



ESIM252

GSM CONTROL SYSTEM/ GSM VALDYMO SISTEMA/
GSM СИСТЕМА УПРАВЛЕНИЯ

User Manual v2.3

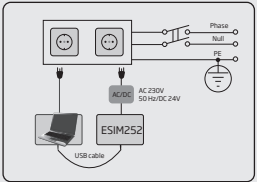
Valid for ESIM252 v2.1.04.00 and up

SAFETY INSTRUCTIONS

- Please read and follow these safety guidelines to safeguard yourself and others:
- GSM control system ESIM252 (later referred to as "the system" or "the device") contains a built-in radio transceiver operating in GSM 850/900/1800/1900 MHz bands.
 - 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.
 - 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 the 10-24V 50Hz ~200mA AC or 10-24V \equiv 200mA DC 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 - MINISMDC050F 0.5A).

Limited Liability

The buyer agrees that the system will reduce the risk of fire, theft, burglary or other danger but that it does not guarantee against the occurrence of such events. "ELDES UAB" will not take any responsibility for the loss of personal effects, property or revenue whilst using the system. The liability of "ELDES UAB" is limited to the value of the system purchased. "ELDES UAB" is not affiliated with any mobile/wireless/ cellular provider and is therefore not responsible for the quality of such services.

Manufacturer Warranty

The system carries a 24-month manufacturer warranty from "ELDES UAB". The warranty begins the day the system is purchased by the user and the receipt must be retained as proof of purchase date. 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.

Dear Customer,

Thank you for choosing to purchase the GSM control system ESIM252. 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.

UAB ELDES
www.eldesalarms.com

CONTENTS OF PACK

Item	Quantity	Item	Quantity
1. ESIM252	1	3. GSM/GPRS antenna	1
2. User manual	1	4. Plastic standoffs	4

- Not included:**
- SIM card - we recommend you get a contract SIM, not Pay As You Go.
 - miniUSB cable - can be obtained from your local distributor.

1. GENERAL INFORMATION

ESIM252 is a micro-controller based device intended to receive alarm/restore events by SMS text message or phone call and control an electrical appliance via the GSM network.

Examples of using the system:

- Access control.
- Gate control of private houses.
- Notification of system events, such as arming/disarming, alarm/restore from non-GSM alarm system.
- Non-GSM alarm system arming/disarming by SMS text message.
- Automatic output control in accordance with the scheduled time.
- Up to 5 user phone numbers for system configuration by SMS text messages, acceptance of input alarm/restore SMS text messages and phone calls, output control by SMS text message and free of charge phone call.
- Event log of 500 events.
- Periodic self-test notification by SMS text message to user phone number.
- Manual output control by free of charge phone call.
- Any electrical appliance control: lighting, watering, heating etc.
- Remote reboot of the "frozen" systems, such as computer network or a server.

Main features:

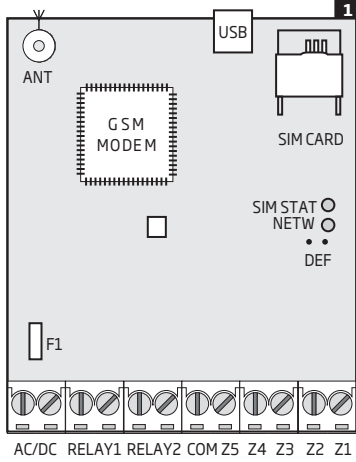
- 5 inputs with customizable alarm/restore texts.
- Up to 5 user phone numbers for system configuration by SMS text messages, acceptance of input alarm/restore SMS text messages and phone calls, output control by SMS text message and free of charge phone call.
- 2 relay outputs for electrical appliance control or non-GSM alarm system arming/disarming (key-switch).
- Manual output control by free of charge phone call.

2. TECHNICAL SPECIFICATIONS

2.1. Electrical and Mechanical Characteristics

Supply voltage	10-24V 50Hz ~ 200mA max / 10-24V \equiv 200mA max
Current used in idle state	Up to 50mA
GSM modem frequency	850/900/1800/1900 MHz
Number of outputs	2
Output type	Relay: NO (normally-open)
Maximum commuting output values	24V 50Hz ~ 0,5A / 24V \equiv 1A
Number of "low" level (negative) inputs	4
Number of "high" level (positive) inputs	1
"Low" level (negative) input value range	0... 16V \equiv -0.8... -0.4mA
"High" level (positive) input value range	5... 50V \equiv 0.17 1.7mA
"Low" level (negative) and "high" level (positive) input connection type	NO (normally-open) / NC (normally-closed)
Dimensions	87x107x29mm (3.43x4.21x1.14in)
Operating temperature range	-20...+55°C (-30...+55°C with limitations) (-4...+131°F (-22...+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	GSM/GPRS antenna SMA type connector
USB	Mini USB port
SIM CARD	SIM card slot / holder
GSM MODEM	GSM network 850/900/1800/1900 MHz modem
SIM STAT	Red light-emitting diode indicating SIM card status
NETW	Green light-emitting diode indicating GSM signal strength
DEF	Pins for restoring default settings
F1	0.5A fuse

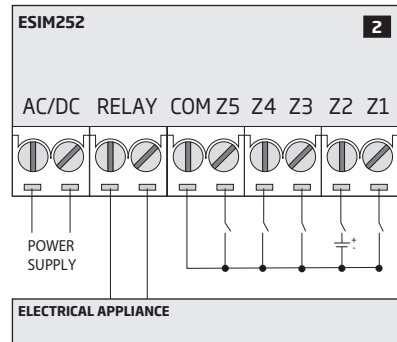
Connector Functionality	
AC/DC	Power supply terminals
RELAY1	ESIM252 output C1 terminal
RELAY2	ESIM252 output C2 terminal
COM	Common terminal
Z5	"Low" level (negative) input terminal
Z4	"Low" level (negative) input terminal
Z3	"Low" level (negative) input terminal
Z2	"High" level (positive) input terminal
Z1	"Low" level (negative) input terminal

LED Indicator Functionality

SIM STAT indication	SIM card status
OFF	No mains power / Successfully connected to GSM network
Steady ON	SIM card is attempting to connect to the GSM network / SIM card is not present / PIN code enabled

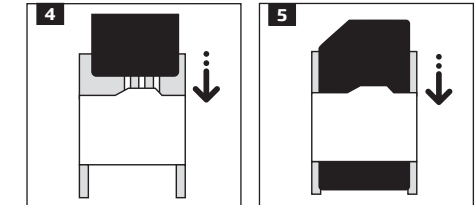
NETW indication	GSM signal strength
OFF	No GSM signal
Flashing every 1 sec.	Poor
Flashing several times per sec.	Medium
Steady ON	Excellent

2.3. Wiring Diagram



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.
- Wire up the system in accordance with the wiring diagrams (see **2.3 Wiring Diagram** for more details).
 - Connect the GSM/GPRS antenna. Based on the type of the GSM/GPRS antenna supplied with ESIM252 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 metal surface and/ or power lines
 - Disable the PIN code request of the SIM card by inserting it into a mobile phone and following the proper menu steps.
 - Once the PIN code is disabled, insert the SIM card into the SIM card slot / holder of ESIM252 system.



- over up the system and wait until indicator SIM STAT lights up indicating SIM card status.
- Once the indicator SIM STAT lights OFF, the illuminated indicator NETW lights up indicating that the system has successfully connected to the GSM network. To find the strongest GSM signal, position the GSM/GPRS antenna and follow the indications provided by NETW indicator (see **2.2. Main Unit, LED Indicator & Connector Functionality** for more details).
- Change the system language if necessary.
- Change the default SMS password.
- Set the phone number for User 1.
- Set system date and time.
- 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.

ATTENTION: The system is NOT compatible with pure 3G SIM cards. Only 2G/GSM SIM cards and 3G SIM cards with 2G/GSM profile enabled are supported. For more details, please contact your GSM operator.

ATTENTION: We also recommend you to disable **call forwarding, voice mail/text message reports on missed/busy calls ("call catcher")** and similar services that might cause incorrect system operation. Please contact your GSM 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 GSM 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.

4. GENERAL OPERATIONAL DESCRIPTION

GSM control system ESIM252 uses the GSM network for event transmission by SMS text message. When one of the 5 available listed numbers dials the system, it answers the call and the user can listen to a pre-recorded audio message. The system will ignore SMS requests and phone calls coming from non-listed phone numbers.

The system has 5 digital inputs (normally closed or normally open) for alarm system's PGM output or detection device connection, such as magnetic door contact. By connecting the input to the non-GSM alarm system's PGM output, the user will be able to receive an SMS text message or phone call regarding system alarm/restore, arming/disarming and other events depending on the alarm system configuration. In addition to being informed by SMS text message or phone call regarding alarm and restore events of the inputs, the users can control one electrical appliance by connecting it to the relay output (-s). For example, users can turn ON or OFF the heating, lighting, lift the gates, blinds etc. The output can also be used for arming/disarming by connecting it to one of the alarm system zones configured as a key-switch.

5. CONFIGURATION METHODS

5.1. SMS Text Messages

SMS In order to configure and control the system by SMS text message, send the text command to the ESIM252 system phone number from one of the listed user 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 Configuration Tool

Software *ELDES Configuration Tool* is intended for ESIM252 GSM control system 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 Configuration Tool* software, please read the user guide provided in the software's HELP section.

ELDES Configuration Tool is freeware and can be downloaded from at: www.eldesalarms.com

The WEEE (Waste Electrical and Electronic Equipment) symbol on this product (see left) means it must not be disposed of in household waste. To prevent possible harm to human health and/or the environment, you must dispose of this product in an approved and environmentally safe recycling facility. For further information contact your system supplier, or your local waste authority.



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Vartotojo vadovas v2.3

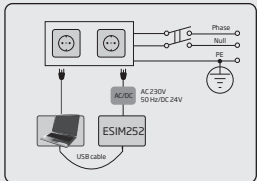
Galiauja ESIM252 v2.1.04.00 ir vėlesnei.

Saugos informacija

- Kad užtikrinti Jūsų ir aplinkinių saugumą, prašom perskaityti šias taisykles bei laikytis visų šiame dokumente pateiktų montavimo instrukcijų ir nurodymų:
- GSM valdymo sistema ESIM252 (toliau - „sistema“ arba „įrenginys“) turi įmontuotą radijo siųstuvą, veikiantį GSM850/900/1800/1900 tinkluose.
- NENAUDOKITE sistemos ten, kur ji gali sukelti grėsmę ir trikdžius, pvz. prie medicininės įrangos.
- NENAUDOKITE sistemos sprogoje aplinkoje.
- Sistema NĖRA atspari drėgmei, cheminei aplinkai ir mechaniniams poveikiams.
- NEREMONTUOKITE sistemos patys -bet kokie remonto darbai turi būti atliekami kvalifikuotų profesionalų.

! Prieš pradėdant montavimo ar derinimo darbus privaloma išjungti pagrindinį įrenginio maitinimą. Draudžiama atlikti montavimo ar derinimo darbus žaibavimo metu. Elektros lizdas, iš kurio maitinama sistema, turi būti lengvai prieinamas.

! Prašom naudoti 10-24V 50Hz ~200mA kintamosios srovės arba 10-24V \equiv 200mA nuolatinės srovės maitinimo šaltinį, atitinkantį EN 60950-1 standartą. Kiekvienas prie sistemos prijungtas susietasis įrenginys (kompiuteris, jutikliai, rėlės ir pan.) turi atitikti EN 60950-1 standarto reikalavimus. Sistemą jungiant prie maitinimo gnybtų, polių sukeltimas vietomis neturi įtakos.



! Sistemos pagrindinio maitinimo šaltinis turi būti lengvai pasiekiamas ir gali būti prijungtas tik prie kintamosios srovės tinklo, instalavimo patalpoje, turinčiame visiškai grandinę nutraukiančią automatinę apsaugą. Automatinė apsauga turi įsijungti nuo trumpojo jungimo ar viršsrovių ir turėti dvipolį atjungimo įtaisą, kuris nutraukia grandinę. Tarp nutrauktos grandinės kontaktų turi būti ne mažesnis kaip 3mm tarpelis, tuo tarpu atjungimo srovė 5A.

! Norėdami pilnai išjungti sistemą, atjunkite pagrindinio elektros maitinimo šaltinio dvipolį atjungimo įtaisą arba kitą susietąjį įrenginį, kuriuo maitinama sistema.

! Saugiklio F1 modelis - MINISMDC050F 0.5A. Perdegusio saugiklio negalima keisti kitokiu tipu nei nustatyta gamintojo.

Atsakomybės ribojimas

Pirkėjas sutinka, kad sistema sumažina gaisro, pėlišmo, vagystės ar kitą riziką, tačiau tai nėra draudimas ar garantija, kad pamėnitė veiksniai nevykys, bei nebus asmenų sužeidimų, ar turto praradimo, ar sunkiškiniio atvejų. UAB „ELDES“ neprisima jokios atsakomybės už tiesioginę ar netiesioginę žalą ar nuostolius, taip pat negautas pajamas, naujojančios sistema UAB „ELDES“ atsakomybė. kiek tai leidžia galiojantys įstatymai, nevirsija produkto įsigijimo kainos. Korinio ryšio paslaugas teikiančys GSM operatoriai nėra susiję su UAB „ELDES“ bendrove. Todėl bendrovė neprisima jokios atsakomybės už tinklo paslaugas, įp apreptį bei funkcionavimą.

Gamintojo suteikiama garantija

UAB „ELDES“ suteikia įsigytam produktui 24 mėn. garantiją. Garantinis laikotarpis pradėdamas skaičiuoti nuo produkto pardavimo pirmam galutiniam vartotojui datos. Garantija taikoma tik jei sistema buvo naudota pagal paskirtį, laikantis visų vartotojo vadovo instrukcijų, bei techninėje specifikacijoje nustatytų sąlygų ir maksimalių leistinų reikšmių. Pardavimo data laikoma čekio, sąskaitos ar kito pardavimo dokumento data. Garantija taikoma tik kartu su pamėnėtais dokumentais pateikius užpildytą garantinį taloną. Garantija netaikoma jei sistema buvo paveikta mechaniskai, cheminių medžiagų, drėgmės, korozijos, skystčių, ekstremaliu aplinkos veiksniių ar kitokių force majeure aplinkybių.

Gerbiamas kliente,

Dėkojame, kad pasirinkote GSM valdymo sistemą ESIM252. Jūsų sprendimas užtikrina patikimą sprendimą daugeliui metų, kadangi visi ELDES produktai yra gaminami, siekiant atitikti aukščiausio lygio standartus.

Mes esame įsitikine, kad jūs būsite visiškai patenkinti savo produktu. Vis dėlto iškilus problemai, prašom kreiptis į pardavėją, iš kurio pirkote šį įrenginį.

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www.eldesalarms.com

PAKUOTĖS SUDĖTIS

Elementas	Kiekis	Elementas	Kiekis
1. ESIM252	1	3. GSM/GPRS antenna	1
2. Vartotojo vadovas	1	4. Plastikiniai laikikliai	4

Nepridedama:

- SIM kortelė - rekomenduojame naudoti abonementinę SIM kortelę, o ne išankstinio mokėjimo kortelę.
- Mini-USB kabelis - galima įsigyti iš vietinio tiekėjo.

1. BENDROJI INFORMACIJA

ESIM252 - tai mikroprocesorinis prietaisas, skirtas alarmo/atsistatymo įvykių priėmimui SMS žinute arba skambučiu bei elektros prietaisų valdymui per GSM tinklą.

Sistemos pritaikymo pavyzdžiai:

- Prėėjimo kontrolė. skambučiu, kai įrenginys naudojamas su apsaugos sistema be GSM modulio.
- Nuosavo namo vartų valdymas.
- Apsaugos sistemos be GSM modulio pranešimai, tokie kaip apsaugos junginimas/išjungimas, alarmas/atsistatymas.
- Nuotolinis „pakibusios“ sistemos perkrovimas, pvz. kompiuterių tinklo ar serverio.
- Apsaugos junginimas/išjungimas SMS žinute ar nemokamu

Pagrindinės savybės:

- 5 įėjimai su redaguojamais alarmo/atsistatymo SMS žinučių tekstais.
- Iki 5 vartotojo telefono numerių, kurie skirti sistemos konfigūravimui SMS žinutėmis, įėjimų alarmo/atsistatymo SMS žinučių ir skambučių priėmimui, išėjimų valdymui SMS žinute ir nemokamu skambučiu.
- 2 rėliniai išėjimai elektros prietaisų valdymui arba apsaugos jungimui/išjungimui, kai įrenginys naudojamas su apsaugos sistema be GSM modulio (ang. „key-switch“ funkcija).
- Rankinis išėjimų valdymas nemokamu skambučiu.
- Automatinis išėjimų valdymas pagal nustatytą tvarkaraštį.
- Iki 10 audio failų, pranešančių apie įėjimo alarmo/atsistatymo įvykius.
- 500-ų įvykių sąrašas.
- Periodinis sistemos savitiktros pranešimas, siunčiamas SMS žinute vartotojo telefono numeriu.

2. TECHINĖ SPECIFIKACIJA

2.1. Elektrinės ir mechaninės charakteristikos

Maitinimo įtampa	10-24V 50Hz ~ 200mA maks. / 10-24V \equiv 200mA maks.
Vartojama srovė budėjimo režime	Iki 50mA
GSM/GPRS modemo dažnis	850/900/1800/1900 MHz
Išėjimų skaičius	2
Išėjimų tipas	Rėlinis; NO (normaliai atviras)
Maksimalios komutuojamos išėjimų reikšmės	24V 50Hz ~ 0,5A / 24V \equiv 1A
„Žemo lygio“ (neigiamų) įėjimų skaičius	4
„Aukšto lygio“ (teigiamų) įėjimų skaičius	1
„Žemo lygio“ (neigiamų) įėjimo leistos reikšmės	0... 16V \equiv -0.8... -0.4mA
„Aukšto lygio“ (teigiamų) įėjimo leistos reikšmės	5... 50V \equiv 0.17 1.7mA
„Žemo lygio“ (neigiamų) ir „Aukšto lygio“ (teigiamų) įėjimų jungimo tipas	NO (normaliai atviras) / NC (normaliai uždaras)
Matmenys	87x107x29mm (3.43x4.21x1.14in)
Darbo temperatūros diapazonas	-20...+55°C
Drėgmė	0-90% RH @ 0... +40°C (be kondensato)

2.2. Pagrindinių mazgų, LED Indikatorių ir gnybtų paskirtis

