



eldes®

ELDES GATE CONTROLLER

ESIM420

SAFETY INSTRUCTIONS

Please read and follow these safety guidelines to safeguard yourself and others:

- Gate controller ESIM420 (later referred to as "the system" or "the device") contains a built-in radio transceiver operating in 900/1800MHz 2G; 700/800/900/1800/2100/2600MHz 4G bands respectively.
- DO NOT use the system where it can cause potential danger and interfere with other devices - such as medical devices.
- DO NOT use the system in hazardous environment.
- DO NOT expose the system to high humidity, chemical environment or mechanical impact.
- NEVER install or carry out maintenance during stormy weather.
- DO NOT attempt to repair the system yourself - any repairs must be carried out by fully qualified personnel only.



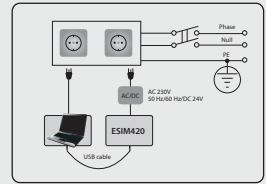
Disconnect the mains power before installing. Never install or carry out maintenance during stormy weather. The electric socket that powers the system must be easily accessible.



Please use 10-28VAC 50Hz/60 Hz ~500mA or 10-39VDC 500mA max power supply unit that meets the EN 60950-1 standard. Any additional device you connect to the system, such as a computer, must also be powered by an EN 60950-1 approved supply. When connecting the power supply to the system, switching the polarity terminal places does not have any affect.



External power supply can be connected to AC mains only inside installation room with automatic 2-pole circuit breaker capable of disconnecting circuit in the event of short circuit or over-current condition. Open circuit breaker must have a gap between connections of more than 3mm (0.12in) and the disconnection current 5A.



To switch the system off, unplug the external electric power supply from or any other linked device that the system is powered from.



A blown fuse cannot be replaced by the user. The replacement fuse has to be of the kind indicated by the manufacturer (fuse F1 model - MINISMD C050F 0.5A).



If you use a computer for the device configuration, it must be earthed.



The WEEE (Waste Electrical and Electronic Equipment) marking on this product (see left) or its documentation indicates that the product must not be disposed of together with household waste. To prevent possible harm to human health and/or the environment, the product must be disposed of in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the system supplier, or the local authority responsible for waste disposal in your area.

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TERMS OF USE

The following terms and conditions govern use of the ELDES GATE CONTROLLER device and contains important information on limitations regarding the product's use and function, as well as information on the limitations of the manufacturer's liability. Please carefully read these terms and conditions. For more information on your product, please visit eldesalarms.com

TECHNICAL SUPPORT

In order to ensure continuous and proper operation of the ELDES Gate Controller device and uninterrupted service, it is the responsibility of the User to make sure that: (I) the product is properly installed, and (II) there is constant electrical supply. If you experience difficulty during the installation or subsequent use of the system, you may contact "E ALARMS, UAB" distributor or dealer in your country/region. For more information, visit eldesalarms.com

WARRANTY PROCEDURES

Warranty and out of warranty service should be obtained by contacting the system integrator/dealer/retailer/e-tailer or distributor where the customer purchased the product. When requesting for service, the proof of purchase and the product serial number must be provided. The return of the defective product should be strictly through the original route of purchase, and the customers shall pack the product appropriately to prevent the returned product from suffering in the transportation.

MANUFACTURER WARRANTY

"E ALARMS, UAB" provides a limited warranty for its products only to the person or entity that originally purchased the product from "E ALARMS, UAB" or its authorized distributor or retailer and materials under normal use of the system for a period of twenty four (24) months from the date of shipment by the "E ALARMS, UAB" (Warranty Period). Warranty obligations do not cover expandable materials (power elements and/or batteries), holders and enclosures. The warranty remains valid only if the system is used as intended, following all guidelines outlined in this manual and in accordance with the operating conditions specified. The warranty is void if the system has been exposed to mechanical impact, chemicals, high humidity, fluids, corrosive and hazardous environments or force majeure factors. If a hardware defect arises and a valid claim is received within the Warranty Period, at its own discretion, "E ALARMS, UAB" will either (a) repair a hardware defect at no charge, using new or refurbished replacement parts, or (b) exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product, or (c) refund the purchase price of the product.

LIMITED LIABILITY

The buyer must agree that the system will reduce the risk theft, burglary or other dangers but does not provide guarantee against such events. "E ALARMS, UAB" will not assume any responsibility regarding personal or property, or revenue loss while using the system. "E ALARMS, UAB" shall also assume no liability due to direct or indirect damage or loss, as well as unreceived income when using the system, including cases, when the damages arise due to the above mentioned risks, when due to breakdown or malfunction the user is not informed in a timely manner about a risk which has arisen. In any case, the liability of "E ALARMS, UAB", as much as it is allowed by the laws in force, shall not exceed the price of acquisition of the product.

CONSUMER PROTECTION LAWS

FOR CONSUMERS WHO ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR COUNTRY OF PURCHASE OR, IF DIFFERENT, THEIR COUNTRY OF RESIDENCE, **THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS.** This warranty grants upon you specific legal rights, and you may also have other rights that vary by country, state or province.

Dear Customer,

Thank you for choosing to purchase ELDES GATE CONTROLLER ESIM420. Your thoughtful decision will ensure reliable solution for many years as all ELDES products are manufactured to meet the highest standards.

We are confident that you will be completely satisfied with your product. However, in the unlikely event that you do experience a problem, please contact the dealer from whom you made your purchase.

E ALARMS, UAB
eldesalarms.com

Contents of Pack

Item	Quantity
1. ESIM420	1
2. User manual.....	1
3. Antenna.....	1

Not included:

- SIM card - we recommend you get a contract SIM, not Pay As You Go.
- USB-C cable - You can use any standard USB-C cable, but it must be a data cable, not a charge-only cable.

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1. GENERAL INFORMATION

ELDES GATE CONTROLLER ESIM420 is a micro-controller based device intended to provide access control for gate automatics, road barriers or to remotely turn ON/OFF any electrical appliance via the GSM 2G or 4G network.

Examples of using the system:

- Access control.
- Parking lot control of residential houses or offices.
- Gate control of private houses.
- Any electrical appliance control: lighting, watering, heating etc.
- Remote reboot of the “frozen” systems, such as computer network or a server.

Main features

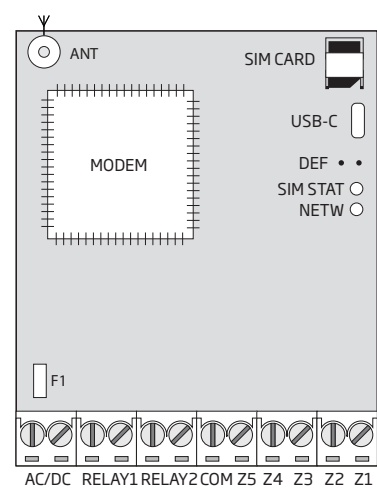
- Manual output control by free of charge phone call.
- Automatic output control in accordance with the scheduled time.
- Configurable output pulse duration.
- Automatic date and time synchronization.
- Up to 5 administrators for system configuration by SMS text messages, acceptance of input alarm SMS text messages, output control by SMS text message and free of charge phone call.
- User database capacity - up to 2000 users for output control by free of charge phone call.
- User phone number validity limitation in accordance with a set deadline (date/time) or number of rings to the system.
- Output control restriction for users in accordance with the specified weekdays and time.
- Event log of 1000 events containing date and time as well as administrator/user phone number and user name who controlled the output.
- 3 inputs with customizable alarm texts for notification on gate state or in case it gets jammed.
- Periodic self-test notification by SMS text message to administrator phone number.

2. TECHNICAL SPECIFICATIONS

2.1. Electrical and Mechanical Characteristics

Supply voltage.....	10-28VAC ~ 500mA / 10-39VDC 500mA max
Current used in idle state.....	up to 50mA
Modem frequency.....	2G 900/1800MHz; 4G 700/800/900/1800/2100/2600MHz
Modem RF power	2G 35/32dBm; 4G 25dBm
Number of outputs.....	2
Output type.....	Relay; NO (normally-open) or NC (normally-closed) - configurable
Maximum commuting output values.....	125VAC ~0,5A / 24VDC 1A
Number of low-level (negative) inputs	2
Number of high-level (positive) inputs	1
Low-level (negative) input value range	0... 16V <input type="checkbox"/> -0.8... -0.4mA
High-level (positive) input value range.....	5... 50V <input type="checkbox"/> 0.17 1.7mA
Default inputs connection type	NO (normally-open)
Degree of protection	Complies with IP 20
Dimensions	87x107x29mm (3.43x4.21x1.14in)
Operating temperature range	-20... +55 °C (-4... +131°F)
Humidity	0-90% RH @ 0... +40°C (0-90% RH @ +32... +104°F) (non-condensing)

2.2. Main Unit, LED Indicator and Connector Functionality



Main Unit Functionality	
ANT	Antenna SMA type connector
USB	USB-C port
SIM CARD	Nano SIM card slot
MODEM	900/1800MHz 2G; 700/800/900/1800/2100/2600MHz 4G
SIM STAT	Red LED, indicating SIM card status
NETW	Green LED, indicating signal strength
DEF	Pins for restoring default settings
F1	0.5A fuse

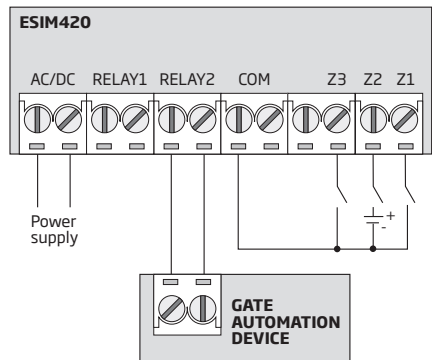
Connector Functionality	
AC/DC	Power supply terminals
RELAY1	Output C1 terminal
RELAY2	Output C2 terminal
COM	Common terminal
Z3	Low-level (negative) input terminal
Z2	High-level (positive) input terminal
Z1	Low-level (negative) input terminal

LED Indicator Functionality	
SIM STAT indication	SIM card status
OFF	No mains power / Successfully connected to GSM 2G/4G network
Solid ON	SIM card is attempting to connect to the GSM 2G/4G network / SIM card is not present / PIN code enabled

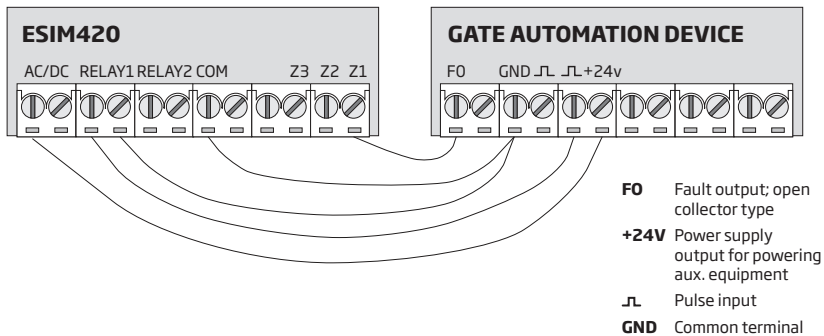
NETW indication	Signal strength
OFF	No GSM 2G/4G signal
Flashing every 1 sec.	Poor
Flashing several times per sec.	Medium
Solid ON	Excellent

2.3. Wiring Diagrams

General wiring



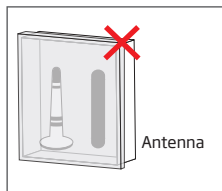
Example of ESIM420 system wiring to gate automation device



3. INSTALLATION

- The system should be installed indoors, in stationary environment ONLY.
- For the connection of input/output terminals, use 0.50 mm² (0.02in²) thread unshielded cable of up to 100m (328.08ft) length.

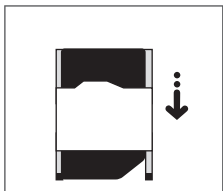
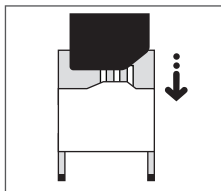
1. Wire up the system in accordance with the wiring diagrams (see **2.3 Wiring Diagrams** for more details).
2. Connect the antenna. Based on the type of antenna supplied with ESIM420 unit, follow the recommendations for the antenna installation:



Never install in the following locations:

- inside the metal cabinet
- closer than 20cm (7.87in) from the power lines

3. Disable the PIN code request of the SIM card by inserting it into a mobile phone and following the proper menu steps.
4. Once the PIN code is disabled, insert the SIM card into the SIM card slot / holder of ESIM420 system.



5. Power up the system and wait until indicator SIM STAT lights up indicating SIM card status.
6. Once the indicator SIM STAT lights OFF, the illuminated indicator NETW lights up indicating that the system has successfully connected to GSM 2G/4G network. To find the strongest signal, position the antenna and follow the indications provided by NETW indicator (see **2.2. Main Unit, LED Indicator and Connector Functionality** for more details).
7. Change the system language if necessary (see **6. SYSTEM LANGUAGE** for more details).
8. Change the default SMS password (see **7. SMS PASSWORD** for more details).
9. Set the phone number for Admin 1 (see **8. ADMINISTRATOR PHONE NUMBERS** for more details).
10. Set system date and time (see **9. DATE AND TIME** for more details).
11. Once the system is fully configured, it is ready for use. However, if you fail to receive a reply by SMS text message from the system, please check the SMSC (Short Message Service Center) phone number. For more details regarding the SMS center phone number, please refer to **16.2. SMSC (Short Message Service Center) Phone Number**.

ATTENTION: We also recommend you to disable **call forwarding, voice mail/text message reports on missed/busy calls** and similar services that might cause incorrect system operation. Please contact your operator for more details on these services and how to disable them.

NOTE: For maximum system reliability we recommend you do NOT use a Pay As You Go SIM card. Otherwise, in the event of insufficient credit balance on the SIM card, the system would fail to make a phone call or send SMS text messages.

NOTE: We advise you to choose the same SIM provider for your system as for your mobile phone. This will ensure the fastest, most reliable SMS text message delivery service and phone call connection.

NOTE: Even though the installation process of ESIM420 is not too complicated, we still recommend to perform it by a person with basic knowledge in electrical engineering and electronics to avoid any system damage.

4. GENERAL OPERATIONAL DESCRIPTION

When a phone call is made to the phone number of the SIM card inserted in ESIM420, the system will verify if the caller's phone number exists in the device database. If the caller is one of the 5 administrators or the phone number belongs to one of the 2000 database users, the system will reject the phone call, thus making the phone call free of charge, and open the gate. If the phone number is not recognized, the system will reject the phone call and ignore it. The gate controller can also control your gate automatically in accordance with the scheduled time or by sending an SMS text message from the administrator's phone number.

By connecting a sensor to one of the 3 inputs, the administrators can receive SMS text messages regarding the gates that failed to close during the set time period.



5. CONFIGURATION METHODS

5.1. SMS Text Messages



!!! While writing an SMS text message, a single space character **MUST** be left after every SMS password (e.g.: 1111 STATUS). There must be no spaces or other unnecessary characters at the beginning and at the end of the SMS text message.



In order to configure and control the system by SMS text message, send the text command to the ESIM420 system phone number from one of the listed administrator phone numbers. The structure of SMS text message consists of 4-digit SMS password (the default SMS password is 0000 - four zeros), the parameter and value. For some parameters the value does not apply e.g. STATUS. The variables are indicated in lower-case letters, while a valid parameter value range is indicated in brackets.

5.2. ELDES Utility Tool Software



Software *ELDES Utility Tool* is intended for the gate controller ESIM420 configuration locally via USB port or remotely via GPRS network connection. This software simplifies system configuration process by allowing to use a personal computer in the process. Before starting to use *ELDES Utility Tool* software, please read the user guide provided in the software's HELP section.

ELDES Utility Tool is freeware and can be downloaded from eldesalarms.com

NOTE: *ELDES Utility Tool* software is secured with SMS password. The default SMS password is **0000** (see **7. SMS PASSWORD**).

5.2.1. Remote Connection

ATTENTION: When remote connection session is initialized (i.e. when you send an SMS text command and receive the answer from the system), then ELDES Cloud Services feature will NOT work and becomes inaccessible until the remote connection session is over.

ELDES Utility Tool software provides remote system configuration ability via Internet using one of the following methods:

- ELDES proxy server (recommended). The connection can be established on the system via GPRS network.
 - Running TCP/IP server on *ELDES Utility Tool* (advanced). The connection can be established on the system via GPRS network.
- In order to start using the remote configuration feature, please run the step-by-step wizard and follow the steps provided in the start page of *ELDES Utility Tool* software. Please, note that it will be necessary to send an SMS text message to the system's phone number in order to initiate the remote connection. By following the steps you will be instructed on what text must be sent to the system's phone number in such case (see the SMS command below).

Start the connection

SMS text message content:

ssss STCONFIG

Value: ssss - 4-digit SMS password.

Example: 1111 STCONFIG

5.2.2. Ending the Remote Connection Session

After the system configuration is complete, use one of the following methods to end the configuration process:

- Click **Disconnect** or **Stop** button and close *ELDES Utility Tool* software;
- The session will automatically expire in 20 minutes. Before the last 5 minutes, the software will offer the user to extend the session for another 20 minutes.
- Alternatively, the connection with the server can be terminated at any time by sending an SMS text message.

Terminate the connection

SMS text message content:

ssss ENDCONFIG

Value: ssss - 4-digit SMS password.

Example: 1111 ENDCONFIG

Once the session is expired or terminated, the system will reply with an SMS text message confirming the end of the session.

6.SYSTEM LANGUAGE

The system comes equipped with a multiple languages for communication with the administrator by SMS text messages. The default system language depends on the firmware, which is based on the customer's location.

List of currently available system languages:

- Lietuviškai
- Русский
- English
- Eesti
- Deutsch
- Français
- Italiano

Set system language



This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: To change the language once the system has already been configured, you need to reset the device to the default configuration. For more details on how to do this, please refer to **20.2. Restoring Default Parameters**.

7. SMS PASSWORD

For security reasons, the system uses the following type of password:

- **SMS password** - 4-digit password used for system configuration and control from administrator phone number by SMS text messages and logging in to *ELDES Utility Tool* software . By default, SMS password is **0000**, which **MUST** be changed (device will not reply to any of SMS messages until SMS password is changed)!

Set SMS password



SMS text message content:

www PSW ssss

Value: *www* - 4-digit default SMS password; *ssss* - 4-digit new SMS password; range - [0001... 9999].

Example: *0000 PSW 1111*



This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: The system rejects the SMS text messages containing wrong SMS password even from a listed administrator phone number.

8.ADMINISTRATOR PHONE NUMBERS

The system supports up to 5 administrator phone numbers identified as Admin 1 through 5. When the phone number is set, the administrator will be able to configure and control the system by SMS text messages as well as by free of charge phone call and receive the input alarm SMS text messages from the system (see 14.1. Input Names and Alarm Notification). The system allows to assign output C1, output C2 or both outputs (simultaneous control) to a certain administrator.

By default, the system accepts incoming calls and SMS text messages from any phone number. Once the administrator phone number is listed, the system will ignore any incoming calls and SMS text messages from a non-listed phone number as well as it will reject the SMS text messages containing wrong SMS password even from a listed administrator phone number. For more details on how to enable output control from a non-listed phone number, please refer to 11.5. Output Control from any Phone Number.

To set Admin 1 phone number is mandatory (using the device without entered administrator number is forbidden!), while the other 4 are optional. The supported phone number format is the following:

- **International (w/o plus)** - The phone numbers must be entered starting with an international country code in the following format: [international code][area code][local number], example for UK: 44170911XXXX1.

Set administrator phone number	SMS	<p>SMS text message content: ssss NRas:ttteeeInnumm</p> <p>Value: ssss - 4-digit SMS password; as - administrator phone number slot, range - [1... 5]; ttteeeInnumm - up to 15 digits administrator phone number.</p> <p>Example: 1111 NR1:44170911XXXX1</p>
	Utility Tool	<p>This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.</p>
View administrator phone numbers	SMS	<p>SMS text message content: ssss HELPNR</p> <p>Value: ssss - 4-digit SMS password.</p> <p>Example: 1111 HELPNR</p>
	Utility Tool	<p>This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.</p>
Assign output (-s) to individual administrator	Utility Tool	<p>This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.</p>
Delete administrator phone number	SMS	<p>SMS text message content: ssss NRas:DEL</p> <p>Value: ssss - 4-digit SMS password; as - administrator phone number slot, range - [2... 5].</p> <p>Example: 1111 NR2:DEL</p>
	Utility Tool	<p>This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.</p>

ATTENTION: NEVER set a phone number of the device's SIM card as an administrator phone number!

ATTENTION: Once Admin 1 phone number is set, the system will allow only to modify it.

ATTENTION: Multiple administrator phone numbers can be set by a single SMS text message, **Example:** 1111 NR1:44170911XXXX1 NR5:44170911XXXX2 NR2:44170911XXXX3 NR3: 44170911XXXX4

NOTE: Multiple administrator phone numbers can be deleted by a single SMS text message, **Example:** 1111 NR2:DEL NR4:DEL NR3:DEL

NOTE: The administrator can control any output by SMS text message regardless of the output assigned to the administrator phone number (see 11.3. Output Control by SMS Text Message).

NOTE: By default, the system is restricted to send out up to 25 SMS text messages daily and up to 400 SMS text messages monthly. For more details on SMS text message delivery restriction management, please refer to 16.1. SMS Text Message Delivery Restrictions

For more details on output control, please refer to 11. OUTPUTS.

9.DATE AND TIME

The system comes equipped with internal real-time clock (RTC) that keeps track of the current date and time. Once the system is up and running, the user must set the correct date and time, otherwise the system will not operate properly. By default, after shutting down and starting up the system, the date and time must be set again. In order to avoid manual date and time set up, please use the automatic date and time synchronization feature (see **9.1. Automatic Date and Time Synchronization**).

Set date and time

SMS

SMS text message content:

ssss yyyy.mm.dd hr:mn

Value: ssss - 4-digit SMS password; yyyy - year; mm - month, range - [01... 12]; dd - day, range - [01... 31]; hr - hours, range - [00... 23]; mn - minutes, range - [00... 59].

Example: 1111 2013.03.16 14:33

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

9.1. Automatic Date and Time Synchronization

This feature enables the system to set the date and time automatically without the user being involved in this process. The system supports the following methods of automatic date and time synchronization that are used automatically on system start-up and periodically (by default -every Sunday at 5-5:30 AM):

- **Via 2G/4G network** - Once enabled, the system automatically sends a date/time request to the GSM operator. This method is the most accurate synchronization method. Some mobile operators might not support it.

By default, synchronization via 2G/4G network is enabled. To enable/disable automatic date and time synchronization via 2G/4G network, please refer to the following configuration methods.

Enable/disable synchronization via 2G/4G network

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

By default, the date and time synchronization period is every Sunday at 5-5:30 AM

Enable/disable synchronisation with Utility Tool

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: When setting up automatic date and time synchronization feature remotely, you may wish to restart the system when done. For more details, please refer to **19. REMOTE SYSTEM RESTART**.

NOTE: 0 value disables periodic synchronization.

NOTE: When both synchronization methods are enabled, the system will always attempt to synchronize date and time via 2G/4G network every time the system shuts down and starts up again and in accordance with the set period value.

10. USER PHONE NUMBER DATABASE

The system comes equipped with a user database of 2000 user capacity. When the phone number is set, the user will be able to control the output (-s) by free of charge phone call. The user database allows to assign output C1, output C2 or both outputs (simultaneous control) to a certain user. The supported phone number format is the following:

- **International (w/o plus)** - The phone numbers must be entered starting with an international country code in the following format: [international code][area code][local number], example for UK: 44170911XXXX1.

User database supports user validity and access restriction features. For more details, please refer to **10.1. User Validity and Access Restriction**.

Optionally, a user name can be set that typically specifies the owner's name of a certain phone number, for example: *John*.

The phone number and user name (if any) are used when searching for a certain user in the database as well as they are automatically added in the event log after the successful output control event (see **13. EVENT LOG**).

Add user phone number (and user name)	SMS	<p>SMS text message content: <code>ssss N:ttteeellnnuumm</code> or <code>ssss N:ttteeellnnuumm:user-name</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>ttteeellnnuumm</code> - up to 15 digits user phone number; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 N:44170911XXXX1:John</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
View user phone numbers	SMS	<p>SMS text message content: <code>ssss GETALLNUMBERS</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password.</p> <p>Example: <code>1111 GETALLNUMBERS</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Search for user by phone number or name	SMS	<p>SMS text message content: <code>ssss T:ttteeellnnuumm</code> or <code>ssss T:user-name</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>ttteeellnnuumm</code> - up to 15 digits user phone number; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 T:John</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Assign output (-s) to individual user	SMS	<p>SMS text message content: <code>ssss OUTPUT ttteeellnnuumm o</code> or <code>ssss OUTPUT user-name o</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>ttteeellnnuumm</code> - up to 15 digits user phone number; <code>o</code> - output number; range - [1 - output C1; 2 - output C2; 3 - both outputs]; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 OUTPUT 44170911XXXX1 2</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.

Delete individual user

SMS

SMS text message content:

`ssss D:ttteeeellnnuumm` or `ssss D:user-name`

Value: `ssss` - 4-digit SMS password; `ttteeeellnnuumm` - up to 15 digits user phone number; `user-name` - up to 16 characters user name.

Example: `1111 D:John`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Delete all users

SMS

SMS text message content:

`ssss D:ALL`

Value: `ssss` - 4-digit SMS password.

Example: `1111 D:ALL`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

The user database can be exported/imported to/from a .csv file for backup purposes or for a convenient user database management. To export/import an existing user database, please refer to the following configuration method.

Export/import existing user database from/to file

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

By default, the user database is enabled and output control by all database users is permitted. To deny output control instead of deleting all users from the database, please disable the user database using one of the following configuration methods.

Disable user database

SMS

SMS text message content:

`ssss DBM OFF`

Value: `ssss` - 4-digit SMS password.

Example: `1111 DBM OFF`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

To enable user database, please refer to the following configuration methods.

Enable user database

SMS

SMS text message content:

`ssss DBM ON`

Value: `ssss` - 4-digit SMS password.

Example: `1111 DBM ON`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: Space and colon characters are NOT allowed in the user names.

NOTE: Multiple users can be added by a single SMS text message, e. g. `1111 N:44170911XXXX1:John 44170911XXXX2: 44170911XXXX3:Tom`

NOTE: Multiple users can be deleted by a single SMS text message, e. g. `1111 D:John 44170911XXXX3:Mark`

For more details on output control, please refer to **11. OUTPUTS**.

10.1. User Validity and Access Restriction

The system allows to restrict access in accordance with the scheduler assigned to a certain user. When one or more schedulers are assigned, the user will be able to control the output only on the specified weekdays and time set up in the scheduler. The system allows to assign up to 8 different schedulers. For more details on how to set up the schedulers, please refer to **12. SCHEDULERS**.

In addition, the system allows to limit the user validity by the following methods:

- **Deadline (valid until)** - When a specified date and time hits, the user will be automatically deleted from the database.
- **Ring counter** - When a specified number of phone calls to the system expires, the user will be automatically deleted from the database.

Assign scheduler to individual user	SMS	<p>SMS text message content: <code>ssss NSCHED tttteellnnuumm c:ON</code> or <code>ssss NSCHED user-name c:ON</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits user phone number; <code>c</code> - scheduler number; range - [1... 8]; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 NSCHED John 5:ON</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Remove scheduler from individual user	SMS	<p>SMS text message content: <code>ssss NSCHED tttteellnnuumm c:OFF</code> or <code>ssss NSCHED user-name c:OFF</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits user phone number; <code>c</code> - scheduler number; range - [1... 8]; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 NSCHED John 5:OFF</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Set deadline for individual user	SMS	<p>SMS text message content: <code>ssss EXPIRYTIME tttteellnnuumm yyyy.mm.dd hr:mn</code> or <code>ssss EXPIRYTIME user-name yyyy.mm.dd hr:mn</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits user phone number; <code>yyyy</code> - year; <code>mm</code> - month, range - [01... 12]; <code>dd</code> - day, range - [01... 31]; <code>hr</code> - hours, range - [00... 23]; <code>mn</code> - minutes, range - [00... 59]; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 EXPIRYTIME John 2015.06.29 19:35</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Remove deadline from individual user	SMS	<p>SMS text message content: <code>ssss EXPIRYTIME tttteellnnuumm 0</code> or <code>ssss EXPIRYTIME user-name 0</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits user phone number; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 EXPIRYTIME 44170911XXXX1 0</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
View set up deadline for individual user	SMS	<p>SMS text message content: <code>ssss EXPIRYTIME tttteellnnuumm ?</code> or <code>ssss EXPIRYTIME user-name ?</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits user phone number; <code>user-name</code> - up to 16 characters user name.</p> <p>Example: <code>1111 EXPIRYTIME 44170911XXXX1 ?</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Set ring counter for individual user	SMS	<p>SMS text message content: <code>ssss RCOUNT tttteellnnuumm numofcalls</code> or <code>ssss RCOUNT user-name numofcalls</code></p> <p>Value: <code>ssss</code> - 4-digit SMS password; <code>tttteellnnuumm</code> - up to 15 digits administrator phone number; <code>user-name</code> - up to 16 characters user name; <code>numofcalls</code> - number of phone calls, range - [1... 4294967296].</p> <p>Example: <code>1111 RCOUNT 44170911XXXX1 152</code></p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.

View set up ring counter value for individual user

SMS

SMS text message content:

`ssss RCOUNT ttteeeellnnuumm ?` or `ssss RCOUNT user-name ?`

Value: `ssss` - 4-digit SMS password; `ttteeeellnnuumm` - up to 15 digits administrator phone number; `user-name` - up to 16 characters user name.

Example: `1111 RCOUNT John ?`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Remove ring counter from individual user

SMS

SMS text message content:

`ssss RCOUNT ttteeeellnnuumm 0` or `ssss RCOUNT user-name 0`

Value: `ssss` - 4-digit SMS password; `ttteeeellnnuumm` - up to 15 digits administrator phone number; `user-name` - up to 16 characters user name.

Example: `1111 RCOUNT John 0`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: If the date and time are not set, the system will NOT be able to manage user validity and access. For more details on how to set date and time, please refer to **9. DATE AND TIME**.

NOTE: Multiple schedulers can be assigned/removed by a single SMS text message, e. g. `1111 NSCHED John 2:ON 6:OFF 3:OFF 5:ON`

NOTE: 0 value removes the set up deadline from the user.

NOTE: 0 value removes the set up ring counter from the user.

11. OUTPUTS

The system comes equipped with 2 built-in outputs. The output is intended for connection and control of the gate automation device by the following methods:

- Free of charge phone call from the user or administrator phone number (see **11.2. Output Control by Free of Charge Phone Call**).
- SMS text message from the administrator phone number (see **11.3. Output Control by SMS Text Message**).
- Automatically in accordance with the scheduled weekdays and time (see **11.6. Automatic Output Control**).
- ELDES Cloud Services via browser or by Android/iOS mobile application (see **21. ELDES CLOUD SERVICES**).

To set an output type, please refer to the following configuration method.

Set output as NO (normally-open) or NC (normally-closed)

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

The system allows to view the current output state by the following configuration method.

View output state

SMS

SMS text message content:
ssss STATUS
Value: ssss – 4-digit SMS password.
Example: 1111 STATUS

ATTENTION: Once the scheduler, set up for automatic output control comes into effect, the user/administrator will NOT be able to control the output by phone call and SMS text message (see **11.6. Automatic Output Control**).

11.1. Output Names

The outputs have names that can be customized. Typically, the name specifies a device type connected to a determined output, for example: *Gate*. The name can be used instead of output number when controlling the output by SMS text message.

By default, the output names are: C1 – *Controll1*, C2 – *Controll2*.

Set output name

SMS

SMS text message content:
ssss Co:out-name
Value: ssss – 4-digit SMS password; o – output number, range [1 – output C1; 2 – output C2]; out-name – up to 16 characters output name.
Example: 1111 C1:Gates

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

View output name

SMS

SMS text message content:
ssss STATUS
Value: ssss – 4-digit SMS password.
Example: 1111 STATUS

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: Space, colon, semi-colon characters, parameter names and/or values, such as PSW, STATUS, ON, OFF etc. are NOT allowed in output names.

11.2. Output Control by Free of Charge Phone Call

To open or close the gate, dial the system's phone number from any available user or administrator phone numbers (see **10. USER PHONE NUMBER DATABASE** and **8. ADMINISTRATOR PHONE NUMBERS** for phone number management). The phone call is free charge as the system rejects it and turns ON/OFF the output (-s) for the listed time period (pulse; by default – 2 seconds) resulting in the gate opening or closing, depending on the current gate state and selected output type NO or NC. If there is more than one listed caller dialing to the system at the same time, the system will accept the incoming call from the caller who was the first to dial while other caller (-s) will be ignored.

The system supports a confirmation phone call to user/administrator phone number. For more details, please refer to **11.4. Output Control Confirmation by Call Back**

Set output pulse duration

SMS

SMS text message content:

`ssss TIMERo:pl`

Value: ssss - 4-digit SMS password; o - output number, range [1 - output C1; 2 - output C2]; pl - pulse duration, range - [1... 10] seconds.

Example: 1111 TIMER2:4

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: *ELDES Utility Tool* software allows to set the unlimited output pulse duration value.

11.3. Output Control by SMS Text Message

To open or close the gate, send the SMS text message from any of 5 available administrator phone numbers (see **10. USER PHONE NUMBER DATABASE** for phone number management). The system will turn ON the output (-s) for a determined time period (pulse) resulting in the gate opening or closing, depending on the current gate state. The confirmation reply by SMS text message, containing the output name (see **11.1. Output Names**), will be sent to the administrator phone number that the output control by SMS text message was initiated from.

To instantly turn ON/OFF the output and set its state to ON/OFF when the system starts-up, please refer to the following configuration methods.

Turn ON output for time period

SMS

SMS text message content:

`ssss Co:ON:hr.mn.sc` or `ssss out-name:ON:hr.mn.sc`

Value: ssss - 4-digit SMS password; o - output number, range - [1... 2]; hr - hours, range - [00... 23]; mn - minutes, range - [00... 59]; sc - seconds, range - [00... 59]; out-name - up to 16 characters output name.

Example: 1111 C2:ON:00.00.09

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Turn OFF output for time period

SMS

SMS text message content:

`ssss Co:OFF:hr.mn.sc` or `ssss out-name:OFF:hr.mn.sc`

Value: ssss - 4-digit SMS password; o - output number, range - [1... 2]; hr - hours, range - [00... 23]; mn - minutes, range - [00... 59]; sc - seconds, range - [00... 59]; out-name - up to 16 characters output name.

Example: 1111 C1:OFF:00.11.49

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

To instantly turn ON/OFF the specified output and set its state to ON/OFF when the system starts-up, please refer to the following configuration methods.

Turn ON output/Set output start-up state as ON

SMS

SMS text message content:

`ssss Co:ON` or `ssss out-name:ON`

Value: ssss - 4-digit SMS password; o - output number, range - [1... 2]; out-name - up to 16 characters output name.

Example: 1111 C1:ON

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Turn OFF output/Set
output start-up state
as OFF

SMS

SMS text message content:

`ssss Co:OFF` or `ssss out-name:OFF`

Value: *ssss* - 4-digit SMS password; *o* - output number, range - [1... 2]; *out-name* - up to 16 characters output name.

Example: *1111 C2:OFF*

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: Output can be turned ON for a determined time period only when it is in OFF state.

NOTE: Output can be turned OFF for a determined time period only when it is in ON state.

NOTE: *ELDES Utility Tool* software allows to set only the output start-up state.

NOTE: The administrator can control any output by SMS text message regardless of the output assigned to the administrator phone number (see **8. ADMINISTRATOR PHONE NUMBERS**).

11.4. Output Control Confirmation by Call Back

The system can make a phone call confirming that the output control action has been successfully carried out. Once enabled, every output control action will be followed by a 5-second (by default) ring to the user/administrator phone number that the output control by free of charge phone call was initiated from.

By default, output control confirmation by call back is disabled. To enable/disable it, please refer to the following configuration methods.

Enable output control confirmation by call back

SMS

SMS text message content:
\$sss CALLBACK:ON
Value: \$sss - 4-digit SMS password.
Example: 1111 CALLBACK:ON

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Set call back duration

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Disable output control confirmation by call back

SMS

SMS text message content:
\$sss CALLBACK:OFF
Value: \$sss - 4-digit SMS password.
Example: 1111 CALLBACK:OFF

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

11.5. Output Control from any Phone Number

Once an administrator phone number is listed, the system will ignore any incoming calls from a non-listed phone number. To permit/deny output control by free of charge phone call (see **11. OUTPUTS**) from a non-listed phone number, please refer to the following configuration methods.

Enable output control from any phone number

SMS

SMS text message content:
\$sss ALLNUM:ON
Value: \$sss - 4-digit SMS password.
Example: 1111 ALLNUM:ON

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Disable output control from any phone number

SMS

SMS text message content:
\$sss ALLNUM:OFF
Value: \$sss - 4-digit SMS password.
Example: 1111 ALLNUM:OFF

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: The system will accept SMS text messages only from a listed administrator phone number even if output control from any phone number is enabled.

NOTE: Once the output control from any phone number is enabled, a non-listed phone number user will be able to control outputs C1 and C2.

11.6. Automatic Output Control

The system comes equipped with automatic output control in accordance with the assigned scheduler (-s). When one or more schedulers are assigned, the output will automatically turn ON/OFF on the specified weekdays and time set up in the scheduler. The system allows to assign up to 8 different schedulers. For more details on how to set up the schedulers, please refer to **12. SCHEDULERS**.

Assign scheduler

SMS

SMS text message content:
`ssss OSCHEDo c:ON`

Value: ssss - 4-digit SMS password; o - output number, range [1 - output C1; 2 - output C2];
c - scheduler number; range - [1... 8].

Example: 1111 OSCHEd2 1:ON

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Remove scheduler

SMS

SMS text message content:
`ssss OSCHEDo c:OFF`

Value: ssss - 4-digit SMS password; o - output number, range [1 - output C1; 2 - output C2];
c - scheduler number; range - [1... 8].

Example: 1111 OSCHEd1 5:OFF

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: Once the scheduler, set up for automatic output control, comes into effect, the user/administrator will NOT be able to control the output by phone call and SMS text message.

12. SCHEDULERS

The system comes equipped with 8 schedulers that allow to set up the day (-s) of the week and time parameters. The schedulers are used to set up user validity and access restriction (see **10.1. User Validity and Access Restriction**) as well as automatic output control (see **11.6. Automatic Output Control**). Each scheduler includes the following parameters:

- **Every Day** - Determines whether the scheduler will be valid everyday regardless of the current day of the week.
- **At Specified Day (-s)** - Determines day (-s) in the week when the scheduler is to be valid.
- **Start Time** - Determines the point in time when the scheduler is to take effect.
- **End Time** - Determines the point in time when the scheduler is to cease to take effect.

Select At Specified Day (-s)	SMS SMS text message content: <code>ssss SCHEDc AL:OFF</code> Value: ssss - 4-digit SMS password; c - scheduler number; range - [1... 8]. Example: 1111 SCHED4 AL:OFF
	Utility Tool This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Enable day (-s) of the week	SMS SMS text message content: <code>ssss SCHEDc wd:ON</code> Value: ssss - 4-digit SMS password; c - scheduler number; range - [1... 8]; wd - weekday, range - [MO - Monday; TU - Tuesday; WE - Wednesday; TH - Thursday; FR - Friday; SA - Saturday; SU - Sunday]. Example: 1111 SCHED6 FR:ON
	Utility Tool This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Disable day (-s) of the week	SMS SMS text message content: <code>ssss SCHEDc wd:OFF</code> Value: ssss - 4-digit SMS password; c - scheduler number; range - [1... 8]; wd - weekday, range - [MO - Monday; TU - Tuesday; WE - Wednesday; TH - Thursday; FR - Friday; SA - Saturday; SU - Sunday]. Example: 1111 SCHED4 SU:OFF
	Utility Tool This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Set start time	SMS SMS text message content: <code>ssss SCHEDc st:hr:mn</code> Value: ssss - 4-digit SMS password; c - scheduler number; hr - hours, range - [00... 23]; mn - minutes, range - [00... 59]. Example: 1111 SCHED2 ST:20:25
	Utility Tool This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.

Set end time

SMS

SMS text message content:

`ssss SCHEDc en:hr:mn`

Value: *ssss* - 4-digit SMS password; *c* - scheduler number; *hr* - hours, range - [00... 23]; *mn* - minutes, range - [00... 59].

Example: `1111 SCHED8 EN:09:12`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Select Every Day

SMS

SMS text message content:

`ssss SCHEDc AL:ON`

Value: *ssss* - 4-digit SMS password; *c* - scheduler number, range - [1... 8]

Example: `1111 SCHED1 AL:ON`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

NOTE: Multiple scheduler parameters can be configured by a single SMS text message, e. g. `1111 SCHED2 MO:ON FR:OFF EN:20:18 TH:OFF ST:15:25 TU:ON AL:OFF`

13. EVENT LOG

This feature allows to chronologically register up to 1000 timestamped records regarding the following system events:

- Output control including the user/administrator phone number and user name.
- User validity expiry by deadline.
- User validity expiry by ring counter.
- Automatic output control beginning.
- Automatic output control ending.

To export the event log to .log file or clear it, please refer to the following configuration methods.

Export event log

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

By default, when the event log reaches the 1000 record limit, the system will send the notification by SMS text message to the administrator phone number. To clear the event log and/or disable/enable the notification regarding the full event log, please refer to the following configuration methods.

Clear event log

SMS

SMS text message content:
`ssssDELETELOG`
Value: ssss - 4-digit SMS password.
Example: 1111 DELETELOG

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Disable Log Full notification

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Enable Log Full notification

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

By default, the event log is set as of LIFO (last in, first out) type that allows the system to automatically replace the oldest records with the the latest ones.. To disable/enable it, please refer to the following configuration methods.

Disable LIFO type log

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Enable LIFO type log

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

14. INPUTS

The system comes equipped with 3 inputs designed for fault indication output or detection device connection, such as door contacts. Once a fault indication output and/or a detection device is triggered, the system will send a notification to the administrator phone number. Typically, the inputs are used to receive notifications regarding jammed gate or gate state. For more details, please refer to **14.1. Input Names and Alarm Notifications**.

Each input's sensitivity level can be customized by a delay time (by default - 600 milliseconds). If an input is left triggered until the delay time expires, the input is considered violated.

Set input delay

SMS

SMS text message content:
`ssss Tn:in-delay`
Value: ssss - 4-digit SMS password; *n* - input number, range - [1... 3]; *in-delay* - input delay, range - [100... 4200000] milliseconds.
Example: 1111 T3:10500

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

The system allows to view the current input state by the following configuration method.

View input state

SMS

SMS text message content:
`ssss INFO`
Value: ssss - 4-digit SMS password;
Example: 1111 INFO

14.1. Input Names and Alarm Notifications

Each input has a name that can be customized. Typically, the name specifies a device type connected to a certain input terminal, for example: *GateOpen*. The input names are used in notifications that are sent by SMS text message to the administrator regarding the input alarm event. By default, the input names are: Z1 - *zone1*, Z2 - *zone2*, Z3 - *zone3*.

Set input name

SMS

SMS text message content:
`ssss Zn:input-name`
Value: ssss - 4-digit SMS password; *n* - input number, range - [1... 3]; *input-name* - up to 8 characters input name.
Example: 1111 Z2:GateOpen

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

View input names

SMS

SMS text message content:
`ssss STATUS`
Value: ssss - 4-digit SMS password.
Example: 1111 STATUS

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

By default, the system sends SMS text message to the first available administrator in case of input alarm. If the system did not receive the SMS delivery report during 20 seconds, it will attempt to send the SMS text message to the next listed administrator phone number. To ignore the SMS delivery report and allow/disallow the system to send the SMS text message to every listed administrator phone number, please refer to the following configuration methods.

Enable notification
to all listed
administrator phone
numbers in case of
input alarm

SMS

SMS text message content:

Content: ssss SMSALL:ON

Value: ssss - 4-digit SMS password.

Example: 1111 SMSALL:ON

Utility
Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Disable notification
to all listed
administrator phone
numbers in case of
input alarm

SMS

SMS text message content:

Content: ssss SMSALL:OFF

Value: ssss - 4-digit SMS password.

Example: 1111 SMSALL:OFF

Utility
Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: Space characters, parameter values, such as ON, OFF etc. are NOT allowed in the input names. Space characters, parameter values, such as ON, OFF etc. are NOT allowed in the input names.

For more details on how to disable the input alarm notifications, please refer to **14.2. Disabling and Enabling Inputs**.

For more details on the algorithm of how the system sends the notifications, please refer to **16. SYSTEM NOTIFICATIONS**.

14.2. Disabling and Enabling Inputs

By default, all inputs are enabled. Once disabled, input alarm event will no longer be followed by an SMS text message. To disable/enable an individual input, please refer to the following configuration methods.

Disable input

SMS

SMS text message content:

Content: ssss Zn:OFF

Value: ssss - 4-digit SMS password; *n* - input number, range - [1... 3]; *input-name* - up to 8 characters input name.

Example: 1111 Z3:OFF

Utility
Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Enable input

SMS

SMS text message content:

Content: ssss Zn:ON

Value: ssss - 4-digit SMS password; *n* - input number, range - [1... 3]; *input-name* - up to 8 characters input name.

Example: 1111 Z2:ON

Utility
Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

View input status

SMS

SMS text message content:

Content: ssss STATUS

Value: ssss - 4-digit SMS password.

Example: 1111 STATUS

Utility
Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

15. SYSTEM INFORMATION. INFO SMS

The system supports an informational SMS text message identified as the Info SMS, which can be delivered upon request. Once requested, the system will reply with Info SMS that provides the following:

- System date and time.
- Signal strength.
- Number of occupied and empty slots in the user database.
- State of inputs (OK/alarm).

Request system information

SMS

SMS text message content:
`ssssINFO`
Value: ssss - 4-digit SMS password.
Example: 1111 INFO

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

For more details on the algorithm of how the system sends the notifications, please refer to **16. SYSTEM NOTIFICATIONS**.

15.1. Periodic Info SMS

The system may send the Info SMS to the administrator phone number periodically. By default, the period is daily at 11:00 (frequency - 1 day; time - 11). The minimum period is every 1 hour (frequency - 0 days; time - 1). Typically, this feature is used to verify the operation status of the system.

To enable periodic Info SMS by setting the frequency and time or disable it, please refer to the following configuration methods.

Set periodic Info SMS frequency and time

SMS

SMS text message content:
`ssssINFO:fff:it`
Value: ssss - 4-digit SMS password; *fff* - frequency, range - [00... 99] days; *it* - time, range - [01... 23].
Example: 1111 INFO:3.15

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Disable periodic Info SMS

SMS

SMS text message content:
`ssssINFO:00:00`
Value: ssss - 4-digit SMS password.
Example: 1111 INFO:00.00

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

16. SYSTEM NOTIFICATIONS

In case of a certain event, the system attempts to send an SMS text message to the first listed administrator phone number only. If the administrator phone number is unavailable and the system fails to receive the SMS delivery report within 20 seconds, it will attempt to send the SMS text message to the next listed administrator phone number. The administrator phone number may be unavailable due to the following reasons:

- Mobile phone was switched off.
- Was out of signal coverage.

The system will continue sending the SMS text message to the next listed administrator phone numbers in the priority order until one is available. The system sends the SMS text message only once and will not return to the first administrator phone number if the last one was unavailable.

16.1. SMS Text Message Delivery Restrictions

By default, the system is restricted to send out up to 25 SMS text messages daily and up to 400 SMS text messages monthly. To change the limits or disable SMS text message delivery restrictions, please refer to the following configuration method.

Manage SMS text message delivery limits

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Reset SMS text message delivery limit counter

SMS

SMS text message content:
`ssss REMOVEBAN`
Value: ssss - 4-digit SMS password.
Example: 1111 REMOVEBAN

NOTE: 0 value disables daily/monthly SMS text message delivery restrictions.

See also **9.1. Automatic Date and Time Synchronization.**

16.2. SMSC (Short Message Service Center) Phone Number

An SMS center (SMSC) is a network element, which routes SMS text messages to the destination recipient and stores the SMS text message if the recipient is unavailable. Typically, the phone number of the SMS center is already stored in the SIM card provided by operator. If the administrator fails to receive replies from the system, the SMS center phone number, provided by operator, must be set manually.

Set SMSC phone number

SMS

SMS text message content:
`ssss SMS +ttteeeellnnuumm`
Value: ssss - 4-digit SMS password; *ttteeeellnnuumm* - up to 15 digits SMSC phone number.
Example: 1111 SMS +44170311XXXX1

ATTENTION: Before setting the SMSC phone number, please check the credit balance of the system's SIM card. The system will fail to reply if the credit balance is insufficient.

17. 2G/4G NETWORK SETTINGS

The 2G/4G network settings are used for device communication with the remote configuration server or ELDES Cloud Services server via 2G/4G connection. To set the 2G/4G network settings, please refer to the following configuration methods.

Set APN	SMS	<p>SMS text message content: ssss SETGPRS:APN:acc-point-name</p> <p>Value: ssss - 4-digit SMS password; acc-point-name - up to 31 character APN (Access Point Name) provided by the operator.</p> <p>Example: 1111 SETGPRS:APN:internet</p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Set user name	SMS	<p>SMS text message content: ssss SETGPRS:USER:usr-name</p> <p>Value: ssss - 4-digit SMS password; usr-name - up to 31 character user name provided by the operator.</p> <p>Example: 1111 SETGPRS:USER:mobileusr</p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
Set password	SMS	<p>SMS text message content: ssss SETGPRS:PSW:password</p> <p>Value: ssss - 4-digit SMS password; password - up to 31 character password provided by the operator.</p> <p>Example: 1111 SETGPRS:PSW:mobilepsw</p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.
View GPRS network settings	SMS	<p>SMS text message content: ssss SETGPRS?</p> <p>Value: ssss - 4-digit SMS password.</p> <p>Example: 1111 SETGPRS?</p>
	Utility Tool	This operation may be carried out from the PC using the <i>ELDES Utility Tool</i> software.

NOTE: Multiple parameters can be set by single SMS text message, e.g. 1111 SETGPRS:APN:internet;USER:mobileusr;PSW:mobilepsw

18. INCOMING PHONE NUMBER VERIFICATION SETTINGS

ATTENTION: Due to security reasons it is NOT recommended to configure the parameters described below.

The system comes equipped with a phone number length verification feature allowing to restrict access for the phone numbers of a certain length. By default, the system supports the administrator and user phone numbers consisting of at least 4 digits (minimum phone number length), while the last 7 digits of the caller's phone number are used for comparison with the listed phone number in order to identify whether the phone number is listed. By default, the system will ignore all phone numbers consisting of less than 4 digits even if the phone number is listed as the administrator phone number or the user phone number. However, the system will accept all incoming phone calls containing a phone number matching the last 7 digits of the listed phone number.

Manage incoming phone number verification settings

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

19. REMOTE SYSTEM RESTART

In some critical situations, a system restart may be required. To remotely carry out system restart, please refer to the following configuration method.

Restart the system

SMS

SMS text message content:
Value: ssss - 4-digit SMS password.
Example: 1111 RESTART

20. TECHNICAL SUPPORT

20.1. Troubleshooting

Indication	Possible reason
Indicators SIM STAT and NETW are OFF	<ul style="list-style-type: none">· No mains power· Wrong wiring· Blown fuse· Disconnected antenna· Micro-controller could not start due to electrical mains noise or static discharge
Indicator SIM STAT is ON	<ul style="list-style-type: none">· Missing SIM card· PIN code is enabled· SIM card is inactive
Indicator SIM STAT is flashing	<ul style="list-style-type: none">· Connection fault
Unable to receive any SMS text messages to the administrator phone number or control the output	<ul style="list-style-type: none">· Insufficient SIM card credit balance· Caller's phone number is set up as withheld (hidden)· No network signal· Wrong administrator/user phone number· Administrator/user phone number is not set· SIM card was replaced before disconnecting mains power· Incorrect SMS center phone number
Unable to connect to the device remotely via GPRS connection	<ul style="list-style-type: none">· GPRS settings (APN, user name, password) not set.· Insufficient SIM card credit balance· Mobile internet service (GPRS) not activated on the SIM card.
Received SMS text message "Wrong syntax"	<ul style="list-style-type: none">· Incorrect SMS text message structure· Unnecessary space character might have been typed in SMS text message

For product warranty repair service, please contact your local retail store where this product was purchased.

If your problem could not be fixed by the self-guide above, please contact your local distributor. More up to date information about your device and other products can be found at the manufacturer's website eldesalarms.com

20.2. Restoring Default Parameters

1. Power down the device.
2. Short-circuit (connect) the DEF pins.
3. Power up the device for 7 seconds.
4. Power down the device.
5. Remove the short-circuit from DEF pins.
6. Parameters restored to default.

20.3. Firmware updates

1. Automatically: Each night, the device checks for updates and installs them if needed.

2. Manually: You can force an immediate update by sending an SMS text message.

Manual Firmware
update

SMS

SMS text message content:

ssss FOTA

Value: ssss - 4-digit SMS password.

Example: 1111 FOTA

3. FW Update via USB cable:

1. Power down the device.
2. Short-circuit (connect) the DEF pins.
3. Connect the device via USB cable to the PC.
4. Power up the device.
5. The new window must pop-up where you will find the .bin file. Otherwise open My Computer and look for Boot Disk drive.
6. Delete the .bin file found in the drive.
7. Copy the new firmware .bin file to the very same window.
8. Power down the device.
9. Unplug the USB cable.
10. Remove the short-circuit from DEF pins.
11. Power up the device.
12. Firmware updated.

4. FW update via ELDES Utility Tool

Once you connect the device to USB and open the Eldes Utility Tool, a firmware update prompt will appear. Simply accept it.

21. ELDES CLOUD SERVICES

ATTENTION: When remote connection session is initialized (i.e. when you send an SMS text command and receive the answer from the system), then ELDES Cloud Services feature will NOT work and becomes inaccessible until the remote connection session is over.

ELDES Cloud Services is a cloud-based platform providing a user-friendly graphical interface intended for system status monitoring and control:

- Control the gates or any other electrical appliance connected to the output
- Configure the system remotely via web-browser

The connection with the platform can be established either via GPRS network and can be accessed via web browser and smartphone application developed for Android and iOS-based devices (iPhone, iPad).

In order to start using ELDES Cloud Services platform, please enable it using the following configuration methods.

Enable ELDES Cloud Services

SMS

SMS text message content:

Smart: `ssss SMART:ON`

Value: ssss - 4-digit SMS password.

Example: `1111 SMART:ON`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

Once enabled, visit <https://gates.eldesalarms.com/en/user/login.html> and create your personal account. Then log in to your ELDES Cloud Services account and add a device by following the step-by-step instructions provided in ELDES Cloud Services website. When adding the device to your account, you will be prompted for Cloud Services ID, which can be obtained using *ELDES Utility Tool* software or by sending the following SMS text message to the system's phone number.

Request for ELDES Cloud Services ID

SMS

SMS text message content:

Smart: `ssss SMART ID`

Value: ssss - 4-digit SMS password.

Example: `1111 SMART ID`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

To disable ELDES Cloud Services, please refer to the following configuration methods.

Disable ELDES Cloud Services

SMS

SMS text message content:

Smart: `ssss SMART:OFF`

Value: ssss - 4-digit SMS password.

Example: `1111 SMART:OFF`

Utility Tool

This operation may be carried out from the PC using the *ELDES Utility Tool* software.

ATTENTION: In case you DO NOT wish to use ELDES Cloud Services and your device is not associated with any ELDES Cloud Services account, please DO NOT leave ELDES Cloud Services enabled. Otherwise, additional charges may apply for data traffic based on your cell phone service plan.

NOTE: Additional charges may apply for data traffic based on your cell phone service plan when using ELDES Cloud Services platform.

22. HOW TO USE ELDES GATES WEB PLATFORM, WIDGET AND APP

ATTENTION: When remote connection session is initialized (i.e. when you send an SMS text command and receive the answer from the system), then ELDES Cloud Services feature will **NOT** work and becomes inaccessible until the remote connection session is over.

WEB PLATFORM FOR GATE CONTROL

If you'd like to create your personal Cloud-based web platform ELDES Cloud Services account, then follow these steps:

- Go to gates.eldesalarms.com and choose "Register". When requested, enter your email address, 8 sign length password and press "Register".
- Confirmation e-mail has been sent to the address given. Open that e-mail and press on confirmation link to start using Eldes Cloud Services account.

In order to add a device to Eldes Cloud Services account, you'll have to do this:

- A) If account is new, then it will automatically transfer to device adding window;
- or B) If there is at least one device on your account, then press "Add Device" button.

In both cases, it is necessary to fill-in fields: "Device name" and "Cloud services ID". Field "Phone number" is optional.

After required data is entered press add and wait 5-10 minutes for adding process to be finished.

ATTENTION: Every device has a unique Cloud services ID. This ID can be viewed when device is connected to PC in the Utility Tool program section: System >> Cloud Services >> Cloud Services ID. Press button "Get ID" and it will appear in the field beside.

If the progress of adding a device stops and you see a note saying "Detecting device", check if there's no issue. The list of possible issues:

- Cloud services option in the device is disabled;
- 3G Sim card is used while device only supports 2G network;
- The GPRS settings are wrong (APN, Username, Password);
- The GSM antenna is not connected or connected improperly;
- The mobile data services are not ordered on your mobile account;
- The PIN code requirement is enabled on the SIM card;
- The device is in place with low GSM signal.

ELDES GATES WIDGET (FOR ANDROID USERS)

In order to start using ELDES GATES widget, please do the following:

- Install ELDES GATES widget from Google Play store;
- After installation is finished, touch and hold your finger on any open spot on the one of your home screen pages. This will bring up a list of options (**NOTE:** Keep in mind that different phone models have different ways to access widget menu, so please see your phone manual for more information);
- Touch widget from the list of choices. Scroll through your list of installed widgets and select the Eldes Gates widget.

In the widget's menu:

- In the field "**Phone number(International format)**", fill in phone number of your user from device database. Phone number must be written in international format without "+" sign. *For example, 44700*****;*
- In the field "**Current password**", fill the current password of your user from device database;
- In the field "**Change password to**", change your password (if needed);
- After filling all the information, press "**Connect**" button; if you wish to cancel the registration process, press "**Cancel**" button;
- In order to remember your registration data for future sessions, please tick the checkbox "**Remember Me**";
- If first field "**Server url**" is not filled - enter: **<https://gates.eldesalarms.com/en/user/login.html>**.

After pressing the Connect button:

- Select device;
- Choose the gate controller that you want to control;
- Rename it if needed;
- Press Add Widget.

Settings are done and you can control you gate using your smartphone.

If your ELDES GATES widget doesn't work, it might be because of the following issue(-s):

- The mobile data services are not ordered on your mobile account;
- Eldes device does not have access to mobile data network;
- Cloud Services are disabled on the Eldes device;
- 3G SIM card is used while device only supports 2G network;
- The GPRS settings are wrong (APN, Username, Password);
- The GSM antenna is not connected or connected improperly;
- The PIN code requirement is enabled on the SIM card;
- The device is in place with low GSM signal.

ELDES GATES APP (FOR IOS USERS)

In order to start using ELDES GATES app, please do the following:

- Download and install ELDES GATES app from Apple App Store;
- Launch ELDES GATES app (open it).

In the app's menu:

- In the field **"Phone number(International format)"**, fill in phone number of your user from device database. Phone number must be written in international format without plus sign; *For example, 44700******;
- In the field **"Password"**, fill the current password of your user from device database;
- In the field **"Change password"**, change your password (if needed);
- After filling all the information, press **"Connect"** button;
- If first field **"Server"** is not filled – enter: **<https://gates.eldesalarms.com/en/user/login.html>**

After pressing the Connect button:

- Choose the device or a gate controller that you want to control;

Settings are done and you can control you gate using your smartphone.

If your ELDES GATES app doesn't work, it might be because of the following issue(-s):

- The mobile data services are not ordered on your mobile account;
- Eldes device does not have access to mobile data network;
- Cloud Services are disabled on the Eldes device;
- 3G SIM card is used while device only supports 2G network;
- The GPRS settings are wrong (APN, Username, Password);
- The GSM antenna is not connected or connected improperly;
- The PIN code requirement is enabled on the SIM card;
- The device is in place with low GSM signal.

IF YOU CHANGE YOUR SMARTPHONE

In case you've changed your smartphone and can't add ELDES GATES widget or ELDES GATES app anew, please do the following:

- Use Clear ID function on your web interface <https://gates.eldesalarms.com/en/user/login.html>. Connect to your gate controller, select User Database, find user who can not log in, press Edit, check box to Clear ID function.
- If you can't access your gate controller, please contact your gate administrator.

23. RELATED PRODUCTS



IP66 - plastic enclosure



Power supply

Made in the European Union
eldesalarms.com