

PROGATE Cellular 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. **With free mobile, web app SeraNova, free short call, SMS, iButton keys, RFID cards, Wiegand keypad.**

FREE mobile SeraNova app:

<https://play.google.com/store/apps/details?id=com.seranova.cloud&hl=en&gl=US>

FREE web SeraNova app: <https://seranova.eu/login>

Find the free configuration software SERA2 in www.topkudas.it
For full functionality, system installation and configuration refer to installation manual. It is available in www.topkudas.it website

UAB "Topkudas", JSC
Mobile: **+370 655 58449**
E-mail: **info@topkudas.lt**
<http://www.topkudas.lt>

1. Specifications

Technology platform:

LTE CAT-1 or GSM/GPRS/EDGE or CAT-M1&GSM
(More information: <https://www.topkudas.lt/product/progate-4g/>)

Administrators: up to 8

Users database (Phones, iButton, RFID, Codes): up to 800

Power supply:

AC 10-24 V 50 Hz ~ 200 mA max / DC 10-30 V 200 mA max

Current consumption in idle state w/o external devices connected: up to 50mA

Number of inputs: 2

Zone: NC, NO or EOL=5.6kΩ (settable)

Analog: 0-30V (settable)

Number of I/O input/output: 2

Open Drain 24V/1A ,

Short Circuit Protection with Auto Restart

Over-voltage Protection (Active Clamp)

Thermal Shutdown with Auto Restart

Over-current Protection

Relay Output: 1A 30 V DC, 0.5A 125 V AC

1-Wire interface:

Maxim's 1-Wire® technology

iButton Keys DS1990A;

Up to 32 temperature sensors DS18B20

Aosong 1-wire

Humidity/Temperature Sensor AM2302 DHT22

AM2305 AM2306 AM2320 AM2321;

Wiegand interface:

26-bit Wiegand format

8-bit Keypad PIN/CODE format

Buffer for unsent events: up to 3072 events

Nonvolatile flash Event LOG: up to 3072 events

Dimensions: 73x62x26mm

Operating temperature range: -20...+55 °C

Module weight: 70g

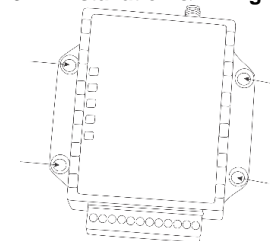
Package weight: 90g

Humidity: 0-90% RH @ 0... +40°C (0-90% RH @ +32... +104°F) (non-condensing)

2. LED indication

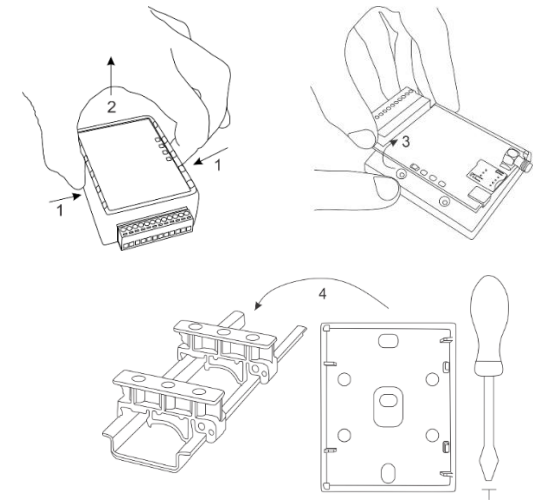
Name	Indication variations	Meaning
POWER (green)	Watchdog heart beat blinking, remains lit for 50ms, and turns off after 1000ms.	The module is functioning.
	Off	The module is out of order or no voltage
NET (yellow)	Lights continuously	Modem has been registered to the network
	Flashes, remains lit for 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)		

3. Installation & wiring



Mounting types:

- Wall mounting. (No need to open enclosure!)
- Velcro stick- on adhesive fasteners
- DIN Rail mounting
- Flush mounting over electric wall box



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!**

4. Quick set up of the controller

A nano-SIM card must be inserted into the controller. Turn off PIN code requests for the card before inserting it into the controller. Screw gsm antenna, connect power supply.

Note: The controller comes factory pre-configured to work. A first call from any phone to controller's SIM card number will turn on the RELAY output for 2 seconds. The phone number will be stored in the module's memory automatically. It will allow to control RELAY output with free short call. Calls from different phone number will be rejected. The controller can be installed without any additional configuration if such operation mode is acceptable.

For full configuration refer to installation manual. It is available in www.topkudas.lt website

5. Remote control

5.1. Control with phone call

The first one to call the controller will become the system administrator. Call the number of the SIM card inserted into the controller. The controller automatically rejects the call and turns on the RELAY output for 2 seconds and will be the only one who can administer and control the controller with free short call, SMS commands.

5.2. Control using SeraNova app

With SeraNova app users will be able to control controller remotely. They will also be able to see the system state and receive all system event messages.

1. Download and launch the SeraNova app or use the browser version of SeraNova at: <https://seranova.eu/login>

Scan a QR code with your Android Phone



2. Log in with your user name and password or register and create a new account.
3. If You don't know IMEI Send IMEI requested SMS command to the number of the SIM card inserted into the controller. IMEI request SMS: INST000000 100 1 Or got to SERA2> System Options> System Info
4. Go to SYSTEMS, Choose Add new system and enter the controller Unique ID (IMEI) number. IMPORTANT: When adding the controller to SeraNova app:

1. The Sera Cloud service must be turned on.
2. The power supply must be turned on.
3. Must be registered in to network.

Default App Key: 123456.

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

5.3. Control with SMS messages

Control the RELAY output with this SMS command:

Activate or deactivate selected output

USER123456_021_N#ST

021= command code

(Activate or deactivate selected output N)

N = output number

ST= output mode:

0 – deactivated output, 1- activated output

5.4. Setting parameters using SERA2 software

With SERA2 software you can change the controller's settings (if default settings are not enough)

1. Download the configuration software SERA2 from <https://www.topkotas.lt/downloads/> and install it.
 2. Connect the controller to a computer using a mini USB cable.
 4. Launch the configuration software SERA2. The program will automatically recognize the connected device and will Automatically open the controller configuration window.
 5. Click Read to see current controller parameters
- Note: The button Read will make the program read and show the settings currently saved on the device.

The button Write will save the settings made in the program to the device.

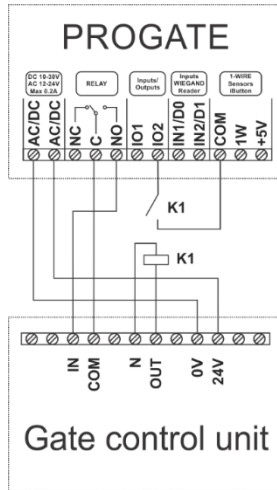
The button File > Save will save the settings into a configuration file. You can upload the saved settings to other

Devices later. This allows to quickly configure multiple devices with the same settings.

The button File> Open will allow to choose a configuration file and open saved settings.

If you want to revert to default settings, go to Update in the command line and update FW.

6. Schematic for connecting an automatic gate opener to the controller



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).

7. Wiegand keypad & RFID card reader wiring

Wiegand keypad specifications:

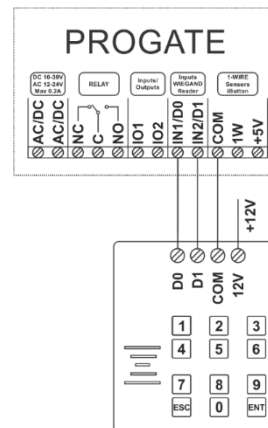
26bit Wiegand (Default);
8bit key press code
Connect Wiegand keypad as shown in the Fig

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,

8. 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.

