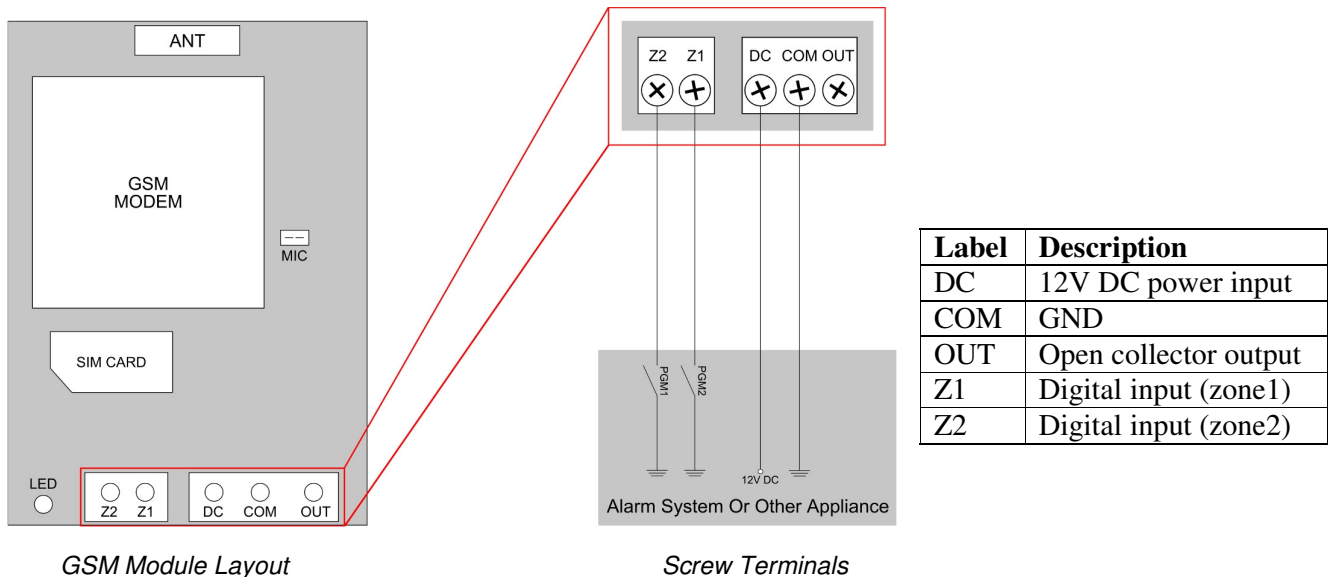![SmartGuard®]

SmartGuard GSM Module - E18SGGSM
User Manual

1. Overview

The SmartGuard GSM Module uses the GSM network to transmit information coming from connected equipment to authorised users e.g. send alarm notification from an intruder alarm panel to a mobile phone. The SmartGuard GSM Module has two normally open digital inputs (zone1 & zone2).

The SmartGuard GSM Module can also be used to send commands to electrical equipment e.g. remotely turn central heating on in a house from a mobile phone. The SmartGuard GSM Module has one open collector output.

2. Connections

GSM Module Layout

Screw Terminals

Label	Description
DC	12V DC power input
COM	GND
OUT	Open collector output
Z1	Digital input (zone1)
Z2	Digital input (zone2)

LED Indicator Status	Status
Off	No network connection
Flash every 1 second	Not synchronized with network
Flash every 2 seconds	Synchronized with network

3. System Notes

1. The GSM module should be fixed to a wall using 4 screws.
2. Do not install the GSM unit onto metal as this will reduce signal strength.
3. The SIM card's PIN code must be disabled.
4. Any SMS messages stored on the SIM card will be deleted during the system start-up.
5. Power supply cables should be connected last when wiring (see 2. Connections).
6. System start-up should take less than one minute.

4. Operation

a. Saving users' phone numbers to the SIM card using a mobile phone

Two user phone numbers can be saved to the SIM card by inserting it into a mobile phone. The two phone numbers must be saved on the SIM card memory (not the phone memory) as 'User1' and 'User2'. If only one user phone number is required, it should be saved to the SIM card as 'User1'.

b. Saving a user's phone number to the SIM card using a phone call

Only one user's phone number can be saved to the SIM card in this manner. Insert the SIM card into the SmartGuard GSM Module and make a phone call to it from the phone number you wish to save as 'User1'. Note: For this method to work, there most be no existing phone numbers saved as 'User1' or 'User2' on the SIM card and the phone must not have its phone number blocked.

c. Changing users' phone numbers on the SIM card using an SMS text message

The user phone numbers can be changed by sending the SIM card an SMS text message from a phone number that is already saved on the SIM card as 'User1' or 'User2'. Insert the SIM card into the SmartGuard GSM Module. To save the 'User1' phone number, send the SIM card an SMS text message in the following format: NR1:xxxxxxxxxx (where x = the user's phone number). This process can be repeated for the 'User2' phone number by using the following format: NR2:xxxxxxxxxx.
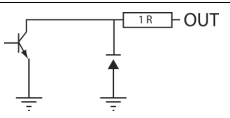
d. Reporting of triggered inputs

When a digital input (zone1 or zone2) is triggered, the users are informed by an SMS text message containing the text 'Triggered ZONE1' or 'Triggered ZONE2'. When a digital input is reset, the users are informed by an SMS text message containing the text 'Restored ZONE1' or 'Restored ZONE2'.

e. Triggering outputs

The open collector output can be triggered by sending the GSM module an SMS text message from the saved 'User1' or 'User2' phone numbers. To turn the output on, the SMS text message sent should say OUT:ON. To turn the output off, the SMS text message sent should say OUT:OFF.

5. Technical Specifications

Supply Voltage	9-15VDC 300mA max
Current used in standby mode	30mA max
GSM modem frequency	850/900/1800/1900 MHz
Number of digital inputs (normally open)	2
Allowable digital input voltage values	0-30V
Impulse duration	>600ms
Number of outputs (open collector)	1
Output maximum switching ratings	Current – 500mA, voltage – 30V
Output circuit	Open collector output. Output is switched to COM when enabled.
Dimensions	108 x 52 x 30mm
Operating temperature range	-35°C ~ +55°C

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