Mobilgate-08

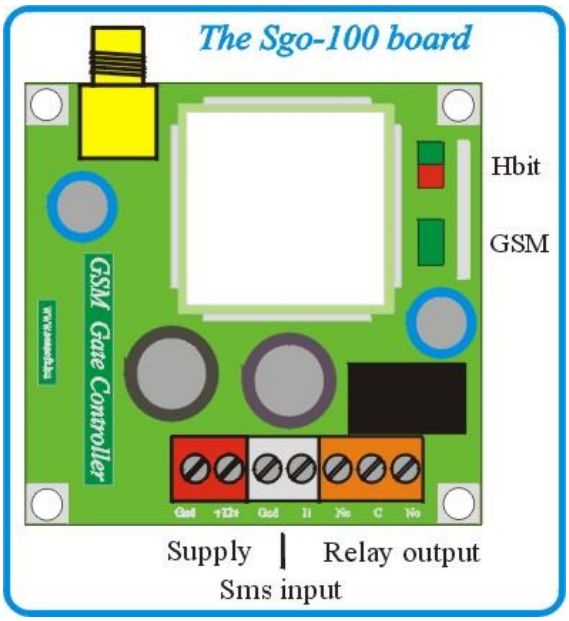
GSM based gate and barrier opener and remote control interface

The ***MobilGate-08*** is a GSM ***gate***, ***door*** or ***barrier opener*** device, developed for remote control and remote signal tasks. It has 1 ***simple input*** and 1 single circuit ***relay output***. The user can activate the relay output with a call initiated to the device. The gate opener can recognize ***8 different phone numbers***. The phone number recognition module operates only when the phone numbers of the caller are previously configured. Only in this case should switch on the relay for the configured time. The output relay is normally off. It's ***COM*** (common), ***NO*** (normally open) and ***NC*** (normally closed) contacts have been wired out. The relay can operate in ***monostable*** mode (switching it on by a phone call for a given time) or ***bistable*** (switching it on by a phone call, then switching it off by the next call). The user is informed about the module input changes in a configured SMS. The module stores the identificable numbers, the SMS content, and other data on the SIM card, which can be configured in 1-2 minutes using a cell phone during the installation. Timing can be ***set to 0-9999 sec*** (max 2.5 hours), or the device can be kept switched on for an optional time in bistable mode. When calling the device in monostable mode (value of timer is ***bigger than 0***) the relay switches on

immediately and reject the call. The caller perceives it as the call is ignored, and the number ***appears to be busy***. When calling in bistable mode (value of ***timer is 0***) the relay on the module switches for the ***third ring*** and also ***ignores the call*** in the same time. The relay switches off after the first ring when calling the module again, and it ***ignores the call*** after one ring**.** The relay has single circuit ***NO*** and ***NC*** type outputs and their maximum load can be ***48V*** and ***1A***. The GSM gate opener is manufactured only in panel design, which has tapped SMA aerial connection. A dual band straight aerial has been installed onto the tapped SMA socket on the top of the panel. The 2 connecting points on the panel's terminal blocks are destined to ***10-30 V DC*** power supply, and the 3 points of the other terminal block is the output of **NO/NC** gate controller relay. The gate opener device has a provider-independent industrial GSM module, thus it can operate with any post-paid subscription or prepaid SIM card issued by any service provider. The gate opener module does not discard any data when turning it off so it can continue to operate from the last turned on state, while the relay resets to its original state (switched off).

Wiring the *MobilGate-08* modul:

The power supply of ***MobilGate-08*** gate, door and barrier opener module is polarity-dependent, its right side has the ***10-30V*** and left side of the terminal block is the ground. The input switches for single contact, from its two points the left is the ground and the right point has to be grounded when initiating SMS. The maximum load of the low-voltage relay output is ***48V/1A***. The relay's normally closed contact ***(NC)*** and normally open ***(NO)*** has been wired out too, the relay's common point has been indicated by a ***(C)*** letter. A magnetic aerial with a 0,6m long output can also be installed instead of the tapped SMA aerial connection.



Installing the *MobilGate-08* gate opener:

Install and configure the module in the following order:

1) Put the ***SIM card*** into a handphone. (Nokia, Samsung, LG, Motorola, etc.)

2) Delete every ***phone number*** and ***SMS*** from the SIM card.

3) ***Remove the PIN code request*** (PIN code request at startup) from the SIM card.

4) ***Save the number*** of the provider's SMS center to the SIM card. Enter:

   Recipient: **SMSK** **Telephone number**: **+36 30 9888000** *(T-Mobile Hungary)*
   +36 20 9300099 *(Telenor Hungary)*
   +36 70 9996500 *(Vodafone Hungary)*

5) Then save the first phone number which has to be recognized, in i***nternational format***. Enter:

   Recipient: Telefon-1,sms **Telephone number: +36 30 123 4567** *(e.g. 1st user number)*

   Note: if this user would like to receive an SMS in case of module input activation (e.g. error signal, etc.), the word ***"sms"*** has to be typed after the phone number separated ***with a comma*** !

6) Then the other phone numbers have to be saved (max. 8 telephone number can be saved)

   Recipient: Telefon-2 **Telephone number: +36 30 987 6543** *(e.g. 2nd user number)*
   Recipient: Telefon-3 **Telephone number: +36 30 456 8901** *(e.g. 3rd user number*
   Recipient: Telefon-4,sms **Telephone number: +36 30 444 5555** *(e.g. 4th user number)*

   Note: According to the above example, the phone number no.1 and 4 will get an SMS in case of input activation. Telephone numbers are always in international format with country codes.

   Attention ! **One phone number can only appear once on the SIM card! Thus there cannot be any two identical phone numbers among the SMS number, because two or more identical phone number may lead to abnormal functioning of the device!**

7) After that, the ***relay switch time*** has to be configured in the following format:

   Recipient: Time **Telephone number: 0005** *(e.g. the relay switches for 5 secs)*

   Note: **The time always has to be given in 4 characters! The value of the timer can be between 0000 and 9999 seconds. If you give 0000, the relay will operate in bistable mode, so the relay switches on for a call and stays that way until the next call has not been received, when it releases again.**

8) After the configuration of phone numbers and relay settings, the SMS message can be configured:
   - ***remove*** the configured ***SIM card*** from your phone and ***insert*** it into the ***gate opener*** module
   - ***power up*** the ***MobilGate-08*** gate opener module at ***10-12V*** voltage
   - ***wait until*** the module connects to the network, thus the upper LED diode starts to blink with ***green light.***
   - ***send the message*** you would like to receive when the input switches on (e.g. error signal, other signal, etc.) i***n SMS*** to ***MobilGate-08*** module

9) The module is operational and it will work according to the configuration

Specifications:

Power supply:	**10–30 V DC**	Communication:	**SMS, voice**
Standby current (12V):	below **20 mA**	Aerial conn.:	**SMA straight**
Stdby current (relays off):	**20 mA**	Board length:	**50 mm**
Stdby current (relays on):	**31 mA**	Board width:	**50 mm**
Max. (communicating) current.:	**140 mA**	Board height:	**18 mm**
Frequency:	**900/1800 MHz**	Operating temp.:	**-30 to +70 C deg.**