

MANUAL



ARS-01 ARTNET RS232

V1.1

Thank you for purchasing our device.

We make every effort to ensure the best quality of our products and to meet your expectations.

If you have any remarks or comments, please share them with us.

We will be grateful for any suggestions that will help us make products that are even better and devices that satisfy your needs.

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1. General description

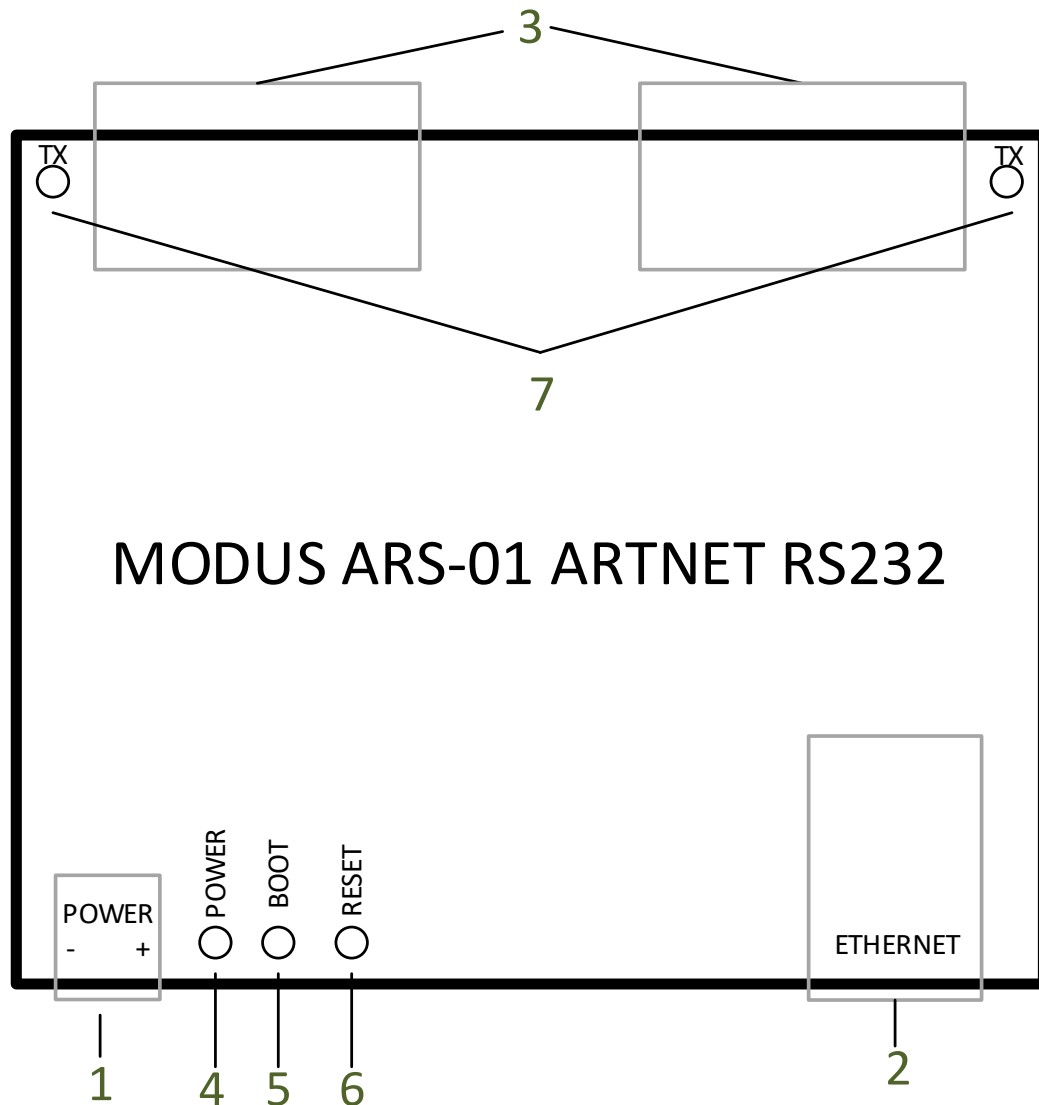
MODUS ARS-01 ARTNET RS232 is an ArtNet to RS232 signal converter. It is powered with safe voltage from 12 to 24 VDC. It has an external power input, or it can be supplied with Passive PoE. It is perfect for controlling multimedia devices, such as: video projectors, multimedia players, audio amplifiers and processors, etc. Double RS232 output on DB-9 connector allows convenient connection of 2 devices. Its flat casing with DIN 35 mm rail allows to mount the converter in a standard control cabinet for convenient mounting and ease of keeping your installation in order. The implemented system of standard DB-9M connector for RS232, RJ45 connector for Ethernet and disconnectable screw connector for power input makes installation and future operation easier. MODUS ARS-01 ARTNET RS232 features reverse polarity protection in input voltage, as well as surge protector. They protect not only the converter, but also the controlled device against damages. The converter works in LAN network and is controlled with the popular ArtNet protocol. It is controlled with a dedicated MODUS DevManager firmware, so the whole configuration process can be done remotely through Ethernet network. It is a perfect solution in situations where the device is difficult to access. The converter can control any device with RS232 interface, the configuration firmware has many ready-to-use libraries, and creating your own libraries is easy and intuitive. It is possible to change RS232 transmission parameters (transmission speed, number of data and stop bits, even bit). ArtNet control is possible in two modes: selecting and sending command through one channel, or sending each command through separate channels.

2. Basic safety conditions

MODUS ARS-01 ARTNET RS232 is a device powered with safe 12-24VDC voltage from dedicated power supplies, however, during installation and usage, it is essential to observe the following rules:

1. The converter should be installed by a person having relevant qualifications, according to the information in the manual.
2. The device can be connected only to stabilized voltage with loadability matching the technical parameters.
3. The device is intended for indoor use. In case of outdoor use, it should be protected against weather conditions.
4. All wires should be protected against mechanical and thermal damage.
5. All maintenance works can be performed only after depowering the device.
6. A device with visible damages should not be connected to a power supply.
7. It is crucial to protect the device against any contact with water and other fluids.
8. Avoid sudden shakes and especially falls.
9. Do not turn the device on in places where humidity exceeds 90%.
10. Do not operate the device in places where the temperature is lower than +2°C or higher than +40°C.

3. General view of the device

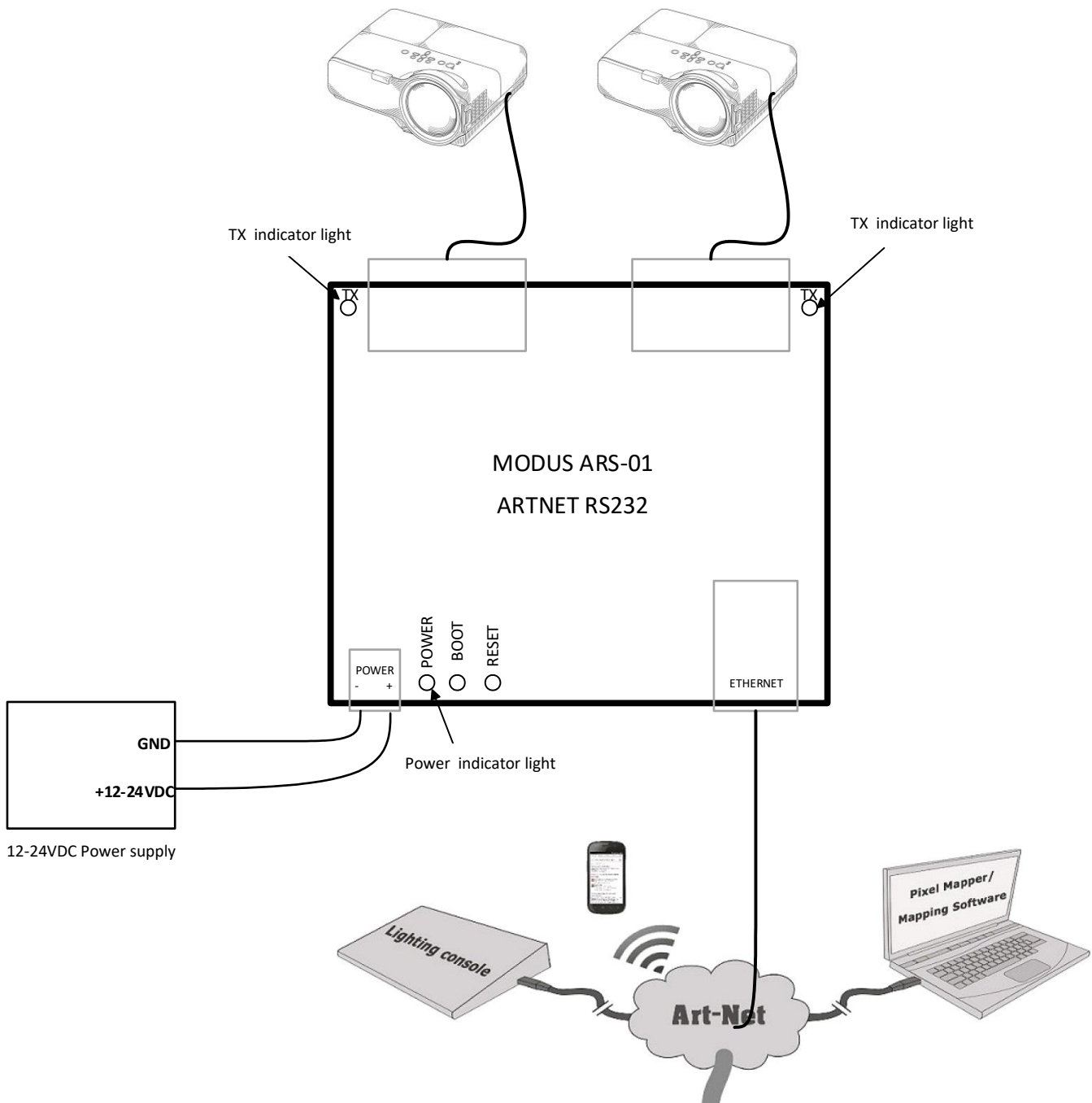


1. **Power connector** (GND, +12-24VDC)
2. **RJ45 Ethernet connectors** – LAN network
3. **RS232 connectors**
4. **Power indicator light**
5. **Boot indicator light** – device in startup mode
6. **Reset button** – restores default settings of the device
7. **Tx indicator lights** – data transmission through RS232

4. Electrical connections

The device can be powered in two ways, from an external power supply connected to the power connector, or from a switch with “Passive PoE” function, through a twisted-pair computer cable.

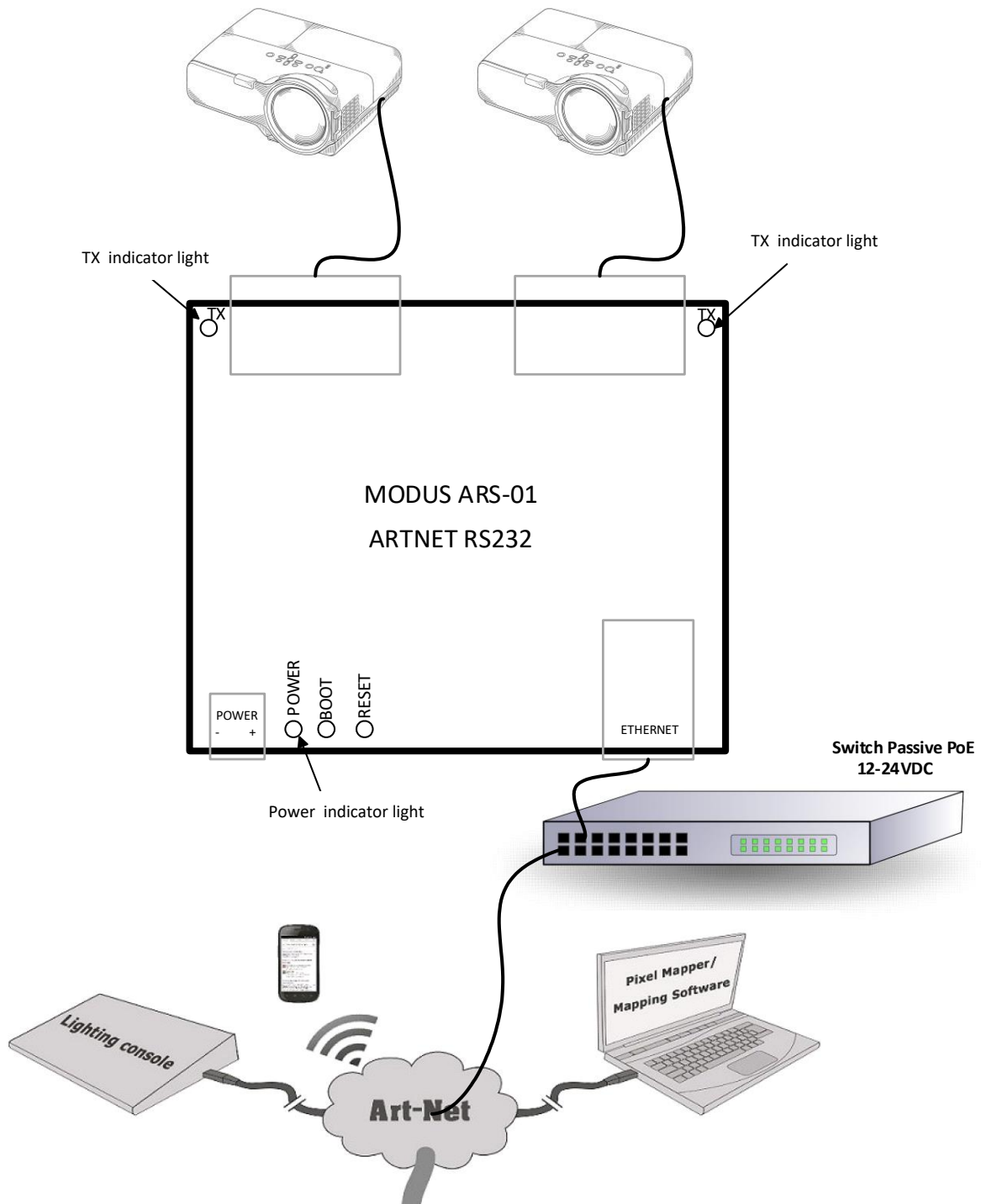
4.1 External power supply



The controlled devices, Ethernet network and power supply should be connected to the converter as shown on the diagram.

The converter should be powered only with the dedicated power supply offered by the manufacturer.

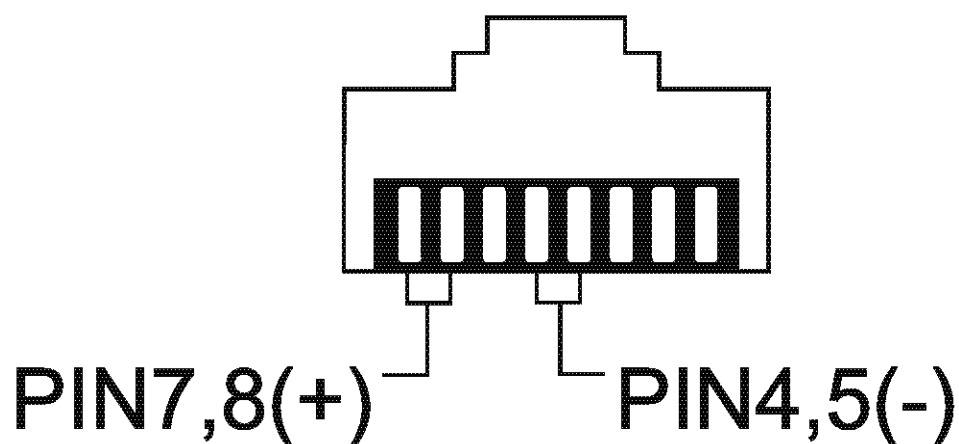
4.2. Passive PoE



The controlled devices and Ethernet network with Passive PoE should be connected to the converter as shown on the diagram.

NOTE!!

Pay special attention to appropriate polarization and voltage of Passive PoE, according to the diagram below. The converter can be supplied with voltage from 12 to 24VDC.



The maximum length of Ethernet cable when using Passive PoE is 25m, connecting a longer cable to the converter can have a negative influence on its operation.

5. Configuring the device – MODUS DevManager firmware

Once the device has been connected according to the diagrams in chapter 4, you should run DevManager firmware. The computer used for configuration must be connected to the same network and have an IP address from the same address pool.

The default IP address, PIN and PUK can be found on a sticker on the device.

5.1. DevManager – basic configuration

Once started, DevManager firmware will search and list all MODUS devices connected to the network.

1 Typ urządzenia	2 Opis użytkownika	3 IP	4 MAC	5 Kanał DMX	6 Universe	7 SubUniverse	8 FW ver.	9 HW ver.	10 PING
MODUS ArtNet to RS232 interface	Opis użytkownika	192.168.1.123	70-B3-D5-F1-31-13	Wszystkie	0	0	0.102	2.0	Nie

Wyszukaj urządzenia

IP: 192.168.1.150

1. **Device type** - displays the model and name of the device
2. **Device description** - each device can have an individual description set by the user
3. **IP** – device’s IP address
4. **MAC** – device’s physical MAC address
5. **DMX channel** – number of DMX channels received by the device
6. **Universe** – Universe in which the device works
7. **SubUniverse** – SubUniverse in which the device works
8. **FW ver.** – firmware version
9. **HW ver.** – hardware version
10. **PING** – continue device operation with PING

Clicking with the right mouse button on a chosen device will show a list of possible settings.

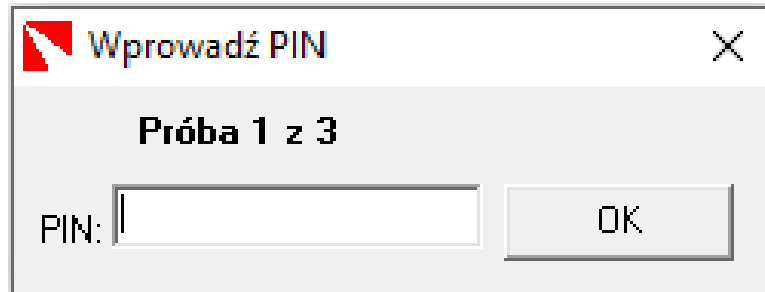
Użytkownika	IP	MAC	Kanał
Użytkownika	192.168.1.100	78:09:D5:F1:01:10	Wszystkie

- Zmień IP
- Zmień Universe, SubUniverse
- Wybór trybu pracy
- Biblioteki
- Zmień opis użytkownika
- Reset
- Zmiana PIN
- Aktualizacja firmware

In the case of MODUS ARS-01 ARTNET RS232 converter, you can change the following settings:

1. **Change IP** – change converter’s IP
2. **Change Universe, SubUniverse** – configure the Universe and SubUniverse in which the converter will work
3. **Mode selection** – allows switching modes: selecting and sending a command through one channel or sending each command through separate channels
4. **Libraries** – select and load libraries for operating the controlled device
5. **Change user description** – allows setting an individual converter’s description
6. **Reset** – restarts the converter
7. **Change PIN** – change PIN security number

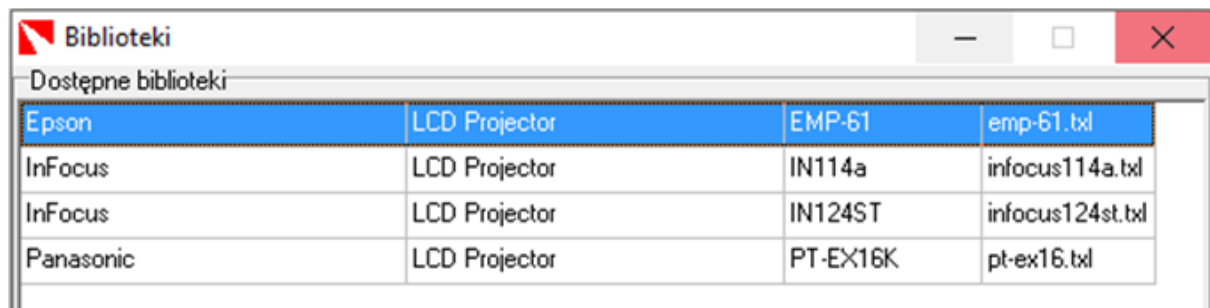
MODUS ARS-01 ARTNET RS232 converter is protected with PIN, which is needed to change any settings of the converter. An attempt to change any setting will cause DevManager to prompt for PIN.



In case of entering wrong PIN 3 times, the device will prompt for PUK. PUK and default PIN can be found on converter’s casing. PIN can be changed by the user.

5.2. DevManager – loading libraries

Device library is a set of commands to be sent to the controlled device through RS232. A library can be selected and loaded in “Libraries” menu (chapter 5.1), after entering PIN, a library window will appear.



In the library window, you can choose one of the available libraries.

Clicking on a selected library with the right mouse button allows choosing “Load” option. Double clicking on a selected library with the left mouse button will display a window with library preview.

InFocus LCD Projector IN124ST

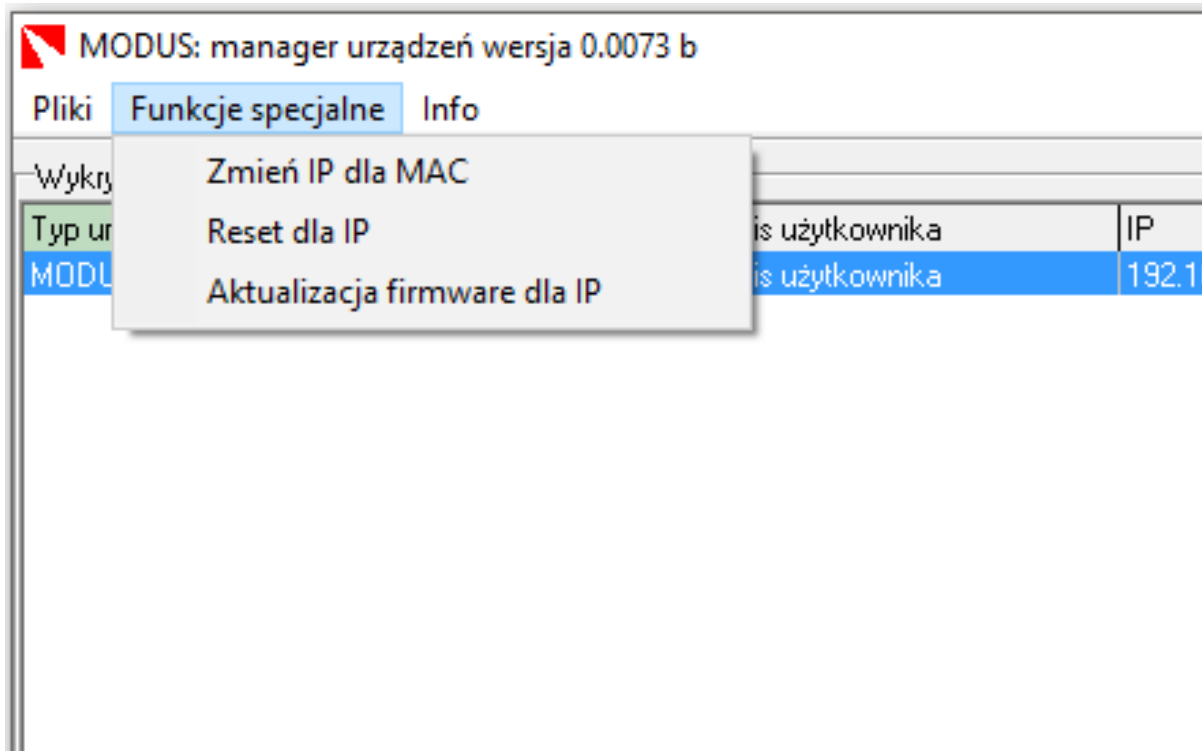
Komendy (14)

Wartość	Kanał	Poziom wł.	Funkcja
1			
2			
3			
4			
5			
6			
7			
8			
9	1	128	Standby power On
10	2	128	Standby power Off
11			
12	3	128	Blanking On
13	4	128	Blanking Off
14			
15			
16			
17			
18			
19			
20	5	128	Input 1 [VGA 1]
21	6	128	Input 2 [VGA 2]
22	7	128	Input 3 [VGA 3]

The library database is continuously developed and updated. In case there is no library for a given device, please contact the manufacturer.

5.3. DevManager – special functions

DevManager firmware also has some special functions, they are useful in case of wrong device configuration.



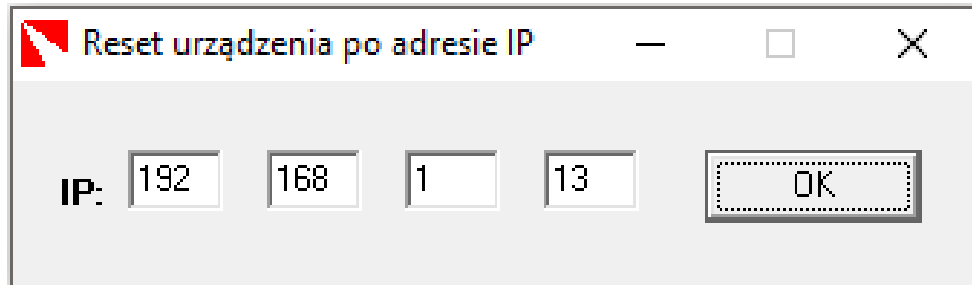
Special functions available in DevManager firmware:

- 1. Change IP for MAC** – enables to change IP of any device, when knowing only its MAC address. This function is useful in case of wrong device configuration (repeating IP addresses in a network).



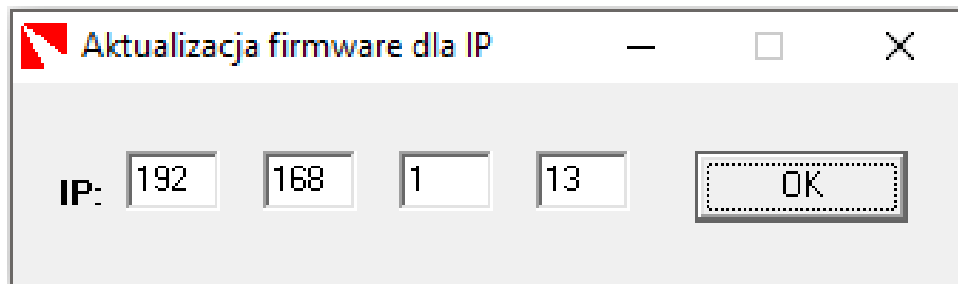
You should enter a unique MAC address of the device, a new IP address and PUK of the device.

- 2. Reset for IP** – allows to remotely reset (restart) a device, when knowing its IP address.



After entering the IP address of the device to be restarted, the firmware will prompt for PIN of the device.

- 3. Firmware update for IP** – loads the latest available firmware on the device with a given IP address.

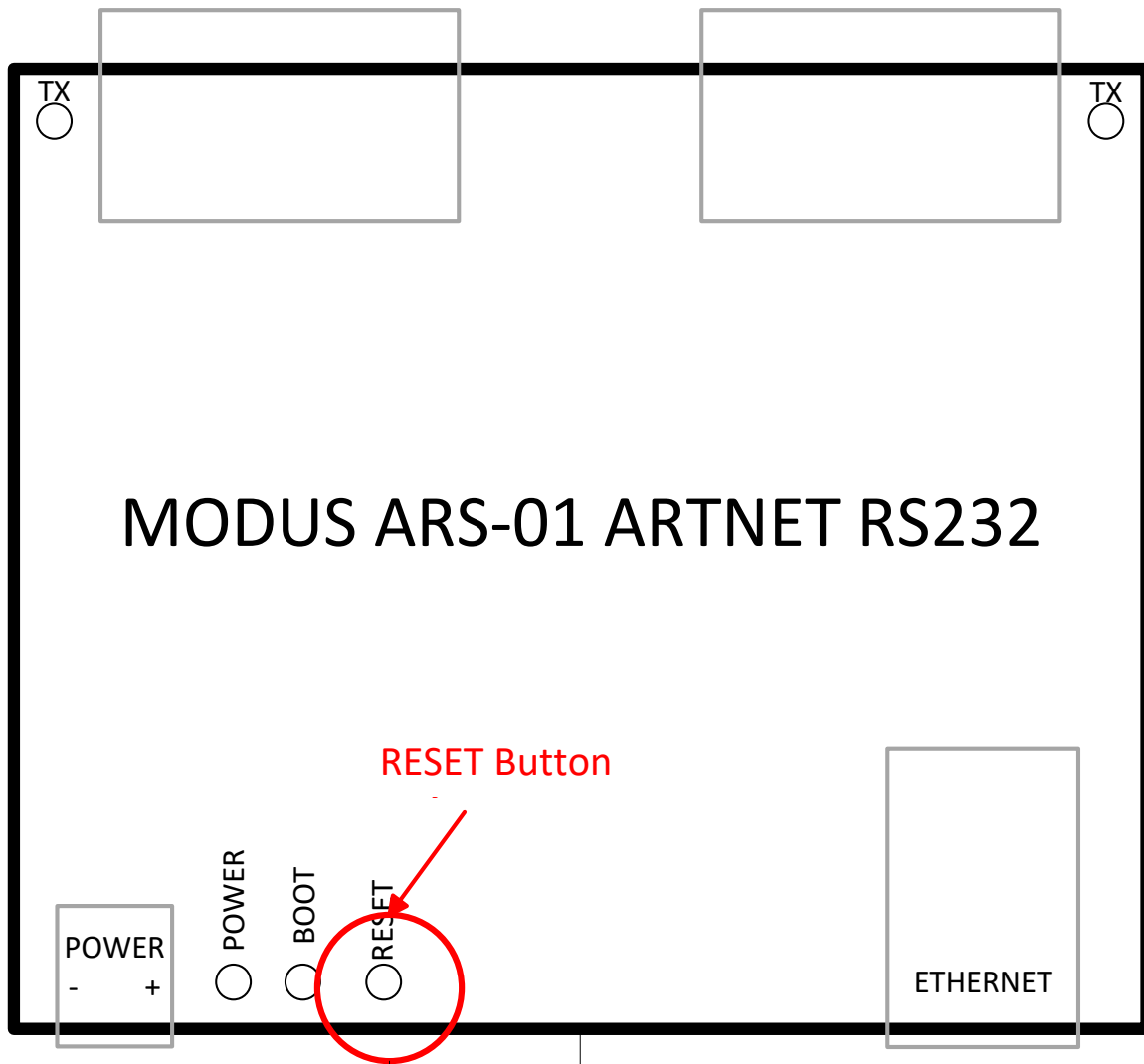


After entering the IP address of the device to be updated, the firmware will prompt for PIN of the device.

5.4. Restoring factory settings

MODUS ARS-01 ARTNET RS232 converter features a function of restoring default settings. The settings are restored (IP address, PIN, Universe and SubUniverse).

You should find RESET button on the casing of the converter (marked on the below diagram).



To restore default settings you should:

1. Turn the power off.
2. Press RESET button.
3. Turn the device on, while still holding RESET button.
4. Release RESET button after 5s from turning the device on. The device will restart.
5. BOOT indicator light flashes red. After restart, the device will have the default factory settings.

6. Maintenance and repairs

The device doesn't contain any user serviceable parts. In case of malfunction, you should contact the dealer or manufacturer.

Note!!

Any attempt to repair the device yourself can cause irreversible damage to the device or pose other threats.

7. Technical parameters

- Outputs: 2x DB-9 (RS232)
 RJ45 (Ethernet, ArtNet)
 Power input
- Power supply: 10-24V DC, 200mA
 Passive PoE or power connector
- Mounting: DIN/TH/TS 35 rail
- Dimensions: 90/31/104 mm
- Configuration with the use of DevManager firmware.

The manufacturer reserves the right to introduce modifications to the functioning and using of the device for the purpose of improving the product

8. Distribution:

Mediam Sp. z o.o. Wadowicka 12, 30-415 Kraków

CE STANDARD

WWW.MODUS.PL