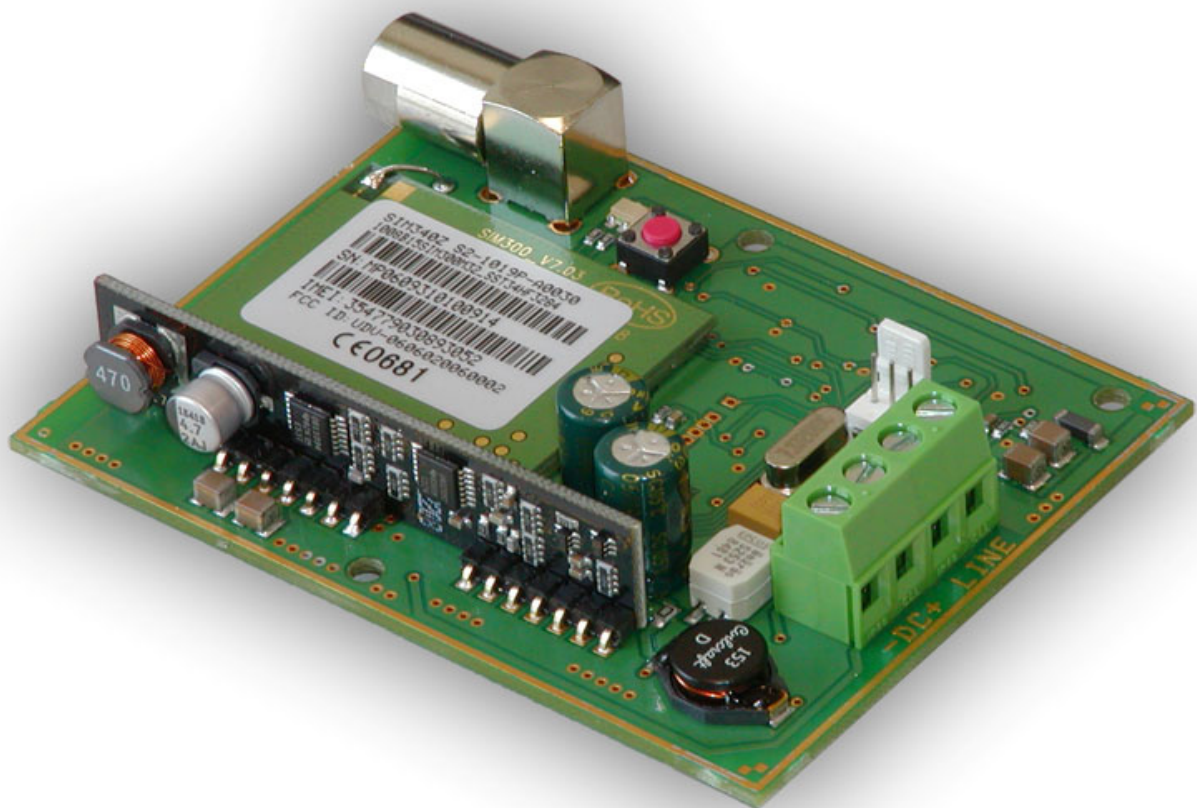


ECOLINE GSM Adapter

INSTALLATION AND APPLICATION MANUAL

for module version v1.15 and higher

Rev. 1.1 16.05.2011



1 Application areas

Adaptation to GSM network of alarm control panels which are equipped with PSTN line communicator to send reports to monitoring station using DTMF based protocols (Contact ID, Ademco Express); the module makes possible the installation of such alarm systems in places where PSTN line is not available but reporting to monitoring station is requested. The module may also be used as phone line substitute, GSM line simulator; by connecting a wired phone device to the module, incoming and outgoing calls can be performed through the GSM network.

2 Functions

- Adaptation to GSM network
- Forwarding of incoming SMS messages to one adjustable phone number
- SMS forward limit (max. 5 messages/12 hours)
- Call duration limit (max. 25 minutes/call)
- Voice dialer support
- GSM signal strength query using the function button

3 Settings

- **Setting the phone number for SMS forwarding function**

The module can forward the SMS messages received on the inserted SIM card to one adjustable mobile phone number. To adjust the phone number, connect a wired phone device to the module's "LINE" terminals, then pick up the receiver and dial the following:

- to set new phone number: ***1234**phone number*#**
- to delete phone number: ***1234*#**

After setting or deleting the phone number the module confirms the execution by emitting a buzz tone through the phone. When a new phone number is set, the module sends as a confirmation a test SMS to the given phone number with the following message: „SMS-Forward settings accepted”.

SMS forward limit: the module is equipped with automatic limitation of outgoing SMS messages. The function allows forwarding of 5 messages/12 hours.

- **Voice dialer support**

One main characteristic of voice dialers is that they used to start playing the message if they detect no ringtone on the line in a certain time.

By enabling this function, the module generates a simulated tone signal until the call is received. This way can be avoided that the voice dialer starts to play the message before receiving the call. By default, this function is disabled. To enable/disable voice dialer support, connect a wired phone device to the module's "LINE" terminals, then pick up the receiver and dial the following:

- to enable voice dialer support: ***0000*1#**
- to disable voice dialer support: ***0000*0#**

After entering the activation or deactivation command, the module confirms the execution by emitting a buzz tone through the phone.

- **GSM signal strength query**

To get the current GSM signal strength, press shortly the pushbutton found on the module. Thereafter the number of red blinks of the LED found on the module indicates the signal level on a 5-point scale.

- **Resetting the module**

The module's settings (SMS forwarding, voice dialer support) can be reverted to factory default by keeping pressed the pushbutton found on the module for at least 5 seconds.

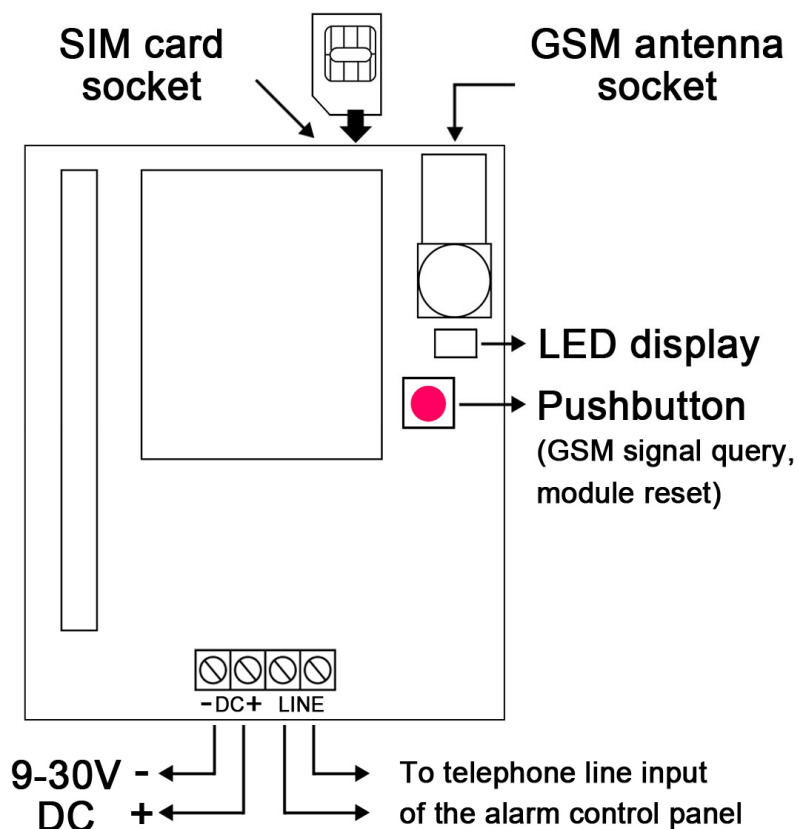
- **Service port**

The 3-pin service connector found on the module serves for diagnostics and eventual firmware upgrade. For its use, a special USB cable is necessary which can be ordered separately from the manufacturer. The Ecoline module can be monitored through the service port using the programming software of the GSM Adapter Mini.

4 LED signals

Red is continuously lit	GSM network is unavailable, or phone restart/power up in progress
Green blinks impulsely, Red is not lit	GSM network is available, standby status
Green is continuously lit	Incoming or outgoing call in progress
Red performs a determined number of blinks after pressing the program button	GSM signal strength is displayed
Red and green blink alternately after the pushbutton was pressed >5 seconds	Module reset in progress

5 Wiring diagram



6 Installation guide

6.1 Mounting

- Test the GSM signal strength with your mobile phone. It may happen that the signal strength is not sufficient in the desired mounting place. In this case the planned installation place can be changed before mounting the device.
- Do not mount the unit in places where it can be affected by strong electromagnetic disturbances (e.g. in the vicinity of electric motors, etc.).
- Do not mount the unit in wet places or places with high degree of humidity.
- Connecting the GSM antenna: the GSM antenna can be fixed in the FME-M socket found on the panel. The antenna supplied with the module provides good transmission under normal reception circumstances. In case of occasionally occurring signal strength problems or/and wave interference (fading), use another (directed) type of antenna or find a more suitable place for the module.

6.2 Putting into operation

- Disable PIN code request, voicemail and notification in SMS about missed calls on the SIM card placed into the module.
- Enable caller ID sending service on the SIM card at the GSM service provider.
- Insert the SIM card as shown in the wiring diagram and push it into the socket until it clicks. If you wish to remove the SIM card, press it again on the part which is outside of the socket.
- Check the antenna to be fixed properly to the Ecoline module.
- Check the wires to be connected as shown in the wiring diagram.
- The device can be powered up. Make sure that the power supply is sufficient for the load of the module. The quiescent current of the module is 100mA, however it may increase up to 400mA during communication.

7 Technical details

7.1 Technical specification

Supply voltage:	9-30VDC
Nominal current consumption:	100mA @ 12VDC, 54mA @ 24VDC
Maximum current consumption:	400mA @ 12VDC, 200mA @ 24VDC
Operating temperature:	-20°C - +70°C
Transmission frequency:	GSM 900/1800, 850/1900 MHz
GSM phone type:	Simcom SIM900
Dimensions:	84 x 64 x 19mm
Weight:	80g (packed: 100g)

7.2 Generated phone line specification

Line voltage:	48 V
Line current:	25 mA
Line impedance:	600 Ohm
Ringing voltage:	±72V (25 Hz)
Dial tone:	400 Hz

7.3 Contents of the package

- ECOLINE module
- GSM 900MHz / 1800MHz antenna
- Plastic spacer support / snap fasteners
- Application manual, warranty card