



## List of Contents

<b>1</b>	<b>FEATURES</b>	<b>3</b>
<b>2</b>	<b>SYSTEM INFORMATION</b>	<b>4</b>
	2.1 Supported Bands	4
	2.2 Environmental	4
	2.3 SIM Card	4
	2.4 SMS	4
<b>3</b>	<b>INSTALLATION</b>	<b>5</b>
	3.1 SIM interface	5
	3.2 SIM card installation	5
	3.3 Antenna installation	6
	3.4 GSM-SMS module installation	6
<b>4</b>	<b>SMS COMMANDS</b>	<b>8</b>
	4.1 Set Sending Interval	8
	4.2 Set Phone Number	8
	4.3 Set GSM Service Center Address	9
	4.4 Stop SMS sending	9
	4.5 Start SMS sending	9
	4.6 Set                      Sending                      on                      Event	
	Error! Bookmark not defined.	
<b>5</b>	<b>DEFAULT SETTINGS</b>	<b>10</b>
	5.1 Default settings of GSM-SMS module	10

# 1 FEATURES

- The MAGB1 sends the flow rate and the total volume by SMS at specific intervals.
- Specific interval of sending SMS is possible to setup, by sending an SMS.
- The SMS is sent to a specific phone number or SMS server (up to 3 phone numbers)
- Authorization is according to the unit number of MAGB1 transmitter and the SIM phone number.
- The user can send the SMS commands by a remote SMS server or a phone (5 minutes after plug in battery).

## **2 SYSTEM INFORMATION**

### **2.1 Supported Bands**

- Quad Band: 850/900/1800/1900 MHz

### **2.2 Environmental**

- Operating temperature: -20 °C +60 °C

### **2.3 SIM Card**

- 3.0V
- STK 3.1

### **2.4 SMS**

- The SMS, is as defined within the GSM 850/900/1800/1900 digital mobile phone standard.
- A single short message can be up to 160 characters of ASCII text in length (7-bit coded).
- Message text can comprise words, numbers or an alphanumeric combination.

## 3 INSTALLATION

- Open the transmitter.
- Unplug the battery.
- Deactivate the SIM card PIN lock.
- Insert the SIM card to the GSM-SMS Module, see picture 1.
- Plug-in the GSM-SMS module into the transmitter (into same port as GPRS Module, see picture 3).
- Install external antenna to the GSM-SMS Module.
- Plug-in the GSM-SMS module battery.
- Plug-in the MAGB1 main battery

### 3.1 SIM interface

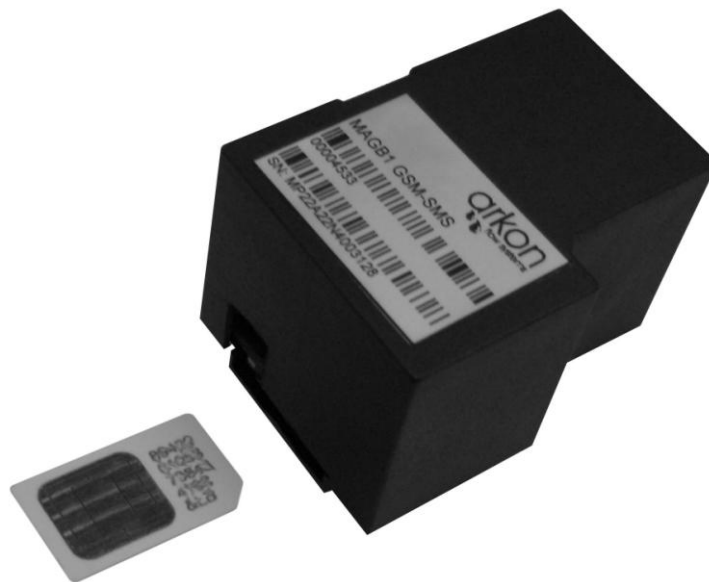
Before inserting or replacing SIM card – MAGB1 transmitter must be switched off!  
Otherwise, MAGB1 transmitter, SIM card or GPRS module may get damaged!

The GSM-SMS module incorporates a SIM interface, which conforms to the GSM 11.11 and GSM 11.12 standards that are based on the ISO/IEC 7816 standard. These standards define the electrical, signaling and protocol specifications of a GSM SIM card.

The manufacturer does not supply the SIM card, which is mandatory for a connection to the GSM network! The SIM card may be purchased from your GSM (mobile) service provider!

### 3.2 SIM card installation

Insert the SIM card to the GSM-SMS module according to picture bellow.



**Picture 1. SIM card installation into the GSM-SMS Module**

### 3.3 Antenna installation

Install antenna according to pictures below.



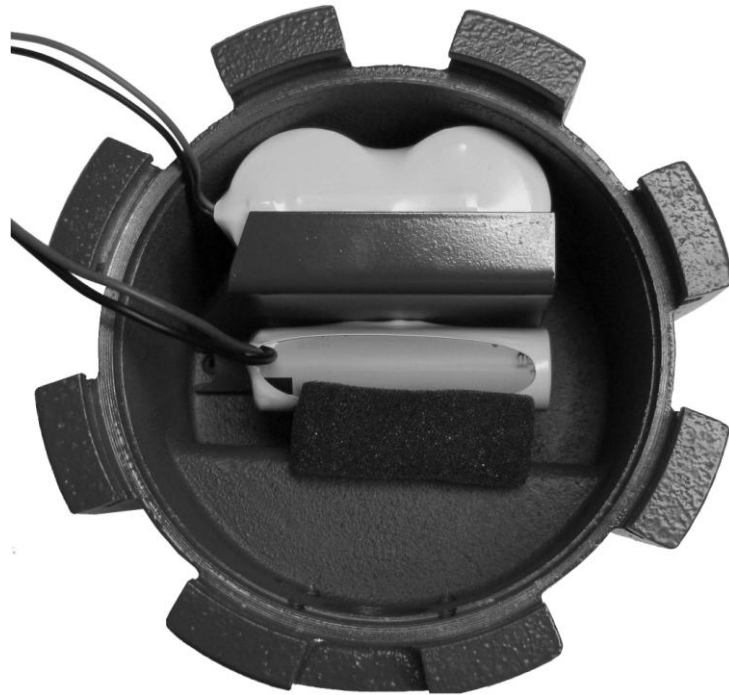
Picture 2. Antenna installation

### 3.4 GSM-SMS module installation,

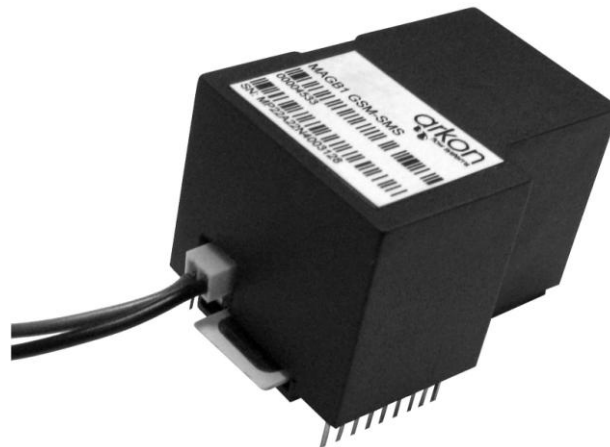


Picture 3. Install GSM-SMS Module into the transmitter



### 3.5 GSM-SMS module battery



Picture 4. Install GSMS-SMS battery



Picture 5. Plug-in the GSM-SMS module battery

	Warning electrostatic sensitive device.
	Any connection or disconnection of any module has to be done with the battery switched off.

## 4 SMS COMMANDS

### 4.1 Set Sending Interval

This command sets up the sending interval and the GSM-SMS module confirms the settings immediately by SMS. **This function works 5 minutes after plugging battery.**

Query:

SET INTERVAL UNITNO MMMM – MMMM means number of minutes for sending interval.

Syntax	Response example	Remarks
SET INTERVAL 01234567 0120	INTERVAL 01234567 0120	GSM-SMS module sends every 2 hours flow and totalizers to specific phone numbers.

Every 2 hours GSM-SMS module sends data in following format:

UNITNO 01234567 2010.05.12 16:02 FLOWRATE 12.3 M3/H TOTALPOS 254.32 M3 TOTALNEG 12.58 M3 BATT 100% GSMBATT 76%  
UNITNO 01234567 2010.05.12 18:02 FLOWRATE 10.5 M3/H TOTALPOS 344.12 M3 TOTALNEG 13.11 M3 BATT 80% GSMBATT 50%

### 4.2 Set Phone Number

This command sets up the phone number and the GSM-SMS module confirms the settings immediately by SMS. **This function works 5 minutes after plugging battery.**

Query:

SET PHONE1 UNITNO NUMBER OR NONE  
SET PHONE2 UNITNO NUMBER OR NONE  
SET PHONE3 UNITNO NUMBER OR NONE

UNITNO means the unit number of MAGB1 where the query is sent.

UNITNO is used for authorization.

NUMBER means requested phone number for sending interval.

Parameter NONE erases existing phone number.

It is possible to set up to 3 phone numbers. GSM-SMS module sends data from MAGB1 at specific intervals to all 3 phone numbers. It is possible to set up just one or two phone numbers.

Syntax	Response example	Remarks
SET PHONE1 0123456 +420123456789 SET PHONE2 0123456 +987654321 SET PHONE3 0123456 NONE	PHONE1 0123456 +420123456789 PHONE2 0123456 +987654321 PHONE3 0123456 NONE	GSM-SMS module sends data in specific intervals to all 3 phone numbers.



All phone numbers must be in international format (for example +420123456789)



### 4.3 Set GSM Service Center Address

This command sets up the GSM service center address and the GSM-SMS module confirms the settings immediately by SMS. **This function works 5 minutes after plugging battery.**

Query:

SET GSMSERVICE UNITNO ADDRESS

UNITNO means the unit number of MAGB1 where the query is sent.

UNITNO is used for authorization.

ADDRESS means the phone number of the Service Center.

Syntax	Response example	Remarks
SET GSMSERVICE 01234567 +420603052000	GSMSERVICE 01234567 +420603052000	This command sets the service center address.



All phone numbers must be in international format (for example +420123456789)

### 4.4 Stop SMS sending

This command stops the SMS sending by GSM-SMS module. The GSM-SMS module confirms settings immediately by SMS. **This function works 5 minutes after plugging battery.**

Query:

STOP SMS UNITNO

UNITNO means the unit number of MAGB1 where the query is sent.

UNITNO is used for authorization.

Syntax	Response example	Remarks
STOP SMS 01234567	0123456 SMS SENDING STOPPED	This command stops the SMS sending.

### 4.5 Start SMS sending

This command starts the SMS sending by GSM-SMS module. The GSM-SMS module confirms settings immediately by SMS. **This function works 5 minutes after plugging battery.**

Query:

START SMS UNITNO

UNITNO means the unit number of MAGB1 where the query is sent.

UNITNO is used for authorization.

Syntax	Response example	Remarks
START SMS 01234567	01234567 SMS SENDING STARTED	This command starts the SMS sending.

## 5 DEFAULT SETTINGS

### 5.1 Default settings of GSM-SMS module

- None of the three possible phone numbers is set.
- Sending SMS intervals is stopped.
- Sending interval is set to 720 minutes (12 hours).
- Service center number is set by the default profile of settings stored in the SIM card, which is usually pre-set by the mobile network operator.

#### ERROR CODES

##### E0800 - GSM SMS overhang

- Too many SMS messages on the SIM card. GSM-SMS module checks the first 15 SMS messages. To resolve this error and correct functionality of the GSM-SMS module delete messages on the SIM card.

##### E0400 - GSM timeout

- GSM-SMS module was not able to send interval

##### E0200 - GSM init error

- PIN code is set on your SIM card or there is no signal.