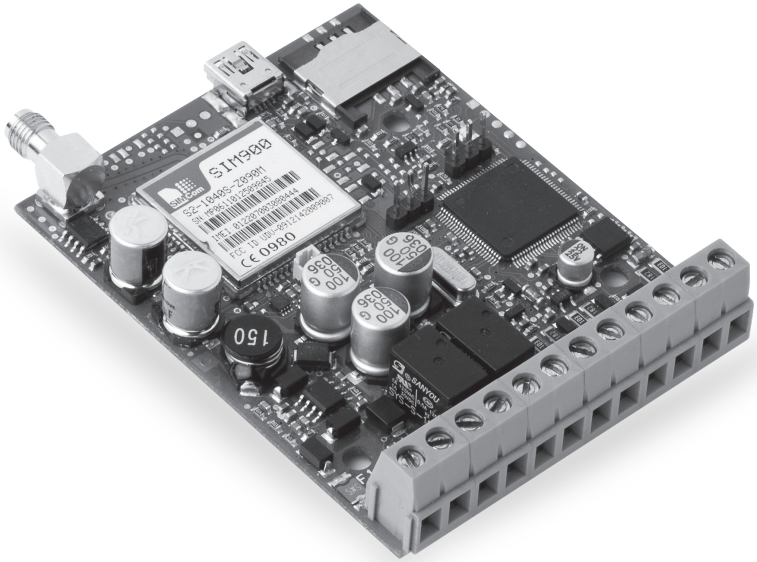
eldes



GSM CONTROL SYSTEM

ESIM251

User Manual v1.0

Safety instructions

Please read and follow these safety guidelines and assembly instructions in order to maintain safety of operators and people around:

- GSM control system ESIM251 (further referenced as the system) contains an integrated radio transceiver operating in GSM 850/900/1800/1900 MHz bands.
- Don't use the system where it can interfere with other devices and cause any potential danger.
- Don't mount the system next to medical equipment or devices, if they require so.
- Don't use the system in hazardous environment.
- Don't expose the system to high humidity, chemical environment or mechanical impacts.
- Don't attempt to personally repair the system.
- System label is on the bottom side of the device.

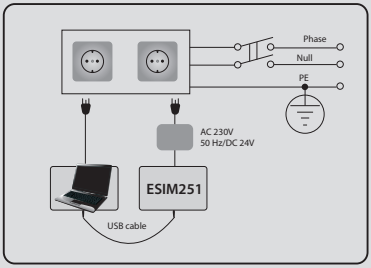
System ESIM251 is a device mounted in limited access areas. Any system repairs must be done only by qualified, safety aware personnel.

Mains power must be disconnected before any installation or tuning work starts. The system installation or maintenance must not be done during stormy conditions.

The system must be powered by main 10-24V 50Hz ~200mA AC or 10-24V ⎓ 200mA DC power supply which must be approved by LST EN 60950-1 standard and be easily accessible nearby the device. When connecting the power supply to the system, switching the terminals places does not have any affect.

Any additional devices linked to the system ESIM251 (computer, sensors, relays etc.) must be approved by LST EN 60950-1 standard.

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 and the disconnection current 5A.



Fuse F1 model MINISMDC050F 0.5A Blown fuse cannot be replaced by the user and the replacement fuses have to be exactly the same as indicated by the manufacturer.

The device is fully turned off by disconnecting 2-pole switch off device of the external power supply or any other linked device that the system ESIM251 is powered from.

If you use I security class computer for setting the parameters it must be connected to earth.

The WEEE (Waste Electrical and Electronic Equipment) marking on this product or its documentation indicates that in the EU the product must not be disposed of together with household waste.

Limited Liability

The buyer must agree that the system will reduce the risk of fire, theft, burglary or other dangers but does not guarantee against such events.

"ELDES UAB" will not take any responsibility regarding personal, property or revenue loss while using the system.

"ELDES UAB" responsibility according to local laws does not exceed value of the purchased system.

"ELDES UAB" is not affiliated with GSM operators providing cellular services therefore is not responsible for the quality of cellular services.

Manufacturer Warranty

The system carries a 24-month warranty by the manufacturer "ELDES UAB".

Warranty period starts from the day the system has been purchased by the end user. The warranty is valid only if the system has been used as intended, following all guidelines listed in the manual and within specified operating conditions. Receipt with purchase date must be kept as a proof.

The warranty is voided if the system has been exposed to mechanical impacts, chemicals, high humidity, fluids, corrosive and hazardous environment or other force majeure factors.

Package Content:

The system ESIM251 ..... 1 pcs

ESIM251 user manual..... 1 pcs

GSM antenna ..... 1 pcs

Fastening holders..... 3 pcs

About User Manual

This document describes GSM control system ESIM251, its operation and installation.

It is very important to read User Manual before start using the system.

A quick start guide is located in first two chapters. Chapter 3 and 4 describe additional system capabilities.

CONTENT

1. General Information

1.1 Function

ESIM251 is a microcontroller based device used to inform users about the alarm in automatic or security systems and control one electric appliance -relay.

1.2 Operation Description

Description of factory default settings.

GSM control system ESIM251 operates over GSM network. It works 24/7, i. e. it always reacts to the incoming signal.

When the alarm siren, motion sensor, fire alarm sensor, door sensor, any other sensor or PGM output is triggered, ESIM51 system sends an SMS message and calls to the preset numbers. SMS message with the name of the triggered zone (input) will continue to be sent until successful delivery to one of the users or until it is delivered to all users. The system continues to call until one of the five users answers the phone, rejects the call or until the call is ended by the mobile service provider. If the user answers the call, the system activates the microphone for listening on what is happening in the secured premises. When using audio feature in case of zone trigger or restore event the user will be able to listen to particular sound record uploaded to the ESIM251 device memory. After the end of the sound record the system activates the microphone for listening on what is happening in the secured premises. After „hanging the phone" or after the end of the call (duration - 1 min.) the system will return to the previous security state. Please, refer to "ELDES Configuration Tool" software „Help" section for more details on audio feature.

ESIM251 can control 1 electronic appliance (a relay) sending a password and a special command from a GSM phone of any users. This feature allows to turn on the heating, lighting, lift the gates, blinds etc.

The system will ignore incoming requests from unknown telephone number or SMS message with wrong password.

List of other configurable system possibilities.

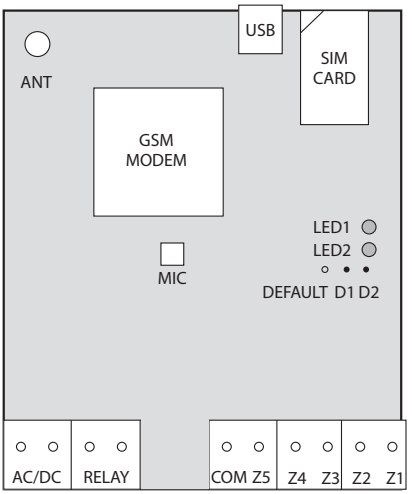
Input types	Normally open NO	Operation only when the signal is transmitted.
	Normally closed NC	Operation only when the signal is switched.
Ways of activating an event	Event when the input is activated (Alarm)	SMS is delivered when the signal is transmitted to the input.
	Event when the input is restored (Restore)	SMS is delivered when the previously transmitted signal in the input disappears.
	Impulse counting	SMS is delivered if the number of te preset number of impulses in the input is exceeded. Max value is 4294967295 impulses.
Ways of transmitting an event	SMS	Only SMS or various call combinations can be chosen. It is also possible to use only calls. Any of the users can be assigned only SMS or only calls or call combinations. Besides, any of the users can be assigned a particular input (zone) or their combination. E. g. a possibility to configure the system so that when input Z1 is activated SMS are sent only to users NR1 and NR5, and when Z2 is activated SMS is sent to all users and the call would be for NR4 and so on. When the functions SMSALL and CALLSALL are set SMS messages are sent to all users and the call would be delivered regardless of the fact whether the call was answered, rejected etc.
	Calls	
Ways of controlling output (relay)	Turning on/off by SMS	The relay can be turned on/off by sending the command by SMS message. You can turn on/off: 1. for a permanent status 2. for a set period 3. for a set hour 4. repeating turning on/off.
	Turning on/off by a call	The relay can be turned on/off by calling. You can turn on/off: 1. for a permanent status 2. for a set period 3. toggle (relay status changes after each call)
	Automatic turning on at the preset hour	The relay can be turned on for a set period at a set hour. E. g. the relay is turned on at 18:00 and it is on for 5 hours. After 5 hours it turns on automatically notifying the user about that.
Event register	Event register function	When the computer is connected it is possible to see activations, network strength etc.

1.3 Technical Specifications

Electrical and mechanical specifications

Supply voltage	10-24V 50Hz ~ 200mA max / 10-24V ⎓ 200mA max
Current used in standby mode	50mA max
GSM modem frequency	850/900/1800/1900 MHz
Number of "low" level (negative) inputs	4
Number of "high" level (positive) inputs	1
Allowable „low" level (negative) input values	Voltage: 0... 1.6V; current: -0.8... -0.4mA
Allowable „high" level (positive) input values	Voltage: 5... 50V; current: 0.17.... 1.7mA
Number of outputs	1
Output type	NO (relay)
Relay output maximum commutating values	24V ⎓ 1A / 24V 50Hz ~0,5A
Dimensions	82x63x20mm
Operating temperature range	-20…+55°C (-30...+55°C with limitations)

1.4 Connector Functionality



Picture 1

Short explanation of the main units

GSM MODEM	GSM network 850/900/1800/1900 MHz modem
SIM CARD	SIM card
LED	Light-emitting diodes indicator
DEFAULT	Connectors (D1 and D2) for restoring default settings
ANT	GSM antenna SMA type connector
USB	Mini USB connector
F1	Fuse

Connector functionality

Labeling	Explanation
AC/DC	Power supply pins
RELAY	Dry relay contact. Normally open (NO)
RELAY	Dry relay contact. Normally open (NO)
COM	Common pin
Z5	"Low" level input Z5
Z4	"Low" level input Z4
Z3	"Low" level input Z3
Z2	"High" level input Z2
Z1	"Low" level input Z1

LED indicators functionality

LED1	Indicates SIM card status
LED2	Indicates network status

LED1 status	Meaning
OFF	SIM card is working properly
ON	SIM card error

LED2 status	Meaning
OFF	No network connection
Blinking 3 times per second	Poor network connection
Blinking 1 time per second	Medium network connection
ON	Excellent network connection

1.5 Connection Circuit

USEFUL INFORMATION

When choosing GSM cellular provider, it is worth inquiring whether the service is used in security application assuring fast and reliable SMS message delivery and phone call connection.

USEFUL INFORMATION

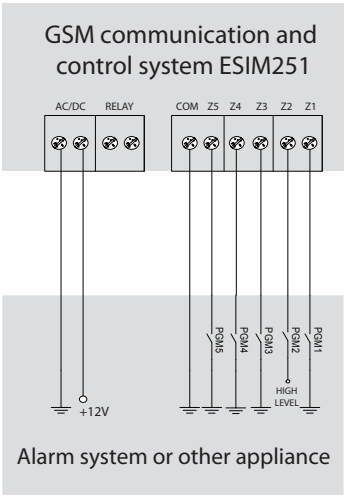
When choosing GSM cellular provider, it is worth inquiring whether the service is used in security application assuring fast and reliable SMS message delivery and phone call connection.

ESIM251 and alarm system COM must be connected.

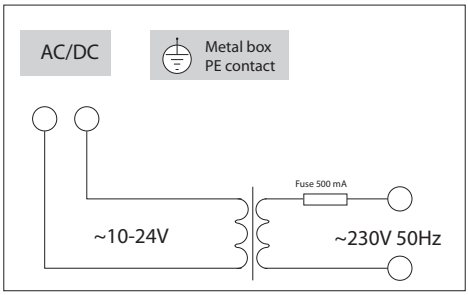
Inputs Z1,Z3,Z4,Z5 are connected to alarm system PGM outputs if PGM are implemented as open collector circuit or any other circuit and if it commutates with COM.

It is also possible to connect Z1, Z3, Z4, Z5 inputs to, for instance, motion sensor or any other sensor as well as automatics device provided the inputs are commutated with COM.

Input Z2 is commutated with a "high level" impulse. Impulse duration is >600ms.



Picture 2



Picture3 AC power supply connection circuit

1.6 System Installation

The system can be installed only in a metal or non-flammable plastic enclosure. If the metal enclosure and transformer is used it is necessary to ground the enclosure using yellow/green colour cable. For the connection of 230V transformer use 3x0.75 mm2 1 thread double isolated cable. The primary circuit of the transformer must be connected through 0.5A fuse. 230V power supply cables cannot be grouped with low voltage cable group. For the connection of power supply and output connectors use 1 thread 2x0.75 mm2 cable. For the connection of input/output connectors use 0.50 mm2 1 thread cable.

1. Fasten the system in the box using fastening holders.
2. Place SIM card in the holder but make sure that SIM card PIN code is disabled. (PIN code can be disabled by putting SIM card into mobile phone and following proper menus). SIM card should not have any remaining SMS messages.
3. Connect the circuit as shown in fig. No 2. Power supply cables are connected last). When connecting ESIM251 to alarm system power supply, usually the security system AUX output is used.
4. When AC power supply (ground transformator) is used connect according to circuit no. 3. In this case you do not need to connect any other power supplies.
5. The system will start in less than a minute. LED2 indicator should be blinking or be ON indicating connection to GSM.

2. System Pre-operation and the Main Control Commands

VERY IMPORTANT!!!

Underscore symbol '_' in this manual is used to represent space. When writing SMS messages, every underscore symbol should be replaced by single space symbol. XXXX – means password. Don't leave any space at the beginning and the end of the message.

To set ESIM251 system parameters easier and quicker you can use the computer, USB cable and configuration software „ELDES Configuration Tool". You can read more in chapter 3.2.

2.1 Selecting device language and verification of SMS central number

The language in which the device communicates with the user can be chosen before changing factory default password. To change the language in the system that is already configured reset default settings as described in 3.1 appendix.

Send SMS message with the required language code to the number of the SIM card inserted in ESIM251.

E.g., if you want to set the English language send the following SMS message: EN

30-60 seconds later you should get an SMS message: „English language confirmed." Go to chapter 2.2 upon reception of this message.

Table of possible languages

Language	Code
lithuanian	LT
english	EN
russian	RU

Otherwise check for network connection and call ESIM251 system from your mobile and wait until the system drops the call. You should get an SMS message asking to change default password. Otherwise check for network connection and change SMS central number.

SMS central number is saved in SIM card, therefore if SIM card has been used to send SMS messages with a mobile phone, then you don't' need to change SMS central number. Often SMS central number is already saved in SIM card by cellular operator.

Central number can be entered by sending SMS message:

```
XXXX_SMS_+37011111111
```

XXXX – is a password. Default password is four zeros: 0000. SMS central number is provided by cellular network provider.

Example: 0000_SMS_+37069899992

Message should be sent to the number of SIM card which is placed into the system. If all went correct, the system will send a message: *SMS central number has been successfully changed to +37011111111*

2.2 Password Change

All SMS commands start with a password, please memorize it. Manufacturer default password is four zeros 0000, which is necessary to change.

Manufacturer default password can be changed by sending the following SMS message to ESIM251:

```
0000_PSW_XXXX
```

To replace your password, send the following SMS message:

```
YYYY_PSW_XXXX
```

XXXX is any four digit number except four zeros.

Non-numerical characters like dots, colons, spaces are not allowed. YYYY is the old system password. If you forgot the password, default manufacturer password can be restored, see chapter 4.1 for more details.

2.3 User Numbers

The system ESIM251 allows to pre-program up to five different mobile numbers which will have access to and control the system. NR1 is mandatory while others can be skipped. All numbers must be entered starting with international country code, e. g. national code for Lithuania is 370, UK – 44. By default the system starts sending all messages and in the event of alarm starts calling on the first number, and if the first call is unsuccessful, it immediately tries reaching subscriber No2 etc.

2.3.1 Saving or Changing Numbers

Send SMS message with the following text to ESIM251:

```
XXXX_NR1:37011111111_NR2:37011111111_NR3:37011111111_NR4:37011111111_
NR5:37011111111
```

Ones should be replaced with user numbers.

Numbers don't have to be entered in sequential order right away. E. g. user can enter first and fourth number by sending the following SMS message:


```
XXXX_NR1:37011111111_NR4:37011111111
```

Or individually one number at a time:

```
XXXX_NR3:37011111111
```

Numbers can be changed same way as described above. New number will overwrite old one, therefore no erasing is necessary.

2.3.2 Verification of Saved Numbers

To inquire the system about pre-programmed numbers, send the following SMS message:

```
XXXX_HELPNR
```

The system will reply with all pre-programmed numbers.

2.3.3 Deletion of Saved Numbers

To erase NR2-NR5, send the following SMS message:

```
XXXX_NR2:DEL_NR3:DEL_NR4:DEL_NR5:DEL
```

E. g. XXXX_NR3:DEL

The system will not allow erasing first number NR1. It can only be modified.

2.4 Date and Time Settings

It is important to set correct date and time so that the system can send reports at specified times.

Date and time can be set by sending the following format SMS message:

```
XXXX_MMMM.mn.dd_va:mi
```

where MMMM means year; mn - month; dd - day; va - hour; mi - minutes

E. g. XXXX_2009.01.01_14:15

3. Additional System Capabilities

3.1 Renaming alarm, restore text and controller names

Manufacturer initially set the following zone and controlled output names:
Zone1, Zone2, Zone3, Zone4, Zone5, OUTPUT1

E. g. if during the alarm Z1 zone was triggered, the system sends SMS message with the text: Zone1

Alarm text changes are made by sending the following SMS message:

```
XXXX_Z1:NewAlarmText;Z2:NewAlarmText;Z3:NewAlarmText;Z4:NewAlarmText;Z5:NewAlarmText;
```

E. G. XXXX_Z1:Intrusion though the door;Z2:Fire sensor triggered;

Texts can be changed all at once for all zones, several of them or one by one. Maximum text for one zone is 24 characters. The space is equal to one character. Each new text must be followed by a semi colon. As semi colon is used for separating texts for different zones, it cannot be used in the middle of alarm texts it can only be used at the end. Texts cannot be the same as control commands.

Triggered zone restore text

If you want to be notified by an SMS message when the triggered zone is restored Restore mode must be turned on. The mode is turned on by sending a particular SMS command. Please refer to chapter 3.9 or configuration program.

Zone restore text is changed by sending the following SMS mesaage:

```
XXXX_ZR1:NewRestoreText;ZR2:NewRestoreText;ZR3:NewRestoreText;ZR4:NewRestoreT
ext;ZR5:NewRestoreText;
```

Controller name can be changed by sending the following SMS message:

```
XXXX_C1:NewControllerName
```

Controller name cannot be followed by a semi colon. You cannot change zone names and controller names at the same time.

E. g. XXXX_C1:PUMP

3.2 Enabling/Disabling Zones

NOTE

Manufacturer set all the zones activated, i. e. in mode ON.

USEFUL INFORMATION

The zones can be enabled/disabled together or separately one by one.

Enabling Zone

Any zone can be enabled by sending the following SMS message:

```
XXXX_Z1:ON;Z2:ON;Z3:ON;Z4:ON;Z5:ON;
```

Disabling Zone

Any zone can be disabled by sending the following SMS message:


```
XXXX_Z1:OFF;Z2:OFF;Z3:OFF;Z4:OFF;Z5:OFF;
```

E. g. XXXX_Z2:ON; or XXXX_WINDOWS:ON; or XXXX_Z2:OFF; or XXXX_WINDOWS:OFF;

3.3 Info on Status SMS

The system ESIM251 can any time be inquired about signal strength and the status of zones active at the time when SMS message is sent. At the same time system test is performed. If the answer to the request has been received, it means the system finely operates.

It is also useful for those using prepayment service – you can check if the credit in the account is sufficient for sending an SMS message. Send the following SMS message:

```
XXXX_INFO
```

The reply SMS will have following info: **e. g. 2008.08.07 11:15**

Signal strength satisfactory. ***Z1:OK/ALARM Z2:OK/ALARM Z3:OK/ALARM Z4:OK/ALARM Z5:OK/ALARM***

where OK means that the alarm in zone did not go off. ALARM – if it went off.

By default, this status SMS message will be sent daily at 11:00 in the morning. These parameters can be configured by sending the following SMS message:

```
XXXX_INFO:PP.VV
```

PP – message period in days, valid values [00-10].

VV - time when message is sent, valid values [00-23].

E. g. XXXX_INFO:01.10 means that status message will be sent every 1 day at 10:00.

If PP value is 0, and VV in the range of [1-23], then periodic status messages will be sent multiple times per day, with period being specified as VV time.

E. g. XXXX_INFO:0.2 means that status message will be sent every 2 hours.

To disable periodic status messages send the following SMS message:

```
XXXX_INFO:00.00
```

The status messages will not be sent until enabling or restoring default parameters or receiving previously described XXXX_INFO:PP.VV SMS message.

3.4 Blocking Unknown Numbers

By default ESIM251 system can be controlled from any of the pre-programmed numbers NR1-NR5. However, the user can access the system and control parameters and outputs from any number as long as password is known.

To enable this feature send the following SMS message:

```
XXXX_STR:ON
```

To disable this feature send the following SMS message:

```
XXXX_STR:OFF
```

3.5 Remote Microphone Listening

NOTE

To enable this feature it is necessary to connect microphone connector to MIC slot. The microphone is additional equipment tha can be purchased in trading centers.

You can listen to what is going on in the secured premises by sending the following SMS message:

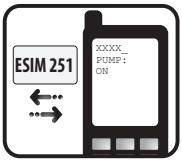
```
XXXX_MIC
```

The system will ring the sender of the received SMS, and upon answering the call, the user can listen to any sounds in the building. The phone call must be answered within 20 seconds otherwise the system will stop trying and return to previous state.

3.6 Managing C1 Controller. Timer.

GSM control system ESIM251 contains a controller C1- a relay output. It can be used to control various electrical devices such as electric pumps, heating, lighting etc. When the controller is enabled RELAY connectors are connected.

The device is turned on by sending the following SMS message:




```
XXXX_C1:ON
```

The device is turned off by sending the following SMS message:

```
XXXX_C1:OFF
```

Instead of C1 it is also possible writing a real controller name.

E.g.. XXXX_PUMP:ON

Timer

GSM control system ESIM251 has internal timer clock. This feature allows any controlled output to be switched on or off for a specified time period. The following SMS command should be sent:

```
XXXX_C1:ON/OFF:vv.mm.ss
```

ON – output enabled. OFF – disabled

vv – hours, valid values [00-23] mm – minutes, valid values [00-59] ss - seconds, valid values [00-59]

It is not allowed to have all values equal zeros. Zeros it is not allowed to have all values equal

E. g. to switch the pump on for 01 minutes and 23 seconds, send SMS XXXX_PUMP:ON:00.01.23

If the pump was enabled before and user want to disable it for 01 minute and 23 seconds, send SMS XXXX_PUMP:OFF:00.01.23

If you want to use more C1 Output capabilities as TOGGLE, automatic enabling and disabling for a particular hour or control, use configuration software „ELDES Configuration Tool" or see chapter 3.9.2

3.7 SMS Message Delivery to Multiple Users

Upon activated alarm in security system, ESIM251 SMS messages are repeatedly sent until fi rst successful delivery to one of the users. The system starts with NR1 and if delivery fails, it follows with NR2 etc.

It is also possible to set the system so that it sends SMS message to all recorded users.

To enable this function send the following SMS message:

```
XXXX_SMSALL:ON
```

To disable this function send the following SMS message:

```
XXXX_SMSALL:OFF
```

If you want to configure SMS message delivery only for particular users or only for particular zones, refer to chapter 3.9 or use configuration program.

3.8 Calling all users

During the alarm, ESIM251 system starts calling NR1. If the call to NR1 was unsuccessful or the subscriber was out of network coverage the call is forwarded to NR2 etc. If the user rejected the call or answered te call during the alarm the system stops calling.

However, you can set the system to call all recorded users regardless of the fact whether the user answered or rejected the call, was out of network coverage or was engaged.

To turn on this feature send the following SMS message:

```
XXXX_CALLALL:ON
```

ATTENTION!
When this feature is enabled it will not be possible to stop calling the next user in the sequence even if the call is answered.

To disable this function send the following SMS message:

```
XXXX_CALLALL:OFF
```

If you want to configure calling only to particular users or only for particular zones, refer to chapter 3.9 or use configuration program.

3.9 Configuration for advanced users

All features described in chapter 3.9 of the user manual can be configured using "ELDES Configuration Tool" software. But if there is no possibility of connecting the computer or if you want to change the settings remotely you can do this via SMS messages. We use changinf these settings by SMS message only for advanced users.

FOR ADVANCED USERS

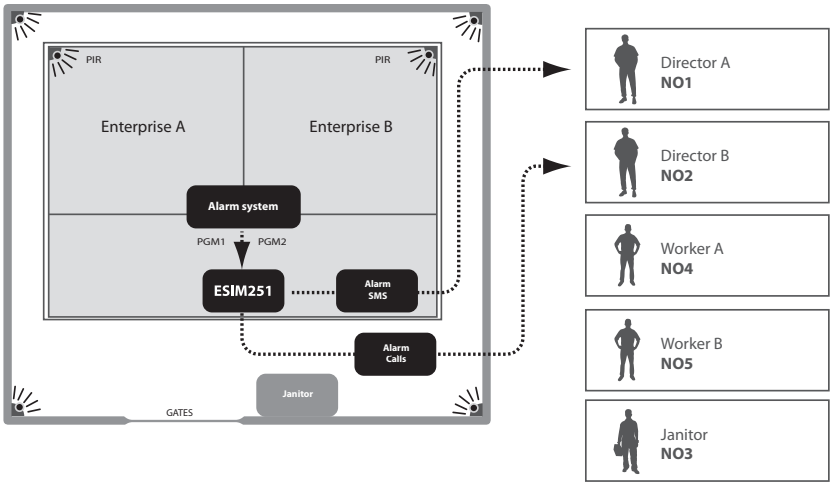
All these features can be configured using program "ELDES Configuration Tool"

E. g. 1

The user wants to connect ESIM251 system to an existing alarm in a building where enterprise A and and enterprise B work. Both enterprises use the same alarm system that has two zones.The alarm system has 5 programmable outputs (PGM).

Task NO1:

Configuring the system so that the director of a particular enterprise is informed about security enabling depending on which enterprise employee enabled the security system. The director of enterprise A (NO1) wants to receive an SMS message only and does not want to receive any calls, the director of enterprise B (NO2) wants to receive a call and does not want to receive any SMS messages.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to remove the users that should not receive any alarm messages. Besides, as per factory default settings, calling feature in the case of alarm is also enabled for all users therefore call function must be disabled for all users except user NO2.

a) First of all security central unit must be programmed in the way so that when security is enabled in office A, PGM1 is triggered, and when security is enabled in office B, PGM2 is triggered.

b) PGM1 is connected to ESIM251 input Z1, and PGM2 is connected to ESIM251 input Z2. (PGM2 should be "High level")

c) The following two configuration SMS messages must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:Z1:SC2345,CC12345
```

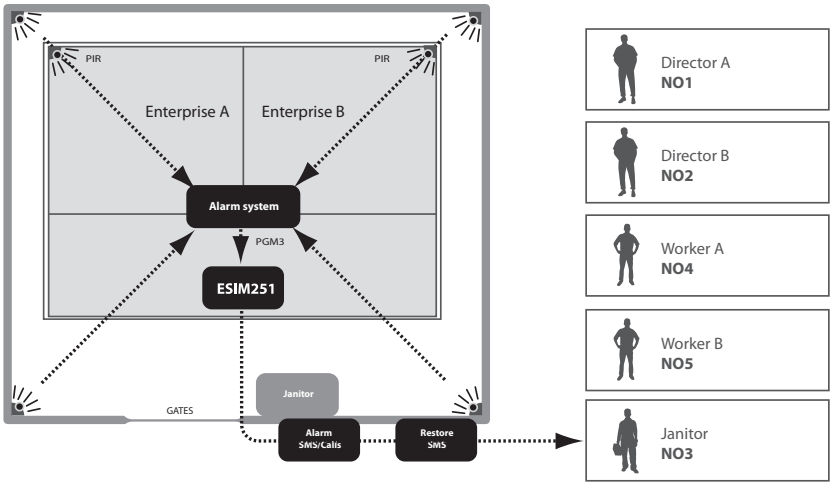
where SC2345 means that alarm SMS message sending to users NO2-NO5 is disabled after Z1 zone is triggered. CC12345 means that alarm calls are disabled for all users NO1-NO5 after Z1 zone is triggered.

```
XXXX_SMSEXTRA:Z2:SC12345,CC1345
```

where SC12345 means that alarm SMS message sending is disabled for all users NO1-NO5 after Z2 zone is triggered. CC1345 means that all alarm calls are disabled for users NO1, NO3-NO5 after Z2 zone is triggered.

Task NO2:

Configuring the system so that the janitor (NO3) is informed about the triggered perimeter sensor of field territory by SMS message and a call; and when the sensor is reset, the janitor receives SMS message only.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to remove the users that should not receive any alarm messages. Besides, as per factory default settings, calling feature in the case of alarm is also enabled for all users therefore call function must be disabled for all users except user NO3. SMS message sending feature must also be enabled for user NO3 when input Z3 is restored.

a) First of all security central unit must be programmed in the way so that when territory security perimeter sensor is triggered PGM3 is activated.

b) PGM3 is connected to ESIM251 input Z3

c) The following configuration SMS message must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:Z3:SC1245,CC1245,SE3
```

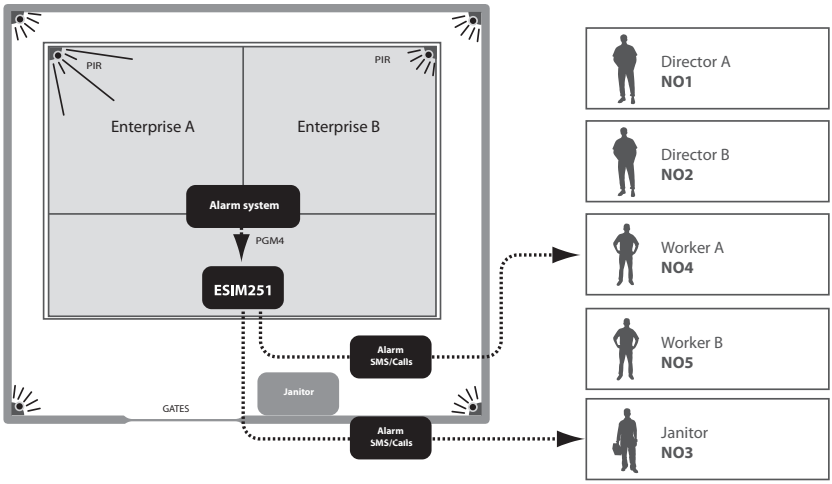
where SC1245 means that alarm SMS message sending to users NO1, NO2, NO4 and NO5 is disabled after Z3 is triggered. CC1245 means that alarm call feature is disabled for users NO1, NO2, NO4 and NO5 after zone Z3 I triggered. SE3 means that SMS message sending feature is enabled for user NO3 after Z3 input is restored.

E. g. 1

The user wants to connect ESIM251 system to an existing alarm in a building where enterprise A and and enterprise B work. Both enterprises use the same alarm system that has two zones.The alarm system has 5 programmable outputs (PGM).

Task NO3:

Configuring the system so that the intrusion to enterprise A premises is reported to the janitor (NO3) and enterprise A employee (NO4) by SMS messages and calls. Enterprise A employee (NO4) wants to receive a call only in the case if the janitor (NO3) does not answer the call, is out of network coverage or at that time the janitor's telephone line is engaged.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to enable mandatory SMS message delivery (see more in chapter 3.7) and to remove the users who should not receive alarm messages. Besides, as per factory default settings, calling feature in the case of alarm is also enabled for all users therefore call function must be disabled for all users except users NO3 and NO4. As per factory default settings in the case of alarm the system rings until the first answered call, therefore in this case nothing should be configured.

a) First of all security central unit must be programmed in the way so that when security sensors of enterprise A are triggered the signal is transmitted to security central unit output PGM4.

b) PGM4 is connected to ESIM251 input Z4

c) The following configuration SMS messages must be sent to ESIM251 system:

```
XXXX_SMSALL:ON
```

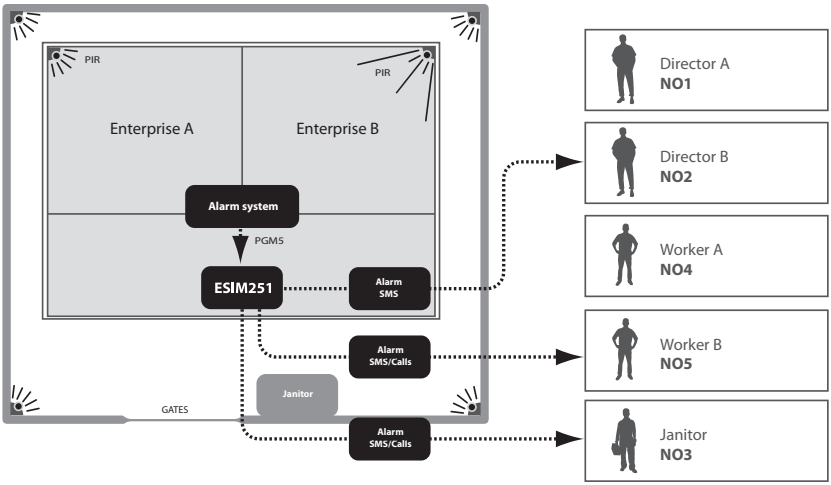
where SMSALL enables mandatory SMS message delivery feature for all users.

```
XXXX_SMSEXTRA:Z4:SC125,CC125
```

Where SC125 means that alarm SMS message delivery feature is disabled for users NO1, NO2 and NO5 after Z4 zone is triggered. CC125 means that alarm calls are disabled for users NO1, NO2 and NO5 after Z4 zone is triggered.

Task NO4:

Configuring the system so that the intrusion to enterprise B premises is reported to the janitor (NO3) and enterprise B employee (NO5) by SMS messages and calls, and the director of enterprise B (NO2) receives SMS message only. Enterprise B employee (NO5) must receive the phone call even in the case when the janitor (NR3) answers the call.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to enable mandatory SMS message delivery (see more in chapter 3.7) and to remove the users who should not receive alarm messages. Besides, as per factory default settings, calling feature in the case of alarm is also enabled for all users therefore call function must be disabled for users NO1, NO2 and NO4, and left enabled for users NO3 and NO5. Also, it is necessary to enable mandatory calling feature for all preset users (see more in chapter 3.8).

a) First of all security central unit must be programmed in the way so that when security sensors are triggered the signal must be transmitted to security central unit output PGM5.

b) PGM is connected to ESIM251 input Z5

c) The following three configuration SMS messages must be sent to ESIM251 system:

```
XXXX_SMSALL:ON
```

where SMSALL enables mandatory SMS message delivery feature for all users.

```
XXXX_CALLALL:ON
```

where CALLALL enables mandatory calling feature for all users.

```
XXXX_SMSEXTRA:Z5:SC14,CC124
```

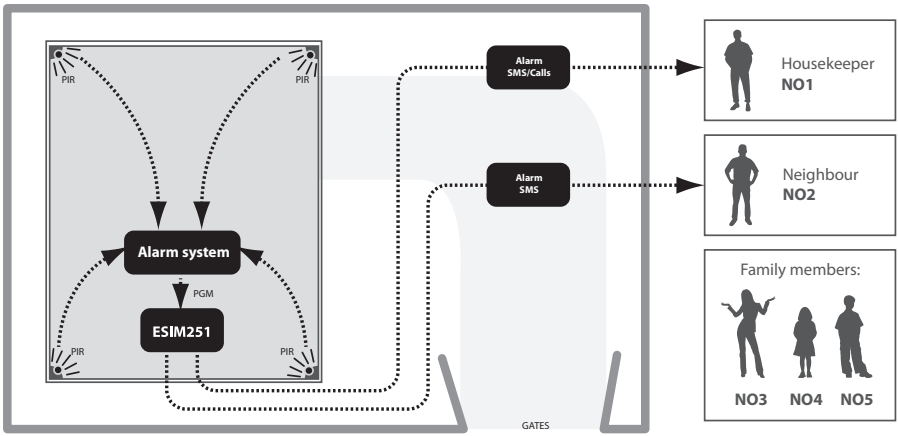
where SC14 means that alarm SMS message sending feature is disabled for users NO1 and NO4 after Z5 zone is triggered. CC124 means that alarm calls are disabled for users NO1, NO2 and NO4 after Z5 zone is triggered.

E. g. 2.

The user wants to connect ESIM251 system to the programmable outputs (PGM) of an existing alarm system. House territory is entered through electrically controlled gates. There are 5 users in total. NO1 is the housekeeper, NO2 is a neighbour, NO3-NO5 are family members.

Task NO1:

Configuring the system so that house alarm activation is reported to the housekeeper (NO1) by SMS message and a call as well as to the neighbour (NO2) but by SMS message only.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to enable mandatory SMS message delivery (see more in chapter 3.7) and to remove the users who should not receive alarm messages. Besides, as per factory default settings, calling feature in the case of alarm is also enabled for all users therefore call function must be disabled for users NO2-NO5 and left enabled for NO1 only.

a) First of all security central unit must be programmed in the way so that when security sensors are triggered the signal must be transmitted to security central unit output PGM.

b) PGM is connected to ESIM251 input Z1

c) **The following two configuration SMS messages must be sent to ESIM251 system:**

```
XXXX_SMSALL:ON
```

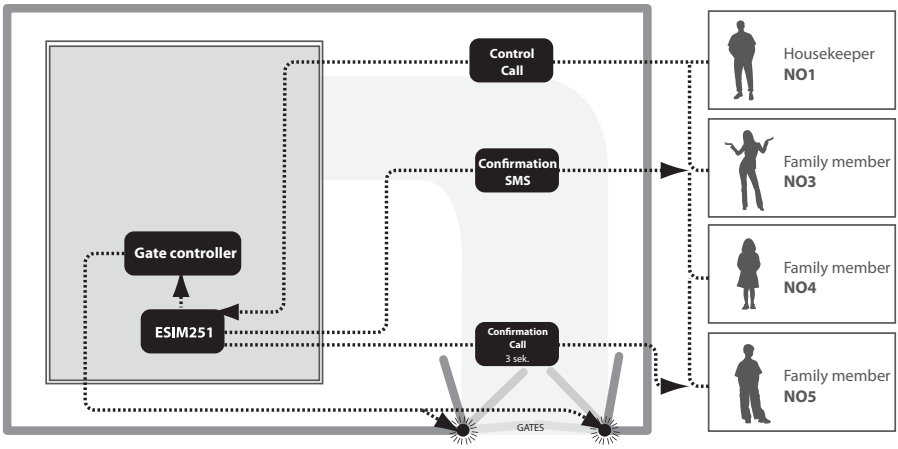
where SMSALL enables mandatory SMS message delivery for all users.

```
XXXX_SMSEXTRA:Z1:SC345,CC2345
```

Where SC345 means that alar SMS message sending is disabled for users NO3, NO4 and NO5 after Z1 zone is triggered. CC2345 means that alarm calls are disabled for all users exept NO1 after Z1 zone is triggered.

Task NO2:

Configuring the system so that house gates could be opened via free calls by the housekeeper (NO1) and his family members (NO3), (NO4) and (NO5). After every successful gate opening the user NO5 wants to receive a confirmation call (CALLBACK) the duration of which is 3 seconds, and the user NO3 wants to receive a confirmation SMS message.



As per factory default settings C1 output control via calls is disabled for all users, it is necessary to enable this feature and to set the users who will be able to control the output. Besides, it is also necessary to set relay status for every user when he/she calls the system. In this case the relay must be activated and the activation duration must be 1 second; after this the relay returns to the previous status. Confirmation call feature must be enabled for user NO5 and it is necessary to choose the length parameters for that call. Also, confirmation SMS messages have to be enabled for user NO3.

a) First of all ESIM251 system relay output has to be connected to the connectors of gate control unit.

b) **The following configuration SMS message must be sent to ESIM251 system:**

```
XXXX_SMSEXTRA:COC:CE1345,CS5,CT513,SS3,MS10,MS30,MS40,MS50,MS1T0.0.1,MS3T0.0.1,MS4T0.0.1,MS5T0.0.1
```

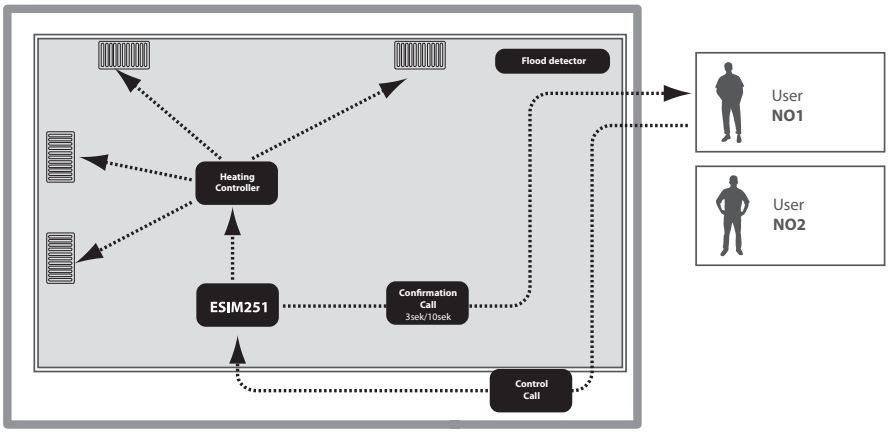
where CE1345 means that C1 relay control via call is enabled for users NO1, NO3-NO5.
CS5 means that confirmation call feature is enabled for user NO5 after C1 relay status changes.
CT513 means that user NO5 will receive a confirmation call when the relay gets activated and call duration is 3 seconds.
SS3 means that user NO3 will be informed about C1 relay status change by SMS message.
MS10 means that the relay is activated when user NO1 calls the system.
MS30 means that the relay is activated when user NO3 calls the system.
MS40 means that the relay is activated when user NO4 calls the system.
MS50 means that the relay is activated when user NO5 calls the system.
MS1T0.0.1 means that relay status is changed for 1 second when user NO1 calls the system.
MS3T0.0.1 means that relay status is changed for 1 second when user NO3 calls the system.
MS4T0.0.1 means that relay status is changed for 1 second when user NO4 calls the system.
MS5T0.0.1 means that relay status is changed for 1 second when user NO5 calls the system.

E. g. 3.

The user wants to connect ESIM251 system to the heating system of the house.

Task No1:

Configuring the system so that house heating system is turned on and turned off by the user (NO1) via free call. This user should also receive free information abut successful turning on or turning off of the heating system.



As per factory default settings C1 output control via calls is disabled for all users, it is necessary to enable this feature and to set the users who will be able to control the output – in this case it is user NO1. Besides it is also necessary to set relay status for user NO1 when he/she calls the system. In this case you must set the system so that the relay is activated after one call and deactivated after another one (Toggle) and so on. User NO1 needs to enable confirmation call feature and set the length parameters for that call. To differentiate whether the relay was enabled confirmation call will be set to ring for 3 seconds and the confirmation call will ring for 10 seconds when the relay is disabled.

a) First of all ESIM251 system relay output C1 has to be connected to the connectors of heating system control unit.

b) The following configuration SMS message must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:COC:CE1,CS1,CT113,CT1010,MS12
```

where CE1 means that C1 relay control via call is enabled for users NO1.

CS1 means that confirmation call feature is enabled for user NO1 after C1 relay status changes.

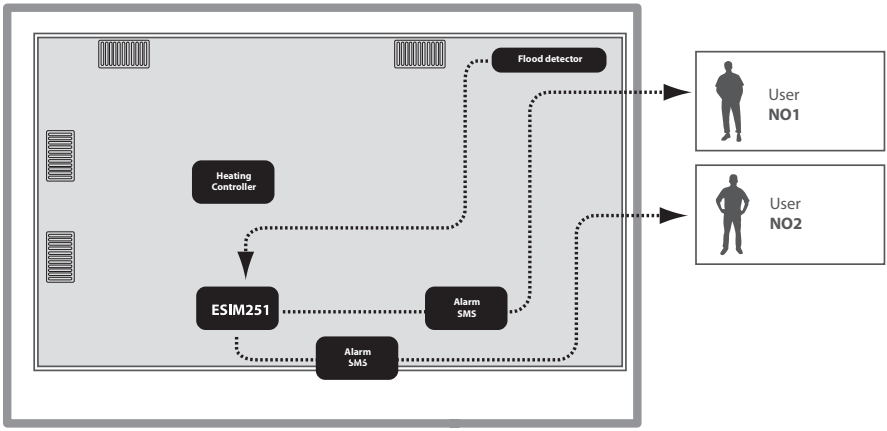
CT113 means that user NO1 will receive a confirmation call when the relay gets activated and call duration is 3 seconds.

CT1010 means that user NO1 will receive a confirmation call when the relay is deactivated and call duration is 10 seconds.

MS12 means that Toggle mode is activated for user NO1 which means that relay status is changed with every call.

Task No2:

Configuring the system so that users (NO1) and (NO2) receive SMS message about a burst water pipe (flood) at home. SMS messages must be delivered to both users.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message and calling in the case of alarm is enabled for all users until the first answered call, calling feature in the case of alarm must be disabled for users NO1 and NO2. Mandatory SMS delivery to all users must also be enabled.

a) First of all a flood sensor is connected to ESIM251 input Z1.

b) The following configuration SMS messages must be sent to ESIM251 system:

```
XXXX_SMSALL:ON
```

where SMSALL enables mandatory SMS message delivery feature for all users.

```
XXXX_SMSEXTRA:Z1:CC12
```

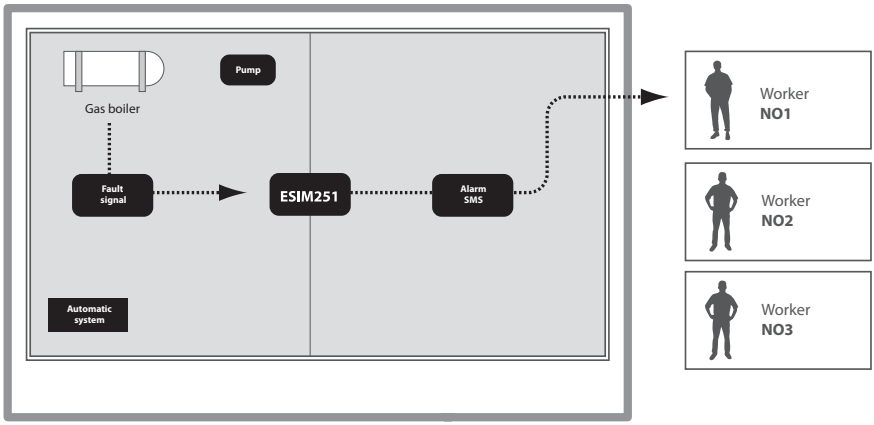
where CC12 means that alarm call feature is disabled for users NO1, NO2 after Z1 zone activation.
We make an assumption that users NO3-NO5 were not entered to the system at all.

E. g. 4.

The company taking care of automatic systems needs to have information about critical breakdowns of mechanisms and has to quickly react and eliminate the breakdown. There are three members of operating personnel (NO1), (NO2) and (NO3).

Task No1:

Configuring the system so that operating personnel member (NO1) receives SMS message about the breakdown of gas boiler. Working normally a gas boiler transfers a signal, and when it breaks down the signal is not transmitted.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to remove users NO2 and NO3 and disable alarm calls for all users. It is also necessary to invert ESIM251 input from NO to NC mode so that alarm is given only when the signal disappears.

a) First of all a signal indicating gas boiler breakdown isconnected to ESIM251 input Z1.

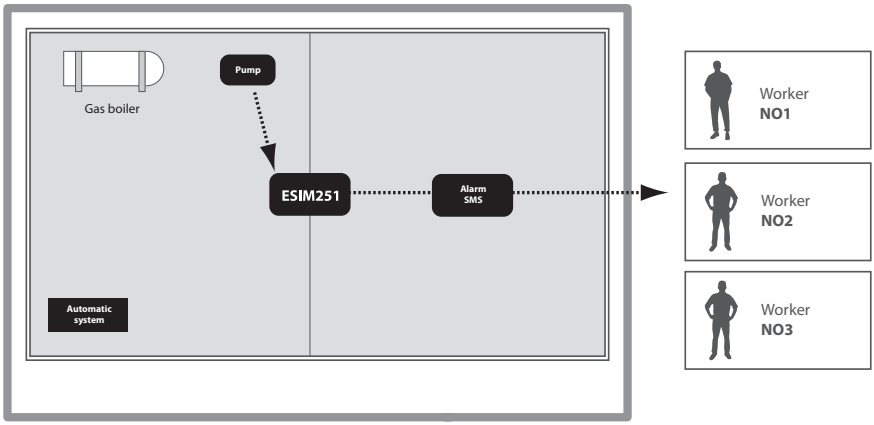
b) The following configuration SMS message must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:Z1:SC23,CC123,LI1
```

where SC23 means that alarm SMS message sending is disabled for users NO2, NO3 after Z1 zone is activated.
CC123 means that alarm calls are disabled for users NO1, NO2 and NO3 after Z1 zone is activated.
We make an assumption that users NO4-NO5 were not entered to the system at all. LI1 means that NC - "normally closed" - mode is enabled for the input.

Task No2:

Configuring the system so that the operating personnel member (NO2) receives SMS message if the pump was triggered for 10 times.



As per factory default settings SMS message sending feature in the case of alarm is enabled for all users until the first successful delivery of the SMS message, it is necessary to remove users NO1 and NO3 and disable alarm calls for all users. It is also necessary to enable impulse counting mode for ESIM251 input Z3 and set the number of expected impulses.

a) First of all a signal indicating PUMP triggering is connected to ESIM251 input Z3.

b) The following configuration SMS message must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:Z3:SC13,CC123,IE1,IC10
```

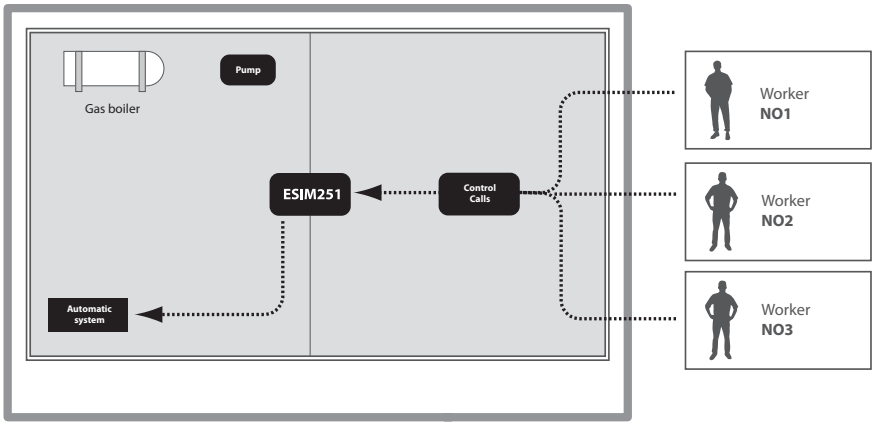
where SC13 means that alarm SMS message sending is disabled for users NO1, NO3 after Z3 zone activation.
CC123 means that alarm calls are disabled for users NO1, NO2 and NO3 after Z3 zone activation.
We make an assumption that users NO4-NO5 were not entered to the system at all.
IE1 enables impulse counting mode for zone Z3. IC10 means that the alarm is given to Z3 input after 10 impulses are transmitted.

E. g. 4.

The company taking care of automatic systems needs to have information about critical breakdowns of mechanisms and has to quickly react and eliminate the breakdown. There are three members of operating personnel (NO1), (NO2) and (NO3).

Task No3:

Configuring the system so that operating personnel members (NO1), (NO2) and (NO3) can reboot the "hanged" automatic control system without going to the object but via a short call to ESIM251 system.



As per factory default settings C1 output control via calls is disabled for all users, it is necessary to enable this feature and to set the users who will be able to control the output. Besides, it is also necessary to set relay status for every user when he/she calls the system. In this case the relay must be activated and the activation duration must be 2 seconds; after this the relay returns to the previous status.

a) First of all ESIM251 system relay output has to be connected to the connectors of automatic control unit.

b) The following configuration SMS message must be sent to ESIM251 system:

```
XXXX_SMSEXTRA:COC:CE123,MS10,MS20,MS30,MS1T0.0.2,MS2T0.0.2,MS3T0.0.2
```

where CE123 means that C1 relay control via call is enabled for users NO1-NO3.

MS10 means that the relay is activated when user NO1 calls the system.

MS20 means that the relay is activated when user NO2 calls the system.

MS30 means that the relay is activated when user NO3 calls the system.

MS1T0.0.2 means that relay status is changed for 2 seconds when user NO1 calls the system.

MS2T0.0.2 means that relay status is changed for 2 seconds when user NO2 calls the system.

MS3T0.0.2 means that relay status is changed for 2 seconds when user NO3 calls the system.

FOR ADVANCED USERS

All these features can be configured using program "ELDES Configuration Tool"

3.9.1 Additional possibilities of configuring zones (inputs) alarm and restore

Initial factory default settings. During the alarm the system calls and sends SMS messages to all pre-programmed users until the first successful SMS delivery or a call rejected by the user. The users are not notified about zone restore. Zone delay due to interference is 600ms – i. e. only the impulse that is longer than 600ms is considered an event. All zones Z1-Z5 are enabled. Impulse counting mode is turned off.

To change these settings send the followinf SMS message:

```
XXXX_SMSEXTRA:Zn:Value1,Value2,……,ValueN
```

XXXX – user password.

Zn – possible values Z1,Z2,Z3,Z4,Z5. Define the number of the zone that is changed.
Value structure is CnVal, where Cn means command name (2 letters), and Val-its value (digits without spaces or punctuation marks).

Value (CnVal) – Table of values

	Cn – command name (2 letters)	Val – possible command meaning.	Command description	Initial factory default values	Comments
Alarm configuration	SS	1,2,3,4,5	During the alarm SMS message will be sent to users NO:1,2,3,4,5.	SS12345 Enabled for all users NO1-NO5.	E. g. SS25 means that during alarm SMS message sending is enabled for users NO2 and NO5
	SC	1,2,3,4,5	During the alarm SMS message sending to users No:1,2,3,4,5 will be disabled.		E. g. SC2 means that SMS message sending will be disabled for user NO2
	CS	1,2,3,4,5	During the alarm the system will call users No:1,2,3,4,5.	CS12345 Enabled for all users NO1-NO5.	E. g. CS124 means that during alarm calls are enabled for users NO1, NO2 and NO4
	CC	1,2,3,4,5	During the alarm calling users No:1,2,3,4,5 will be disabled.		E. g. CC12345 means that during the alarm none of the users will be called.
Restore configuration	SE	1,2,3,4,5	During input restore SMS message will be sent to users No:1,2,3,4,5.		E. g. SE1 means that during zone reset SMS message delivery is enabled for user No1
	SD	1,2,3,4,5	During input restore SMS message sending is disabled for No:1,2,3,4,5.	SD12345 Disabled for all users NO1-NO5.	E. g. SD45 means that during zone restore SMS message sending is disabled for users NO4 and NO5.
	CE	1,2,3,4,5	During input restore users No:1,2,3,4,5 will be called.		E. g. CE12 means that during input restore calls are enabled for users NO1 and NO2
	CD	1,2,3,4,5	During input restore calling users No:1,2,3,4,5 is disabled.	CD12345 Disabled for all users NO1-NO5.	E. g. CD1345 means that when the input is restored users NO1, NO3, NO4 and NO5 will not be called.
Input levels	LI	0	Setting input type. 0 – NO (normally open).	LI0 Normally open	Possibility to change input type, i. e. to invert. E. g. LI0 It means that the input is considered inactivated if there is no signal.
		1	Setting input type. 1 –NC (normally closed)		Possibility to change input type, i. e. to invert. E. g. LI1 means that input is in normal status when the signal is transmitted. The event appears only when the signal disappears.
Impulse counting	IE	0	Impulse counting mode is disabled	IE0 disabled	Pvz. IE0 means impulse counting mode is disabled
	IE	1	Impulse counting mode is enabled		Input counts impulses. The number of impulses is defined by the command IC. E. g. IE1
	IC	1- 4294967295	The number of impulses is determined		The alarm is activated when a preset number of impulses is transmitted to the input. E. g. IC100 In this case the alarm is activated when 100 impulses are sent to the input. Maximum frequency is 5Hz.
Input protection against interference	DV	100-10000	Setting minimal input impulse duration. It is measured in milliseconds.	DV600	The input is triggered only if the impulse transmitted is not shorter than the preset value. E. g. DV1000 means that the signal transmitted to the input is shorter than 1000ms (1s) the alarm is not triggered.

ATTENTION!
Value fields are separated by commas. Maximum SMS length is 160 characters. Only one zone parameters can be configured by one SMS message.

Examples of using SMSEXTRA command.

Suppose in all cases initial parameters were not changed and are manufacturer default.

1. Example of SMS message configuring Z1 input:

```
XXXX_SMSEXTRA:Z1:SC15,CC25,SE1234,CE4,LE1,DV900
```

This message configures Z1 input parameters.

SC15 means that during the alarm SMS message sending is disabled for users NO1 and NO5. As per manufacturer default settings SMS sending is preset for all users, therefore users NO2, NO3 and NO4 SMS messages will still be delivered.

CC25 means that during the alarm calling function is disabled for users NO2 and NO5. As per manufacturer default settings, calling function is preset for all users, therefore users NO1, NO3 and NO4 will still be called.

SE1234 means that SMS restore message sending is enabled for users NO1, NO2, NO3 and NO4. This means that when Z1 is restored after previous trigger, these users will be informed about this restore by SMS message. However, alarms and restore SMS messages will be sent until the first successful delivery. To enable compulsory message delivery to all users you should use the command XXXX_SMSALL:ON, as described in chapter 3.7.

CE4 means that during Z1 restore only user NO4 is called.

LE1 means that input type for zone Z1 will be inverted, i. e. the previous NO is changed to NC (normally closed). This means that the alarm is triggered only when the signal disappears, and the restore is announced only in the case when the signal appears.

DV900 means that Z1 input is triggered only if the signal is suspended at least for 900ms. Please note that input type was inverted to NC. (If inversion was not possible this DV900 command would mean that the signal transmitted must not be shorter than 900ms.)

2. Example of SMS message configuring Z2 input:

```
XXXX_SMSEXTRA:Z2:IE1,IC555
```

This message configures Z2 input parameters.

IE1 means that impulse counting mode is enabled for Z2 input.

IC555 means that the users will receive the alarm when 555 impulses are transmitted to the input. Immediately after the alarm the counter resets and starts counting impulses until their number reaches 555.

To see the preset values for any command send SMS message with the same format that you use when changing parameters; only Value structure will have no value:

```
XXXX_SMSEXTRA:Zn:Value1,Value2,……,ValueN
```

XXXX – user password.

Zn – possible values Z1,Z2,Z3,Z4,Z5. Define the number of the zone being changed.

Value structure is Cn, where Cn is command name (2 letters).

E. g. XXXX_SMSEXTRA:Z2:SS,SC,CC,SE,SD

3.9.2 Additional possibilities of controlling and configuring controller C1 (relay output)

Normally C1 output can be controlled only by SMS message, as described in chapter 3.6, i. e. by enabling/disabling it for a permanent status or for a preset period. However, you can configure automatic enabling and disabling for a particular hour or control this function by a call.

3.9.2.1 Settings of an output controlled by calls

When calling on the number of system ESIM251 the call is rejected and no control operations are run. However, when a special mode is enabled C1 output can be controlled by a call. It can be controlled by all users NO1-NO5, several users or only one of them.

By calling the system you can enable these 3 functions: enable/disable, enable/disable for a certain period or change output status with every call, i. e. one call enables the status, the next one disables it etc.

The parameters are changed by sending the following SMS message to the system ESIM251:

```
XXXX_SMSEXTRA:COC:Value1,Value2,.....,ValueN
```

XXXX – user password. Value structure is CnVal, when Cn is command name (2 letters), and Val-its value).

Value (CnVal) – table of values

	Cn – command name (2 letters)	Val – possible command meaning.	Command description	Initial factory default values	Comments
Enabling control via call	CE	1,2,3,4,5	Control via call mode is enabled for users No:1,2,3,4,5		E. g. CE25 means that users NO2 and NO5 will be able to control the output via call.
	CD	1,2,3,4,5	Control via call modes is disabled for users No:1,2,3,4,5	CD12345 Disabled for all users NO1-NO5.	E. g. CD25 means that output control via call is disabled for users NO2 and NO5.
Enabling/ disabling confirmation call (CallBack)	CS	1,2,3,4,5	Confirmation call mode is enabled for users No:1,2,3,4,5.		E. g. CS124 means that when users NO1, NO2 and NO4 control the output via call they will be notified about a successful output status change by a confirmation call.
	CC	1,2,3,4,5	Confirmation call mode is disabled for users No:1,2,3,4,5..	CC12345 Disabled for all users NO1-NO5.	E. g. CC124 means that when users NO1, NO2 and NO4 control the output via call the call confirming about a successful output status change is disabled and users will not receive calls.
Confirmation call duration parameters	CT	1,2,3,4,5;**1; s**	Confirmation call is made for users No:1,2,3,4,5 when the ouput is turned on. s- call time in seconds	CT112 CT212 CT312 CT412 CT512	The first number refers to user number. The second number is a command and the last number refers to call time in seconds. E. g. CT412 means that if confirmation call mode is enabled, user NO4 will receive a call if he/she is trying to turn on the relay. The system will call for 2 seconds.
		1,2,3,4,5;**0; s**	Confirmation call is made for users No:1,2,3,4,5 when the output is turned off. s- call time in seconds	CT108 CT208 CT308 CT408 CT508	The first number refers to user number. The second number is a command and the last number refers to call time in seconds. E. g. CT408 means that if confirmation call mode is enabled, user NO4 will receive a call if he/she is trying to turn off the relay. The system will call for 8 seconds.
Enabling/ disabling confirmation SMS (SMS confirm)	SS	1,2,3,4,5	Confirmation SMS mode is enabled for users No:1,2,3,4,5.		E. g. SS124 means that when users NO1, NO2 and NO4 control the output via call they will be notified about a successful output status change by a confirmation SMS message. Before that the user has to turn on control from a particular number by using CE command.
	SC	1,2,3,4,5	Confirmation SMS mode is disabled for users No:1,2,3,4,5.	SC12345 Disabled for all users NO1-NO5.	E. g. SC124 means that when users NO1, NO2 and NO4 control the output via call the confirmation SMS message informing about the successful output status change is not sent.

Type of control via call	MS	1,2,3,4,5 and **0**	When users No:1,2,3,4,5 call the output is enabled.		The first digit refer to user number. The second digit refers to command. Therefore to set a possibility for user NO1 to enable the relay via call you have to use the command MS10
		1,2,3,4,5 and **1**	When users No:1,2,3,4,5 call the output is disabled.	MS11	The first digit refer to user number. The second digit refers to command. Therefore to set a possibility for user NO1 to disable the relay via call you have to use the command MS11
		1,2,3,4,5 and **2**	When users No:1,2,3,4,5 call output status is changed (TOGGLE)		The first digits refer to user number. The last digit refers to command. Therefore to set a possibility for user NO1 to enable the relay by one call and then disable it by the next call you have to se the command MS12
Setting relay impulse duration	MS	1,2,3,4,5 and **Th.m.s**	Setting relay impulse duration for users No:1,2,3,4,5. h- hours, m- minutės, s- seconds.		E. g. to set the timer for 5 hours 10mins 3seconds for user NO1 you have to use the command MS1T5.10.3 This means that when afore mentioned user NO1 control the relay via call the impulse duration is 5hours 10mins and 3seconds and after this period the relay returns to the previous status.

Example of SMS message configuring C1 output:

```
XXXX_SMSEXTRA:COC:CE1234,CS123,MS10,MS42,MS1T0.0.40
```

This message configures C1 output parameters.

CE1234 means that C1 output can be controlled by users NO1-NO4 (NO5 cannot control via call).

CS123 means that only users NO1, NO2 and NO3 will receive confirmation call.

MS10 means that when user NO1 calls the system he/she enables C1 input, but cannot disable it via call. The user can disable it via SMS message if he/she knows the password.

MS42 means that when user NO4 calls the system he/she will either enable or disable output C1 (TOGGLE mode is on). It depends on the relay status before making a call.

MS1T0.0.40 means that when user NO1 call the relay is turned on for 40seconds and then it automatically turns off.

To see the preset values for any command send SMS message with the same format that you use when changing parameters; only Value structure will have no value. This does not apply to MS and CT commands. When requesting MS and CT parameters MS and CT must be followed by one character – user number (1,2,3,4 or 5).:

```
XXXX_SMSEXTRA:COC:Value1,Value2,.....,ValueN
```

XXXX – user password. Value structure is Cn, where Cn is command name (2 letters).

E. g. XXXX_SMSEXTRA:COC:CE,CS,MS1,MS3

3.9.2.2 Settings of the output controlled by SMS messages

This chapter describes the ways of informing users when they are trying to enable/disable the relay via SMS messages described in chapter 3.6. Parameters are changed by sending the following SMS message to system ESIM251:

```
XXXX_SMSEXTRA:OCS:Value1,Value2,.....,ValueN
```

XXXX – user password. Value structure is CnVal, where Cn is command name (2 letters), and Val-its value (digits without spaces or punctuation marks).

Value (CnVal) – table of values

	Cn – command name (2 letters)	Val – possible command meaning.	Command description	Initial factory default values	Comments
Enabling/ disabling confirmation call (CallBack)	CB	1	Confirmation call mode is enabled for all users.		CB1 means that when users control the output via SMS message they are notified about a successful output status change by a confirmation call.
	CB	0	Confirmation call mode is disabled for all users.	CB0 Disabled for all users NO1-NO5.	CB0 means that when users control the output via SMS message they will not receive a call informing about a successful output status change.
Confirmation call duration	CT	**1; s**	All users receive confirmation call when the output is enabled; s- call time in seconds	CT12	The first digit is a command; the last digit refers to call time in seconds. E. g. CT12 means that if confirmation call mode is enabled the call will be forwarded to the user who is trying to turn on the relay. The system will call for 2 seconds.
		0; s	All users receive confirmation call when the output is disabled; s- call time in seconds	CT08	The first digit is a command; the last digit refers to call time in seconds. E. g. CT08 means that if confirmation call mode is enabled the call will be forwarded to the user who is trying to turn off the relay. The system will call for 8 seconds.
Enabling/ disabling confirmation SMS message (SMS confirm)	SB	1	Confirmation SMS mode is enabled for all users.	SB1 Enabled for all users NO1-NO5.	SB1 means that when all users control the output via SMS message they will be informed about a successful output status change by a confirmation SMS message.
	SB	0	Confirmation SMS mode is disbled for all users.		SB0 means that when all users control the output via SMS message they will not be informed about a successful output status change by SMS message.

Example of SMS message configuring C1 output ways of information:

```
XXXX_SMSEXTRA:OCS:CB1,CT13,CT06,SB1
```

This message configures C1 output parameters when controlled via SMS messages.

CB1 means that when the user enables/disables output C1 he/she receives ashort confirmation call CALLBACK.

CT13 means that when the relay is enabled confirmation call duration is 3 seconds.

CT06 means that when the relay is disabled confirmation call duration is 6 seconds.

SB1 means that confirmation message is sent informaing about enabling/disabling.

To see the preset values for any command send SMS message with the same format that you use when changing parameters; only Value structure will have no value:

```
XXXX_SMSEXTRA:OCS:Value1,Value2,.....,ValueN
```

XXXX – user password. Value structure is CnVal, when Cn is command name (2 letters).

E. g. XXXX_SMSEXTRA:OCS:CB,CT,SB

3.9.2.3 Output ontrol settings by event time

This chapter describes a possibility to control C1 output (relay) using timetable (schedule). It can be, for instance, atomatic turning on every day at 18:00 and turning off after 5 hours.

The parameters are changed by sending the following SMS message to the system ESIM251:

```
XXXX_SMSEXTRA:OCTE:Value1,Value2,.....,ValueN
```

XXXX – user password. Value structure is CnVal, when Cn is command name (2 letters), and Val-its value.

Value (CnVal) – table of values

	Cn – command name (2 letters)	Val – possible command meaning.	Command description	Initial factory default values	Comments
Setting enabling/ disabling time	WT	h.m h hour m minutes	Indicates the time for enabling or disabling C1 output in hours and minutes		E. g. WT18.10 means event start time. It can be enabling and disabling. It depends on the set ST value. A period PT must also be indicated, otherwise relay status will not change. See below.
Setting relay status, whether it is enabled or disabled	ST	1	Relay is enabled	ST1 Relay is enabled	E. g. ST1 means that when the set time comes the relay is enabled by WT command.
		0	Relay is disabled		E. g. ST0 means that when the set time comes the relay is disabled by WT command.
Setting the period of enabling/ disabling	PT	h.m h hour m minutes	Indicates the time in hours and minutes for which C1 relay status is changed.		E. g. PT1.20 means that after automatic enabling/ disabling which is indicated in WT command relay status is changed to opposite for 1 hour and 20 minutes.
Setting confirmation call for period start	CS	1	Users are notified about period start by a confirmation call		CS1 means that the preset user is informed about the period start of C1 output enabling or disabling via short call. The user is set by using UC command. See below.
		0	Users are not notified about period start by a confirmation call	CS0 Call is not made	CS0 means that nobody is informed about period start by a call.
Setting confirmation call for period end	CE	1	Users are notified about period end by a confirmation call		CE1 means that the preset user is informed about the period end of C1 output enabling or disabling via short call. The user is set by using UC command. See below.
		0	Users are not notified about period end by a confirmation call	CE0 Call is not made	CE0 means that nobody is informed about period end by a call.
Confirmation call duration	CT	**1; s**	The user receives a confirmation call when the output is enabled; s- call time in seconds	CT12	The first digit is a command; the last digit refers to call time in seconds. E. g. CT12 means that if confirmation call mode is enabled, whether for period start ot end, the call will be forwarded to the user when relay is enabled. The system will call for 2 seconds.

		0; s	The user receives a confirmation call when the output is disabled; s- call time in seconds	CT08	The first digit is a command; the last digit refers to call time in seconds. E. g. CT08 means that if confirmation call mode is enabled, whether for period start ot end, the call will be forwarded to the user when relay is disabled. The system will call for 8 seconds.
Setting the user who receives confirmations about period start/end	UC	1,2,3,4,5	Sets which user is notified about period start/end.	UC1	E. g. UC2 means that all confirmations will be delivered to user No2. Only one user can be selected.
Setting confirmation SMS message for period start	SS	1	Users are notified about period start by SMS message		SS1 means that the preset user is notified about period start of enabling/disabling C1 output by SMS message. The user is set by using UC command. See below.
		0	Users are not notified about period start by SMS message	SS0	SS0 means that nobody is informed about period start by SMS message.
Setting confirmation SMS message for period end	SE	1	Users are notified about period end by SMS message		SE1 means that the user is also notified about relay disabling by SMS message.
		0	Users are not notified about period end by SMS message	SE0	SE0 means that nobody is informed about period end by SMS message.

Example of SMS message configuring C1 output ways of information by preset schedule:

```
XXXX_SMSEXTRA:OCTE:WT20.15,ST1,PT8.0,UC2,CS1,CT13,CT06,SE1
```

This message configures C1 output parameters using a schedule.

WT20.15 means that relay enablig time is set for 20:15 every day.

ST1 means the user set the relay to turn on on that time.

PT8.5 means that the relay is enabled and is on for 8 hours and 5 minutes, and after that it turns off and turns on again at 20:15 the following day etc.

UC2 means that information about enabling/disabling is sent to user's No2 telephone.

CS1 means that the user is notified about relay enabling by a callback; the duration of the call is set by parameter CT13. CT13 means that the system calls for 3 seconds.

CT06 means that when the relay turns off after 8 hours and 5 minutes the user is notified by a call again, but call duration is 6 seconds.

SE1 means that the user is also notified about relay enabling by SMS message.

To see the preset values for any command send SMS message with the same format that you use when changing parameters; only Value structure will have no value:

```
XXXX_SMSEXTRA:OCTE:Value1,Value2,……,ValueN
```

XXXX – user password. Value structure is Cn, where Cn is command name (2 letters).

E. g. XXXX_SMSEXTRA:OCTE:CB,CT,SB

4. Appendix

4.1 Restoring Default Parameters

To restore default parameters:

- disconnect power supply and USB connector
- short circuit (connect) connectors D1 and D2
- connect power supply for 5 seconds
- disconnect power supply
- disconnect connectors D1 and D2

4.2 "ELDES Configuration Tool" Software

To confi gure the system quicker and easier as well as use more system capabilities use configuration software "ELDES Configuration Tool" which can be downloaded from our website www.eldes.lt

Before connecting USB cable to the computer read "ELDES Configuration Tool" user guide available in the program chapter HELP.

4.3 Technical Support

Indication	Possible reason
Indicator is off or not blinking	· no external power supply · circuit not properly connected · blown fuse · no network signal
Indicator blinking several times per second	· SIM card is not inserted · PIN code hasn't been disabled · Sim card not active
System does not send any SMS messages and/or does not ring	· SIM card account depleted · incorrect SIM central number · no network signal · user number is not programmed (or disabled access from unknown numbers)
Received SMS message "Incorrect Format"	· incorrect syntax · extra space symbol left in SMS message
No sound while listening to remote microphone	· microphone not connected · microphone connection incorrect
While listening to remote microphone outside noise heard	· Change the position of the microphone or its lead in respect of system panel

If your problem could not be fixed by the self-guide above, please contact your distributor or manufacturer tech support by email support@eldes.lt More up to date information about your device and other products can be found at the manufacturer's website www.eldes.lt

For notes

For notes

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