
DIAMETER	210 mm		
DEPTH	66 mm		

RECOMMENDED INSTALATION OF CONDUCTORS

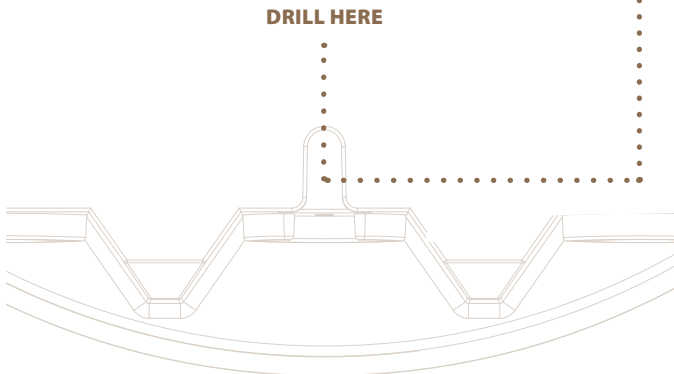




DRILL HERE

TEMPLATE FOR DRILLING
scale 1:1

157 mm



DRILL HERE



fencee

23062023



**Smart Farm fencee
Cloud System** is
protected in the EU
utility model.

Stamp and signature of seller:

fencee

Electric fencing

VNT electronics s.r.o.

Dvorská 605, 563 01 Lanskrout

Czech Republic

info@fencee.eu

+420 730 893 828

Customer service: +420 730 893 827



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www.fencee.eu

www.fenceefarm.com

www.fenceecloud.com