DVC GATE
USER MANUAL
Gate opening modules

DVC - GATE 2G/2G GPS /LTE
DVC - GATE LTE ISO
DVC - GATE WiFi ISO

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1. PURPOSE AND SCOPE OF APPLICATION

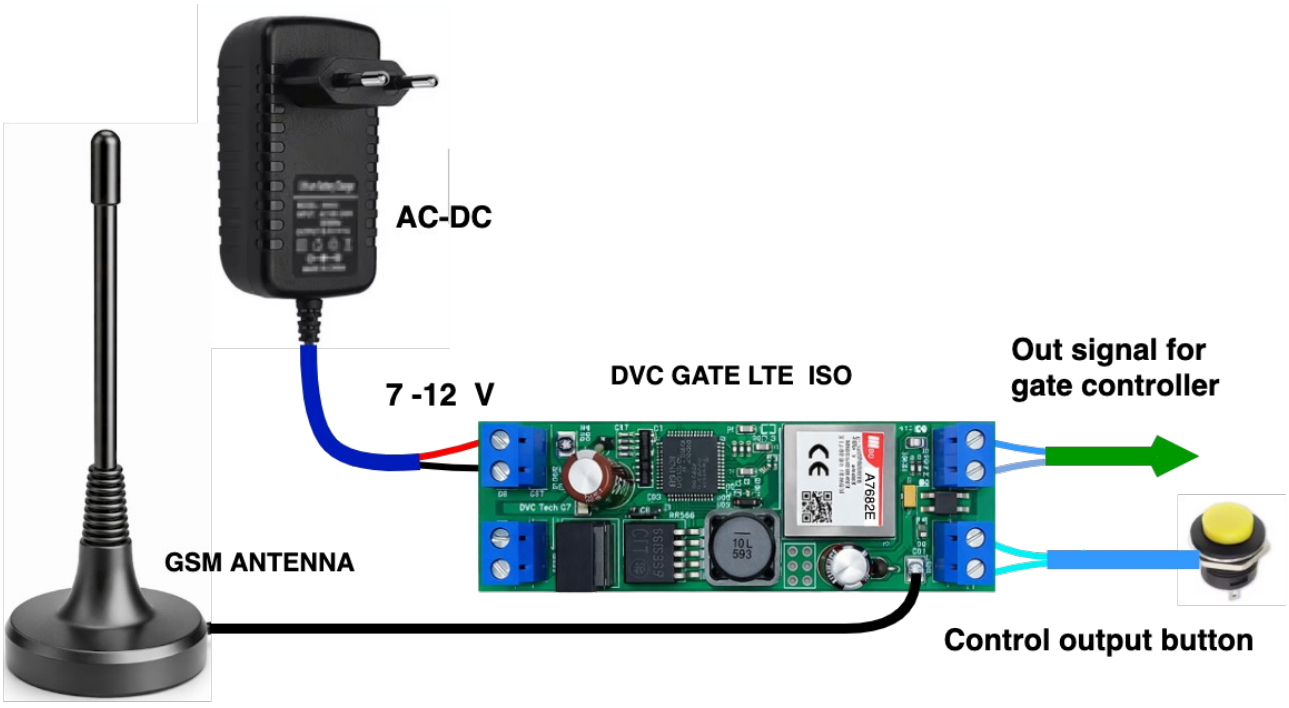
Modules of the DVC - GATE series (2G, 2G-GPS, LTE, LTE ISO, WiFi ISO) are specialized gate opening modules and are fully ready for operation as part of the cloud service:
https://gate.dvc-cloud.com/ .
*For the DVC GATE WiFi ISO model, configuration of connection to the WIFI network is required. The configuration method is given at the end of the instruction.
*If necessary, we can supply controllers with the settings of your WIFI network.

2. FUNCTIONAL CAPABILITIES

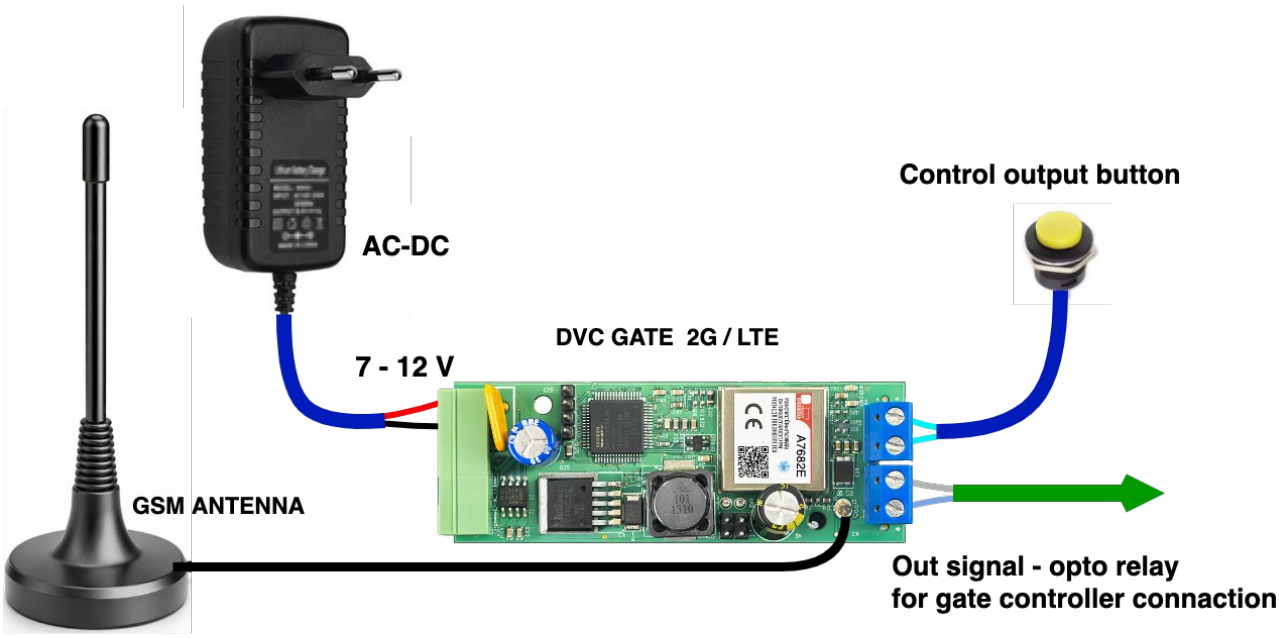
The main function of the module is remote opening of gates and barriers in multi-user mode.
Communication channels: GSM and Wi-Fi (depending on the model).
When power is supplied, the module independently establishes an outgoing TCP connection with the cloud server DVC GATE.
Configuration of the user list and gate operation schedule is carried out on the web-page:
https://gate.dvc-cloud.com/
During registration it is necessary to enter the Device ID, which is indicated on the sticker in the package.
The number of users is not limited.
Gate control is carried out via the Internet from the DVC GATE application (Android / iOS).
2.1. Appearance
The module is supplied as:
a separate electronic board for installation into an existing box;
in a 2DIN enclosure for installation on a DIN-rail;
in a sealed enclosure for outdoor installation.
2.2. Additional functions
For LTE and LTE ISO models:
when there is an incoming voice call to the SIM card of the modem, the output contacts are closed for 2 seconds.
When using DVC GATE 2G / 2G-GPS models make sure that the GSM operator supports the 2G network at the place of installation of the device.

3. CONNECTION DIAGRAMS FOR GATE CONTROL

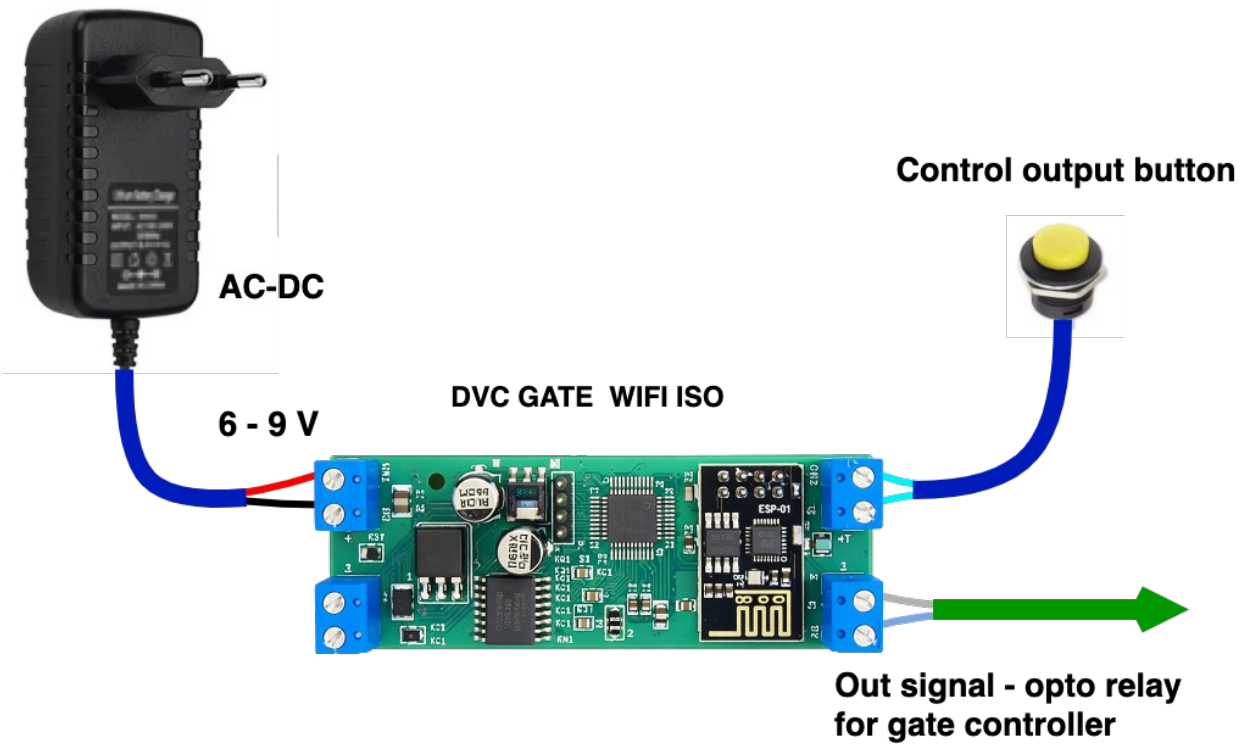
Connection diagram of the DVC GATE LTE ISO module to the gate controller Fig 1.



Connection diagram of the DVC GATE 2G / LTE module to the gate controller Fig 2



Connection diagram of the DVC GATE WIFI ISO module to the gate controller Fig 3



4. TECHNICAL SPECIFICATIONS

Parameter	Unit	Value
Supply voltage (2G/LTE)	V	7 – 12
Supply voltage WiFi ISO	V	6 – 9
Power consumption	W	0.4
Communication protocol via GSM	—	TCP/IP
Communication protocol via WiFi	—	TCP/IP
Number of RS-485 ports	—	1
Maximum RS-485 line length	m	1000
Enclosure material	—	plastic
Protection rating	—	IP20
Enclosure dimensions	mm	90×36×65
Size	—	2 DIN
Ambient temperature range	°C	-20 … +50
Relative humidity	%	30 … 80
Device weight	g	90
Network connection type	—	client
Network connection type WiFi ISO	—	Wi-Fi client

General characteristics for all models:
1 × RS-485 port (option);
1 × discrete input for manual gate control button;
1 × switched output.
Distinctive features of the models:
DVC - GATE 2G / 2G-GPS / LTE have outputs of the “open collector” type (if necessary, an external relay can be used).
DVC - GATE LTE ISO / WiFi ISO modules have an output optorelay (load up to 400 V / 150 mA).

5. SETUP AND REGISTRATION

Registration is carried out on the page:
https://gate.dvc-cloud.com/

5.1. Device registration
5.1.1. Go to the page https://gate.dvc-cloud.com/, enter your phone number, the Device ID of your module / in the package /, create a name of the object which you will control.
5.1.2. Add a list of users who have the right to open the gate at this object. It is necessary to enter their phones and e-mail.
5.1.3. If necessary create a schedule when the gate or barrier must be open permanently or vice versa — closed without the possibility to be opened.

5.1.4. It is also possible to create a list of mobile phones, calls from which lead to closing of the output contacts of the DVC - GATE module, and send it to the memory of the module.

6. CONNECTION

6.1. Connect the DVC - GATE LTE or WiFi module according to the connection diagram from this instruction.
6.2 Connect the output contacts of the module to the control input of the gate or barrier controller (input type “button” / “dry contact”). When using DVC 2G/ LTE GATE the open collector can be connected directly to the input of the gate controller or an intermediate relay can be used.
6.3. Insert the SIM-card into the SIM-holder on the lower part of the board of the module (for GSM-models).
6.4. Apply power:
9–12 V for DVC - GATE LTE / 2G / 2G-GPS
6–9 V for DVC - GATE WiFi ISO
6.5. After 30 seconds the module will connect to the service and will be ready for operation.
6.6. On the page in your account for this object press “Test” to check the operation of the module: https://gate.dvc-cloud.com/

7. PACKAGE CONTENTS

1. DVC - GATE module (+ sticker with Device ID) — 1 pc.
2. Technical passport (this document) — 1 pc.
3. Individual packaging — 1 pc.

8. STORAGE AND TRANSPORTATION CONDITIONS

Storage: in the manufacturer’s packaging at temperature from -20 to +40 °C, humidity up to 80%.
Transportation: by any type of covered transport.

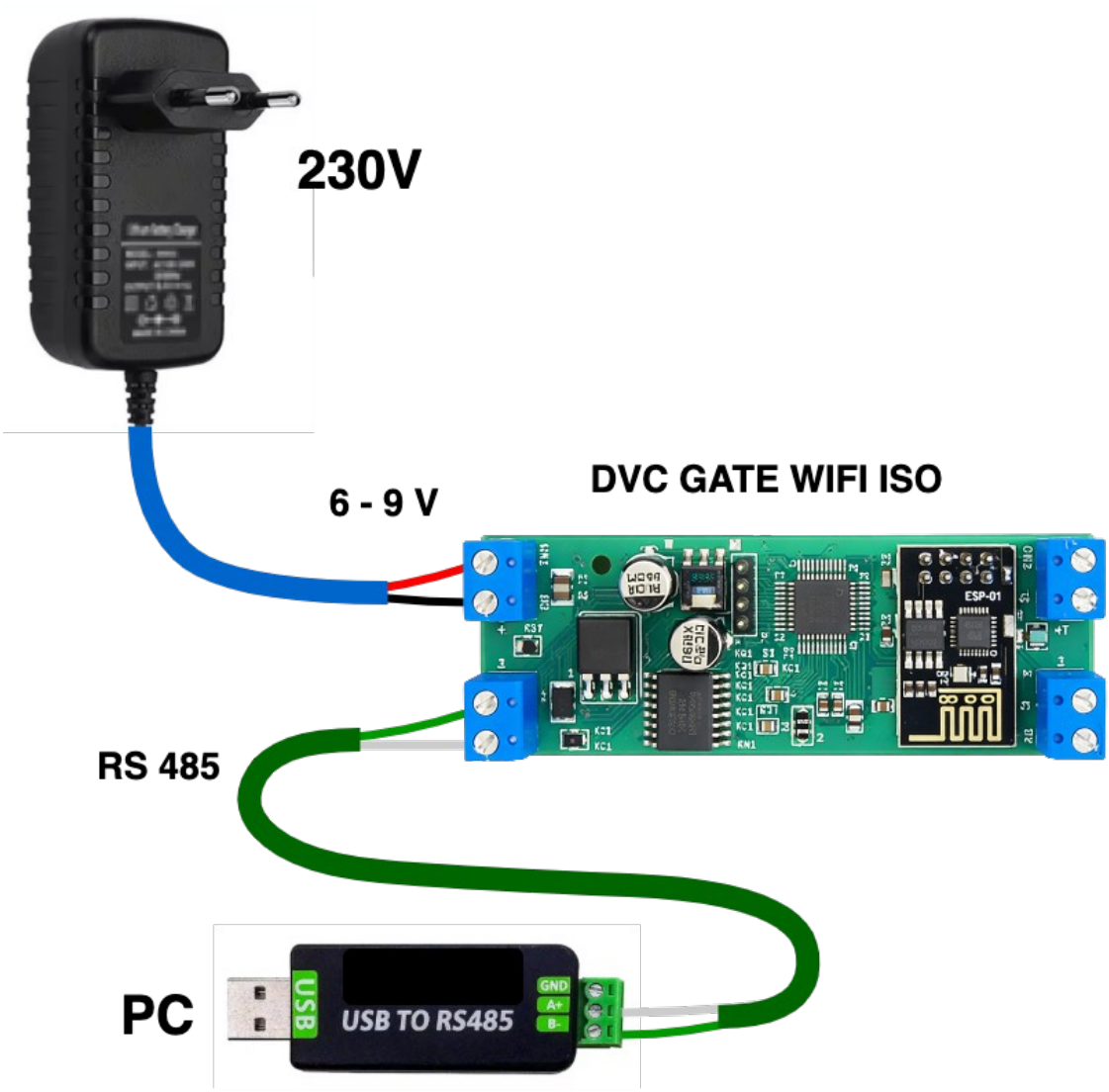
9. WARRANTY OBLIGATIONS

Warranty period of operation: 12 months from the date of purchase.
The warranty applies to defects that arose due to the fault of the manufacturer.
Attention: The manufacturer http://www.division.business reserves the right to make changes to the design that improve operational characteristics without deterioration of the main parameters.

10. SETTING UP THE CONNECTION OF THE DVC GATE WIFI ISO MODULE TO THE WIFI NETWORK

1. Download the terminal program Hercules https://www.hw-group.com/software/hercules-setup-utility and run it under OS Windows.

Connection diagram of DVC GATE WIFI ISO for configuration of access to the WIFI network Fig. 4



Connect contacts A and B of the standard converter
USB — RS485 to terminals A and B of the DVC GATE WIFI ISO module and connect
USB connector to the computer as shown in Fig.4 .
Apply power 6..9 V to DVC GATE WIFI ISO.

2. Starting the terminal: Open the Hercules program and select the Serial tab.
3. On the right there is COM-port configuration of the Hercules program, select:
   * Speed: `9600`
   * Data bit: `8`
   * Parity: `None`
   * Stop-bits: `1`
   * Below press Open to start operation of DVC GATE WIFI ISO with Hercules.

In Fig. 4 a visual connection diagram of the DVC GATE WIFI ISO modem for configuration of Wi-Fi network parameters is shown.

5. Make sure that the access point (router) is turned on, prepare SSID (network name) and password.
6. Send the command for configuration of parameters of your Wi-Fi network :

7. :CMD{SSID_PASSWORD:"NETWORK_NAME","PASSWORD";}CRC:1234<CR><LF>
8. After that the module connects to the Wi-Fi network and in a few seconds to the server https://gate.dvc-cloud.com/

If necessary, you can send us the name and password of the WIFI network in which your gate control module will operate and our specialists will configure and send you a configured WIFI module for your WIFI network

info@division.business