ritm
SECURITY SOLUTIONS

Security Device

Contact GSM-2

Data sheet

Device identification number

1. General Information

Contact GSM-2 security device (hereinafter referred to as the device) is designed for protection of small premises and is essentially an independent protection device with an integrated motion detector, GSM model, and a radio channel module.

The device generates the main alarm signal, the additional wire input loop, the enclosure tampering alarm. Notification on events and alarms is done using text messages or voice calls to the owner's phone, as well as text messages submitted to the monitoring software.

The device is compatible with the following:

- Single wired alarm ribbon cable;
- Touch Memory reader;
- Up to 8 RBR1 radio key fobs.

Arming/disarming of the device may be done using:

- Radio key fobs;
- Touch Memory keys;
- Operating control contacts.

2. Manufacturer

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3. Package Contents

Contact GSM-2 Security Device	1 piece
CR123A 3B lithium battery	1 piece
Jumper 2.54 mm	2 pcs
MF-25 resistor 0.25 W 270 Ω	1 piece
Bracket	1 piece
Fastening kit	1 kit
RBR1 radio key fob (depending on package)	2 pcs
Data sheet	1 piece
Package	1 kit

4. Technical Specifications

Specification	Value
GSM, MHz	850/900/1800/1900
Notifications in the GSM network for a private phone	Text messaging; Dial-up
Method of sending notices in GSM network for monitoring software	Text messages in ContactID format
GSM network data link with NTP server[1]	GPRS
GSM radiated power	Class 4 (2 W 850/900 MHz); Class 1 (1 W 1800/1900 MHz)
Frequency range of a channel radio, MHz	433,075−434,775
Number of channels in the range, pcs	7
Transmitter radiated power, mW, not exceeding	10
Number of RBR1 radio key fobs, pcs, up to	8
Number of Touch Memory keys, pcs, up to	8 (cable length up to 15 m)
Wired ribbon cables	1, "dry contact" type
Output for connection of external siren	1, "bare collector" type
Maximum load current, A	0.5
Tamper	+
Event log, entries	1024
Main (external) DC power supply, V	12±2
Backup power supply (CR123F lithium battery), V	3
Average current consumption on backup power supply, µA, up to	100
Current consumption in data transmission mode, A, up to	2
Dimensions, mm	77×59×53.5
Weight, g	93
Operating temperature range[2], °C	−30…+50

[1] By default, time is synchronized with the server at pool.ntp.org (modification of GPRS parameters and time synchronization are done in the configuration software), and the time zone is UTC+04:00 (Moscow).
[2] Without regard to battery characteristics.

5. Designation of Elements
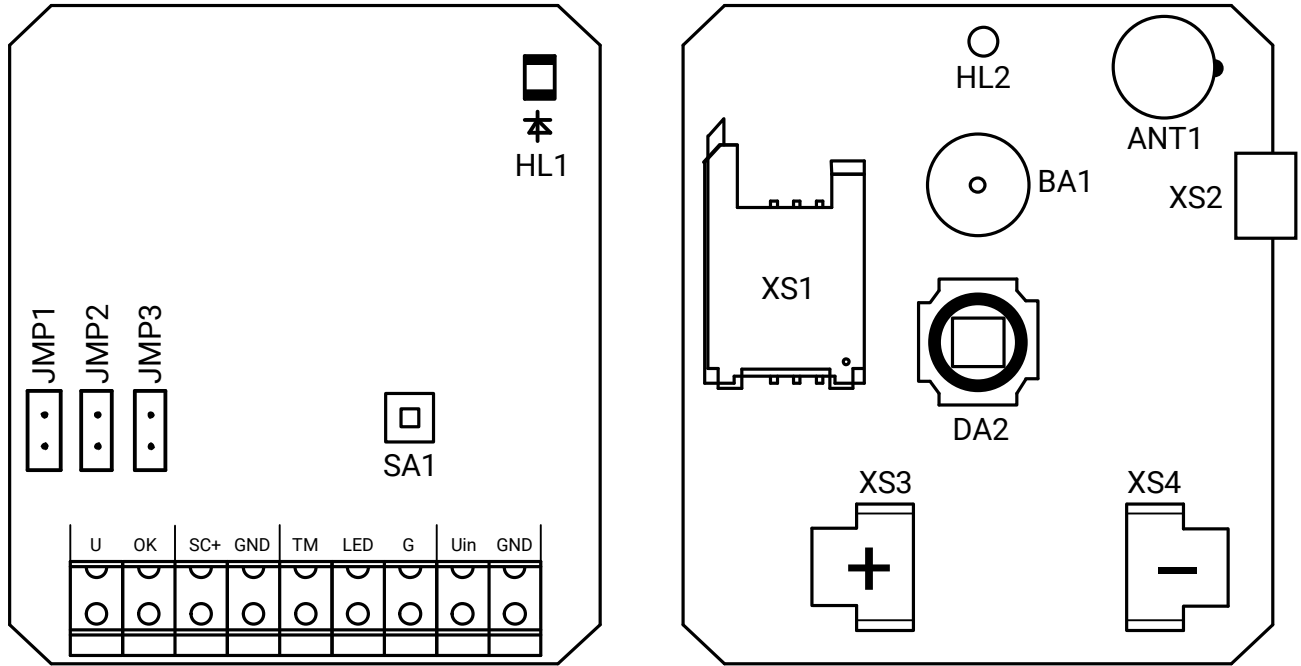
Element	Designation
ANT1	Radio channel antenna 433 MHz.
BA1	Audio indicator (buzzer).
DA2	PIR element (passive infrared sensor).
HL1	Visual indicator of GSM modem operation.
HL2	Visual indicator of device operation.
SA1	Tamper.
XS1	SIM card connector.
XS2	USB connector.
XS3, XS4	Backup battery holders.
Uin, GND	Connector for main power supply: • Uin – positive terminal of main power supply; • GND – negative terminal of main power supply.
SC+, GND	Connector for additional alarm ribbon cable.
TM, LED, G	Connector for Touch Memory reader: • TM — input (positive) for connection of TM reader signaling wire; • LED — output for connection of Touch Memory indicator; • G — common negative terminal of reader.
U, OK	Connector for external siren or actuation device: • U — positive terminal of the actuation device; • OK — negative terminal of an actuation device.
JMP1,2,3	Jumpers for switching the device operating modes.

6. Designation of Jumpers

> ⚠ **Before changing the device operating modes turn off the power and extract the backup battery!**

Installed Jumpers	Operating Mode
All jumpers removed	Standby mode
JMP1	Standalone configuration mode
JMP1 + JMP3	Reset mode

7. Visual Indication

Indicator/Buzzer	State	Note
Standby mode		
Green, without buzzer	Blinks 1 time	Motion sensor triggered.
Green + buzzer	Blinks 2 times	Disarming.
Red + buzzer	Blinks 1 time	Arming.
Red	Series of pulses	Incoming/outgoing delay countdown. The use of the buzzer is set in the configuration program.
Red + buzzer	Blinks 1 time	Alarm. he pulse duration is set in the configuration program.
Standalone configuration (without PC) mode		
Yellow	On	Jumper JMP1 is installed. The device is in standalone configuration mode.
Green + buzzer	Blinks 1 time	The radio key fob is successfully added to the radio system.
Green + buzzer	Blinks 3 times	The key fob cannot be added to the radio system since it was added earlier.
Red + buzzer	Blinks 1 time	The key fob cannot be added to the radio system — the maximum number of key fobs has been added.
Configuration mode (with PC)		
Yellow	On	The device is connected to a PC.
Reset mode		
Red	Series of pulses	Getting ready for configuration reset.
Red	On	Configuration reset to factory settings.
System indication		
HL1	Blinks frequently (3 times per second)	The device is connected to the monitoring server.
	Blinks rarely (1 time per second)	Registration in GSM network.
	Single blinks (1 time in 3 seconds)	The device modem has successfully registered in the GSM network.
	Off	The device modem is switched off.

8. Setup Using the Configuration Software

> Setup the device before mounting on the object.

1. Install the software and a driver to your PC.[3]
2. Connect Contact GSM-2 to your PC using a MicroUSB cable and run the configuration software.
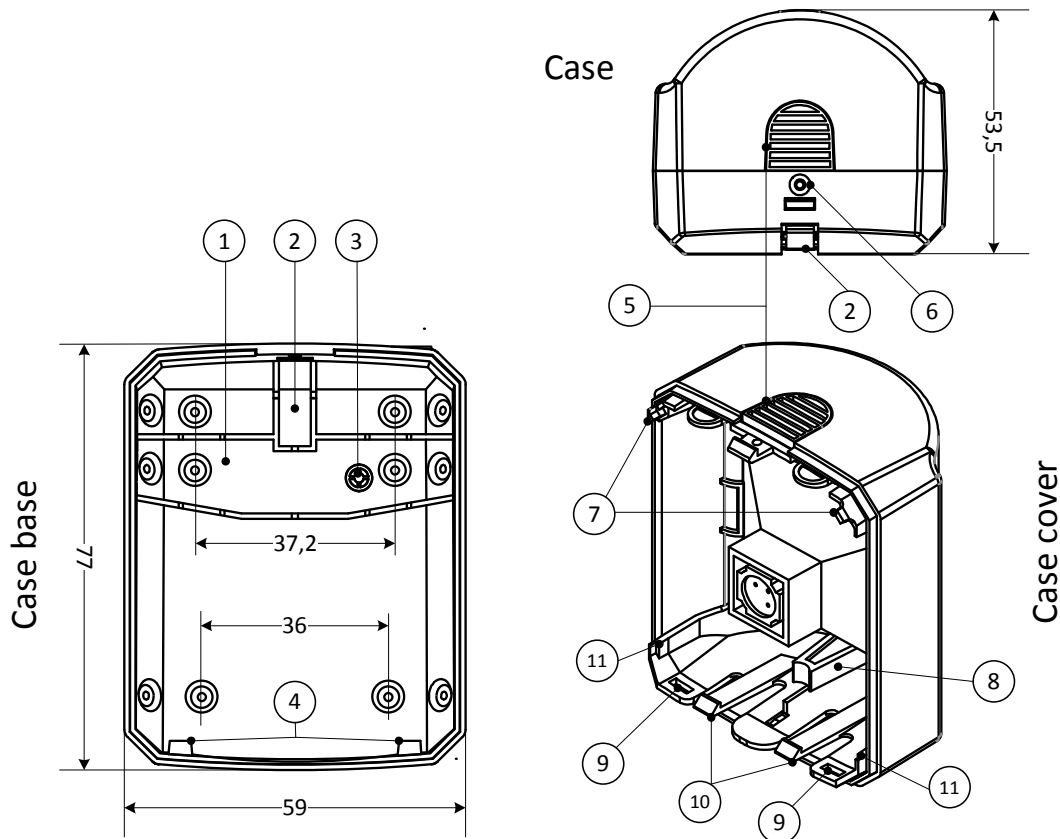3. Configure the device.

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[3] http://www.ritm.ru/en/downloads

9. Getting Ready for Operation

> ⚠ **All preparation work should be done with the power off and the backup battery extracted!**
> **Prior to inserting a SIM card into the device, insert it into a mobile phone. Turn off the PIN code entry feature and check if the SIM card account balance is positive.**

Case

Case base

Case cover

> ⓘ The device should be installed on a vertical surface at least 2.1 m above the floor.
> Do not place the device in the vicinity of EMI sources, large metal objects and structures, power cable runs, heaters, and ventilation.
> Avoid exposure of the device to direct sunlight.

1. Unscrew the screw, push the latch 5 and open the enclosure.
2. Simultaneously press out latches 10 in the enclosure and extract the device board.
3. Extract the SIM card from the phone and insert it into the **XS1** box. **Insertion of a SIM card should always be performed with the device power off!**
4. If an external power source (non-USB) is used, remove the blank plug 2, bring in input leads, and connect them to the **Uin** and **GND** connectors. **Do not apply power!**
5. If an additional alarm ribbon cable is used, remove the blank plug 2 from the enclosure base, insert the ribbon cable into the hole, and connect it to the terminals **SC+** and **GND**.
6. If a Touch Memory reader is used, remove the blank plug 2 from the enclosure base, insert the reader cable into the hole, and connect it to the **TM**, **LED**, **G** terminals.
7. If a siren is used, remove the blank plug 2 from the enclosure base, insert the siren cable into the hole, and connect it to the **U**, **OK** terminals.

> ⚠ **Siren works only if external power is connected!**
> Siren operating modes are set up in configuration software.

8. Using a bracket, attach the enclosure base at the location.
9. If tamper triggering is necessary when the device is separated from the surface, attach the enclosure base to a surface and affix the platform 1 (it has the tamper button support located on it) with self-tapping screws.
10. Observing the polarity, install the backup battery to the holders **XS3** and **XS4**.
11. Wait until the GSM modem turns on (about 10 s), determine the SIM card network registration status by the HL1 LED.
12. Bring the edge of the device board under the supports 7 and place in on the supports 11 so that the HL2 visual indicator is directly against the optical guide 8 on the enclosure cover. Fasten the board with the latches.
13. Bring the holes 9 on the enclosure cover into raised portions 4 of the enclosure base.
14. Apply external power to the device (if used).

10. Quick Setup without PC

1. Turn off external power from the device and extract the backup battery.
2. Install the **JMP1** jumper.
3. Insert the backup battery and/or apply external power. The HL2 indicator illuminates in yellow, which means the device is in the Standalone configuration mode.
4. Add radio key fobs, Touch Memory keys, and notification phone:
   - Addition of a radio key fob is done by pressing and holding any button on the key fob until the device produces an audio signal. The maximum number of RBR1 radio key fobs is 8.
   - If the device is connected to a Touch Memory reader, put a key on the reader and hold it until the device produces an audio signal. The maximum number of Touch Memory keys is 8.
   - To add a notification phone number, call to the SIM card, which is installed into the device, using this number. If several phone numbers are added, the following notification mode will be used:

Phone Number	System Events	Alarms[4]	Call Attempts
First added number	Text messaging	Voice call + text messaging	Unlimited
Other phone numbers	No	Text messaging	—

The maximum number of notification phone numbers is 8.

After all key fobs, keys, and phone numbers have been added, de-energize the device (extract the backup battery) and remove the **JMP1** jumper.

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[4] The list of all alarms and events can be found in the configuration software.

11. Reset mode

1. Turn off external power from the device and extract the backup battery.
2. Install the jumpers **JMP1** and **JMP3** and insert the backup battery and/or apply external power. After 10 seconds, all key fobs, TM keys, and notification phone numbers will be removed; a new system with a random radio channel number will then be created automatically. All events in the log will be marked as 'submitted'.
3. Turn off external power from the device, extract the backup battery, and remove the jumpers **JMP1** and **JMP3**.

12. Maintenance and Safety Measures

At least 2 twice a year check the reliability of contacts and make sure there are no mechanical defects on input leads. Keep an eye on the device's SIM card account balance. If necessary, replace the battery.

13. Transportation and Storage

The device should be transported in packaging in closed vehicles. Storage premises should be free of current-conducting dust, acid and alkaline fumes, corrosive gases and gases harmful to insulation.

14. Manufacturer's Warranties

The manufacturer guarantees that the device complies to requirements of the technical specifications, provided the client ensures compliances to conditions of transportation, storage, installation and operation.

Although **the warranty period** is 12 months from the commissioning date, it may not exceed 18 months from the production date.

The warranty storage period is 6 months from the production date.

The warranty does not cover the battery.

The manufacturer reserves the right for modification of the device in any way that does not degrade its functional characteristics without prior notice.

15. Information on Claims

In case of a device defect during the warranty period, please fill in a malfunction report specifying the dates of issue and commissioning of the device and nature of the defect and submit it to the manufacturer.