



Smart Farm fencee Cloud

System for remote management of electric fences via mobile app or web interface







Modern Smart Farm fencee Cloud

Smart system for real-time monitoring electric fences whenever you need it. Products with modern high frequency radio technology provide the user with a perfect overview and remote control of the electric fence, no matter where you are.

The smart system with fencee Cloud app brings users new possibilities in managing larger projects with several electric fences.

1st in world The fencee Cloud system is a globally unique solution thanks to the RF technology used for interaction between RF devices. We are the first in the world to introduce a management system for electric fencing through a Cloud-based solution using the latest technology. We are improving working conditions for all system users and making their job easier.

Thanks to many years of experience and the background of our parent company VNT electronics s.r.o., founded by Jiří Novák in 2004, we are in the best position to develop products that will be the eading edge of the smart electric fence energizers.



"Our ambition is to be a company that sets the trend in the development and production of not only electric fences but also other electronic devices."

Jiří Novák











24/7 fence supervision for real peace of mind

With the fencee Cloud system, zoo staff gain a real-time overview of all relevant values on electric fences.

More information about the Smart Farm System in Zoo Zlín can be found on page 28.

The Smart Farm system is very helpful and has fulfilled all the expectations we had. Most of all we appreciate the online monitoring and the continuous checking where we can see the status of each electric fence and last but not least, saving time for the breeders in finding faults in a fence or during routine inspections.

Vlastimil MizeraManager of electric fences at Zoo Zlín



How does a fencee Cloud work?

The central gateway 3 is connected via Wi-Fi to the Internet.

Cloud 1 collects data from all energizers and control monitors.

4 5 6

Through the gateway, 3 it is easy to set up and control individual devices using fencee Cloud app 2 or the web interface.

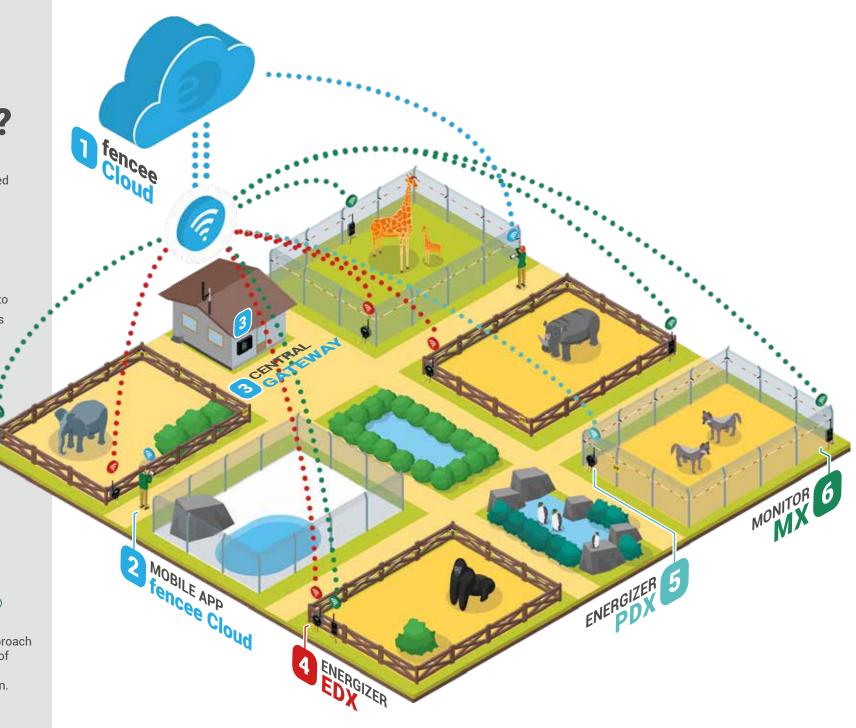








System award for an innovative approach for modern agriculture and the use of modern technologies for quality improvement agricultural production.



Individual elements

The individual elements of a Smart farm help you get a perfect overview of your electric fence.

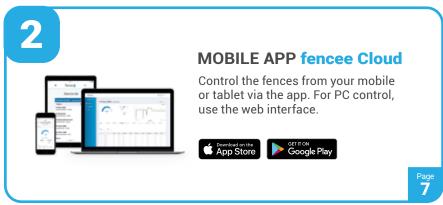




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Main benefits

The biggest advantages of the fencee Cloud system.





Learn more about options of RF energizers remote control using the fencee Cloud application.



CURRENT INFORMATION

24/7 online info about all devices.



NO SIM CARD

No operation costs.



PHONE CONTROL

Control and monitor via mobile application.



COSTS SAVING

System cuts cost and save money during operation of electric fences.



TIME SAVING

Thanks to the remote control, you no longer have to check the fence by walking. Everything is managed via your phone or the web interface.



ALARM SIGNALIZATION

Problem notification immediately in your phone or e-mail.



NO LIMITATION

Application does not limit the number of devices.



CONTROL FROM ANYWHERE

Monitoring and control of the fence from anywhere, anytime.



RF TECHNOLOGY

The devices communicate with each other using free radio technology.



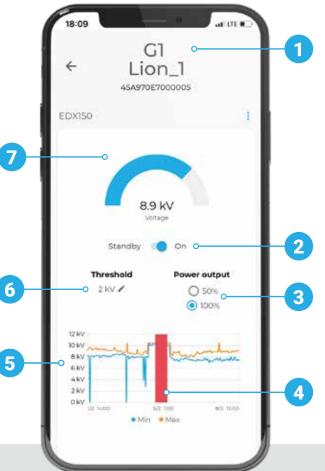




MOBILE APP fencee Cloud

Get an absolute overview of all important values and keep your fence under control at all times.





WELL-ARRANGED GRAPHS

Graphical image of measured values over the last 7 days.

- 1 User-set device identification
- 2 Energizer status ON/OFF
- 3 Chosen energizer mode (power output 100% / 50%)
- 4 Connection failure warning
- Graph showing course of power output in the fencing on time axis (minimum and maximum)
- 6 Set-up voltage limit of the fencing for activating an alarm if the values drop below the limit
- Measured voltage in the fencing

App fencee Cloud
Free to download











Clearly in one place

Values that you can set up and monitor remotely, clearly in one place:



VOLTAGE

Current voltage measured in a device



BATTERY STATE

Monitor the state of batteries in all connected devices.



ENERGIZER STATUS

Display the energizer status. There are several statuses available:

ON - switched on, functional

STANDBY – switched off (i.e. in standby mode), can be switched on remotely

OFF – switched off, cannot be switched remotely



MODE

It is possible to switch between energizer outputs (modes) to 100 % or 50 % of the output.

Decreased output may be appropriate, for example, in relation to sensitive animals or to save the battery.



ALARM

Adjustable voltage threshold. Activation of the alarm if the voltage drops below the limit.



EARTHING QUALITY

The energy DUO RF EDX energizer evaluates the grounding quality by means of a control grounding electrode.



POWER OUTPUT

Based on the current impedance of the fencing, the energizer adjusts the power output. The energizer output is increased based on the increased impedance.



IMPEDANCE

The energy DUO RF EDX energizer measures the impedance of the fencing and adjusts the output based on such values. The impedance is affected by excessively tall vegetation under the wires or the poor condition of the conductors.



Absolute overview with fencee Cloud app





MONITOR VALUES

Values that you set and control in the fencee Cloud application.

ONLINE ALARMS

In case of an exceptional breakdown situation – an immediate alarm to your phone and e-mail.

LIST OF DEVICES

Well-arranged lists of all connected devices sorted by superior gateways.

ACCESS CONTROL

Give individual users control and setup rights of electric fences.











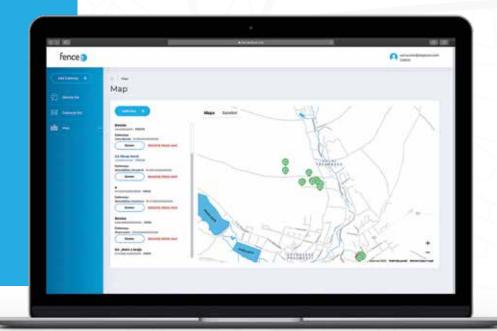






MAP BASE

For easy orientation, you can deploy devices in particular locations on the map. From the map, you can easily click on the respective location to get to the relevant device.

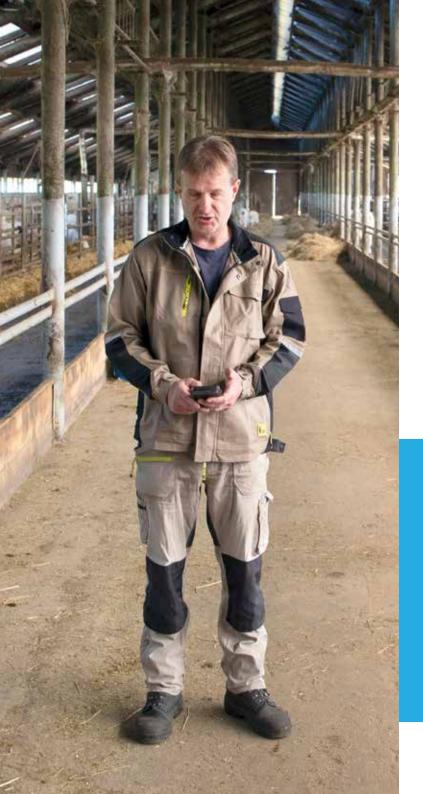






VIRTUAL FENCE

Using a virtual fence, you can easily draw fences into the map. In case of an alarm, you can immediately see colour scheme indicating origin of the problem.



30 hours saved per month

thanks to the fencee Cloud system

The Smart Farm System helped to make the work of employees and breeders more efficient in the agricultural cooperative Vlkov.

740 pcs



11 RF



940 ha

FARMLAND

11

With fencee Cloud system, I can be sure of the correct operation of all electric fences. The biggest benefit in our case is the constant supervision of the fences with livestock and the fact that I can have peace of mind. I'm checking conveniently from my phone from wherever I want, and I see that as a great time-saving opportunity.

Ing. Josef Šmíd | Livestock specialist - ZD Vlkov



Central point for all information



- REMOTE CENTRAL CONTROL AND MANAGEMENT OF RF ENERGIZERS
- COMMUNICATION WITH THE CONTROL MONITOR

The central gateway is connected to the Cloud via Wi-Fi. Using the Cloud, you can control all connected devices from anywhere in the world via application in your mobile phone or the web interface.

- network adapter and battery backup in case of power failure
- Internet control is not limited by distance
- 奇 One gateway can control up to 12 devices



CONTROL UP TO 12 DEVICES



BACKUP POWER

POWER SUPPLY	230 V / 50 Hz, 14 VDC
CONSUMPTION	max. 300 mA
BACKUP POWER	9,6 V - 800m Ah
CONNECTED DEVICE	up to 12
LCD DISPLAY	~
ALARM SYSTEM	~
EXTERNAL ANTENNA CONNECTOR SMA	~
RANGE WITH BASIC ANTENNA	up to 10 km
RANGE WITH EXTERNAL ANTENNA	up to 30 km
TRANSMISSION FREQUENCY	869,525 MHz
TRANSMITTING POWER	+22 dBm
DIMENSIONS	165 × 116 × 35 mm
WEIGHT	420 g



Find out more about WiFi GATEWAY GW100

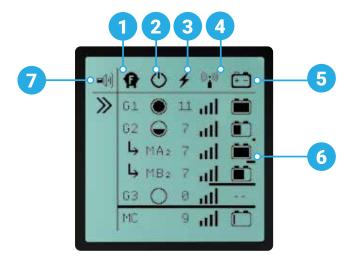
Perfect overview of the fence!

TIP

Use external antenna for a range up to 30 km.

OVERVIEW SCREEN

Displays all connected devices. You have an overview of status and performance of the device, signal quality. You can clearly see the individual battery states of all devices.



- 1 Device type designation GX or MX
 - **G** indicates a energizer type device
 - M indicates a monitor type device
 - **X** indicates an optional name for distinguishing individual energizers 1 12 or monitors A L
- 2 Energizer status and power
- 3 Last measured voltage on the fence [kV]
- 4 Radio signal level between device and gateway
- 5 Displays battery status, if battery is connected, or the monitor's battery status
- 6 Indication of last device response
- 7 Indication of audible warning status

DETAIL SCREEN

Well-arranged depiction of available information on the relevant device.



- 1 Device type
- 2 Energizer status and power
- 3 Signal level
- 4 Fence voltage [kV]
- 5 Energizer power output based on the current fencing load
- 6 Current set value for alarm activation [kV]
- 7 Battery voltage [V] (only if connected) battery of Monitor MX10 in [%]
- 8 Time from last data transfer
- 9 Current fence impedance
- 10 Wi-Fi gateway connection status
- 11 MAC address of the device



fencee energy DUO RF EDX

Smart RF energizers fencee **energy DUO RF EDX** with high power up to 15 J, and the possibility of control via a mobile phone using the fencee Cloud application.

FENCE UP TO

120 km

POWER

8-15J

POWER SUPPLY

230 V ~ 12 V 🗹





EXTREME POWER



EARTHING MEASUREMENT



POWER REGULATION



LCD DISPLAY



REDUCED OUTPUT



Find out more about **energy DUO RF EDX** energizers.

Technical parameters

In the overview chart you can find all the values about the individual energizers of the EDX series.

	energy DUO RF EDX80	energy DUO RF EDX100	energy DUO RF EDX120	energy DUO RF EDX150
POWER SUPPLY	230 V ~ / 6-11 W	230 V ~ / 6 – 14 W	230 V ~ / 6 – 17 W	230 V ~ / 6 – 21 W
CONSUMPTION	12 V 运 200-750 mA	12 V 运 200-850 mA	12 V	12 V ☑ 200 – 1250 mA
INPUT ENERGY	11 J	13 J	15 J	20 J
OUTPUT ENERGY	8 J	10 J	12 J	15 J
OUTPUT VOLTAGE	10000 V	10000 V	10500 V	10500 V
OUTPUT VOLTAGE 500 Ω	7000 V	7000 V	7500 V	7500 V
LCD DISPLAY	~	~	~	~
ON / OFF	~	~	~	~
LED ON / OFF	~	~	~	~
LED IMPULSE	~	~	~	~
LED LOW BATTERY VOLTAGE	~	~	~	~
LED POWER LOWER 50 %	~	~	~	~
LED ERROR CHECK	~	~	~	~
LED IMPULSE BARGRAPH	~	~	~	~
TIME DELAY	~	~	~	~
REDUCED OUTPUT	~	~	~	~
EARTHING MEASUREMENT	~	~	~	~
EXTERNAL ANTENNA SMA	~	~	~	~
DATA ENCODING	~	~	~	~
CONTROLLER BATTERY	CR2	CR2	CR2	CR2
TRANSMISSION FREQUENCY	869,525 MHz	869,525 MHz	869,525 MHz	869,525 MHz
TRANSMITTING POWER	+ 22 dBm	+ 22 dBm	+ 22 dBm	+ 22 dBm
EARTHING 1 m	4×	5×	5×	6×
EL. NETS	22×	27×	32×	38×
DIN RAIL	~	~	~	~
DIAMETER	290 mm			
DEPTH	108 mm			
WEIGHT		36	550 g	



fencee energy DUO RF EDX



You can control the energizers using a mobile phone or PC.



Large graphic display with control buttons for easy operation.



LED lights and BARGRAF for displaying fence status and fault indication.



Time delay for power increase. Complies with special standards for energizers with power over 5 J.



Yellow terminal for reduced power. Suitable for smaller fences or fences with young animals.



Green terminal for earthing quality measurement.



Optional regulation between high and low power.



You can use the remote controller as an accessory.

Length of installation with height of vegetation	TEOR. MAX CEE	25 %	50 %	100 %
energy DUO RF EDX80	230 km	80 km	17 km	8 km
energy DUO RF EDX100	300 km	90 km	22 km	10 km
energy DUO RF EDX120	320 km	100 km	25 km	13 km
energy DUO RF EDX150	350 km	120 km	28 km	16 km







Remote controller

energy DUO RF EDX Hand

1 controller for 6 energizers

3 controllers for **1** energizer







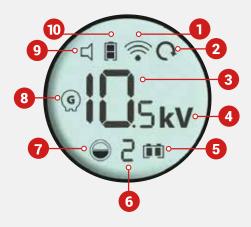
The energizer sends an error warning, that is displayed on the controller

- 3 Voltage drop in the fence below the set level (normally 3kV), i.e. there was a load on the fence due to various reasons (e.g. grass growth).
- 3 Voltage status on the battery is reported when the voltage drops below 12V.
- a Loss of signal report, which can be caused by several factors.

DIMENSIONS	50 × 120 mm
WEIGHT	74 g
POWER SUPPLY	battery CR2

Remote controller display

You can clearly see on the remote control's backlit display:



- 1 signal strength
- 2 update mode
- 3 measured value
- 4 measured unit
- 6 energizer battery
- 6 energizer number
- 7 energizer power
- 8 type of device
- 9 sound alarm
- controller battery

Everything at a glance!

EDX energizers clearly display on a large LCD display:

fence voltage | density of vegetation around the fence | the current signal strength | earthing quality | battery voltage









OUTPUT POWER

This information expresses energizer's output power, which depends on current conditions, loads and losses of the fence.









Display shows different information on several screens, easily scroll between them using the control buttons.

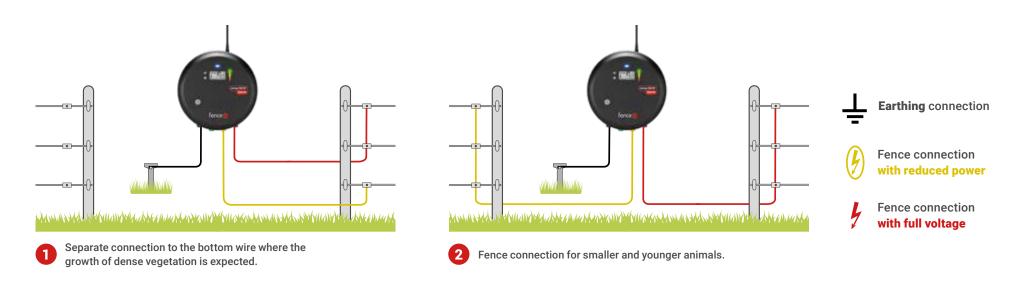




Two outputs for full flexibility



Yellow terminal is used to connect fence with permanently reduced output energy. This terminal is used to connect fence for younger and smaller animals (foals, calves) running a weaker, approximately half-strength voltage. It is also connected separately on bottom wire of larger fence where the growth of dense vegetation is expected. This output is technologically treated against loss, and there is no leakage of voltage to the earth as with typical connections; thus the energizer power is not reduced. The other wires connected to the red terminal are powered separately and at full voltage.

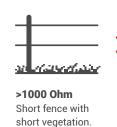


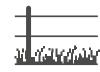
INDICATION OF FENCE LOADING SCREEN:



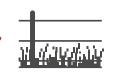
>

DISPLAY ICONS INDICATING THE FENCE LOADING:





1000 Ohm Medium fence with slightly overgrown vegetation.



500 OhmLonger fence with slightly overgrown vegetation.



300 Ohm
Longer fence with
moderately overgrown
vegetation or slightly
overgrown vegetation
after rain.



<300 Ohm
Fence with dense vegetation and high voltage loss.



fencee power DUO RF PDX

RF energizers fencee power DUO RF PDX with power up to 7 J. Possibility of remote control with hand controller or mobile phone with the fencee Cloud app.

FENCE UP TO 70 km

POWER 1-7J

POWER SUPPLY

230 V ~ 12 V 🗹





ONLINE INFO ABOUT THE FENCE



ALARM SIGNALLING



BATTERY MANAGEMENT



LED BARGRAPH



POWER REGULATION



Find out more about **power DUO RF PDX** energizers.

Technical parameters

In the overview chart you can find all the values about the individual energizers of the PDX series.

	power DUO RF PDX10	power DUO RF PDX20	power DUO RF PDX30	power DUO RF PDX40	power DUO RF PDX50	power DUO RF PDX70
POWER SUPPLY	230 V ~ / 3 W	230 V ~ / 5 W	230 V ~ / 5 W	230 V ~ / 9 W	230 V ~ / 9 W	230 V ~ / 12 W
POWER CONSUMPTION	12 V 並 40−100 mA	12 V ☑ 40 – 160 mA	12 V 运 80-260 mA	12 V ☑ 140−340 mA	12 V 运 100-440 mA	12 V 运 300-770 mA
INPUT ENERGY	1,4 J	3 J	4,5 J	5,7 J	7,5 J	10 J
OUTPUT ENERGY	1 J	2J	3 J	4 J	5 J	7 J
OUTPUT VOLTAGE	9000 V	12000 V	11200 V	10000 V	11000 V	10500 V
OUTPUT VOLTAGE 500Ω	5000 V	6000 V	6400 V	5500 V	6600 V	7500 V
ON / OFF	~	~	~	~	~	~
LED ON / OFF	~	~	~	~	~	~
LED IMPULSE	~	~	~	~	~	~
LED LOW BATTERY VOLTAGE	~	~	~	~	~	~
LED POWER LOWER 50 %	~	~	~	~	~	~
LED ERROR CHECK	~	~	~	~	~	~
LED IMPULSE BARGRAPH	~	~	~	~	~	~
TIME DELAY						~
EARTHING 1 m	1×	2×	2×	3×	3×	3×
EL. NETS	3×	5×	6×	6×	8×	14×
EXTERNAL ANTENNA SMA	~	~	~	~	~	~
DATA ENCODING	~	~	~	~	~	~
CONTROLLER BATTERY	CR2	CR2	CR2	CR2	CR2	CR2
TRANSMISSION FREQUENCY	869,525 MHz	869,525 MHz	869,525 MHz	869,525 MHz	869,525 MHz	869,525 MHz
TRANSMITTING POWER	+ 22 dBm	+ 22 dBm	+ 22 dBm	+ 22 dBm	+ 22 dBm	+ 22 dBm
DIN RAIL	~	~	~	~	~	~
DIAMETER	210 mm					
DEPTH	66 mm					
WEIGHT	1800 g					



fencee power DUO RF PDX



You can control the energizers using a mobile phone or PC.



LED lights and BARGRAPH for displaying fence status and fault indication.



Optional regulation between high and low power.



The controller is part of the package and its basic range is 10 km.

1 controller for 6 energizers | 3 controllers for 1 energizer



Control and management of battery status.



Time delay for power increase. Complies with special standards for energizers with power over 5 J.

Length of installation with height of vegetation	TEOR. MAX CEE	25 %	50 %	100 %
power DUO RF PDX10	35 km	8 km	2 km	1,5 km
power DUO RF PDX20	60 km	15 km	3 km	1,5 km
power DUO RF PDX30	100 km	23 km	5 km	2 km
power DUO RF PDX40	120 km	30 km	8 km	3 km
power DUO RF PDX50	140 km	40 km	10 km	4 km
power DUO RF PDX70	180 km	70 km	17 km	8 km







Remote controller

power DUO RF PDX Hand

1 controller for 6 energizers

3 controllers for **1** energizer

RANGE UP TO



ERROR MESSAGES



TURNING ON/OFF

The energizer sends an error warning, that is displayed on the controller

- → Voltage drop in the fence below the set level (normally 3kV), i.e. there was
 a load on the fence due to various reasons (e.g. grass growth).
- ₹ Noltage status on the battery is reported when the voltage drops below 12V.
- a Loss of signal report, which can be caused by several factors.

DIMENSIONS	50 × 120 mm
WEIGHT	74 g
POWER SUPPLY	battery CR2

Remote controller display

You can clearly see on the remote control's display:



- 1 signal strength
- 2 update mode
- 3 measured value
- 4 measured unit
- 6 energizer battery
- 6 energizer number
- 7 energizer power
- 8 type of device
- 9 sound alarm
- 10 controller battery

The **guard** who never sleeps



Monitor MX10

24/7 REMOTE MONITORING OF FENCE VOLTAGE

It monitors key fence sections and immediately informs about the voltage drop. Measures the fence voltage and sends data to the gateway.

- n Possibility for connecting more monitors to one fence
- to divide single fence into more zones.
- a Battery life time 1 year / the whole season.





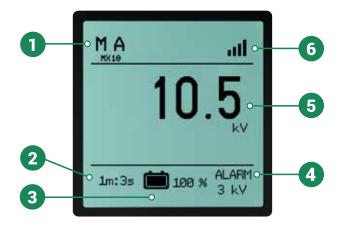


Technical parameters

LED INDICATION	~
EXTERNAL CONNECTOR SMA	~
SOUND SIGNAL	~
MAGNETIC SWITCH MODE	~
RANGE WITH BASIC ANTENNA	up to 10 km
RANGE WITH EXTERNAL ANTENNA	up to 30 km
TRANSMISSION FREQUENCY	869,525 MHz
TRANSMITTING POWER	+22 dBm
BATTERY	2 × C LR14
DIMENSION	78 × 144 × 42 mm
WEIGHT	325 g



Learn more about the Monitor MX10.

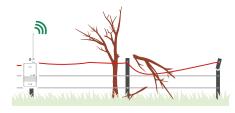


DETAIL SCREEN

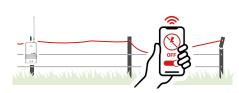
Display the paired monitor and all available information about a specific monitor.

- 1 Device type
- 2 Time since last data transfer
- 3 Monitor battery voltage status [%]
- 4 Current set value for alarm activation [kV]
- 5 Value of the voltage on fence [kV]
- 6 Signal level between monitor and gateway

How does it work?



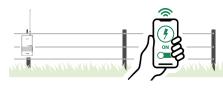
The monitor recognizes a drop in the fence voltage and sends information to the central gateway.



You can switch off the power supply on fence conveniently via the fencee Cloud application and eliminate a problem.



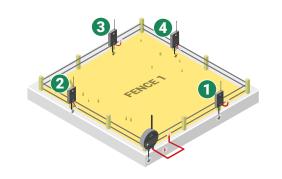
2 The gateway sends an alarm within a few seconds.



Once the problem is eliminated, you can switch on the energizer using the app and check the fence voltage on your mobile phone.

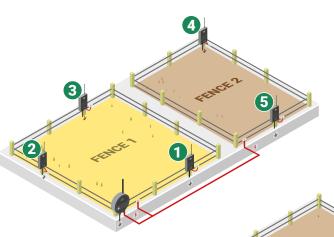


Monitor MX10 installation options



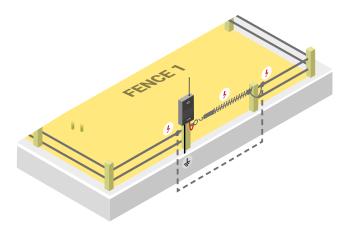
STANDARD INSTALLATION

Fence divided into sections. If the voltage of a monitor drops, the section and location of the problem can be easily identified.



FOR FENCE ENTRANCES AND IN PROBLEMATIC LOCATIONS - SECTIONS

Installation for an easy identification of the fence with a non-functional energizer or the location where problems may occur frequently, e.g. by the forest, by the water, in locations with dense vegetation.



CONTROL INSTALLATION FOR CLOSING A GATE

The monitor can also be installed on the gate insulator eye. If the handle hook is disconnected and the eye lacks voltage, the monitor evaluates the situation and sends an alarm to the gateway.

TIP

Put the monitor in the key sections where voltage needs to be checked (fence entrance) or where frequent problems, for example, with vegetation, by the forest, by the water, or when disconnected fence gate, can be expected.

FOR FENCE ENTRANCES

Installation for quick identification of the fence with a non-functional energizer.





Perfect overview and remote control

with a Smart Farm system

Trust in fencee Cloud system has brought the owner peace of mind and an overview of electric fences even during her absence at the ranch.

10



2 RF



35 ha

We are completely satisfied with the fencee RF energizer.

Device works better than the competition energizers, it is much more sophisticated and the horses respect the fence.

Control using the application is clear and perfect.

Mgr. Zdeňka Pohlreich I Barefoot Ranch





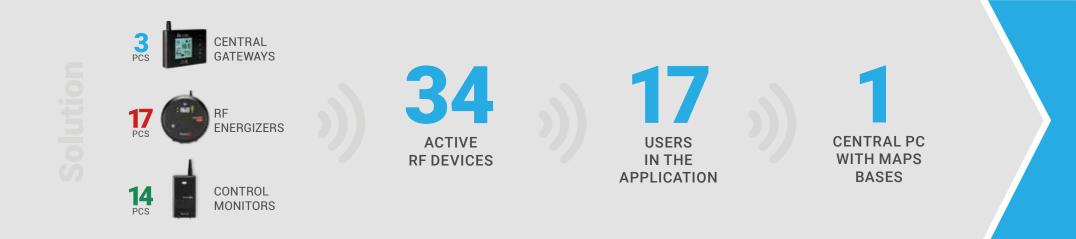


Smart Farm fencee Cloud system in Zoo Zlín

A case study on the use and benefits of the fencee Cloud system in Zlı́n Zoo.

Results speak for themselves

After the installation of the Smart Farm system in Zoo Zlín, the work of technicians and caretakers has become more efficient. Last but not least, the employees have gained a complete overview of the electric fences and are immediately informed on their smartphones if a problem occurs.



Secured enclosures and animals

Take a look at the layout of the electric fences, which are secured by the Smart Farm system fencee Cloud.











What says about the system

Ing. Roman Horský I director of Zoo Zlín 🖢



The new Smart system fencee Cloud will allow us to have electric fences under control around the clock and will also make it easier detecting the specific section of failure. A truly unique system in every aspect.

ECONOMIES

WORKING HOURS **EVERY DAY**

WORKING DAYS **EVERY MONTH** **SAVING**

MONTHLY

12.612 € **PER YEAR**

RETURN ON INVESTMENT

MONTHS

For the calculation we used average salary in the EU to date 10.8.2022.

External antennas increase signal quality Animals are protected

+12000 m²

The areas are monitored by the fencee Cloud system



Katanga Lion

Panthera leo bleyenberghi Enclosure area: 1260 m²











Gelada **Baboon**

Theropithecus gelada Enclosure area: 4869 m²











American Jaguar

Panthera onca Enclosure area: 2200 m²







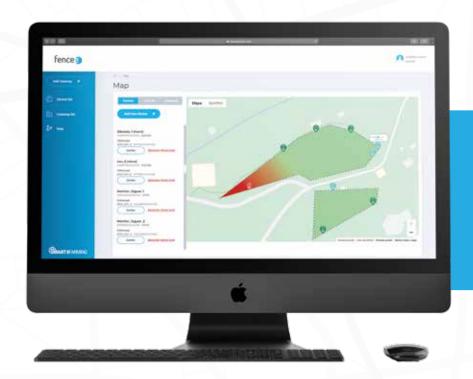
How the system looks in use

Map base

with the real location of individual devices

Once the system was installed, all fences and devices were entered into the map base.

Overview of all Smart fences with a list of central units.



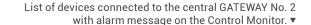


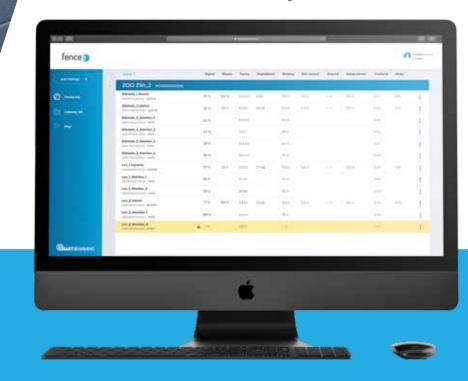
Virtual fence

determine the exact location after the alarm occurs

All electric fences were plotted in the map base from which it is easy to see at a glance the location of a potential fault.

The Gelada enclosure, when the Monitor MX10 alarm is activated, with list of all paired devices in the enclosure.





Lists of connected devices

clearly divided by all important values

All connected devices are split into clear lists which are sorted according to the respective central units. In the lists you can see the important values for individual devices.



ZOO ZLIN

Questions about the Smart Farm system can be directed in Zoo Zlín to:

Vlastimil Mizera - Manager of electric fences at Zoo Zlín





Read articles about installation of the system in Zoo Zlín

On our website we have prepared for you complete articles on preparation, installation and the functioning of the fencee Cloud system in Zoo Zlín.



Scan the QR to a blog article about installation of system **fencee Cloud.**

Take a look at other fencee products

Choose from our range of other model series with energizers for electric fence.



energy DUO ED

FENCE UP TO 120 km

POWER **8 - 15 J**

POWER SUPPLY 230 V ~ 12 V ☑



power DUO PD

70 km

POWER 1 - 7 J

230 V ~ 12 V 🗹



power P

FENCE UP TO 38 km

POWER 1 - 4 J

POWER SUPPLY 230 V



mini DUO MD

FENCE UP TO 12 km

0,3 - 1 J

230 V ~ 12 V 🖸



mini M

FENCE UP TO **9 km**

POWER

0,2 - 0,8 J

POWER SUPPLY 230 V



Web about Smart Farm fencee Cloud

Find out all about how the Smart Farm System and fencee RF devices work.



www.fenceefarm.com

Have a question?



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Smart farm fencee Cloud

System for remote control of electric fences via mobile app or web interface







fence Electric fencing

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