

## Manual



## E-Gate 4 – Artnet – DMX gate

V1.3

Thank you for purchasing our product.

We have made every effort to ensure a highest quality of our products to meet your expectations.

Should you have any comments please let us know.

We will be grateful for all suggestions to help us to manufacture even better products, products to fulfill your expectations,

## Contents

1. General description	4
2. Basic safety conditions	4
3. Description of the device	5
4. Joystick	5
5. Screens	6
6. Subpages	7
6.1. ArtNet	7
6.1.1. Merging	7
6.1.2. DMX parameters	8
6.2. The direction of ports	8
6.3. Visualization	9
6.4. Network	9
6.5. Language	10
6.6. Patching visual (Setting Visualization)	10
6.7. Default page	11
7. How to connect the device?	11
7.1. Example 1	11
7.2. Example 2	12
8. Maintenance and repairs	13
9. Technical specification	13
10. Contact	13

## 1. General description

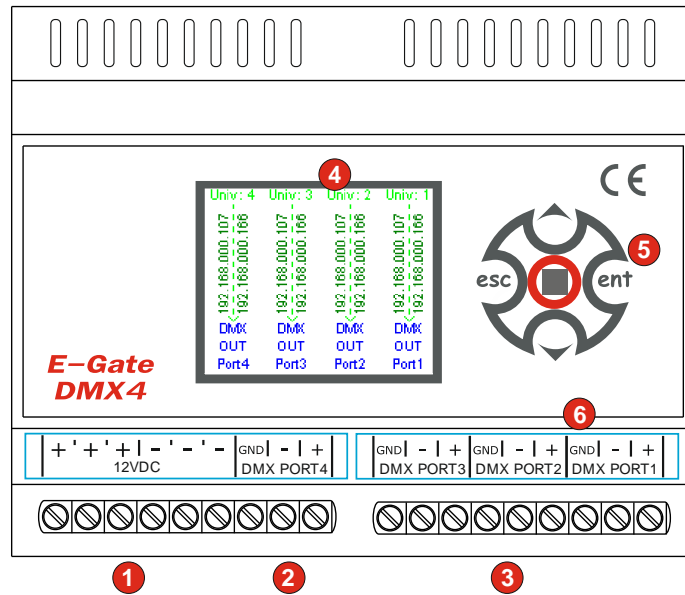
E-Gate DMX4 is a node ("gate") of the Ethernet network converting Art-Net signals to 4 DMX512 ports. All ports conform to the DMX512,DMX512-A standard and can be used both for DMX signal outputs and inputs. The LMQ4 device is mounted in a housing fit for assembly on a standard T35 rail. It is provided with screw joints allowing to attach the power supply and DMX512 signals. It comprises also the Ethernet joint operating in the 10/100BaseTX standard. All configuration steps can be performed with a joystick along with a TFT 1.8-inch color display on the front panel. The gate is supplied with the safe +12VDC. Best suited for converting of Art-Net signals from popular programs to control lighting systems (e.g. MATRIX) as well as for advanced controllers of stage and theater lighting. All DMX ports are optically isolated and are provided with an anti-short circuit and overvoltage protection. The E-Gate has an integration function to integrate up to 2 Art-Net streams available in the HTP and LTP mode. Also screen monitoring of the Ethernet network, DMX channels levels, both in Mono and RGB mode and the kind of the DMX port is possible. Every DMX port is provided with a function for configuration of most important parameters such as: Brake, MAB, MBF. Thus you can adapt a signal to previous DMX devices, still on the market. The E-gate software can be updated via the Ethernet network.

## 2. Basic safety conditions

The DMX4 E-Gate is a device supplied with the safe 12VDC voltage from special feeders, however, when installing and using it absolutely observe the rules given below.

1. The module must be assembled by an authorized person and according to its instruction.
2. The device can be connected only to a regulated voltage of a loadability according to the technical data.
3. The module is designed for internal use. In case it is used outside it must be protected against atmospheric impact.
4. Protect all wires from mechanical and thermal damage.
5. Carry out all repairs with the power switched off.
6. Do not connect a device to a supply source when its damage is visible.
7. Absolutely protect the LMQ4 against contact with water and other fluids.
8. Avoid sudden shocks especially a fall.
9. Do not switch the device in spaces of the relative humidity above 90%.
10. Do not use the device in spaces of a temperature lower than +20<sup>0</sup>C or above +40<sup>0</sup>C.

### 3. Description of the device



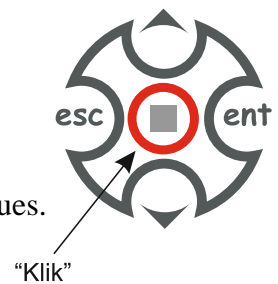
1. Power supply joint (+12V, GND)
2. Output joints, DMX Port 4
3. Output joints, DMX Port 1, 2, 3
4. TFT 1.8" display
5. Configuration joystick
6. ETHERNET 10/100 Base TX joint

### 4. Joystick

The E-Gate DMX 4 is provided with an integral “joystick” for device configuration.

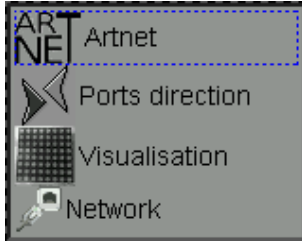
There are 5 positions of the joystick:

1. "To the right" - Enter the main menu or individual submenus.
2. "To the left" - ESC – exit from every submenu.
3. "Up": navigation within menu up or increase of the parameters values.
4. "Down": navigation within menu down or decrease of the parameters values.
5. "Press down": selection of a parameter for edition.

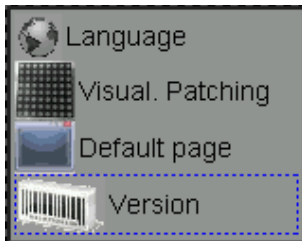


## 5. Screens

With the device started by pushing the joystick to the right we go to the main menu with the following parameters:



1. Artnet - Setting the ascription of Univers (1-256) -Port DMX (1-4)
  - a. The kind of summing up data from two universes (LTP mode the last, HTP the highest)
  - b. Setting of DMX output parameters (Break, MAB, MBF)
2. Ports direction - Setting the DMX port kind (input or output)
3. Visualization - Screen monitoring of the values from ArtNet (in the RGB or Mono mode)
4. Network - Setting Ethernet parameters (IP address, subnetwork mask, Gate)



5. Language - Selection of the menu language.
6. Patching Visual - Setting the visualization of the signal level on the device screen.
7. Deafult page - Setting the subpage, which shall appear on the screen upon turning on the device. 4 subpages can be selected:
  - a. I/O signals,
  - b. Visualisation,
  - c. Main Menu,
  - d. Network interface.

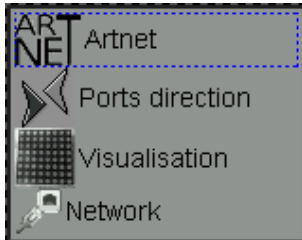


8. Version - Showing the software version
9. Default settings - Possible restoration of the initial settings.
10. Reset - Device reset
11. Reset bootloader - Subpage in which we can upgrade the device.

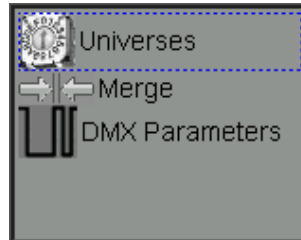
## 6. Subpages

### 6.1. ArtNet

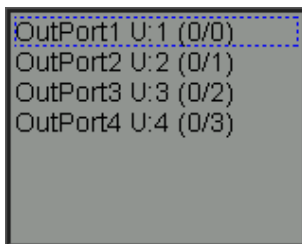
ArtNet: Selecting one from the 256 available DMX lines to the Art-Net™ protocole.  
 A hexadecimal value is given in brackets; the first digit is the Art-Net subnetwork, the second the Art-Net space in this subnetwork.



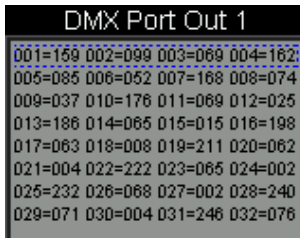
Click ENTER



Click ENTER

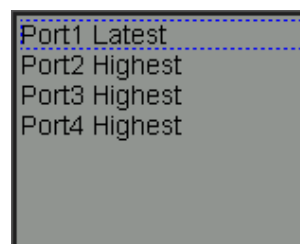
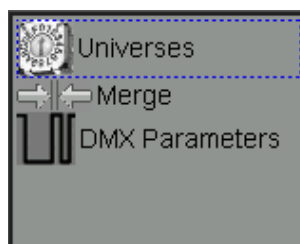
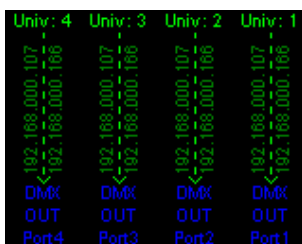


In this submenu we can ascribe a right Univers to a DMX port. To do this we select an appropriate output OutPort pushing the up- or down-arrow and we push down (click) the joystick - a Port will be highlighted. Pressing the joystick up or down you select an appropriate Univers number. Next, you have to pres (click) the joystick again. The values will be saved.



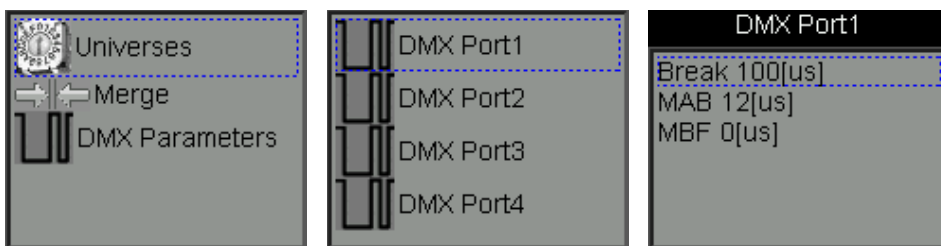
DMX Port Out x. Basing on this we can watch the output or input DMX values depending on the port direction, which is set according to the ART-Net protocole.

#### 6.1.1. Merging



The E-Gate DMX4 can receive signals from two different ArtNet lines (controllers), which are comprised in the same subnetwork. If controllers send on the same Universe, we can declare how the DMX output from the Gate should behave. It can operate in two LTP modes (the last value prevails or the HTP highest value prevails). In this submenu we can ascribe the kind of merging to the DMX **output** Port. To do this, we select an appropriate PortX output by pushing the joystick up- or down-arrow and clicking the joystick - a Port will be highlighted. Pressing the joystick up- or down arrow you select an appropriate Univers number: the Highest or the Last. Next, you have to press (click) the joystick again; the values will be saved. Sending from two different ArtNet sources is visualised on the main screen as a double IP address.

**6.1.2. DMX parameters**

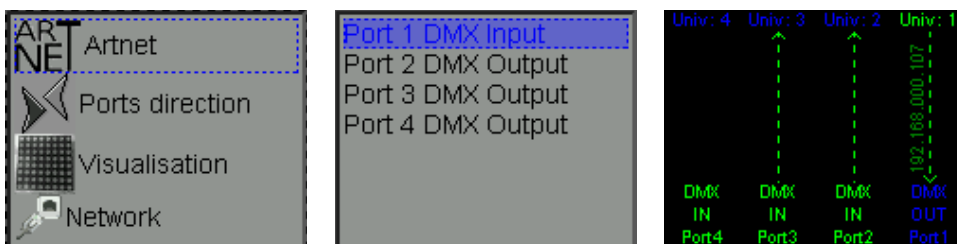


On account of the diversity of devices on the market and sometimes the lack of conformity to the standard the DMX512 - E-Gate is provided with a function of changing the output DMX parameters. Options allow to select proper output signal parameters for a given device.

In case any problems occur we recommend longer timers of the Break, MAB, MBF (the channel spacing) and the DMX package length.

To change a DMX parameter you select an appropriate parameter, next you highlight it (click) and with the up-arrow or down-arrow you can change this parameter. Next pressing this arrow causes the highlighting to go out and saving the output parameters.

**6.2. The direction of ports**



The DMX4-E-gate is provided with 4 DMX ports, which are converted to the ArtNet protocol; both from ArtNet to DMX and vice versa. In order to do this we can configure DMX ports in the gate as input or outputs. This function is visualised on the main screen, where both the direction of the data flow and the ID number of a controller to which or from which data are transferred are shown.



To change a DMX parameter you select an appropriate parameter, next you highlight it (click) and with up- and down arrow you can change this parameter. Next pressing of this arrow causes the highlighting to go out and saving the output parameters.

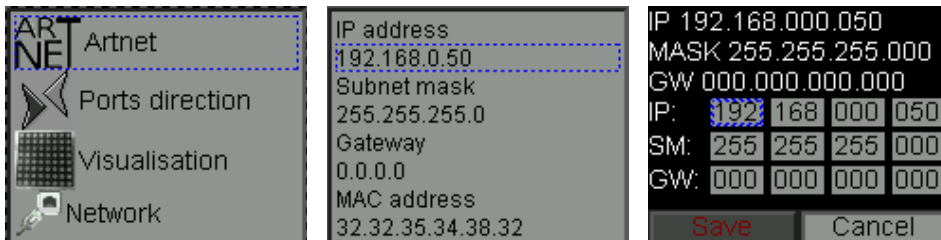
In order to change the port direction you select a proper number by scrolling up or down, then you highlight it and with the up- or down arrow you can change this parameter. The next pressing of the arrow causes cancelling of the highlighting and saving.

### 6.3. Visualization



The DMX4-E-gate is provided with a very useful function (visualization), which enables monitoring on the screen data, which are sent with the ArtNet protocol. This monitoring is possible both in the RGB and Mono mode. Visualisation parameters can be changed in the "Patching visual" submenu.

### 6.4. Network



The DMX-4-E-gate has a full Ethernet configuration. Possible settings: IP address, Subnetwork Mask and Gate. Select in the main menu the Network tab - next press Enter. In the next subpage appear all the Ethernet network parameters. In order to edit them, you press again Enter on the joystick, going to the page in which the edition can be done. Moving the "frame" with the joystick (up, down, to the right, to the left) you frame the parameter you want to change. Next, you click the joystick - the parameter will be highlighted and with the arrows up or down you can change the numeric value of the parameter. Having changed the parameter with the next pressing (clicking) you turn off the edition highlighting. Other parameters can be changed in a similar way. In order to save parameters (IP address, Mask,...) in the controller memory select the parameter "Save" and press (click) the joystick.

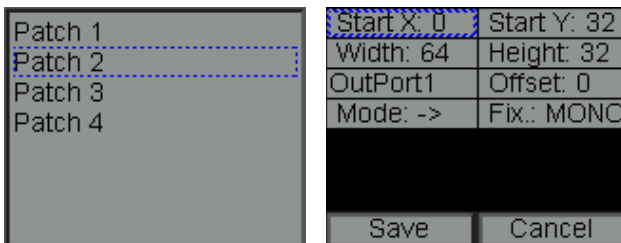
By selecting "Cancel" you can leave this subpage without changing the network configuration.

## 6.5. Language



The DMX4-E-gate has two interface language options: Polish and English. To change the language select the one you want and confirm it by pressing (clicking) the joystick. To exit the page use Esc.

## 6.6. Patching visual (Setting Visualization)



The gate is provided with a very easy to use function of monitoring data from ArtNet in the form of pixels displayed on the screen. You have 2 modes you can use: Mono, which occupies the first channel and RGB occupying three channels. The screen can be divided into 4 parts (Patch 1-4) and each of these can be properly placed on the display. You can change the following parameters:

Start X - coordinate x of the image on the screen

Start Y - coordinate y of the image on the screen - value 0.0 is the upper left screen corner.

Width - width of the image

Height - height of the screen

OutPort n - selection: pixels from which DMX Port shall be displayed

Offset - selection: from which DMX-channel on to start displaying (value 0 is a full DMX line)

Mode - the way to arrange pixels on the screen: right arrow - successive addresses in successive rows; Snake- addressing pixels in the form of a "snake".

Device: selection of the kind of pixels (Mono or RGB)

Parameters can be edited shifting the "frame" over the values (up, down, to the right, to the left). You frame a parameter you want to change. Next, you click the joystick - the parameter will be highlighted and with the arrow – up or down - you can change the numeric value of the parameter. Having changed the parameter with the next pressing you turn off the edition

highlighting. In a similar way other parameters can be changed. In order to save parameters (IP address, Mask,...) in the controller memory select the parameter "Save" and press (click) the joystick.

By selecting "Cancel" you can leave this subpage without changing the network configuration.

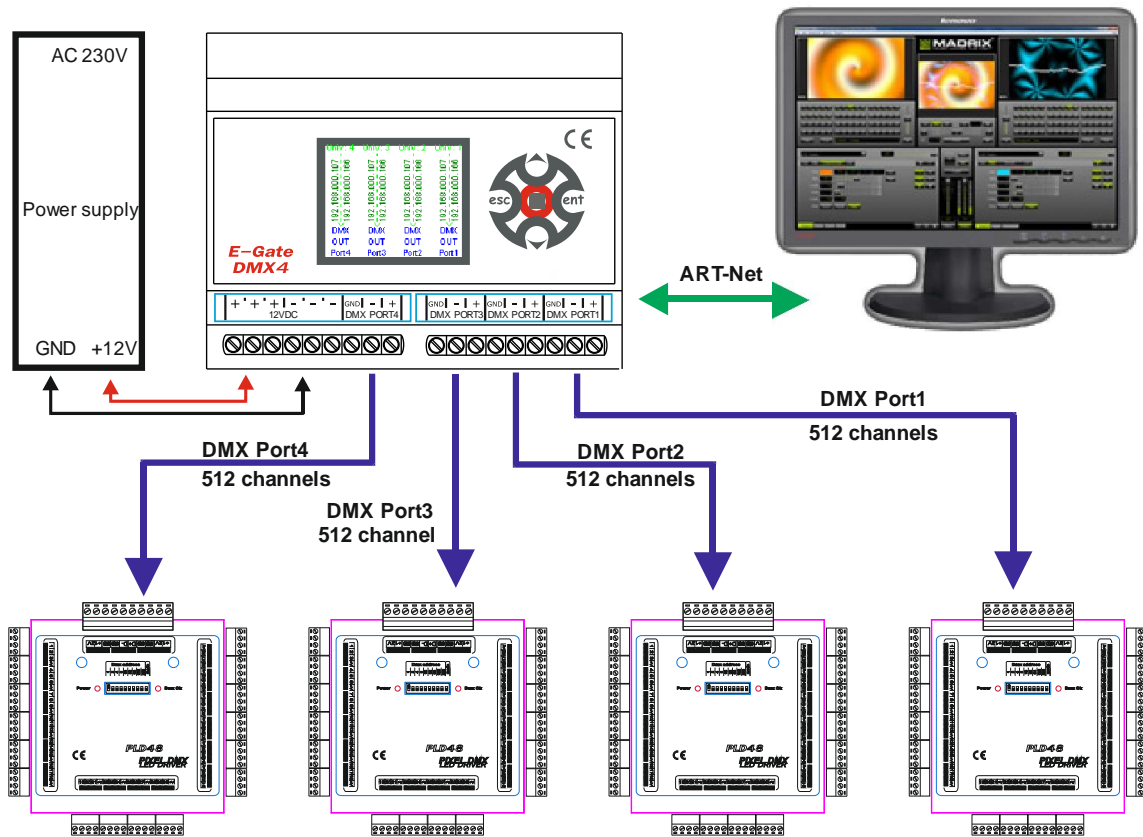
**6.7. Default page**

In this menu select a page to appear as a main page after turning on the device. 4 variants can be selected:

- Input and output signals
- Visualization
- Main Menu
- Network interface.

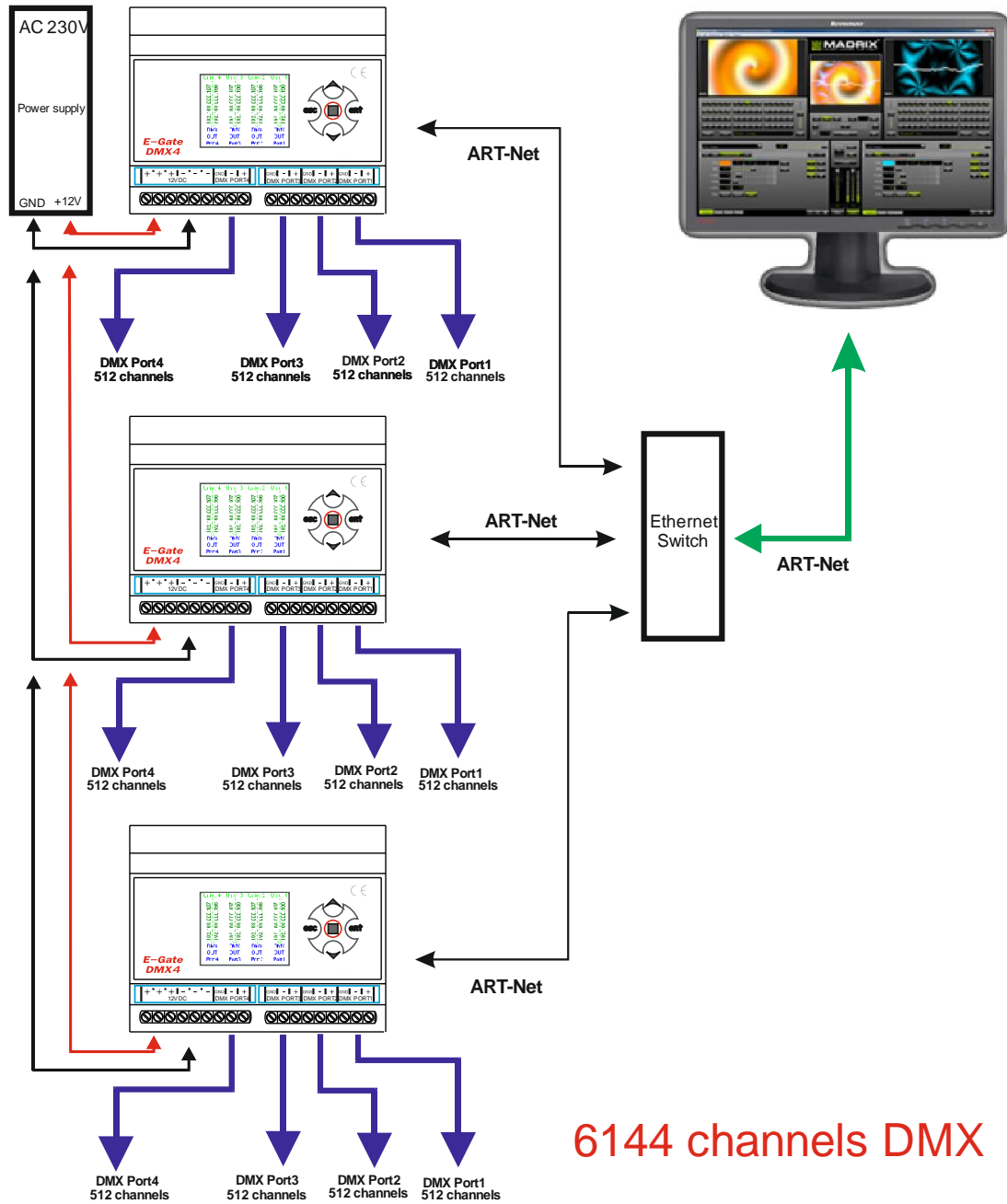
**7. How to connect the device?**

**7.1. Example 1**



**2048 channels DMX**

## 7.2. Example 2



6144 channels DMX

## 8. Maintenance and repairs

The device comprises no elements you can repair yourself. In the event of incorrect operation report it to the seller or manufacturer.

### Caution!

All single-handed repairs can cause irreparable damages or some threats.

## 9. Technical specification

Power supply: 12V DC

Power consumption: 400mA max.

Number of DMX ports: 4

DMX joints: Screw type, optical isolated

ART-Net joint: Ethernet RJ45

Weight: 220g

Dimensions:

Width 105 mm (6 rail modules)

Height 90 mm

Depth 60 mm

### Notice

The manufacturer reserves the right to introduce changes of functioning and operating the device in order to upgrade the product.

## 10. Contact

[www.modus.pl](http://www.modus.pl)

[biuro@modus.pl](mailto:biuro@modus.pl)