

# **EXPANDER GSM / GPRS INTEGRAL + ® 2G**

with the function of the central panel and the communication of GSM / GPRS









Precise read the instructions, this will ensure proper and safe operation of the device. Never try to carry out repairs or modify the design of the equipment. Installing for security reasons should be performed by qualified personnel. The device is a source of electromagnetic waves, so in specific configurations may interfere with other radio devices. The placing on the device to any modifications that are not authorized by the manufacturer, or make unauthorized repairs will void the warranty.

The current declaration of CE can be found at www.megaelektronik.pl

Megaelektronik.pl continually improves its products and reserves the right to make changes in the operation of the product during its manufacture and use, without prior notice.

Measure your unit may result from the changes and improvements.

inform you of such changes on the page www.megaelektronik.pl
recommend that before installing the device to download the current manual.

## Compliance with EU Directive, WEEE

In accordance with the provisions of EU Directives, WEEE that electronic products should be provided to local municipal collection point - our company to its customers, which provides new product provides a collection of used equipment manufactured by our company and its transport to a sorting and disposal of waste. After the development of equipment, our customers are entitled to receive a document certifying the disposal of unused product. This measure applies to all products that our company provides to the Customer either as a finished product as well as parts and equipment incorporated into our solutions. In the case of the work all materials deemed hazardous and subject to the definition of the WEEE directive and replaced by equipment and components installed by our company are in the implementation of the charge collected and forwarded to the appropriate collection point. Addresses can be found at www.megaelektronik.pl

It is unacceptable to connect to a fully discharged battery module (voltage at the battery terminals without a load less than 10 V). To avoid damage to equipment, fully discharged battery should be precharged suitable charger.

Batteries contain lead. Accumulators must not be discarded, to be with them proceed in a manner consistent with applicable regulations (European Directives 91/157/EEC and 93/86/EEC).

manufacturer Megaelektronik Sp. z o.o. 93-582 Łódź Felsztyńskiego 50

e-mail: <u>biuro@megaelektronik.com.pl</u> www.megaelektronik.com.pl

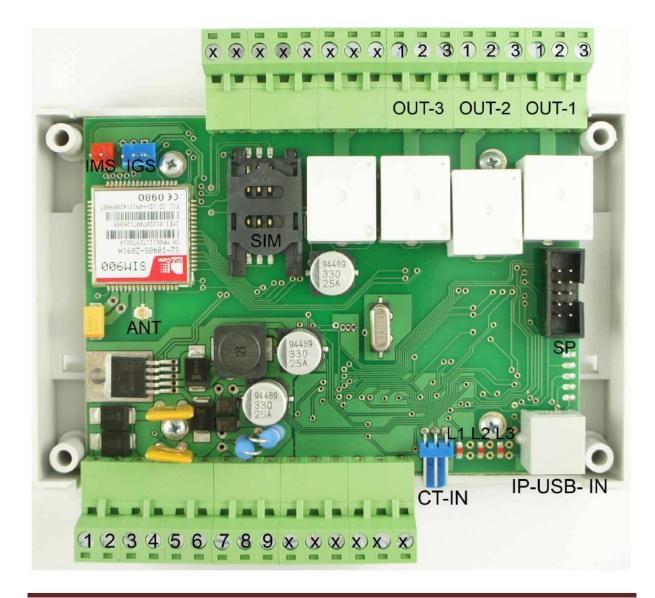
#### EXPANDER GSM "SIMNANO + ®" ® 2G

Modern transmitter GSM / GPRS network with bidirectional data transmission.

Used in systems SSWiN, KD, telecommunication and information transmission of M2M trigger alarm functions. Enables transmission of information in the form of SMS, e-mail, voice and remote control connected devices using mobile networks and the Internet in GPRS technology. It can also operate as a stand-alone PLC.

It is ideal for monitoring alarm systems, fire protection, industrial automation, "smart homes". It can be successfully used to monitor and change job: Central heating with temperature measurement and surveillance, air conditioning, power grid, vending machines selling hot drinks, the surveillance system of computer networks, and where required a high degree of security and control, combined with the seamless and simple operation. It can also be installed in motor vehicles and vessels. Distinguishing feature is the ability to broadcast their friendly names of input and output lines and control commands. The module has six richly configurable inputs, four relay outputs and four OC outputs. Digital input for connecting temperature sensors, audio modules, is suitable for housing for DIN rail 35 mm.

## **PCB Description**



| DESCRIPTION | SIGNIFICANCE                                |  |  |  |
|-------------|---|--|--|--|
| 1           | AC power supply                             |  |  |  |
| 2           | AC power supply                             |  |  |  |
| 3           | Power Supply VDC +                          |  |  |  |
| 4           | Power Supply VDC GND                        |  |  |  |
| 5           | Battery +                                   |  |  |  |
| 6           | Battery GND                                 |  |  |  |
| CT-xx       | CT-xx-temperature sensor input blue         |  |  |  |
| L1,L2,L3    | LED   |  |  |  |
| 7           | Entry number one (NO, NC, GND, +, EOL 2k2)  |  |  |  |
| 8           | Entry number two (NO, NC, GND, +, EOL 2k2)  |  |  |  |
| 9           | Entry number three (NO, NC, GND, +, ANALOG) |  |  |  |
|             |   |  |  |  |
| IP USB IN   | Socket for programming device               |  |  |  |
| SP          | SP jack accessories                         |  |  |  |
| SIM         | SIM SIM card slot                           |  |  |  |
|             |   |  |  |  |
| IMS         | IMS Connector Module Audio (Microphone)     |  |  |  |
|             |   |  |  |  |
| IGS         | IGS module slot Audio (speaker)             |  |  |  |
| ANT         | Slot antenna                                |  |  |  |
|             |   |  |  |  |
| OUT-1       | Relay output number one                     |  |  |  |
|             | 1-NC  |  |  |  |
|             | 2-COM                                       |  |  |  |
|             | 3.NO  |  |  |  |
|             | Relay output number two                     |  |  |  |
|             | 1-NC  |  |  |  |
| OUT-2       | 2-COM                                       |  |  |  |
|             | 3.NO  |  |  |  |
|             | Relay output number three                   |  |  |  |
|             | 1-NC  |  |  |  |
| OUT-3       | 2-COM                                       |  |  |  |
|             | 3.NO  |  |  |  |

# **LED Indicator**

L1 - One flash at 1 sec. module logged

One flash every 6 seconds. Module logged correctly

L-2 Rapid blinking - the system starts

One blink - receiving a message

L-3-one flash to send the message

L-2 and L-3 flashing alternately update or unloaded correctly flash module

# **Technical Data**

| Data                                | Value  |  |
|-------------------------------------|--|--|
| Main power supply                   | 7, 5V -27,5V max 1.2A DC<br>7,5-28V max 1,2 A AC   |  |
| Power Consumption                   | 30mA min/150mA średni/1,2A max   |  |
| Relay OUT-1 OUT3                    | 10A/230V   |  |
| The voltage at the input lines      | On average, 0.7V   |  |
| Battery cooperating                 | 1, 2Ah17Ah 12V lub 24V   |  |
| Battery charging current            | max 200mA Protection against battery discharge-YES   |  |
| The security of the supply side     | Polymer fuse (returning) 2A  |  |
| Type of module inputs               | NO, NC, (+) range of third .40 V or GND Analog 0.6 V 27V The minimum excitation time 10 ms Maximum duration of stimulation 9999sek |  |
| Working conditions                  | -20C to +55 C  |  |
| Operating frequency, transmit power | GSM/GPRS 850/900/1800/1900 MHz<br>(2 W @ 850/900 MHz)<br>(1 W @ 1800/1900MHz)  |  |
| Dimensions                          | Height 62.8 mm<br>Width 88.8 mm<br>Length 138.8 mm   |  |

## Personalizing your device

the software module allows you to enter personal access code, give your own name a line of input, output, and thermometers attached to the device name. Submitted names (10 characters max) will be transmitted in messages sent from your sms or e-mail, reports, sms and e-mail.

Adding names to put on and off.

#### The control panel

The device has a built-in trigger alarm, you can connect a standard motion detector (PIR) sensors P. FIRE PROTECTION, contusions, vibration and any others that provide on its output NO or NC states of matter, or plus the range of 3 to 40V module also has an analog input operating range from 0.6V to 27.0 V device can disarm or arm as follows: the selected input line by a signal tone from numbers, SMS a secure access code. Arming function device can be confirmed by SMS or email. Messages from the input lines are sent as many times as you have been stimulated to disarm time to time disarm the device.

Thermostat

Have the following options: temperature measurement using an SMS query. Temperature reading on the internet. Sending temperature on the e-mail address.

Turn on, off and on any given time OUT depending on the recorded temperature. Communicating with CLIP ringtones, SMS, E-MAILS about the states exceeded or damaged sensor. Remote lock / unlock sensor connected via SMS and internetu.Info of damaged / disconnected sensor SMS or e-mail. Thermostat mode is available only when connected sensor CT-xx. Max 2 pcs

#### **Remote control-Restarted**

the module has four relay outputs, controlling them can be done via a text message, Internet, or using logical functions assigned to the input or the thermostat. The outputs can be switched on, switched off permanently or specified period of time ranging from 1s to 99999s. Funkcja output control is secured with an access code. Each output can be controlled in different ways simultaneously.

#### Reports

Report feature allows you to obtain device status information such as quantity and condition of each line of input, output, analog input voltage, supply voltage, connected battery, signal strength of GSM, the number of sent SMS

weapons state. The software allows you to select the unit of information that interests us. Reports are sent as text messages, e-mail at specified time or on demand

## **Buffer power**

the task of the buffer is built-in power module backup power in case the main power failure. The module controls the voltage of the battery pack attached, and the situation for low or too high voltage can inform specific users by SMS, e-mail also has the function of the battery below the specified cutoff voltage, which prevents the flat.

## **Event Buffer**

The device can record in a minute max twelve different events and perform the functions assigned to them, such as output, sending a text message, clip, e-mail occurs in amounts of more than twelve per minute will be skipping.

## Limiting the cost of lock

the module allows you to determine the amount of SMS sent within 24 hours. The change of these parameters can be done using a text message or Internet over GPRS.

#### The "Messenger" ®.

Using "SMS ® Messenger, Messenger GSM ®"

We can remotely manage the SIM card located in the module, such as prepaid or post codes to activate the service to add new packages, etc., be sure also to include the "Echo" by which we receive feedback messages from GSM networks such as account balance, etc.

## The "GSM snooping".

Specific user may be entitled to this feature, can connect to the module and keep listening via mobile phone. You can also adjust the sensitivity of the level of the PC. Please note does not work when connected roaming. To feature has been activated; connect the accessory IMS-xx. Snooping can be carried out also in an emergency.

#### **GSM Intercom**

When you attach accessories IMS-xx-xx IGS through the device can result in mutual communication via a GSM phone.

## The "logic of I-O".

The logic functions allow output control module, depending on incoming information to the device, changes in the input line, temperature, or weapons

#### **Event Log**

The module is equipped with an internal memory is not volatile, which allows the recording of each event occurring in the device. Recorded the date and time. Memory capacity makes it possible to record from 1820 to 3820 events. The register can also be read remotely using GPRS technology, and save to a CSV file.

## Echo

The module is equipped with the "echo" effect is to transfer all the SMS messages that were sent to the SIM card number in the device to a designated phone numbers.

#### **Emergency exit**

Extensive diagnostics of the module is able to signal the loss of signal of GSM, SIM card lock, or other cause not correct the erroneous operation of the device by using a dedicated OC outputs

#### Installation

EXPANDER GSM module "SIMNANO+" ®

Should be installed in rooms with normal humidity, temperature in the range  $-20 \,^{\circ}$  C to  $+50 \,^{\circ}$  C.

When choosing a mounting location should be directed the following criteria:

- Range of GSM network (SIM card operator used for the module).
- (Range less than 50% use an external antenna ANT-GSM 3M)
- $\bullet$  The availability and distance from sources of alarm signals and power.
- $\bullet$  Availability of facilities for third parties and attempts to sabotage.
- Behavior safe distance from sources of potential interference

(Eg switching WN -, radio transmitters, etc.).

The start-up module.

1st Perform a complete wiring: signal and power.

2nd Install the SIM card in the module, connect the antenna to the RF socket

3rd Connect an optional accessory.

4th Connect the wires to the appropriate module.

5th Turn on the power module. (Rechargeable battery will not work without main power)

6th Connect via the Internet or cable (IP-1 USB) that connects the computer with the module and enable the configuration program.

7th Configure the module as needed, and disconnect the USB cable from the module.

8th Perform tests.

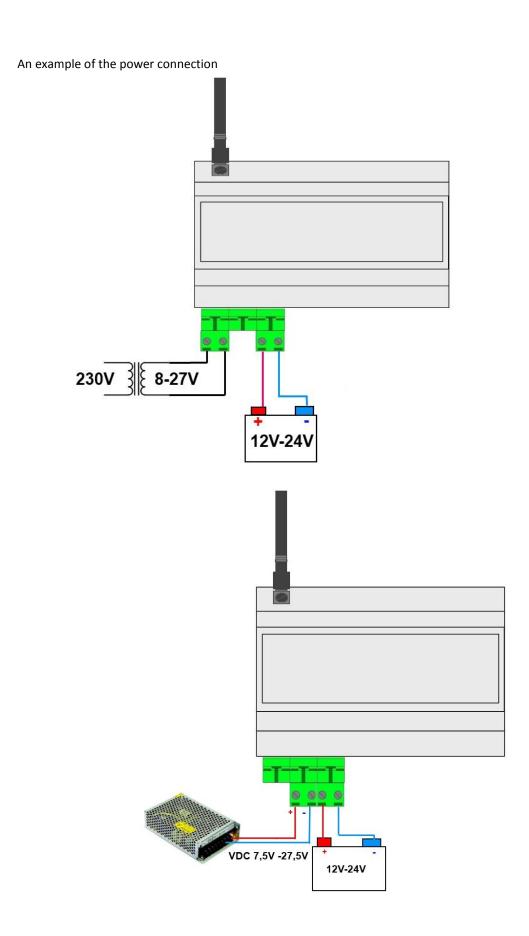
9th Trained user.

## **Power device**

INTEGRAL module can be powered by alternating voltage or constant

range from 7, 5V to 27V. Do not power the device simultaneously and alternating voltage. Pay special attention to the way the power to connect DC to AC power outlet or AC voltage to DC power jack threatens serious damage to the module. When connecting the battery pack should be applied to the parameters given in the table.

| Connected battery voltage (V min.) | Voltage Devices (V min.) |
|------------------------------------|--------------------------|
| 12V                                | 14, 5V                   |
| 24V                                | 26, 5V                   |



## Connecting devices to the line input

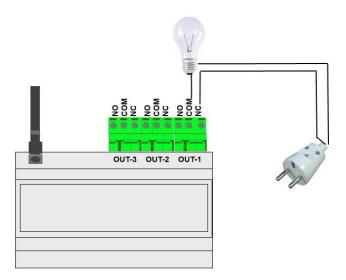
the device supports many types of input polarization.

It can work with any of:

- Detectors with outputs: NC (normally closed), NO (normally open),
- Alarm outputs: relay (RELAY dry contacts),
- Open collector (OC, BELL): control 'minus' power

An example of connecting the receiver 230 to output OUT-1

Note the output lines OUT 1 ... OUT-3 are not protected by internal fuse



## Connecting the sensor CT-xx

NANO + SIM module can handle up to six sensors. The connected sensors are working on a common serial bus included. The maximum bus length is 100m for a typical twisted-pair cable.

## Remote programming using GPRS technology

with this function you can connect to the module without physically connecting to a computer. Before inserting the SIM card to change the module PIN na1976

to connect the device to the PC via the Internet should be

- Insert the SIM card, the card must be included in the PIN code request.
- Connect the power supply.
- Wait for your SIM card to log on
- Send a text message to the SIM card in the device of the content.

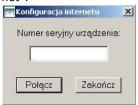
## ABCD NET ON THE INTERNET

## **ABCD NET ON INTERNET**

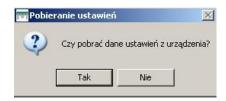
| Description | Importance                            |
|-------------|---------------------------------------|
| ABCD        | Factory code.                         |
| NET ON      | Command                               |
| INTERNET    | Access Point Name in the GSM network. |

The device sends a text message back with the serial number.

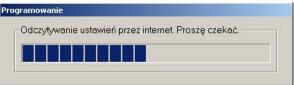
- Start the PC.
- Click the "connect the device via the Internet".



- Enter the serial number.
  - Click Connect.



• Confirm the download of data from the device.



- Enter your settings.
  - Click Program.
- The unit is ready to work.
- To disconnect the Internet connection, close the program. (Closing the Internet connection takes about 2 minutes)



Note For safety reasons you must change the access code when you first start the machine. The name of the access point in different networks may vary. Check what the APN of your operator's website is. The computer on which it is installed on the PC must be connected to the Internet for programming the GPRS connection is a requirement of a minimum capacity of 1Mb / s and so low. Ping below 50 ms on a computer that is running the setup program. The module connects to the Internet using a SIM card installed in the module.

Because of the nature of the network of GSM / GPRS, the manufacturer is not able to ensure the availability of GPRS technology programming anywhere install the device. In the absence of a GPRS connection should be used with a local connection with IP-1 USB (must be purchased separately.) Download and upload speed of data is dependent on the load of the GSM network, in which the module (SIM's). The time required to download data from the module under favorable conditions is 1 to 5 minutes.

## Local programming via IP-1 USB V.XX

the device can be configured locally via a USB port. To do this:

- install the PC.
- Connect power to the module
- Connect IP-1 USB to your computer. (USB cable)
- Connect the other side IPE-1 USB module. (RJ12 socket gray)
- Wait for the status of "EXPANDER OK."
- Set the desired configuration.
- Click Program.
- Turn off the machine
- Insert the SIM card
- Connect the power supply
- Unit ready for operation.

Connection status during programming

| Status             | Znaczenie   |
|--------------------|---|
| IPE-1 Plug the USB | The PC is expected to connect the programming         |
| IPE-1 USB OK.      | USB connected.  |
| Expander OK.       | Module connected to the PC using a program IPE-1 USB. |
| INTERNET OK.       | The PC waits for a connection with the module.        |
| Expander GPRS OK.  | Module connected to the PC software via the Internet  |

# Remote configuration via SMS (selected functions)

This function is the ability to send SMS messages from authorized telephone numbers and changes of selected features of the device shown in the table.

(Only numbers from the remote configuration option selected may make changes)

| Content of SMS sent | Change  |  |  |
|---------------------|---|--|--|
| #### ode xxxx       | Changing the access code by SMS<br>Where xxxx is the new code                         |  |  |
| ####counter on xxx  | Setting the maximum number of outgoing SMS/24h<br>Where xxx is a number from 1 to 999 |  |  |
| ####counter off     | Disabling the maximum number of sent SMS-no limit                                     |  |  |
| ####error GSM on    | Output Disable AWR signaling failures   |  |  |
| ####error GSM off   | Output Enable AWR<br>signaling failures   |  |  |

The access code by SMS

Examples for remote module parameters 1234 code 5678 - change the access code module Where the old code 1234 and 5678 new access code by SMS to the module

5678 counter on 50 - the introduction of reducing the number of SMS sent / 24

echo

This function is to transfer is "foreign" SMS received by the module to the selected telephone numbers.

| Content sent, SMS             | Function  |  |  |
|-------------------------------|---|--|--|
| xxxx report gsm               | Report on the state of the module on demand.  |  |  |
| xxxx send sms "numer" "treść" | The "Messenger SMS" The module sends text messages sent to him on any other number.                                 |  |  |
| xxxx call numer               | The "Messenger CLIP" The module performs the connection to the specified number. The maximum numer of 40 characters |  |  |
| xxxx reset sim                | Resetting the SIM card in the module.   |  |  |
| xxxx reset All                | Remote reset module. It is tantamount to exclusion and turning on the power.  |  |  |
| xxxx yyyyy on/off             | xxxx yyyyy on / off Lock / unlock the corresponding input Where yyyyy is the name of the entry entered              |  |  |
| xxxx ttttt on/off             | Where to put the sensor name ttttt in PC.   |  |  |
|                               |   |  |  |

## #### - This code

The number that we send an SMS with the configuration change must have selected a remote configuration.

Examples for additional options

5678 48507473767 send SMS "hello world"

The telephone number +48507473767 to receive from the module SMS "hello world"

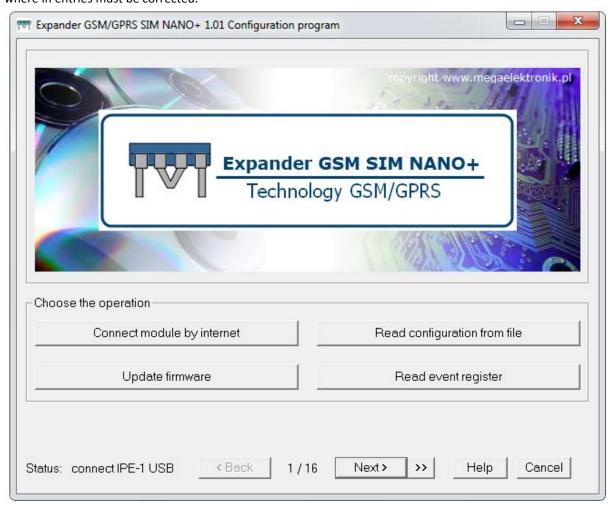
Call 5678 \* 121 #

In this way we can check your balance short code such as Plus GSM Using "SMS ® Messenger, Messenger GSM ®"

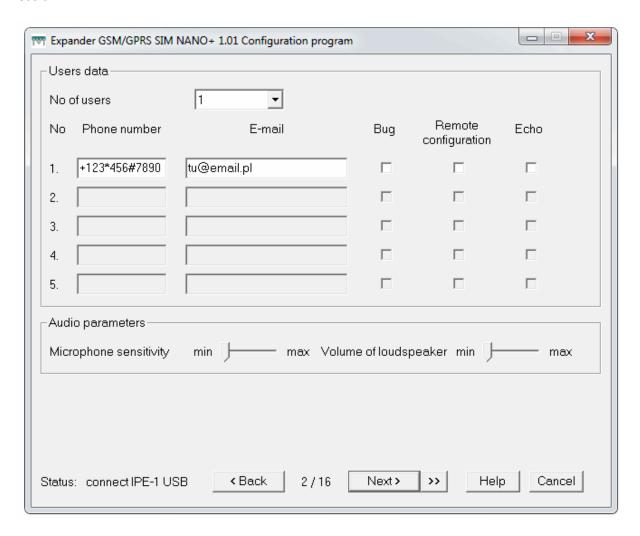
We can remotely manage the SIM card located in the module, such as prepaid or post codes to activate the service to add new packages, etc., be sure also to include the "Echo" by which we receive feedback messages from GSM networks such as account balance, etc.

## Help system and the location of errors in programming

The PC before programming checks whether all the required fields are completed, if it is otherwise dictates where in entries must be corrected.



#### **Users**



## **Number of Users**

Specify from 1 to 5 members entitled to receive text messages

SMS / E-mail and CLIP signals (tones) are sent by the module.

In the phone number enter the number in the format eg +48507473767 mobile

422300775 stationary. In the e-mail address enter the e-mail address to which you want to receive messages from the device.

## wiretapping

The selected number is entitled to this function, connect to the module and keep listening with an accessory module connected to the called IMS-xx, (microphone) and IGS-xx (speaker) is also possible to adjust the volume from the PC.

(accessories are sold separately)

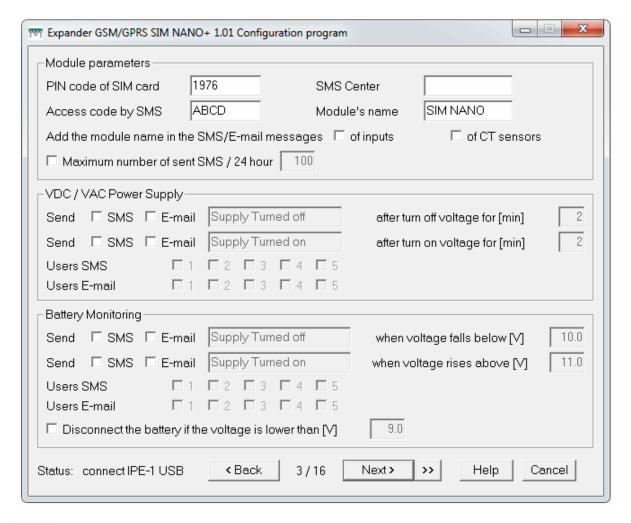
## **Remote configuration**

The telephone number at which this option is selected may change the parameters of the device via SMS.

#### echo

Incoming sms messages to the module I passed on the selected numbers.

#### **Module parameters PC-settings**



#### SIM PIN

Enter the code assigned to the card which is placed in the module, if the card is PIN-less deselect these options. After power PIN is automatically administered and the SIM card is seen to GSM / GPRS network.

## The access code by SMS

Enter the four alphanumeric characters (from A.. With or without the digit 0 .9 national characters). This is the code with which you can use the control module by sending SMS.

# Maximum number of SMS sent within 24 hours

Protection against overload of SMS messages sent. (There is no limit values or from 1 to 999 in 24h) After the counter 24 is reset.

#### **SMS Center**

Please enter SMS center number. If we do not do the device will download it automatically from the network, in which he works. It is recommended to manually enter the number, only if the module is working in the border areas.

## **Module Name**

The name will be sent at the beginning of each SMS text message or e-mail.

#### **External Power**

The device can inform users enable or disable the main power supply + VDC via SMS or e-mail. An additional feature is the ability to determine the message and the time (from 2 to 99min.,) After which you'll be told from the time of the disappearance or appearance of tension. Information about the power outage will be sent only if the battery is connected. The value of the supply voltage (from 7, 5V to 25V) is transmitted in technical reports.

#### Rechargeable

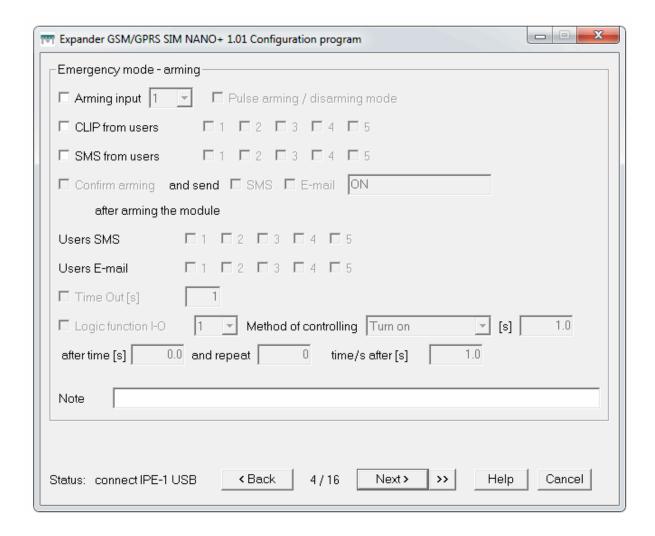
The device has a built-in power supply unit with connection control and battery parameters including the upper and lower voltage.

The module can inform users enable or disable the battery pack attached AK + SMS / E-mail. An additional feature is the ability to determine the content of messages and voltage range to be controlled. Change the value is indicated in the form of SMS / Email. The current battery voltage value (from 7, 5V to 25V) is transmitted in technical reports. Connected battery maintains operation of the device when the main power failure.

#### Add the module name in the news sms / e-mail

Selecting this option will make to each message the device name will be attached - this function is useful when the device works, eg the monitoring station or other data acquisition system

#### **Emergency mode-arming**



The device has a built-in trigger alarm, you can connect a standard motion sensors (PIR) sensors P. FIRE PROTECTION, contusions, vibration and any others that provide on its output NO or NC states of matter, or plus

the range of 3 to 40V.

Beacons connected to the relay in series with power.

#### **Arming**

Armed means the state when the inputs are active that is responsive to change in their states.

The device may arm in several ways:

• The selected input line

To do this, select the number of lines and switch to the charge of the line on which we can determine how the line is responsive state of arousal.

- Use the ring with uprawionych numbers, a bell made of the number of SIM card in another module arms disarms, etc.
- By sending a SMS with the ARM ON xxxx (where xxxx is the access code)
- Pulse one pulse per selected line arms the next arms, etc.

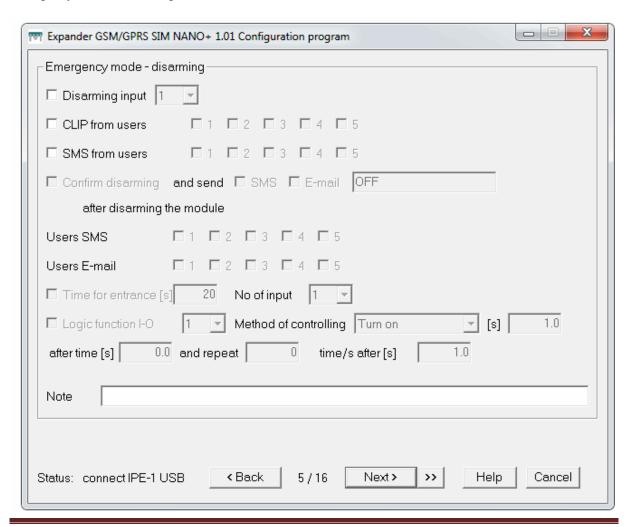
In addition, arming the device operation can be confirmed via SMS, or sent by e-mail with any fixed content. Note all the ways of arming can work simultaneously. We can determine the time after which the lines will be active from the time of arming. Status of arms can also control the output logic

To use this feature, you must select the starting number and choose a way of controlling the line of tabs in the PC.

## Time input

Entered value provides a delay of the input line after arming

## **Emergency mode – disarming**



#### disarming

The module is disarmed state when the inputs are not active that is not responding to change their states. The device can be disarmed in several ways:

#### the selected input line.

Select the number of lines and switch to the charge of the line on which we can determine how the line is non responsive state of arousal.

- The signal tone from uprawionych numbers, a bell made of the number of SIM card in another module arms disarms, etc.
- By sending a SMS with the ARM OFF xxxx (where xxxx is the access code).

In addition, disarming the device operation can be confirmed via SMS, or sent by e-mail with any fixed content. Note all the ways to disarm and arm can operate simultaneously.

Condition disarmament can also control the output logic.

To use this feature, you must select the starting number and choose a way of controlling the line of tabs in the PC.

#### **Time Out**

The device allows you to set the selected input line to be delayed after the breach, so we have time to disarm (disarming). The remaining input lines operate in accordance with their settings.

#### Turn on the line

That the line was active, select the "window switch".

Selecting this option causes the line becomes the active line 24 regardless of the state arm or disarm the device.

## The name in reports SMS / e-mail

The introduction of user-defined names for the line input. Facilitates identification of the incoming signal SMS / E-mail

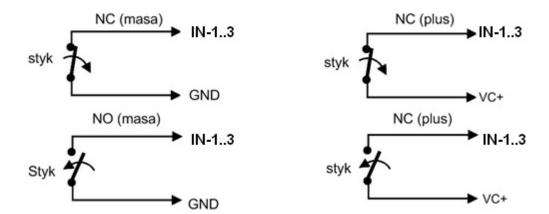
mode

Line of response to external signals, it supports many types of input polarization.

# Trigger

- detectors with outputs: NC (normally closed), NO (normally open ),(+), (-) EOL (parameterized 2k2)
- alarm outputs: relay (RELAY potential-free contacts)
- Trip time from 0.3 s to 9999sek.
- $\bullet$  In addition, IN-3 line can be an analog line on the reaction of 0.6V to 27V

Type of supported configuration on the input lines and how to connect.



Each line of input has a buffer, this means that if you violated any of the line when another line already breached the input, the module will register this change and execute assigned to the line. Please note that sending an email takes about 2 minutes.

The rate of response (excitation and return)

- SMS.
- CLIP.
- SMS / CLIP.
- CLIP / SMS.
- E-mail

For each method of response functions can be assigned to the IO logic. (Each input can control any output)

| TYP      | NO<br>(+) , (-) | NC<br>(+),(-) | EOL<br>(2k2) | Analogowe        |
|----------|-----------------|---------------|--------------|------------------|
| IN-1IN-2 | ٧               | ٧             | ٧            | Х                |
| IN-3     | ٧               | ٧             | Х            | √<br>(only IN-3) |

√ -support

X – not support

## time ringtones

Specifies how long the module has a "call" in case of excitation of the line.

# **Number of attempts**

Specifies the number of attempts to send notification if there are obstacles to sending the message (eg network load) for both SMS and CLIP signal.

#### informed users

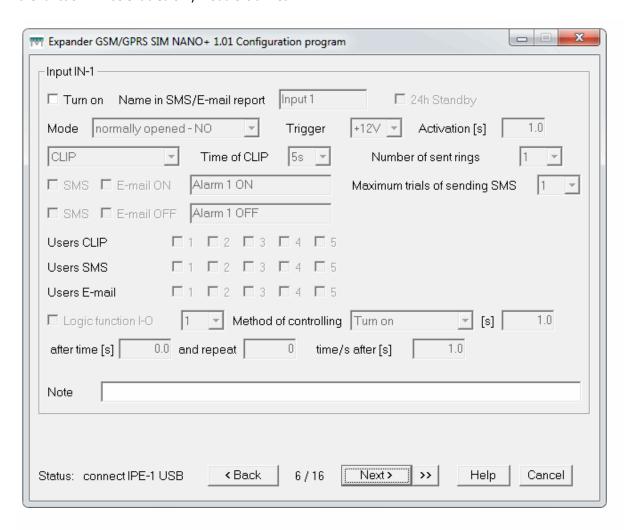
Allows you to send messages to specific users of the line.

## Control Output - The "logic of I-O"

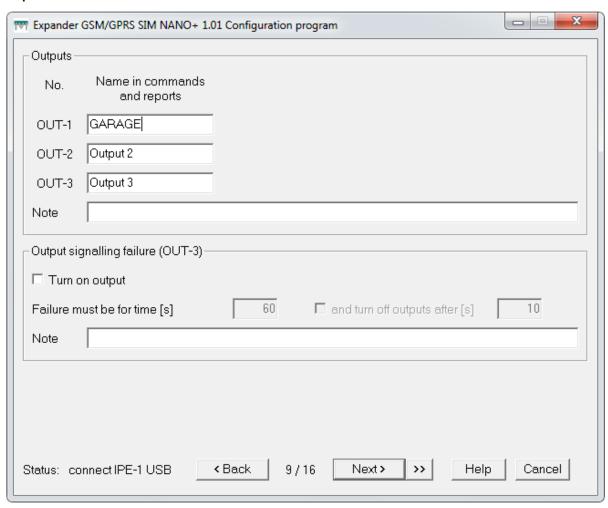
This function is the ability to control any desired output in a monostable or bistable control and repeat at intervals (Range of all possible 0.1s to 9999s).

#### Stand 24

Selecting this option causes the temperature measurement function is active, regardless of status. Otherwise, the function will be enabled only module is armed.



## **Output Device-Timers**



The device has four relay outputs and two 10/230 V OC 100mA which can give their own names.

Output control can be carried out as follows (time).

- Using the logic function AND-A.
- Using my outgoing SMS commands.
- Use the Internet.
- At the time passed, ranging from 1s to 9999999sek or turn on and off permanently.
- Relay outputs do not have security, we recommend using an external fuse corresponding to the connected load
- Based on the timer

Arrangements for the implementation of message text and control commands

- In the name of the input example "GARAGE"
- To enable or disable SMS to send a text message

For example,

Xxxx GARAGE ON - turns on the output OUT-1

Xxxx GARAGE OFF - disables the output OUT-1

Xxxx GARAGE ON 120 turns on the output OUT-1 to 120sek

OFF GARAGE xxxx 120 disables the output OUT-1 to 120sek

For each entry, enter the various names without Polish characters

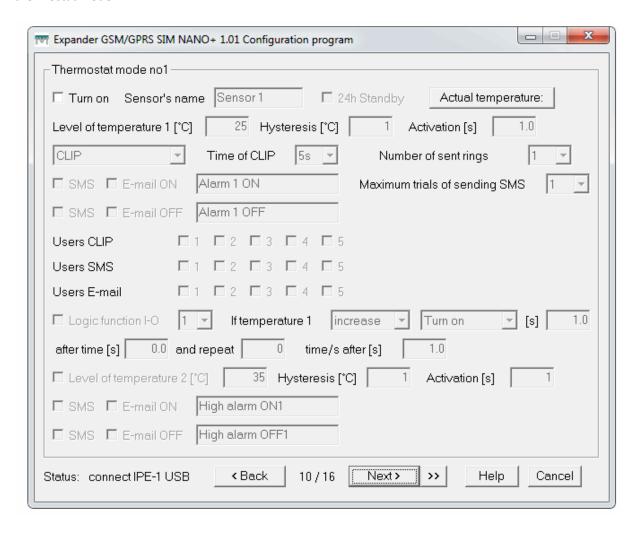
Xxxx-access code

Output indicating failure

The module checks the status of a valid login to the network. This output becomes active when a SIM card error, coverage.

Failure must occur by the time - Specifies the end time will be indicated by a failure of 0, 3 to 9999sek and after what time the failure occurs out of AWR is to be disabled.

#### thermostat mode



The device when connected sensors (max 6pcs) CT-xx can act as a thermostat. Have the following options:

- Temperature measurement using an SMS query.
- Read the temperature on the Internet.
- Posting of temperature on the e-mail address.
- Enable, disable the specified time and any OUT depending on the temperature recorded by the IO logic functions.
- Communicating with CLIP ringtones, SMS, E-MAILS about the excess states.
- Assign any name a connected sensor.
- Emergency-temp2 temperature and informing users via SMS.
- The findings of the measured temperature differential.

- Remote lock / unlock sensor connected via SMS and the Internet
- Information on damaged / disconnected sensor SMS / e-mail/CLIP-em

#### **Enable**

To probe was active, select the "window switch". If the sensor is connected correctly and will incorporate temperature displays.

The original device only work with a series of sensors CT-xx

## Stand 24

Selecting this option causes the temperature measurement function is active, regardless of status. Otherwise, the function will be enabled only module is armed.

# Time rings.

- Determines how long the module has a "call" in case of exceeding a given temperature Number of attempts
- Specifies the number of attempts to send notification if there are obstacles to sending the message (eg network load) for both SMS and CLIP signal.

Informed users

• Allows you to send messages to specific users.

Control Output - The "logic of I-O"

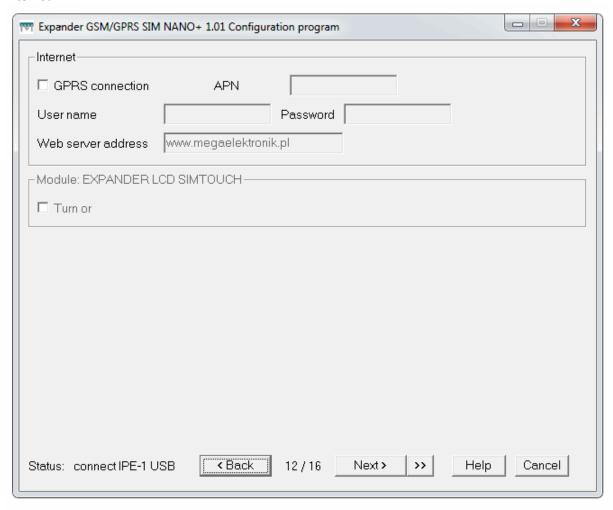
- This function is the ability to control any desired output
- depending on the temperature in a monostable or bistable control and repeat at intervals (range of all possible 0, 001 to 9999999s).

Report ON OFF

## Hysteresis

Setting the hysteresis of the sensors.

## Internet



For the device to connect to the Internet must be configured GPRS connection parameters

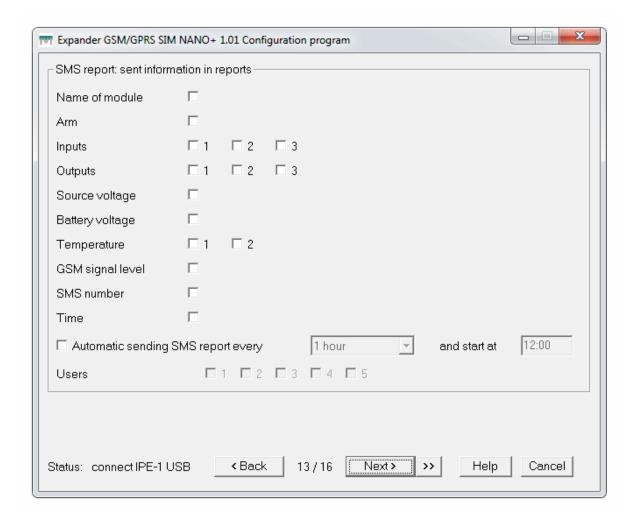
- Enter the GPRS access point name (APN)
- Password and user,-if required

## **Accessories** (in preparation)

The device is prepared for connection of accessories that will appear in the manufacturer's offer in the near future. For more information visit www.megaelektronik.pl

• SIMTOUCH-LCD touch panel, preview and management module

# **SMS** reports

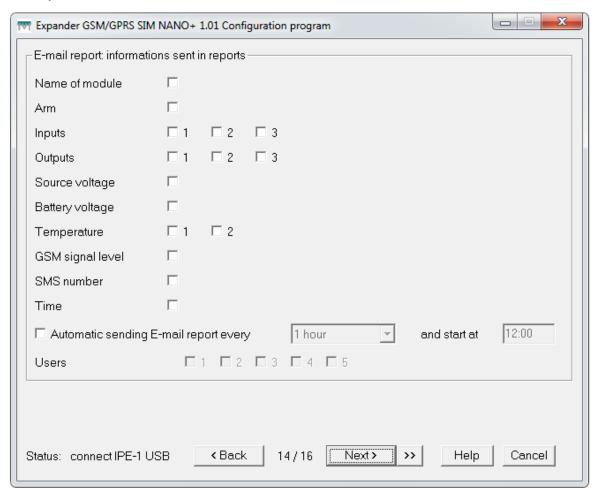


The unit can send technical reports in postacji sms Innovative solutions allow for individual choice to the users' needs.

On this tab, select what information we print to receive.

You can also specify a cyclical sending time information selected and users who will receive them.

# **E-mail Reports**

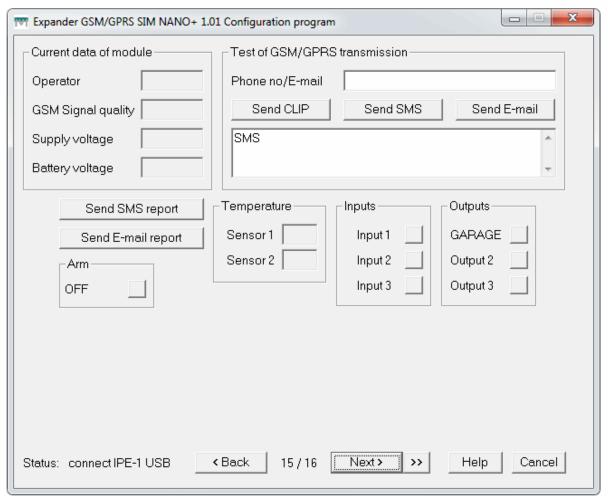


The unit can send postacji technical reports in an e-mail Innovative solutions allow for individual choice to the users' needs.

On this tab, select what information we print to receive.

You can also specify a cyclical sending time information selected and users who will receive them.

## **ON-LINE**



ON-line on this tab, the program can keep abreast of the work unit its parameters and status outputs or inputs

This option is available through a local call and GPRS

This option allows the phone number:

- Send SMS, E-MAIL or ring without the need to stimulate the input lines.
- Controlling the output OUT.
- Visual observation of the changes on the input lines.
- Perform a test transmission in GSM / GPRS network.
- Send technical reports
- Control voltage
- Control of Military

Send Report SMS - sends a report on the number of devices registered on the Line tab, ON Send e-mail report sends an e-mail report to the email address entered on the tab line ON

#### Warnings

The program automatically "captures" the errors in the settings and indicates where adjustments must be made, if not removed module can not be programmed.

## Save configuration to disk

module saves the configuration on your computer.

#### clock module

Setting the internal clock. Note the device does not have its own clock to maintain power loss over minutes will clear the date and time

We recommend using the battery.

## software Update

With this function you can upload new software yourself without having to return the unit to service. To update the device the new software, click the "update software module", and upload the file extension \* LHX.



New software versions can be found on the website <a href="https://www.megaelektronik.com.pl">www.megaelektronik.com.pl</a> (updated products). The update is only possible through IP-1 USB.

Read the event log - (date and time)

(from 1600 to 3200 position of recent events with overwriting) To read the registry, click the "read log".

