Topkodas

More than 12 years experiences of automation, security product development

Progate
GSM Gate Controller

Stay informed, take control

Quick setup guide

GSM gate controller Progate could be used for remote control of gates, barriers and other equipment. **Control gate, barriers with mobile, web app, phone call or SMS.**

Find the free configuration software Sera2 in www.topkodas.lt
For full functionality, system installation and configuration refer to installation manual. It is available in www.topkodas.lt website

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1. Specifications

Parameters of built-in GSM module:
•Modem: 4G LTE
•Sending of SMS messages
•Receiving of calls and dialing
•Data download/upload via GPRS network

Outputs (PGM):
•RELAY
•I/O1, I/O2 (1A)
•D1, 10mA, Max Voltage 3.3V
•All outputs can be controlled via mobile, web app, short call DIAL or via SMS message, iButton keys, RFID cards, Wiegand keyboard. This feature may be used for gate opening
•Output alarm parameters may be programmed.
•Programmable algorithms for outputs operation: CTRL/SMS/DIAL, SIREN, BUZER, ARM state, Zones OK, Light Flash, inverting, pulse mode

IN1/D0, IN2/D1 inputs:
•SMS text for input alarm and restore
•Monitoring via mobile, web app.
•Up to 32 sensors
•Programmable enabling or disabling of inputs;
•Burglary alarm zones. Input type NC/NO/EOL/EOL+TAMPER 5.6k+5.6k

•Analog input 0-30V
•Algorithm for zones operation: delay, follow/interior, instant/burglary, 24 hours(safe), 24 hours (silent), fire, keyswitch ARM/DISARM, follow interior STAY, instant STAY, AC power loss
•Zone speed, Event repeat timeout, Max alarm count.
•Commutation of selected output
•Control of analog sensors
•Wiegand interface IN1/D0, IN2/D1, RFID reader, Keyboard.

Inputs/outputs I/O1,I/O2:
• Programmable input or output Burglary alarm zones. Input type: NC/NO/EOL/ EOL+TAMPER
• Analog 0-30V
• Control of analog sensors

Zones: IN1/D0, IN2/D1, I/O1, I/O2

Digital input/ output D1:
•Programmable optional digital input or output
•Max. Voltage 3.3V
•Dallas 1-Wire Bus, DS18b20, DS1990A
•Aosong 1-Wire bus Humidity Sensor AM2302, DHT22, AM2305, AM2306

Module control:
ARM/DISARM of the security system via:
• Mobile, web app
•„Keyswitch" input level or pulse mode.
•SMS message 800 users
•short call DIAL 800 users
•Maxim-Dallas iButton key (iButton DS1990A – 64 Bit ID)) 800 users.
•Wiegand keypad code or RFID keycard or key fob 800 users

5V power source output for external modules:
•Voltage 5V
•Current limit 100mA

Power supply voltage:
• DC 10-30V
• AC 12-24V
• Max. Allowed ripple voltage 100mV
• Max 0.2A

Consumption current:
•In standby mode less than 50 mA.
•In dialing or SMS/GPRS sending mode less than 300 mA.

Environmental parameters:
•Storage temperature range from -40 to +85 oC / -40 iki 185 oF
•Operational temperature range from -30 to +75 oC / from -22 to 167 oF
•Max relative humidity under +40 oC / 104 oF 95%

Package weight: 90g
Module weight: 70g
**Overall dimensions of the module**: 73x62x26mm

2. Preparation procedure of the module Progate

1. Connect the GSM antenna to the antenna terminal.
2. Insert the SIM card in the SIM card holder. **Ensure that PIN request function is disabled.**
3. Connect the module to the computer via mini USB cable.

3. Install configuration software Sera2 (download from www.topkodas.lt)

For full configuration refer to installation manual. It is available in www.topkodas.lt website
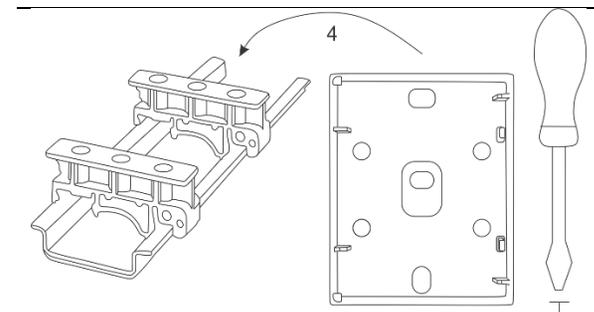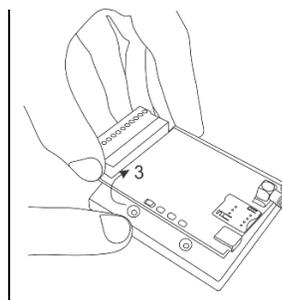
4. Installation & wiring
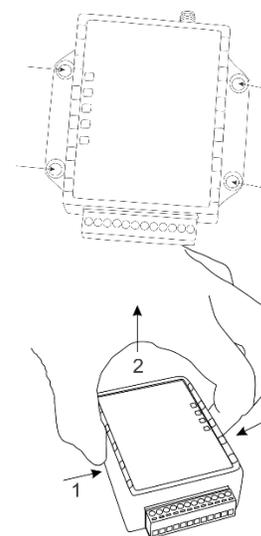
Mounting types:

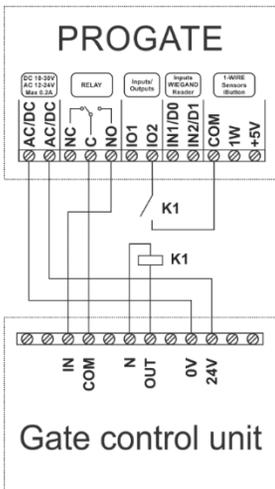Wall mounting. (No need to open enclosure!)

----------or-----------------------

DIN rail mounting

Following the connecting diagram, connect the relay contact to the device you wish to control and connect the power supply:
All wiring should be done with the power supply disconnected!

Gate control unit

Usually the contacts you need to connect from gate control unit to the Progate module are a certain input (x IN) and common terminal (COM).

The automatic gate has a gate state output (OUT) that shows when the gates are closed and when they are open. The gate's state output can be a voltage output or a relay output. In the schematic, relay K1 is connected to a voltage automated gate output. There is voltage (~230V) between the voltage outputs OUT and N of the automated gates when the gates are open. The intermediate relay K1 is turned on when the gates are open and it activates the Progate I/O2 input. The state of the Progate module's I/O2 input gives precise information about the state of the gates (when the gates are closed and when they are open).

5. LED indication

!	Do not locate SIM card with force, because you may damage SIM card holder

Meaning of LEDs

Name	Indication variations	Meaning
POWER (green)	Watchdog heart beat blinking, remains lit for 50ms, and turns off after 1000ms.	The module is functioning.
	Off	The module is out of order or no voltage
NET (yellow)	Lights continuously	Modem has been registered to the network
	Flashes, remains lit for 50ms, turns off for 300ms	Modem is being registered to the GSM network.
	Blinking fast, remains lit for 50ms turns off for 50ms	PIN code of SIM card error. PIN code request should be removed
	Off	Modem failed to register to the network.
DATA (red)	Lights continuously	The memory of the module contains unsent reports to the user or to the server.
	Off	All reports has been send.
RELAY (blue)		

1* PIN code request should be removed or correct PIN code should be entered.

6. Wiegand keypad & RFID card reader wiring
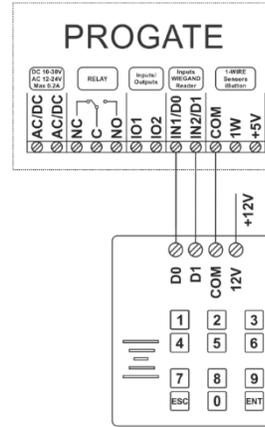
Wiegand keypad specifications:
26bit Wiegand (Default);
8bit key press code
Connect Wiegand keypad as shown in the Fig

How to configure Wiegand keypad:

-Connect Wiegand keypad as shown in the Fig

-Install SERA2 software. Device> Progate

-Connect the module to the computer via mini USB cable

i	It is possible to enter RFID Keycard codes manually or automatically via Sera2 software of SMS messages as defined below

A) Enter RFID Keycard codes manually.

In that case, you have to:
1. Go to "Users& Remote Control" table. Enter RFID Keycard number and other required parameters
2. Enter RFID Keycard codes for users.
3. Select RFID Keycard action OUT/ARM/DISARM, etc.
4. Write the configuration into the module by pressing "Write" icon

B) Enter RFID Keycard codes automatically via Sera2 software.

1. press „Learn iButtons/RFID mode" in:
SERA2> System Options> General System Options. .
2. Write configuration by pressing "Write" icon.

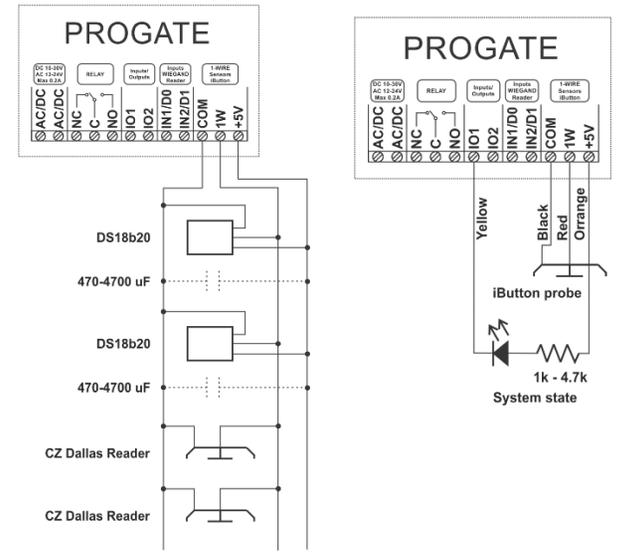### C) Enter RFID learning/ deleting mode by sending SMS message
If you need to enter RFID learning/ deleting mode by sending sms message, you have to send:

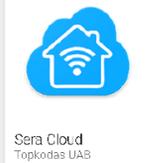INST000000␣063␣S

S=iButton keys entering/deletion mode.

0- Disable
1- Enable iButton keys learning mode,
2- iButton keys deleting mode,

7. iButton Keys

Maxim-Dallas iButton keys (iButton DS1990A – 64 Bit ID)) can be used to ARM/DISARM security panel or control selected output. Up to 800 iButton keys can be assigned to the system.

8. Install „Sera Cloud" app

Search for "Sera Cloud" app

---------Or -------

scan QR code

Search on https://play.google.com or on your Android device for "Sera Cloud" app and install.
https://play.google.com/store/apps/details?id=com.sera.cloud

1. To start the app, tap the launch icon on the home screen of your mobile device. This app requires your mobile device to be connected to the Internet.
2. Create the account and Log in
3. Press add new system in the top write corner (Near the user's icon)

Default App Key: 123456.
„User Code to Control System" must be the same as "Keypad code" in the Sera2> "User/ access control" Default 123456