USER MANUAL

MyALARM2 SERIES

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Date	Revision	Changes
04/06/2013	18	MyALARM2 GPS chapter corrections GPS Signal chapter corrections GSM level scale changed System log file “syslog.csv” modified Changed GSM signal log from /7 to value in dBm SMS command added: Get GSM
27/06/2013	19	Added SMS commands for managing analogue input alarm thresholds
16/07/2013	20	Added micro SD access to legend 5: SIGNAL LEDS
30/07/2013	21	Corrected code from MI003180 (already used) to new code MI003440
13/11/2013	22	The “GSM Signal” chapter has been modified: in the log file the logged field value is now in dBm
03/06/2015	23	Boiler Control chapter modified New SMS commands added
02/07/2015	24	Added SMS commands for managing the date/time
13/10/2016	25	Changed SMS command to add an offset to the temperature
14/10/2016	26	Extended temperature range and electrical characteristics for new MY2-2 model (hardware revision 2)
28/08/2018	27	Added New MyALARM2-3 (hardware revision 3) with external NTC. Corrected LED signalling
14/01/2020	28	Title fixed
16/10/2020	29	Added changes for new MYALARM2-4 hardware

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28/10/2020	30	SMS commands related to temperature control fixed
29/06/2023	31	Added new MyALARM2 hardware support with 4G modem
18/09/2023	32	Removed references to Easy Setup Deleted chapter 25.2. "…Log of gate opening requests with Syslog system log…" Added coding of the two new models: MyALARM2 4G and MyALARM2 4G GPS
24/01/2024	34	Replaced DTMF code of alarm received from "*" to "#99*"

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Seneca **MyALARM2**

1. PRELIMINARY INFORMATION

ATTENTION!

Contact your telephone provider for information on telephone service costs. It is best to quantify log and SMS costs before setting up and installing MYALARM2.

The use of MYALARM2 in data roaming (for example, abroad with an Italian SIM card) may generate unexpected costs. Contact your telephone provider for further information.

IN NO CASE MAY SENECA OR ITS SUPPLIERS BE HELD LIABLE FOR ANY INCOMING DATA OR PROFIT LOSSES DUE TO INDIRECT, CONSEQUENTIAL OR INCIDENTAL CAUSES (INCLUDING NEGLIGENCE) CONNECTED WITH THE USE OR INABILITY TO USE MYALARM2, EVEN IF SENECA WAS INFORMED OF THE POTENTIAL OF THESE DAMAGES.

SENECA, ITS SUBSIDIARIES OR AFFILIATES OR GROUP PARTNERS OR DISTRIBUTORS AND SENECA DEALERS DO NOT GUARANTEE THAT THE FUNCTIONS FAITHFULLY MEET THE EXPECTATIONS AND THAT MYALARM2, ITS FIRMWARE AND SOFTWARE ARE FREE OF ERRORS OR FUNCTION UNINTERRUPTEDLY.

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ATTENTION!

-Contact your telephone service provider for telephone service costs especially when using MYALARM2 with a sim issued by a country other than the one in which it is used (international roaming).

-It is best to estimate telephone costs before setting up MYALARM2.

-The cost of each SMS is set by the telephone service provider.

-data send/receive costs can be tied to Kbytes sent/received, a monthly ceiling included in a package or data connection time. Contact your telephone service provider for further information.

-For GPRS connections whose costs is associated with connection time, please remember that communications are active for an amount of time that depends on the number of log rows to be

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sent. Typically, a 2-Kbyte data log takes about 10-15 seconds to be sent (via a 2G network) in addition to the time necessary to establish the connection (from 5 to 30 seconds) and the time due to any server login attempts.

-Check the data quantity sent and via SMS before using MYALARM2 for the first time.

Please remember that mobile phone service providers also consider the entire communication that permits file transmission (and thus data transmission overhead, the number of connection attempts, etc.) and not just the dimensions as data traffic in each GPRS transaction.

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2. FIRST INSTALLATION

See the "MyALARM2 Quick Guide" and "MyALARM2 installation guide" before opening the package.

3. FEATURES

MYALARM2 is a GSM/ GPRS or 4G LTE device available to control industrial and domestic domotic and security applications.

- 128 x 32 Dots graphic LCD display
- Rechargeable lithium ion battery, autonomy up to: 30 h GSM/LTE
- No.5 digital inputs available on internal terminal board
- No.2 analog inputs V/mA available on internal terminal board
- No.1 replaceable GSM/LTE antenna on SMA connector
- ON/OFF key and display page change key
- LED displaying: device power/status, GSM/data status
- Micro USB slot for module configuration
- Log possibility on micro SD, micro SDHC card (max 32 GB)
- No. 2 relay digital outputs (optional card)
- Supported system protocols: FTP client, SMTP client, SMTPS client with SSL
- Telephone service provider SMS re-touting to administrator (SIM expiry, low credit, residual credit, etc.)
- Possibility to make audio calls with messages on microSD (depending on model)
- Possibility to execute up to 16 commands via DTMF tones (depending on model)
- Built-in GPS module (on model with GPS)
- Memory expansion up to 32 GB with micro SD
- 32 bit processor
- Real Time multitasking operating system
- NTC temperature sensor

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4. BASIC NOTIONS

MYALARM2 is equipped with 4 counters and 4 totalizers. Up to a maximum of 30 Hz signals can be acquired, 4 digital inputs, 2 analog inputs and 2 relay digital outputs.

MyALARM2 I/O can be logged and the log sent as a file in csv format (comma separated values) via ftp or email. The last row of the log file can also be sent via SMS.

Counter and totalizer overflow is 999,999,999. An additional input status change switches the value to 0.

MyALARM2 can also log on its internal flash memory. The dimensions of this memory lets you save up to 16384 acquisitions (for example, setting of log every 10 minutes, the flash memory can hold 163840 minutes thus about 114 days).

When available space is full MYALARM2 overwrites the oldest rows. Log files can be saved on a microSD in alternative. Dozens of years can be continuously saved on a 32GB microSD.

Regardless of the acquisition time, analogs can be sampled every 50 ms. If the log acquisition time is set to 10 minutes, for example, the following is acquired for each analog:

the sampled value at the end of the tenth minute

the average value in the 10 minutes

the maximum value in the 10 minutes

the minimum value in the 10 minutes

4 different alarm thresholds are available for each of the two analog inputs. An SMS can be sent with a settable text when this alarm trips.

Counter/totalizer inputs and analog inputs can be tiered. The tiered values will always be used in logs and SMS.

Other types of alarms concern counters, totalizers, digital input increases, power outage, plumbing leaks and the hour meter.

The alarm is made up of a settable text (max 100 characters) and can be sent via SMS or email.

MyALARM2 can also place an audio call (with settable audio via installation software).

Up to 2 different actions can be set and run as a consequence to an alarm.

10 minute/hour or calendar timers are available to run cyclic or acyclic actions.

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MyAlarm2 recognises and runs a series of commands also via SMS. A set of "FAST" commands can also be set. These commands can be linked to the text in SMS 0, 1 up to 15.

Fast commands can also be run via audio call by sending phone keypad tones.

MyALARM2 can save log files via FTP or email and on microSD or microSDHC (max 32 GB).

All configurations are possible via Easy Setup/Easy MyALARM2 software, available for free download at www.seneca.it in the download or MyALARM2 section.

MyALARM2 includes an address book used to send alarms or logs (max 20 SMS contacts and max 20 email contacts).

To run commands on ring (at zero cost) MyALARM2 can manage up to 250 telephone numbers.

MyALARM2 can operate as a datalogger even without a SIM card, saving logs on microSD and leaving the GSM/LTE modem off.

MyALARM2 can calculate sunrise and sunset times. These can be used to generate actions.

Audio calls can be customised in the MyALARM2 Security Audio model for alarms and run commands by sending tones from a telephone keypad.

Audio calls can be customised in the with GPS/GNSS models for alarms and a series of alarms tied to the GPS/GNSS location can be managed.

Some typical applications such as boiler control for heating, automatic gate control, etc. are also managed.

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5. MyALARM2 Hardware Versions

You can recognize the version of MyALARM2 you are using from the label on the back of the device.

5.1. Available MyALARM2 models

The MyALARM2 model can be found on the label on the back of MyALARM2:

VERSION	***LABEL CODE***
MYALARM2 BASE	MY2-X-0-X-X-X
MYALARM2 SECURITY AUDIO	MY2S-X-0-X-X-X
MYALARM2 GPS	MY2S-X-G-X-X-X
MYALARM2 4G	MY2SL-X-0-X-X-X
MYALARM2 4G GPS	MY2GL-X-0-X-X-X

For example, the following label:



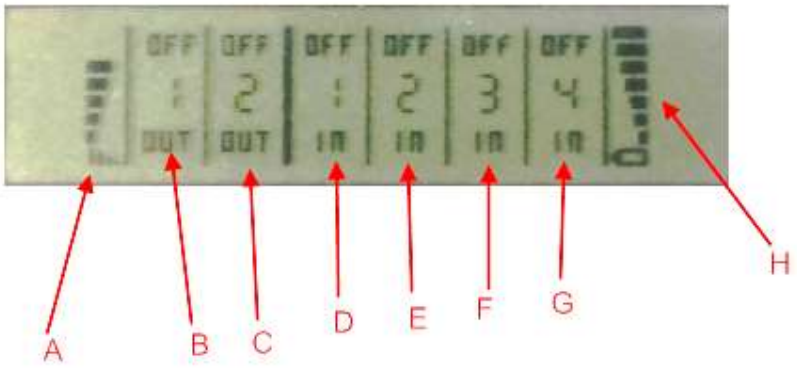
Refers to a MyALARM2 base.

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6. Display

6.1. Main page

The main MyALARM2 display page provides the following information:



A = GSM/LTE signal level

B = Output 1 status

C = Output 2 status

D = Digital input 1 status

E = Digital input 2 status

F = Digital input 3 status

G = Digital input 4 status

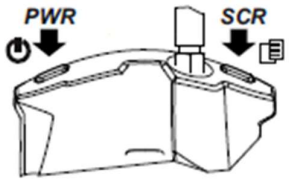
H = Battery charge level

To indicate battery charge level, the bars indicated by H quickly change from minimum to maximum level.

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6.2. Changing the displayed page

To change the displayed page, press the SCR key. The key is illustrated in the figure:



6.3. The MAIN menu

Press and hold down the left PWR key for several seconds to open the main MyALARM2 menu.



The various items in the main menu can be scrolled using the right SCR key.

Confirm selections by pressing the left PWR key.

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6.4. PAGE CONTEXT menus

Some pages let you view other information via a context menu.

The context menu can be opened by opening the required page and pressing and holding down the right SCR key for several seconds.

Pages with context menus are identified by the triangle icon displayed at the top right.

6.4.1. Totalizer, Counter and Delta display

The display only shows values for totalizers 1 through 4. Counter values and increases from the previous period (delta) can be viewed as follows:

Press the SCR change page key to view a totalizer value. At this point, hold down the SCR key until the menu appears:



use the right SCR key to move between the various fields. Confirm selections by pressing the left PWR key.

6.4.2. Date/time, calculated sunrise/sunset time and set GPS coordinates display

Only the date/time is displayed. The sunrise/sunset time calculated according to the current data and GPS position, current GPS coordinates in latitude and longitude according to WGA84 standards can be displayed as follows:

Press the SCR change page key to view the date/time. At this point, hold down the SCR key until the menu appears:



use the right SCR key to move between the various fields. Confirm selections by pressing the left PWR key.

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7. SUPPORTED SIM CARDS

MyALARM2 supports the following types of SIM CARDs:

Top-up voice SIM CARD

Subscription voice SIM CARD

Data transmission only SIM CARD

Operations can be run "at zero cost" for voice type SIM CARDs by ringing so that MyALARM2 will run set operations. With a voice SIM, MyALARM2 can also make voice calls or run commands from tone codes.

For "top-up" SIM CARDS MyALARM2 can manage residual credit requesting the amount from the telephone service provider.

ATTENTION!

-Before inserting the SIM CARD in MyALARM2, CANCEL ALL MESSAGES ON THE CARD USING A MOBILE PHONE.

-Before inserting the SIM CARD in MyALARM2, CANCEL ALL ADDRESS BOOK CONTACTS ON THE CARD USING A MOBILE PHONE.

-UMTS SIM CARDS are NOT supported.

.The Product was tested with leading international provider SIM CARDS. However, operations are not guaranteed with all providers.

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8. GSM/LTE SIGNAL

Through the display or through the Easy MyALARM2 software it is possible to know the GSM/LTE signal level of MYALARM2 (in the configuration test section).

To view the GSM/LTE signal level, the SIM CARD supplied by the telephone service provider must be inserted (signal may change radically based on the selected provider).

ATTENTION!

-Insert the SIM card with MyALARM2 off.

-Wait at least 5 minutes in order for the GSM/LTE signal to be correctly read.

The field can be inserted in the log files, in this case it is expressed in dBm where -115 dBm is the minimum (0) and -52 dBm is the maximum (7).

Please refer to the following equivalence table:

GSM/LTE signal	Signal [dBm]
0 (MINIMUM)	-115
1	-106
2	-97
3	-88
4	-79
5	-70
6	-61
7 (MAXIMUM)	-52

For correct MYALARM2 operations used for ftp or email log, the minimum required field level is 2/7 (please remember that the signal often fluctuates).

For MYALARM2 operations used only via SMS, the minimum required field level is 2/7.

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Refer to the following table for signal values:

SIGNAL LEVEL 0 = NO SIGNAL (INSUFFICIENT)

SIGNAL LEVEL 1 = INSUFFICIENT SIGNAL (NOT RELIABLE FOR SMS, AUDIO AND GPRS)

SIGNAL LEVEL 2 = SUFFICIENT SIGNAL (MINIMUM SIGNAL FOR SMS, AUDIO AND GPRS)

SIGNAL LEVEL 3 = RELIABLE SIGNAL (RELIABLE FOR SMS, AUDIO AND GPRS)

SIGNAL LEVEL 4 = GOOD SIGNAL

SIGNAL LEVEL 5 = VERY GOOD SIGNAL

SIGNAL LEVEL 6 = EXCELLENT SIGNAL

SIGNAL LEVEL 7 = EXCELLENT SIGNAL

To increase the GSM/LTE signal level, Seneca provides various GSM/LTE antenna models for MYALARM2 to reach the minimum signal level in most situations.

Visit www.seneca.it in the MyALARM2 section or contact Seneca srl for further information.

ATTENTION!

-Contact your telephone service provider for telephone service costs especially when using MYALARM2 with a sim issued by a country other than the one in which it is used (international roaming).

-It is best to estimate telephone costs before setting up MYALARM2.

-The cost of each SMS is set by the telephone service provider.

-data send/receive costs can be tied to Kbytes sent/received, a monthly ceiling included in a package or data connection time. Contact your telephone service provider for further information.

-For GPRS connections whose costs is associated with connection time, please remember that communications are active for an amount of time that depends on the number of log rows to be sent. Typically, a 2-Kbyte data log takes about 10-15 seconds to be sent in addition to the time necessary to establish the connection (from 5 to 30 seconds) and the time due to any server login attempts.

-Check the data quantity sent via SMS before using MYALARM2 for the first time.

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Please remember that mobile phone service providers also consider the entire communication that permits file transmission (and thus data transmission overhead, the number of connection attempts, etc.) and not just the dimensions as data traffic in each GPRS transaction.

9. DATA CONNECTION

Data connection is required to:

-Send log files via FTP or email

-Send alarms via email

-Synchronise the clock

For SMS and audio function use only, data connection cannot be used.

An APN (Access Point Name) that represents the gateway to access the internet must be entered for data connections.

At the end of each data operation (alarm send or log send) the connection is disconnected and only reconnected when necessary to minimize connection time.

ATTENTION!

-Before activating the data services, check the service costs offered by the mobile provider.

-Some internet connection offers are tied to a specific APN. Contact your mobile provider for further information.

-If internal clock synchronisation is set (except when the GPS option is selected) an APN must be entered since the synchronised date/time is obtained via internet connection.

-Mobile providers usually give data lower priority than voice calls. This means that the connection could be suddenly interrupted at any time due to voice traffic congestion on a specific cell. These connection attempts should also be considered when calculating data traffic costs.

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10. DATALOGGER

The Datalogger allows data to be acquired from the MYALARM2 built-in IO and sends the following via FTP or email or saves it on microSD card:

.acquisition index

-Date/time

-the value of totalizers with the delta over the previous value.

-the real-time value of analog input with the minimum, maximum and average compared to the last acquisition.

-the real-time value of digital inputs, power and battery status

-the real-time value of digital outputs

-the value of the internal or external temperature sensor (depending on the model)

-the value of the GSM/LTE signal

-GPS coordinates

-the meters linked to the digital inputs

10.1. Internal clock

MYALARM2 is equipped with an internal clock/calendar. This clock can be synchronised:

-via Easy MyALARM2 software (in the “Test Configuration” section or when a new configuration is sent)

-via an internet data connection

-via the GPS signal (depending on the model)

Either manual or automatic daylight savings time management can be selected.

Then the time is not reliable, the log continues to operate with a false date/time (starting from 01/01/1970) until the next synchronisation.

The time cannot be considered reliable when:

-MyALARM2 is turned on for the first time without be set.

-MyALARM2 batteries are dead.

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in these cases, the time remains unreliable until the next synchronisation.

10.2. Log file

The file saved on microSD, sent via FTP or email, is in CSV format, for example:

INDEX;TYPE;TIMESTAMP;TOT1;DELTA;TOT2;DELTA;TOT3;DELTA;TOT4;DELTA

1;LOG;11/07/2012 11:17:00;+881;+10;+881;+10;+881;+10;+881;+10

once opened by Microsoft EXCEL ™ or OpenOffice Calc ™ type software, the following is obtained (setting ";" as separator):

INDEX	TYPE	TIMESTAMP	TOT1	DELTA	TOT2	DELTA	TOT3	DELTA	TOT4	DELTA
1	LOG	11/07/2012 11:00	881	0	881	0	881	0	881	0
2	LOG	11/07/2012 11:10	890	9	881	0	881	0	882	1

A new file is created with each send under the following name:

CardName_logYearMonthDayHourMinutesSeconds.csv

Where, for FTP/EMAIL:

YearMonthDayHourMinutesSeconds is the MYALARM2 timestamp when file send began.

When saving on microSD:

YearMonthDayHourMinutesSeconds in the MYALARM2 timestamp of the first sample in the file.

An example of a file name:

BeachHouse_log20120712174010.csv

"BeachHouse" is the name of the card set with the Easy MyALARM2 software

The date when file send began is thus July 12, 2012 at 5:40 PM and 10 seconds.

ATTENTION!

-While MYALARM2 is sending a log file, communications with the FTP server may be interrupted. In this case, MYALARM2 attempts to "resume" connections with the server and creates a new file with a new YearMonthDayHourMinutesSeconds containing the rest of the data.

-EMAIL resume is not possible due to SMTP server restrictions. Thus we recommend you limit log file dimensions when sending via EMAIL (<50 Kbytes). A very high GSM signal (>=6) is required for this because SMTP servers are overloaded during some hours.

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-Keep in mind that the software/site used to receive emails could consider MyALARM2 emails as SPAM.

10.3. Logger setup

The following can be set for the logger function:

- Variable acquisition time in logger.
- The variables to be logged.
- When logs are sent via FTP and email and when saved on microSD.
- Enable SMS send with the last row of the log file to a group of contacts.

  Please remember that:

  Analogs are sample every 50ms. The log includes:

  -the value at the end of the acquisition time

  -the Average value in acquisition time (with sampling every 50 ms)

  -the Maximum value in acquisition time (with sampling every 50 ms)

  -the Minimum value in acquisition time (with sampling every 50 ms)

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10.4. Log send and microSD save settings

Using the setup software you can set when log files are sent via FTP/email or SMS. The same times apply for log write on microSD.

Note: When selecting variable acquisition and log send times, keep the following factors in mind:

1. Send time must be a whole multiple of acquisition time. For example, 15 minute acquisition time and send in "Minutes" every 25 minutes are NOT possible. Easy MyAlarm2 software automatically rounds send time so that it is a multiple of variable acquisition time. In this case the new value will be 30.
   If send type is "Daily", the acquisition time will instead be rounded to be within an exact day (corresponding to 1440 minutes). Easy MyAlarm2 will display an alert message with the new variable acquisition time value.
2. Variable acquisition time refers to the internal clock; this means that the first acquisition is not run after the set minutes starting from configuration send, but at the set time. For example, if the user sets MYALARM2 to acquire variables every 10 minutes and sends the configuration at 10:01, the device will run the first acquisition at 10:10.

10.5. Log file settable fields

Log file settable field meanings are the following:

FIELD 1 - INDEX

It is always the sequential number of sampling run from the last time MyALARM2 was turned off. If MyALARM2 is turned off and turned back on, the index value will be reset.

FIELD 2 - TYPE

It is always the type of log for future use, currently the message "LOG" appears.

FIELD 3 - TIMESTAMP

It is always the MyALARM2 date-time in dd/month/year hour:minutes:seconds format

FIELD 4 "DIGITAL FLAGS"

If set, the following digital inputs/outputs are included:

DIN1

DIN2

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DIN3

DIN4

DOUT1

DOUT2

VBAT

POWER

Where the meanings are the following

DINx is the xth digital input value. If OFF = input open, if ON = input closed

DOUTx is the xth output value. If OFF = output open, if ON = output closed

VBAT indicates backup battery operations. If OFF = mains powered, if ON = backup battery powered

POWER indicates mains power status. If ON = power on, if OFF = power off.

FIELD 5 - "TEMPERATURE"

If configured, there is the status of the temperature detected by the internal or external sensor (depending on the model) of MyALARM2:

TEMP = real-time temperature value in °C

TAVG = average temperature value in the acquisition period in °C

TMIN = minimum temperature value in the acquisition period in °C

TMAX = maximum temperature value in the acquisition period in °C

FIELD 6 - "ANALOG INPUT 1"

If set, it displays analog input 1 status:

ANALOG1 = real-time scaled value of analog input 1

AVERAGE ANALOG1 = average analog 1 value in the log variable acquisition period (scaled if necessary)

MIN ANALOG1 = minimum analog 1 value in the log variable acquisition period (scaled if necessary)

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MAX ANALOG1 = maximum analog 1 value in the log variable acquisition period (scaled if necessary)

FIELD 7 - "ANALOG INPUT 2"

If set, it displays analog input 2 status:

ANALOG2 = real-time scaled value of analog input 2

AVERAGE ANALOG2 = average analog 2 value in the log variable acquisition period (scaled if necessary)

MIN ANALOG2 = minimum analog 2 value in the log variable acquisition period (scaled if necessary)

MAX ANALOG2 = maximum analog 2 value in the log variable acquisition period (scaled if necessary)

FIELD 8 - "TOTALIZER/COUNTER 1"

If set, it displays the totalizer and/or counter 1 status and delta, scaled if necessary:

TOTALIZER1 = totalizer 1 current value

COUNTER1 = counter 1 current value

DELTA1 = input 1 increase in the interval

FIELD 9- "HOUR 1"

HOUR1 If set, it is the time in seconds tied to input 1 hour counter

FIELD 10 - "TOTALIZER/COUNTER 2"

If set, it displays the totalizer and/or counter 2 status and delta, scaled if necessary:

TOTALIZER2 = totalizer 2 current value

COUNTER2 = counter 2 current value

DELTA2 = input 2 increase in the interval

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FIELD 11- "HOUR 2"

HOUR2 If set, it is the time in seconds tied to input 2 hour counter

FIELD 12 - "TOTALIZER/COUNTER 3"

If set, it displays the totalizer and/or counter 3 status and delta, scaled if necessary:

TOTALIZER3 = totalizer 3 current value

COUNTER3 = counter 3 current value

DELTA3 = input 3 increase in the interval

FIELD 13- "HOUR 3"

HOUR3 If set, it is the time in seconds tied to input 3 hour counter

FIELD 14 - "TOTALIZER/COUNTER 4"

If set, it displays the totalizer and/or counter 4 status and delta, scaled if necessary:

TOTALIZER4 = totalizer 4 current value

COUNTER4 = counter 4 current value

DELTA4 = input 4 increase in the interval

FIELD 15- "HOUR 4"

HOUR4 If set, it is the time in seconds tied to input 4 hour counter

FIELD 16 – "GSM/LTE"

If set:

GSM value gsm\Lte from -111 (minimum signal) to -52 (maximum signal) expressed in dBm.

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If -115 dBm the signal is null.

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10.6. Log SMS

Since only a limited number of characters can be sent via SMS, the SMS only includes the last row of the log file and is, for example:

11/07/2012 11:17:00 +881 +10 +881 +10 +881 +10 +881 +10

Where the order of the values is given by the corresponding log file. In this case:

TIMESTAMP TOT1 DELTA TOT2 DELTA TOT3 DELTA TOT4 DELTA

Note: Log send priority is the following:

1) Log send via FTP/EMAIL
2) Log send via SMS

Thus log send via SMS can be used to be alerted when the log file was successfully sent via FTP/EMAIL.

The content of the SMS log recalculates the datalogger configuration. To save characters, only values without text TAGS are included.

ATTENTION!

-The SMS with the last log row can also be sent if file send on FTP failed (since the signal required to send a log file is higher than the one needed to send an SMS), to analyse any FTP server connection errors, enable the send error via SMS function.

-Since only 160 characters can be sent in an SMS, the log row may be truncated. In this case, MyALARM2 adds "..." to indicate the end of available characters.

10.7. TAG customisation in datalogger

All datalogger fields have a default TAG that can be set according to a few rules:

-The tag must start with a letter and not with a number

-The tag can be made up of a maximum of 7 characters

-Only letters, numbers and "_" are permitted in tags

Easy MyALARM2 setup software only lets you enter admitted characters automatically.

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10.8. Log save on microSD card

Logs can be saved on a microSD card formatted with the FAT16 or FAT32 filesystem (microSD cards <= 32 Gbytes are usually already formatted this way).

Log files are saved in the microSD folder/log in .csv text format.

MyALARM2 will create a new file based on the set log send period. Minimum file save time is 2 minutes.

If the microSD card is not inserted, MyALARM2 manages a 16384 row log queue. Logs in the queue will be saved when the microSD card is inserted.

ATTENTION!

-To avoid corrupting microSD card content, ONLY REMOVE THE microSD card when MYALARM2 IS OFF or WITH microSD UNMOUNTED.

To unmount the microSD card, open the display menu and, holding down the PWR key, select "Unmount SD".



A new microSD can now be inserted.

The log continues even without the microSD card inserted to a maximum of 16384 rows. When the microSD card is inserted, Myalarm2 will save missing data, retrieving it from its internal buffer.

10.9. Saving counters/totalizers

Counter/totalizer values are saved in the flash memory at least once every 24 hours from when the device is turned on. Data is also saved every time MYALARM2 is turned off.

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ATTENTION!

MYALARM2 batteries are not delivered charged. MYALARM2 must be charged for at least 48 hours for backup batteries to be fully charged.

Counter/totalizer values are lost when MYALARM2 is turned off with the batteries dead (the next time it is turned on, the value saved at 4:00 will be used or, if MYALARM2 was not on at that date, 0).

10.10. Log file GPRS (2G) send times

The data communication speed depends on a number of factors such as network load, signal level, etc.

The lowest performance is obtained with MyAlarm models with 2G modem.

Send time can be estimated based on the various tests conducted in Seneca laboratories. A 1440-row log file (about 200Kbytes) takes an average of about 14 minutes to send in 2G.

Although these times typically do not influence GPRS communication costs (almost always tied to bytes transferred and not connection time) it is helpful to keep in mind when sending a large number of logs per day.

Although MYALARM2 was developed to send log files of any dimension, Seneca does not recommend you send files dimensioned > 250 Kbytes to limit FTP connection duration and errors (server interruption, timeout, etc.).

10.11. SMS send error management

From the SW2660_201 firmware version, MYALARM2 includes advanced SMS send error management. Some attempts are made before declaring a fail. If these attempts always fail, MYALARM2 stops and re-attempts send every 2 hours.

10.12. FTP and SMTP server data connection and send error management

From the SW2660_201 firmware version, MYALARM2 includes advanced server connection error management. Some attempts are made before declaring a fail. If these attempts always fail, MYALARM2 stops and re-attempts send every 2 hours. The device can be set to send FTP and SMTP server connection errors via SMS to administrators.

11. SMS, FTP AND EMAIL CONFIGURATION TEST

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11.1. Configuration test for SMS send/receive

A command is available to be sent via SMS to test SMS send and receive

The SMS command is sent by a mobile phone saved in the address book as "administrator". It can be sent with both upper and lower case characters:

status

To this SMS, MyALARM2 sends an SMS to the number that sent the command with the value of the set variables.

11.2. Configuration test for EMAIL send

A command is available to force the delivery of an email with an attachment via SMS to the first administrator in the email address book.

This you can learn whether the set configuration is working or if there are errors.

The command is sent by a mobile phone saved in the address book as "administrator". It can be sent with both upper and lower case characters:

email test

11.3. Configuration test for log send via FTP

A command is available to force a text file to be sent via SMS to the FTP server set for log send.

This you can learn whether the set configuration is working or if there are errors.

The command is sent by a mobile phone saved in the address book as "administrator". It can be sent with both upper and lower case characters:

ftp test

12. SYSTEM LOG (EVENT AND ALARM LOG) ON MICRO SD

If a microSD card is inserted, a log can be enabled for all events (alarms, received SMS commands, ring commands).

The log is saved in CSV format in the "syslog.csv" file in the main microSD directory.

The file contains the date of the event, the commands received, the sender of the commands, the alarms and connection and system errors.

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12.1. SENDING THE "SYSLOG.CSV" FILE

The Syslog.csv file can be sent via FTP or EMAIL (to the first administrator) using the following SMS commands:

email syslog

It sends the text file in an email attachment to the first administrator

ftp syslog

It sends the text file on the set log FTP (the fto must be set to send logs)

13. CONTACT ADDRESS BOOK AND DELIVERY GROUPS

Settable contacts are:

MAX 20 SMS contacts

MAX 20 EMAIL contacts

One of the following types can be selected for each contact:

-user

-operator

-administrator

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13.1. "User" contact

A "User" type contact is only enabled to receive alarms.

13.2. "Operator" contact

An "Operator" type contact is enabled to receive alarms and send SMS commands.

13.3. "Administrator" contact

An “Administrator” type contact is enabled to receive **all** alarms (since automatically included in all groups), send commands and receive administrator SMS messages.

Administrator SMS messages include those received by MYALARM2 by telephone service providers or unclassified numbers (for example, numbers not in the contact address book).

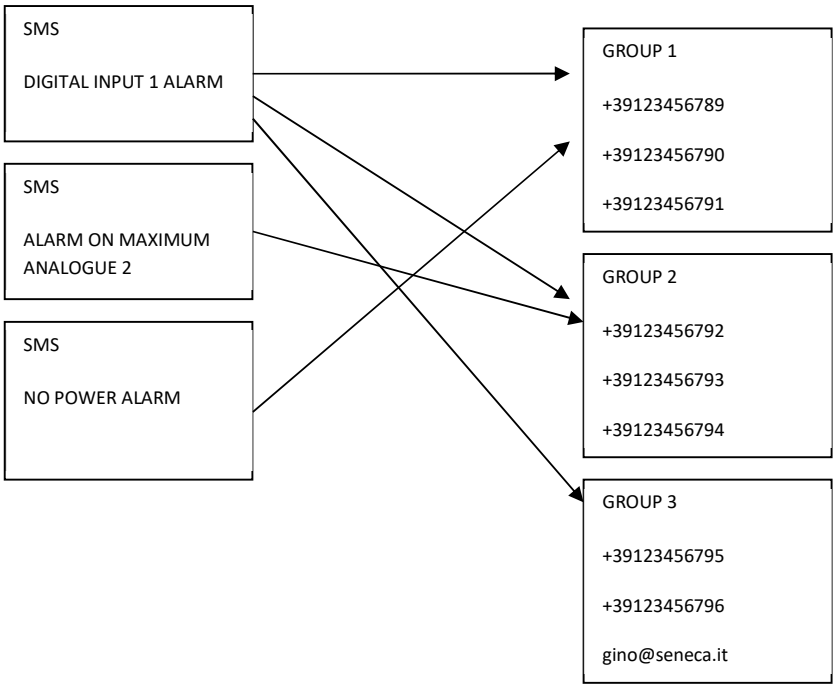
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13.4. Delivery groups

A group of contacts can be selected to receive alarm SMS or EMAILS for each alarm. MYALARM2 can manage up to 30 different delivery groups. Each group can contain up to 20 contacts (SMS or EMAIL).

A group can be selected for an alarm or log. This allows you to divide events between the various contacts (for example, maintenance, users, technicians, etc.).

The following illustration provides an example of how groups are divided for an alarm:



The same alarm message can be sent to a maximum of 3 different groups.

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14. SUPPORTED COMMANDS

14.1. SMS COMMANDS

14.1.1. SET THE TELEPHONE SMS CHARACTER ALPHABET

Some Smartphones send SMS with UNICODE characters instead of using the GSM alphabet.

MyALARM2 runs SMS commands with both GSM or UNICODE alphabet.

In most cases, SMS characters are set to GSM alphabet by default. If MyALARM2 does not recognise any SMS command, check the alphabet used by the phone.

For Android smartphones:

Press the Message icon -> Settings -> Change writing -> GSM alphabet

14.1.2. LIST OF SUPPORTED SMS COMMANDS

MYALARM2 lets you run commands if the SMS sender number is enabled (thus it must come from an operator or administrator).

Command list:

SMS COMMANDS FOR DIGITAL INPUTS/COUNTERS/TOTALIZERS	
GET DIN	*Forces the sending of an SMS with the status of all digital inputs*
GET DINn	*Forces the sending of an SMS with the status of the n-th input*
GET DINn.TOT	*Forces the sending of an SMS with the value of the totalizer (possibly scaled) of the n-th input*
GET DINn.CNT	*Forces the sending of an SMS with the counter value (possibly scaled) of the n-th input*
RESET DIN	*Reset all counters*
RESET CNTn	*Reset the n-th counter*
SET TOTn mmmmm…	*Load the mmmmm... scaled value in the nth totalizer*

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SET CNTn mmmmm…	*Load the mmmmm... scaled value in the nth counter*
RESET WRKn	*Resets the n-th work time*

SMS COMMANDS FOR ANALOG INPUTS	
GET AIN	*Returns the analog input values in technical units*
GET AINn	*Returns the nth analog input value in technical units*
SET AINn.MIN mmmmm	*Sets the mmmmm value (in technical units) as the minimum threshold of the n-th analogue input*
SET AINn.LOW mmmmm	*Sets the mmmmm value (in technical units) as the low threshold of the n-th analogue input*
SET AINn.HIGH mmmmm	*Sets the mmmmm value (in technical units) as the high threshold of the n-th analogue input*
SET AINn.MAX mmmmm	*Sets the mmmmm value (in technical units) as the maximum threshold of the n-th analogue input*
SET AINn <MAX> [<HIGH>] [<LOW>] [<MIN>] [<DELTA MAXMIN>] [<DELTA HIGLOW>]	*Sends the entire alarm configuration of the n-th analogue input in a single SMS.* *Example: Set AIN1 1000 800 400 100 10 10* *Sets: maximum threshold 1000, high 800,…*

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SMS COMMANDS FOR DIGITAL OUTPUTS	
GET DOUT	*Returns the value of the digital output*
GET DOUTn	*Returns the value of the nth digital output*
SET DOUTn.OPEN	*Opens the nth digital output*
SET DOUTn.CLOSE	*Closes the nth digital output*
SET TOGGLEn	*Switches the nth digital output status*
SET PULSEn.OPEN	*Opens the nth timed output*
SET PULSEn.TIME mm	*Change nth output timing with mm value (in seconds)*

SMS COMMANDS FOR TEMPERATURE	
GET TEMP	*Returns the internal or external temperature sensor value*
SET TEMP.HE nn.n	*Set T Economy=nn.n °C*
SET TEMP.HE nn.n DELTA mm.m	*Set T Economy=nn.n °C e Hysteresis = mm.m °C*
SET TEMP.HC nn.n	*Set T Comfort=nn.n °C*
SET TEMP.HC nn.n DELTA mm.m	*Set T Comfort=nn.n °C e Hysteresis = mm.m °C*
SET HVAC.OFFSET nn.n	*Manually sets temperature adding nn.n°C to the read value*
SET TEMP.MODE HCMF	In the "Boiler Control" application, Switch to temperature control mode with T comfort temperature
SET TEMP.MODE HECO	In the "Boiler Control" application, Switch to temperature control mode with T economy temperature
SET TEMP.MODE MAN	In the “Boiler Control” application, switch to manual control mode

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SMS COMMANDS FOR ADDRESS BOOKS	
SET PHONE +nnnnnnn	Add number +nnnnnn to address book as administrator
RESET PHONE +nnnnnnn	Remove number +nnnnnn from the address book
SET EMAIL nnn@nnn.nnn	Add email nnn@nnn.nnn to address book as administrator
RESET EMAIL nnn@nnn.nnn	Delete email nnn@nnn.nnn from the address book
SET USER.PHONE +nnnnnnn user_type	Enters the number +nnnnnnnn in the address book and with user_type credentials: ADM = Administrator USR = User OPR = Operator
SET USER.EMAIL nnn@nnn.nnn user_type	Enters the email nnn@nnn.nnn in the address book and with user_type credentials: ADM = Administrator USR = User OPR = Operator

SMS COMMANDS FOR THE EXTENDED ADDRESS BOOK (MYALARM2-4 MODEL ONLY)	
QUERY ADD "PHONE_NUMBER"	*Adds the telephone number*
QUERY DEL "PHONE_NUMBER"	*Cancels the phone number*
QUERY TEST "PHONE_NUMBER"	*Checks if the number exists in the address book*

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SMS COMMANDS PER DATE/TIME	
GET RTC	*Returns the current date / time value*
SET RTC.OFFSET +SS	*Adds SS seconds to the current time value*
SET RTC.OFFSET -SS	*Deducts SS seconds from the current time value*
SET RTC.DATE GG/MM/AAAA HH:MM:SS	Sets the current date/time where: DD = day MM = Month YYYY = Year HH = Time MM = Minutes SS = Seconds
SET RTC.TIME HH:MM:SS	Sets the current time where: HH = Time MM = Minutes SS = Seconds

VARIOUS SMS COMMANDS	
CREDIT	*Returns the residual credit (for top-up SMS only and if correctly set for credit request)*
STATUS	*Returns the variables set by setup software. All available variables can be included. If the SMS text exceeds 160 characters, it will be truncated (three dots "…" at the end of the SMS).*
SET GSM.APN apn_name *user password*	*Set the APN with the APN name, user and password. For example, set vodafone APN that does not require user name and password:* *SET GSM.APN web.omnitel.it*
SET GSM.FTP path name_ip porta user password	*Set FTP connection settings:*

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	path *the FTP server folder where files are sent* ***name_ip*** *IP address or FTP server name* ***port*** *is the ftp server port* ***user*** *FTP server login user name* ***password*** *FTP server login password* *for example:* *SET /prova/ 192.168.180.33 21 pippo pluto*
SET GSM.SMTP name_ip porta user password	*set SMTP server connection settings to send emails* ***name_ip*** *IP address or smtp server name* ***port*** *is the smtp server port* ***user*** *smtp server login user name* ***password*** *smtp server login password* *for example:* *SET GSM.SMTP out.alice.it 25 pippo pluto*
GET AIN	*Returns the two analog input values*
EMAIL TEST	*Forces an email sent with an attachment to the first administrator in the email address book*
FTP TEST	*Forces a text file sent to the currently set ftp server*
EMAIL TAG	*Sends the value indicated by "TAG" to the first email contact* *EMAIL AIN sends an email with the value of the 2 analogs* *EMAIL AIN1 sends an email with the value of the analog 1* *EMAIL AIN2 sends an email with the value of the analog 2* *EMAIL DIN sends an email with the value of the digital inputs*

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	EMAIL DIN1 sends an email with the value of the digital input 1 *EMAIL DIN2 sends an email with the value of the digital input 2* *EMAIL DIN3 sends an email with the value of the digital input 3* *EMAIL DIN4 sends an email with the value of the digital input 4* *EMAIL TEMP sends an email with the temperature value of the internal or external sensor (depending on the model)*
EMAIL SYSLOG	*Sends the command log file on microSD via email (first administrator address in the address book)*
FTP SYSLOG	*Sends the command log file in the microSD via FTP*
GET GSM	*Returns the GSM/LTE signal value from -115 dBm (minimum signal) to -52 dBm (maximum signal)*
RESET	*Performs a forced restart of MyALARM2*

If the command is not recognised by MyALARM2, an error SMS will be sent:

“COMMAND NOT RECOGNIZED”

You can set MyALARM2 to send a confirmation SMS or ring when the command is successfully completed.

NOTE

When a command is successfully completed, a ring can only be generate when a voice SIM is used (data SIM do not permit voice call service).

14.2. "FAST" COMMANDS

Up to 16 different "fast" commands can be selected from the action list.

Each command is run if the SMS text is "0" or "1" up to "15".

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For these commands, the SMS sender number must be enabled (thus it must come from an operator or administrator).

An SMS text can also be tied to a fast command, for example:

"OUTPUT ON"

It can be tied to the output 2 close command, etc.

If the MyALARM2 audio function is enabled, fast commands can be run via voice calls, entering the command code (see chapter 29.3).

The list of commands that can be linked to fast commands includes (refer to Easy MyAlarm2 software for a full list of available commands):

ACTION	***COMMENT***
CLOSE OUTPUT1/2	Closes output 1/2
OPEN OUTPUT1/2	Opens output 1/2
CLOSE TIMED OUTPUT 1/2	Closes output 1/2 for the indicated time, then opens it
OPEN TIMED OUTPUT 1/2	Opens output 1/2 for the indicated time, then closes it
TOGGLE OUTPUT 1/2	Changes output 1/2 status
RESET COUNTERS	Loads value 0 on all counters
RESET COUNTER 1	Loads value 0 on counter 1
RESET COUNTER 2	Loads value 0 on counter 2
RESET COUNTER 3	Loads value 0 on counter 3
RESET COUNTER 4	Loads value 0 on counter 4
RESIDUAL CREDIT REQUEST	Returns residual credit value (for top-up SIM only)
COUNTER VALUE REQUEST AND RESET	Returns the value of the counter 1, 2, 3 or 4, scaled if necessary, and resets it
START LOGGER (TIMER 1)	Starts the datalogger

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STOP LOGGER (TIMER 1)	Stops the datalogger
START TIMER	Starts timer 2 or 3...10
STOP TIMER	Stops timer 2 or 3...10
ENABLE ALARM ON POWER OUTAGE	Enables the power outage alarm with set parameters
DISABLE ALARM ON POWER OUTAGE	Disables the power outage alarm
ENABLE ALARM ON DIGITAL INPUT	Enables alarm on digital input 1, 2, 3 or 4
DISABLE ALARM ON DIGITAL INPUT	Disables alarm on digital input 1, 2, 3 or 4
RESET ALARM ON DIGITAL INPUT	Resets alarm on digital input 1, 2, 3 or 4 if set with manual reset
ENABLE ANALOG ALARM ON MINIMUM/LOW/HIGH/MAXIMUM	Enables analog 1 or 2 alarm on minimum/low/high/maximum
RESET ANALOG ALARM ON MINIMUM/LOW/HIGH/MAXIMUM	Resets analog 1 or 2 alarm on minimum/low/high/maximum if set with manual reset
ENABLE ALARM ON TOTALIZER	Enables totalizer 1 or 2 or 3 or 4 alarm (scaled if necessary)
DISABLE ALARM ON TOTALIZER	Disables totalizer 1 or 2 or 3 or 4 alarm (scaled if necessary)
ENABLE ALARM ON COUNTER	Enables counter 1 or 2 or 3 or 4 alarm (scaled if necessary)
DISABLE ALARM ON COUNTER	Disables counter 1 or 2 or 3 or 4 alarm (scaled if necessary)
ENABLE ALARM ON HOUR METER	Enables alarm on hour meter 1 or 2 or 3 or 4
DISABLE ALARM ON HOUR METER	Disables alarm on hour meter 1 or 2 or 3 or 4
ENABLE ALARM ON COUNTER/LOSS INCREASE	Enables alarm on counter increase or plumbing leak (if plumbing leak control application is enabled)
DISABLE ALARM ON COUNTER/LOSS INCREASE	*Disables alarm on counter increase or plumbing leak (if plumbing leak control application is enabled)*

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ENABLE ALARM ON STRING STREAM CONTROL	*Enables alarm on string stream control*
DISABLE ALARM ON STRING STREAM CONTROL	*Disables alarm on string stream control*
TEMPERATURE SENSOR TEMPERATURE SEND	*Sends the read temperature value*
SEND STATUS MESSAGE	*Sends the machine status command with settable content (see Easy MyALARM2 software)*
SEND COUNTER VALUES	*Sends counter values*
SEND TOTALIZER VALUES	*Sends totalizer values*
ENABLE ALARM ON ALL DIGITAL INPUTS	*Enables alarm on all 4 digital inputs*
DISABLE ALARM ON ALL DIGITAL INPUTS	*Disables alarm on all 4 digital inputs*
SEND ANALOG INPUT VALUES	*Sends analog input values*

For the full list of available commands, refer to the Easy MyALARM2 software.

14.3. "ZERO COST" COMMANDS (RING)

MyALARM2 lets you run up to 2 actions tied to a ring from a classified number (thus from an operator or administrator).

This mode lets you run "zero cost" commands.

The address book of phone numbers enabled to run "zero cost" commands can be extended to a maximum of:
-250 users for the MyALARM 2, MyALARM2-1, MyALARM2-2 and MyALARM2-3 models
-1000 users for the MyALARM2-4 or successive models
To obtain this function, enable the "extended address book" function using the configuration software.

NOTE

-To keep zero cost for MyALARM:

1) DO NOT answer the ring send by MyALARM2! The phone will ring for about 40 seconds after which MyALARM2 automatically hangs up.

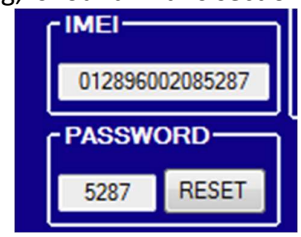
2) DO NOT hang up. The answering machine could be enabled!

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-Not all mobile service providers let you receive rings from data SIM. Check whether the servicer is offered by your provider.

14.4. COMMAND PASSWORDS

MyALARM2 lets you run SMS commands even if the command is not sent by a number in the address book. For the number to be recognised as authorised, the command must be preceded by a numeric password, univocal to each MyALARM2.
The password is obtained from the last 4 numbers in the GSM/LTE modem IMEI code.
You can find the value of the password linked to your MyALARM2 by connecting via the Easy MyALARM2 software in the configuration test section.
The password, always 4 numbers long, is found in this section.



If, for example, the password is 5287, the digital output can be closed by a number not in the address book by sending the following SMS:

5287 SET DOUT1.CLOSE

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15. TIMERS

Up to 10 timers are available to run actions:

There are 2 types of timers available: periodic timers and calendar timers.

15.1. PERIODIC TIMERS

Each periodic timer can run up to 3 actions. The timer start and end date and timer trip frequency can be selected.

Frequency can be:

In minutes (actions run every x minutes, for example, every 30 minutes)

Daily (actions run every day at the indicated time, for example, 12:30)

Weekly (actions run on the indicated days of the week, for example, Monday, Tuesday and Sunday at 6 PM)

Monthly (actions run every day of the month at the indicated time, for example, every 1st day of the month at 2:30 PM)

A second group of 3 actions every x minutes can also be set using the same timer.

ATTENTION!

When using periodic timers with monthly frequency, never set a day higher than the 28th!

15.2. CALENDAR TIMERS

Each calendar timer can run up to 3 "ON" actions and up to 3v "OFF" actions. The timer start and end date can be selected.

Each group of actions can be run on max 4 time bands per day of the week, for example, output 1 can be opened/closed using the timer as follows:

CALENDAR TIMER 9

MONDAY - CLOSE OUTPUT 1 AT 8:00, OPEN AT 12:30

MONDAY - CLOSE OUTPUT 1 AT 14:00, OPEN AT 18:00

TUESDAY - CLOSE OUTPUT 1 AT 8:00, OPEN AT 12:30

TUESDAY - CLOSE OUTPUT 1 AT 14:00, OPEN AT 18:00

WEDNESDAY - CLOSE OUTPUT 1 AT 08:00:00, OPEN AT 12:30:00

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WEDNESDAY - CLOSE OUTPUT 1 AT 14:00:00, OPEN AT 18:00:00

THURSDAY - CLOSE OUTPUT 1 AT 08:00:00, OPEN AT 12:30:00

THURSDAY - CLOSE OUTPUT 1 AT 14:00:00, OPEN AT 18:00:00

FRIDAY - CLOSE OUTPUT 1 AT 08:00:00, OPEN AT 12:00:00

15.3. SUNRISE AND SUNSET CALCULATIONS

MyALARM2, using an advanced algorithm, can calculate the sunrise and sunset time in any point on the planet. The following are required for correct calculations:

.Installation point GPS coordinates

-Correct date and time

GPS coordinates can be manually entered (refer to http://maps.google.it/), automatically retrieved by MyALARM2 via GPRS (in this case coordinates refer to the linked GSM/LTE cell position, even if approximate they are sufficient for calculations). In the MyALARM2 GPS model, GPS coordinates are directly retrieved from GPS.

Through these calculations, MyALARM2 can run operations such as turning outdoor lights on/off.

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16. EMAIL USE

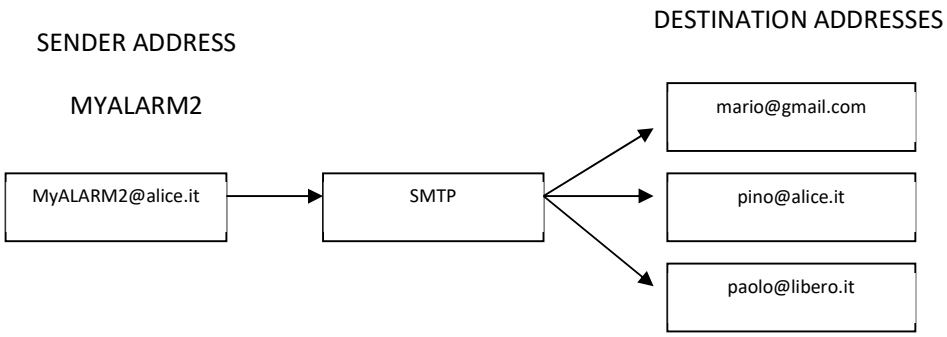
16.1. Basic information on sending emails

An email is sent via connections with an SMTP type server (Simple Mail Transfer Protocol). This server is assigned to delivering the email to the required addresses.

Each email contains the sender's address and one or more addressees.

An email address for the sender and addressee are mandatory.

Settings to send an email are provided by the email provider upon registration.



Details of which parameters are required to correctly set an SMTP server are provided below:

16.2. Outgoing mail server (SMTP)

The name of the server to be used, for example, the SMTP server name smtp.gmail.con, must be entered in SMTP server settings.

this information is also available in email setup software under the name "SMTP outgoing mail server".

16.3. SMTP authentication: user name and password

Connections can be made to an SMTP server with or without authentication. MYALARM2 permits server connections via authentication with a user name and password.

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The user name typically coincides with the first part of the email address (for example:

info), or with the entire email address (for example info@seneca.it).

ATTENTION!

- ***Seneca recommends you ALWAYS SEND EMAILS via SMTP server with SSL protected connection.***

16.4. Main SMTP server settings with SSL protected connection

SMTP SERVER	*EMAIL ADDRESS EXAMPLE*	*AUTHENTICATION NECESSARY*	*CONNECTION PROTECTED CONNECTION*	*GATEWAY*	*User name*	*password*
smtp.gmail.com	*name@gmail.com*	*yes*	*yes*	*465*	*name@gmail.com*	*password*

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17. ALARMS ON ANALOG INPUTS

Voltage or current can be set for each of the 2 analog inputs in the “Analog Input Setup” section. Input acquisition time is 50ms. ***Seneca recommends you ALWAYS enable analog input filter ("read filter on" item) to obtain the most stable reading not influenced by external disturbances.***

You can set input voltage mode with range from 0 to 30V.

Inputs in current mode have a range from 0 to 20 mA.

You can also scale analog readings in technical units.

4 different alarms can be set for each input:

Alarm on HIGH value

Alarm on LOW value

Alarm on MAXIMUM value

Alarm on MINIMUM value

17.1. Analog input filter

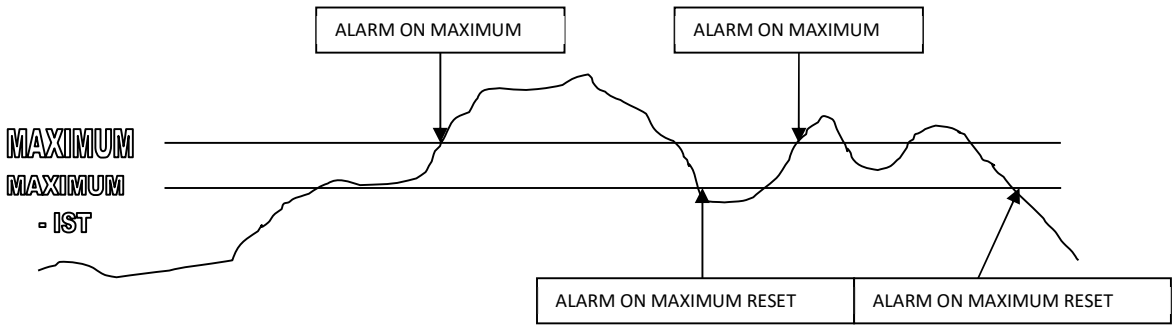
A filter can be set for analog inputs. This filter is mobile mean type on 20 samples. This type of filter lets you stabilise the reading even with highly disturbed signals.

17.2. Alarm on High and Maximum

“High” and “Maximum” alarms let you enable two different maximum alarms. A hysteresis can also be set (shown as “ist” in the illustration).

The following illustration shows how an alarm works with the relevant reset values. For example, for an alarm on maximum (with Alarm Delay = 0 and Alarm Reset Time = 0):

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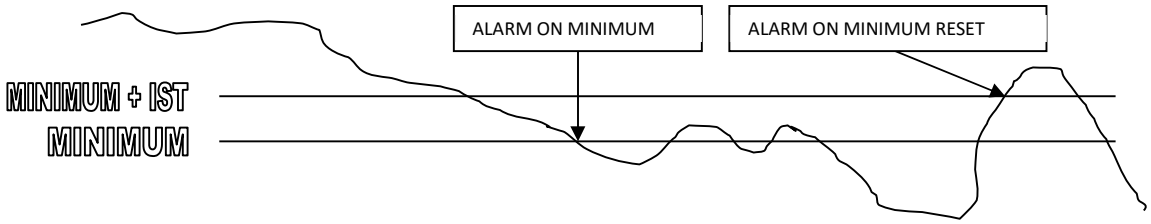


Alarm on high works in the same way.

17.3. Alarm on Low and Minimum

“Low” and “Minimum” alarms let you enable two different maximum alarms. A hysteresis can also be set (shown as “ist” in the illustration).

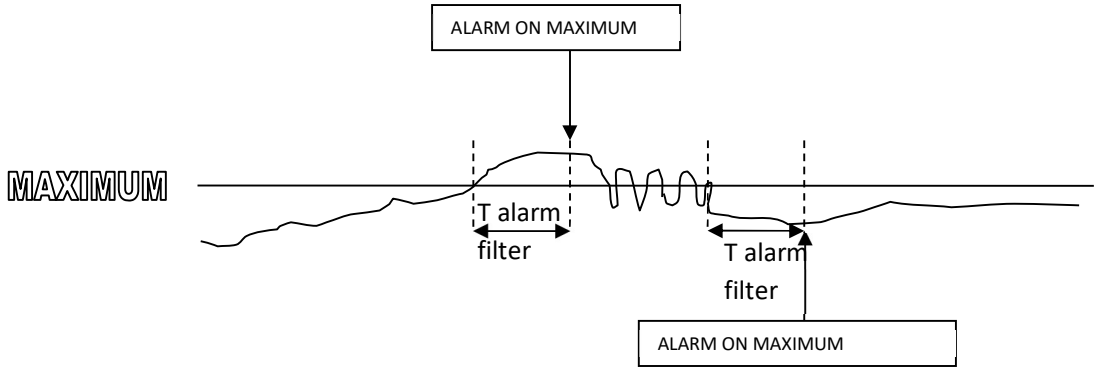
The following illustration shows how an alarm works with the relevant reset values. For example, for an alarm on maximum (with Alarm Delay = 0 and Alarm Reset Time = 0):



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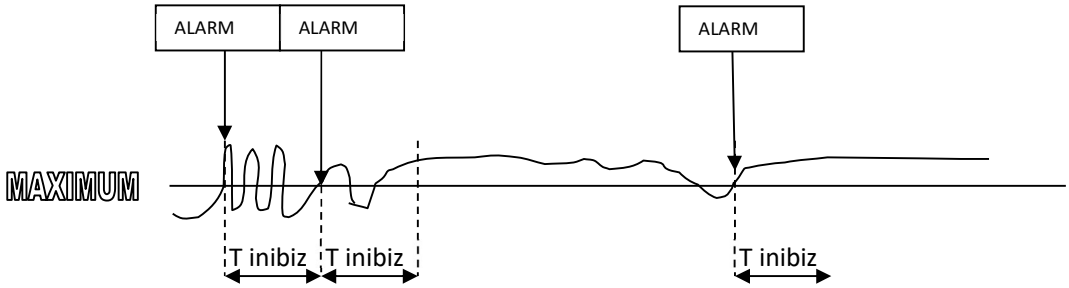
17.4. Alarm filter

A filter can be selected on the analog input, defined in seconds. The resulting effect is a filter on **both the alarm and reset**, as illustrated below:



17.5. Alarm inhibition time

An inhibition time on the next alarm can be set. **Unlike the previous filter, the alarm is immediately active** but ignored during the alarm inhibition time. This time is reset after each alarm.



ATTENTION!
DO NOT EXCEED THE FOLLOWING ANALOG INPUT VALUES OR THE INPUT STAGE COULD BREAK AND VOID THE WARRANTY:

INPUT VOLTAGE: MAX VOLTAGE 35V

INPUT CURRENT: MAX VOLTAGE AT 12V HEADS (CURRENT PROTECTED)

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18. ALARMS ON DIGITAL INPUTS

Each of the 4 digital inputs can be set in the "Digital Input Settings" section.

5 types of alarms are available:

Alarm on status change from open to closed

The alarm is active when status changes from open to closed

Alarm on status change from closed to open

The alarm is active when status changes from open to closed

Alarm on open status

The alarm is only active on open status regardless of whether the input status switched.

Alarm on closed status

The alarm is only active on closed status regardless of whether the input status switched.

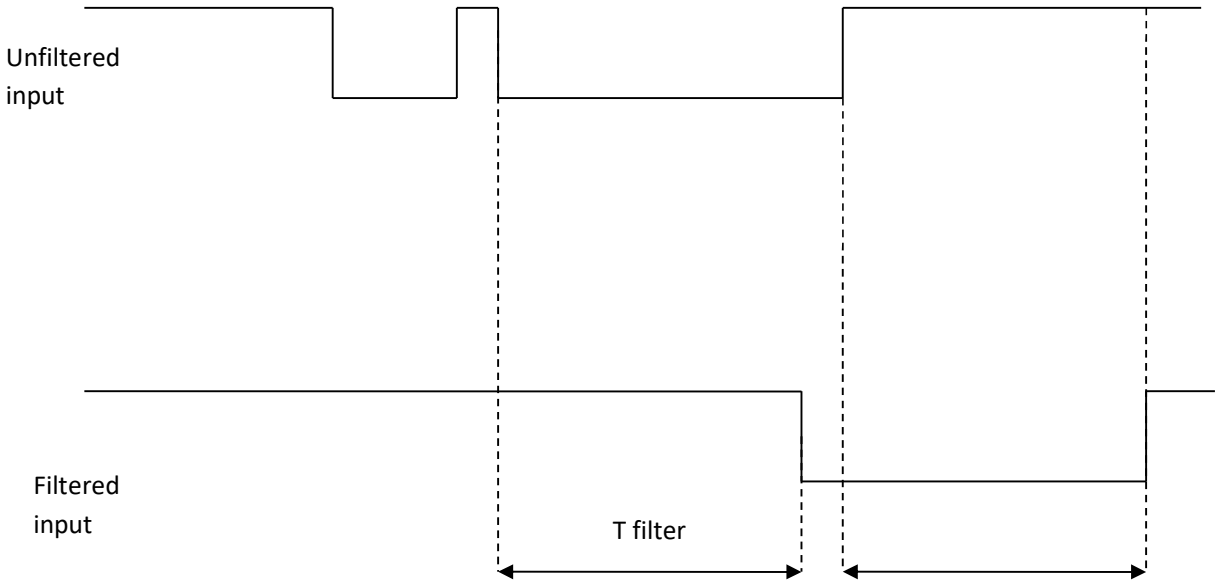
Alarm on status change

The alarm is active when status changes from open to closed or from closed to open.

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18.1. Digital input filter

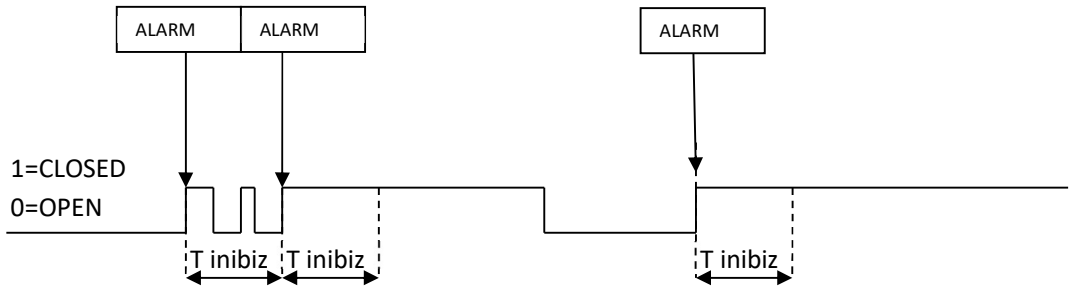
A digital alarm filter can be enabled. This filter is expressed in seconds (with tenth of a second resolution). The filter lets you eliminate effects due to input rebounds. Setting a filter T time, the filter lets the input status change only if it has remained in the previous conditions for T time:



18.2. Alarm inhibition time

An inhibition time on the next alarm can be set. The alarm is ignored during inhibition time. This time is reset after each alarm.

The effect of inhibition time on an open to close alarm can be seen in the example:



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19. TOTALIZER/COUNTER ALARMS

A counter/totalizer alarm value can be set in the "Totalizer/counter settings" section. Both totalizers and counters are included because counters can be used as partial values.

19.1. Alarm inhibition time

An inhibition time on the next alarm can be set. The alarm is ignored during inhibition time. This time is reset after each alarm.

20. BLACKOUT ALARM

An alarm can be set for a continuous blackout for a settable time in the "Blackout Alarm" section.

The alarm can also be enabled when power returns.

NOTE

In many situations it is convenient to receive an SMS whenever MYALARM2 turns on to activate the power return alarm.

ATTENTION!

Activating the power return alarm, both alarms will be generated each time the card is turned on/off.

20.1. Alarm inhibition time

An inhibition time on the next alarm can be set. The alarm is ignored during inhibition time. This time is reset after each alarm.

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21. ALARM ON TOTALIZER INCREASE

Up to 4 alarms can be set in the "Alarm on input increase" section (1 per input) for high or low totalizer increase. These alarms monitor flows (gas, liquid, etc.) or warn in the event of energy generator malfunctions (photovoltaic, panels, wind generators, etc.).

ATTENTION!

-To obtain coherent and synchronised values, the alarm on totalizer increase is managed by the datalogger and thus the alarm on plant loss cannot be simultaneously activated.

- In order to obtain coherent and synchronised values, the alarm on totalizer increase is managed by the datalogger. Times are thus shared with the logger (acquisition and send times).

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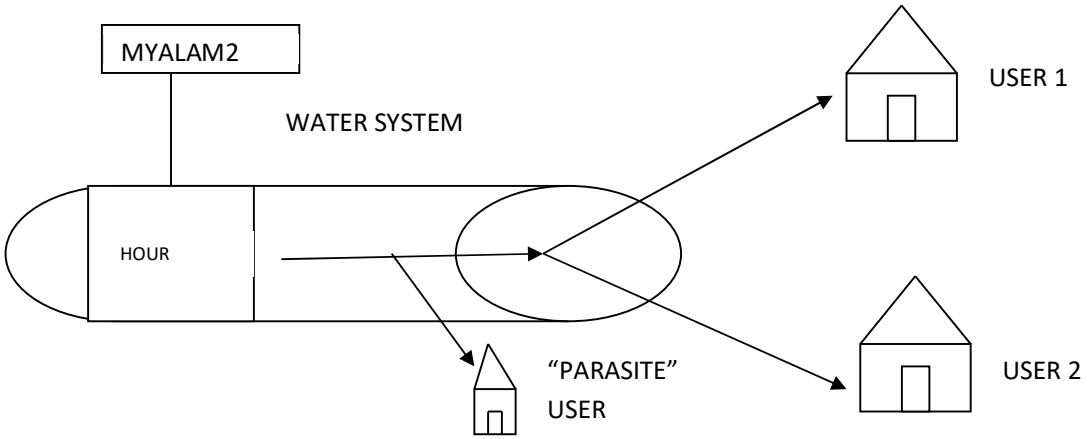
22. ALARM ON PLANT LOSS

The alarm on plant loss generates an alarm in the event of loss (for example plumbing leaks) in a plant.

The basic concept is that in normal operations, in observation time T, plant flow must be less than Q for at least the count time t.

MYALARM2 divides observation time T into sub-multiples t and analyses consumption counts on each of these sub-multiples t.

For example, considering a plumbing plant that supplies 2 utilities. Statistically, during one day (observation time T = 24 hours) the admitted flow must be <0.1 m3/h (maximum admitted flow Q=0.1 m3/h) for at least one of the 10 minute t (count time t= 10 minutes).



If this is not the case it means that there is a "parasite" utility in addition to the 2 utilities that continuously subtracts liquid (especially at night it is improbable that the utilities use water on all the 10 minute intervals).

Observation time T, count time t and the maximum flow value Q in count time t can be set for the alarm.

ATTENTION!

- In order to obtain coherent and synchronised values, the alarm on plumbing loss is managed by the datalogger. Times are thus shared with the logger (acquisition (t) and send (T) times).

-To obtain coherent and synchronised values, the alarm on plumbing loss is managed by the datalogger and thus the alarm on totalizer increase cannot be simultaneously activated.

23. HOUR METER OPERATIONS

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MYALARM2 monitors number 4 independent hour meter contacts. This function generates an alarm if the number of hours set in which the digital input is in a certain logic status is exceeded. The typical application is an automatic pump, boiler, utility, oven, etc. maintenance alert.

The resolution for the 4 MYALARM2 hour meters is 1 second.

Inputs can be set independently so that the hour meter counts on open or closed status. We recommend enabling the counter on closed status to correctly count in the blackout condition.

The count is saved in the non volatile memory before the device is turned off.

The maximum number of countable hours is about 127 years.

ATTENTION!

-Either the hour meter alarm or alarm on input status can be activated on the same input.

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24. BOILER CONTROL

24.1. Operating mode

The boiler control application monitors the boiler via SMS commands.

The boiler control can be used in three ways:

Temperature control mode

Program mode

Manual mode

A comfort temperature (T comfort) and energy savings temperature (T economy) can be set for the first two modes.

The temperature is read by the NTC sensor. For MyALARM2 to correctly read room temperature, refer to the installation recommendations in the next chapter.

24.1. Tcomfort and Teconomy settings

The Comfort and economy temperatures can be set using the setup software or via SMS.

To set a new comfort temperature value (for example, 20°c), send an SMS with the following text:

SET HVAC.HC 20.0

To set a new economy temperature value (for example, 15°c), send an SMS with the following text:

SET HVAC.HE 15.0

Once a comfort or economy temperature has been defined, the application turns the boiler on/off via the selected relay output. Entering a hysteresis value avoids too frequent switching on/off (it is advisable to set a hysteresis value of at least 0.5°C).

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24.2. Temperature control mode

In the temperature control mode, MyALARM2 attempts to maintain the set TEconomy or TComfort temperature.

An SMS command can be sent to switch from Comfort to economy temperature.

For the system to maintain the comfort temperature:

SET HVAC.MODE HC

For the system to maintain the economy temperature:

SET HVAC.MODE HE

ATTENTION!

Once these commands have been sent, the "program mode" and "manual mode" are disabled. The system will regulate the boiler so as to maintain the comfort or economy temperature until the next command.

24.3. Program mode

In program mode, MyALARM2 uses a weekly program. The weekly program can be configured using the configuration software.

As soon as the boiler control is configured by the software, this mode will be active immediately.

It is possible to choose at which time and on which days of the week to maintain the comfort and economy temperature.

For the system to switch to program mode:

SET HVAC.MODE PRG

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24.4. Manual mode

In manual mode, MyALARM2 turns the boiler on/off according to the received SMS commands, no temperature is regulated, this must be managed manually.

To set the manual mode, send the SMS:

SET HVAC.MODE OFF

The SMS command:

SET DOUT1.OPEN

Opens the output 1 relay.

While:

SET DOUT1.CLOSE

Closes the output 1 relay.

ATTENTION!

In order for MyALARM2-1 and MyALARM2-2 to provide the correct temperature value with their internal sensor, follow the following points (otherwise for MyALARM2-3 it is necessary to move the sensor as much as possible from MYALARM2):

1) ***Turn on MyALARM2 power via the 12V terminal (thus not USB or battery powered). Do not power external sensors via MyALARM2 12V terminals or current outputs.***
2) ***Move the sensor as much as possible from MYALARM2. An external sensor to be connected to the terminals is available as an option.***
3) ***3 hours from installation, manually calibrate the temperature reading adding an offset (positive or negative) using SMS command:***

SET HVAC.OFFSET

For example with:

SET HVAC.OFFSET -1

Current temperature is lowered by 1°C.

Temperature must be calibrated only 3 hours after turning on MyALARM2 in the reading room.

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25. AUTOMATIC GATE CONTROL

The automatic gate control opens the gate by sending a simple ring from the address book or extended address book.

25.1. Extended address book for ring command

MyALARM2 allows you to manage, in addition to the classic address book, an extended address book which resides on the SIM card memory or on an SD card (depending on the MyALARM2 model). In this address book you can save up to:

-250 users on a SIM Card for the MyALARM 2, MyALARM2-1, MyALARM2-2 and MyALARM2-3 models
-1000 users on an SD Card for MyALARM2-4 or later models

These contacts are only enabled to execute the command on ring.

ATTENTION! (MYALARM2-4 or later models)

To use the extended address book function on the MyALARM2-4 model it is necessary to insert an SD card into the device.

ATTENTION! (MYALARM2, MYALARM2-1, MYALARM2-2, MYALARM2-3 MODELS)

For MyALARM2 to recognise the phone numbers in the extended address book, MyALARM2 must use voice type SIM cards.

26. ALARM ON SOLAR PANEL MALFUNCTION

MyALARM2 allows NR 2 strings of photovoltaic panels to be controlled by reading the two analog values from the 2 TA connected to the inputs. When the difference between the two string streams exceeds the K value, a malfunction event is generated. This indicates problems due to a string using the second as a comparison. The alarm can be activated regardless of the day/night.

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27. PUMP AND POOL LIGHT ON CONTROL

MyALARM2 allows pool water filter pumps to be controlled. Thanks to this application, considerable energy savings can be achieved since the system turns on based on the previous day's average water temperature. Furthermore, a time can be used to automatically turn pool lights on/off.

The application requires the following settings:

TEMPERATURE SENSOR WITH CURRENT OUTPUT CONNECTED TO ANALOG INPUT 1

PUMP ON/OFF CONNECTED TO RELAY OUTPUT 1

LIGHTS ON/OFF CONNECTED TO RELAY OUTPUT 2

Contact Seneca srl to purchase the temperature sensor.

ATTENTION!

The pool pump control application uses the datalogger to read the previous day's average water temperature and thus the datalogger cannot be manually set.

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28. ACTIONS ON ALARM EVENT

In the event of an alarm, MyALARM2, in addition to sending the alarm via SMS/EMAIL, can also perform up to 2 actions. The list of actions that MyALARM2 can perform is listed here (for an exhaustive list, refer to the Easy MyAlarm2 software):

ACTION	***COMMENT***
CLOSE OUTPUT1/2	Closes output 1/2
OPEN OUTPUT1/2	Opens output 1/2
CLOSE TIMED OUTPUT 1/2	Closes output 1/2 for the indicated time, then opens it
OPEN TIMED OUTPUT 1/2	Opens output 1/2 for the indicated time, then closes it
TOGGLE OUTPUT 1/2	Changes output 1/2 status
RESET COUNTERS	Loads value 0 on all counters
RESET COUNTER 1	Loads value 0 on counter 1
RESET COUNTER 2	Loads value 0 on counter 2
RESET COUNTER 3	Loads value 0 on counter 3
RESET COUNTER 4	Loads value 0 on counter 4
RESIDUAL CREDIT REQUEST	Returns residual credit value (for top-up SIM only)
COUNTER VALUE REQUEST AND RESET	Returns the value of the counter 1, 2, 3 or 4 and resets it
START LOGGER (TIMER 1)	Starts the datalogger
STOP LOGGER (TIMER 1)	Stops the datalogger
START TIMER	Starts timer 2 or 3...10
STOP TIMER	Stops timer 2 or 3...10
ENABLE ALARM ON POWER OUTAGE	Enables the power outage alarm with set parameters

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DISABLE ALARM ON POWER OUTAGE	Disables the power outage alarm
ENABLE ALARM ON DIGITAL INPUT	Enables alarm on digital input 1, 2, 3 or 4
DISABLE ALARM ON DIGITAL INPUT	Disables alarm on digital input 1, 2, 3 or 4
RESET ALARM ON DIGITAL INPUT	Resets alarm on digital input 1, 2, 3 or 4 if set with manual reset
ENABLE ANALOG ALARM ON MINIMUM/LOW/HIGH/MAXIMUM	Enables analog 1 or 2 alarm on minimum/low/high/maximum
RESET ANALOG ALARM ON MINIMUM/LOW/HIGH/MAXIMUM	Resets analog 1 or 2 alarm on minimum/low/high/maximum if set with manual reset
ENABLE ALARM ON TOTALIZER	Enables totalizer 1 or 2 or 3 or 4 alarm (scaled if necessary)
DISABLE ALARM ON TOTALIZER	Disables totalizer 1 or 2 or 3 or 4 alarm (scaled if necessary)
ENABLE ALARM ON COUNTER	Enables counter 1 or 2 or 3 or 4 alarm (scaled if necessary)
DISABLE ALARM ON COUNTER	Disables counter 1 or 2 or 3 or 4 alarm (scaled if necessary)
ENABLE ALARM ON HOUR METER	Enables alarm on hour meter 1 or 2 or 3 or 4
DISABLE ALARM ON HOUR METER	Disables alarm on hour meter 1 or 2 or 3 or 4
ENABLE ALARM ON COUNTER/LOSS INCREASE	Enables alarm on counter increase or plumbing leak (if plumbing leak control application is enabled)
DISABLE ALARM ON COUNTER/LOSS INCREASE	*Disables alarm on counter increase or plumbing leak (if plumbing leak control application is enabled)*
ENABLE ALARM ON STRING STREAM CONTROL	*Enables alarm on string stream control*
DISABLE ALARM ON STRING STREAM CONTROL	*Disables alarm on string stream control*
SENSOR TEMPERATURE SEND	*Sends the read temperature value*

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SEND STATUS MESSAGE	*Sends the machine status command with configurable content (see Easy MyAlarm2 software)*
SEND COUNTER VALUES	*Sends counter values*
SEND TOTALIZER VALUES	*Sends totalizer values*
ENABLE ALARM ON ALL DIGITAL INPUTS	*Enables alarm on all 4 digital inputs*
DISABLE ALARM ON ALL DIGITAL INPUTS	*Disables alarm on all 4 digital inputs*
SEND ANALOG INPUT VALUES	*Sends analog input values*
SEND A RING	*Rings the first administrator in the address book*

For the full list of event actions, see the latest Easy MyALARM2 software version.

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29. "MyALARM2 SECURITY AUDIO" MODEL

The MyALARM2 security audio model can also send audio messages in the event of an alarm.

These audio messages must reside in the microSD. A microSD with pre-recorded messages in 5 languages is included in the package: Italian, English, French, Spanish and German.

Custom audio alarm messages can be recorded using the setup software.

Up to 83 different audio messages can be recorded.

ATTENTION!

- ***A "voice" type SIM must be used to use audio functions***
- ***The microSD supplied on MyALARM2 must always be inserted to use audio functions***

29.1. Sending an alarm via audio message without receipt confirmation

A pre-recorded audio message or a different one can be recorded using a PC with microphone for each alarm.

The audio call is made by the first number in the set group. If this number answers, any subsequent numbers in the group are ignored.

Otherwise, if the first number in the group does not answer the call, MyALARM2 moves on to the second and so on until a number in the group answers. If all group numbers are called, calls restart from the first.

ATTENTION!

- ***DO NOT hang up while MyALARM2 is making a call since the SIM answering machine may answer. In this case, MyALARM2 will consider the call answer valid.***
- ***Seneca recommends turning off the answering machine on phone numbers authorised to receive audio calls.***

29.2. Sending an alarm via audio message with receipt confirmation

An audio alarm can be sent and considered "delivered" only when the sequence #99*is pressed on the receiver phone.

When telephone sequence #99* is pressed, MyALARM2 security audio confirms by sending an alarm message delivery confirmation audio message.

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MyALARM2 will call in sequence all the numbers in the address book enabled to receive the alarm in progress; the call cycle will be interrupted when one of the recipients answers the call and confirms receipt of the audio message by pressing the sequence #99*

If no one in the group confirms receipt, MyALARM2 will restarting calling the first number in the group (for a maximum of 3 times).

29.3. Running fast commands from the phone keypad

MyALARM2 can be set to answer calls from numbers authorised to run commands (operator or administrator).

After the audio welcome message, the fast command code is requested followed by "*".

For example, fast command "6" can be run by dialling:

6*

At this point, the guide voice will confirm whether or not the requested command is run.

An incorrect command can be cancelled by pressing the # key

ATTENTION!

- ***Once the fast command via audio call function is enabled, the "Zero cost ring command" cannot be used since MyALARM2 security audio will answer the call.***

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30. "MYALARM2 GPS" MODEL

The MyALARM2 model includes additional functions tied to the geographic position of MyALARM2.

Additional functions are alarm on virtual origin and on speed. A "tracker" function can also be enabled: MyALARM2 GPS can send its position at a certain frequency to be able to always follow the car and/or boat position.

In addition to these alarm, the current MyALARM2 position can be send on Google maps™ both via SMS and via E-MAIL.

For indoor applications or with low signal, an external GPS antenna can be connects. Visit www.seneca.it, MyALARM2 GPS section for further information.

In the event of alarm, actions can be run, SMS and emails sent or audio calls made.

The GPS position can be logged like any other variable.

30.1. GPS display screen

The MyALARM2 GPS model comes with an additional screen compared to other models to view GPS data in real-time:



where:

A) Speed in km/h

B) Distance from the virtual origin centre in Km

C) Tracker status (on if the icon flashes)

D) Virtual origin/speed alarm status ("ON" if the alarm is on)

E) GPS signal status ("FIX" if connected to satellites, "..." if the GPS signal is too low)

ATTENTION!

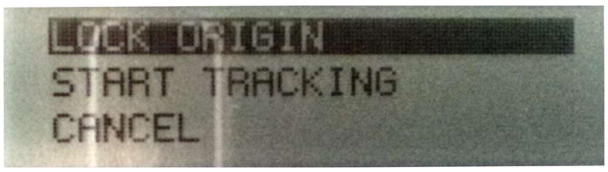
- ***The higher the GPS signal and number of linked satellites, the higher the reading resolution***

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30.2. MyALARM2 GPS context menu

The MyALARM2 GPS model comes with a context menu that permits some operations to be directly run using the two MyALARM2 GPS keys.

To open the context menu, press the right SCR key to open the GPS menu. At this point, hold down the right SCR key for several seconds until the menu appears:



You can now select an option from the menu using the SCR key and confirming with the left PWR key.

Possible operations include:

Lock Origin: Current GPS coordinates are used as the centre of the virtual origin (and as calculation point for sunrise/sunset).

Start tracking: starts the tracking function.

30.3. Fix GPS

GPS signal fix is a function run by MyALARM2 GPS when started.

This function detects which satellites are within MyALARM2 GPS range and connects to them.

When started, the following is displayed on the GPS screen:

GPS initializing

It then starts fixing:

GPS searching

This phase should be run with the internal or external GPS antenna. Fix lasts from 1 to 2 minutes. The following confirmation appears on the screen:

GPS fix

If the signal is insufficient (indoors or in tunnels), the following will be displayed:

GPS …

Until sufficient signal is restored.

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30.4. Alarm on maximum speed

MyALARM2 GPS lets you set a speed limit to generate an alarm. This ensures that your vehicle never exceeds a safety speed. To generate the maximum speed alarm, the set limit (in Km/h) must be exceeded for at least 2 GPS acquisitions. The GPS refresh time can be set using the setup software and is 10 seconds by default. Thus, to generate a maximum speed alarm (with 10 second GPS refresh time) the speed must exceed the limit for at least 40 seconds.

ATTENTION!

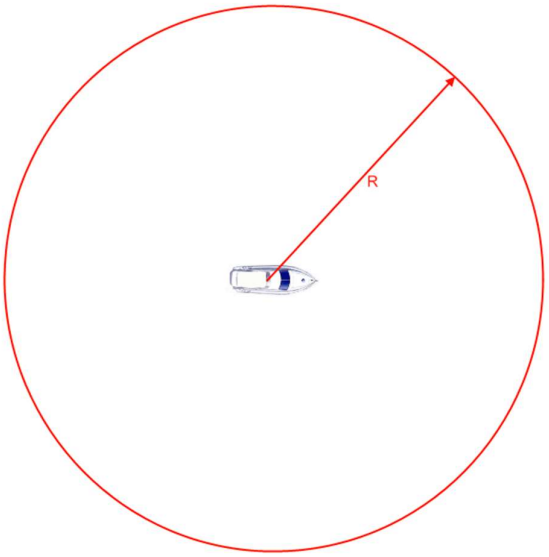
If alarms on virtual origin and maximum speed are enabled simultaneously, you cannot distinguish which of the two generated the alarm.

30.5. Alarm on virtual origin

MyALARM2 GPS lets you set a virtual origin. Exiting the virtual origin generates an alarm.

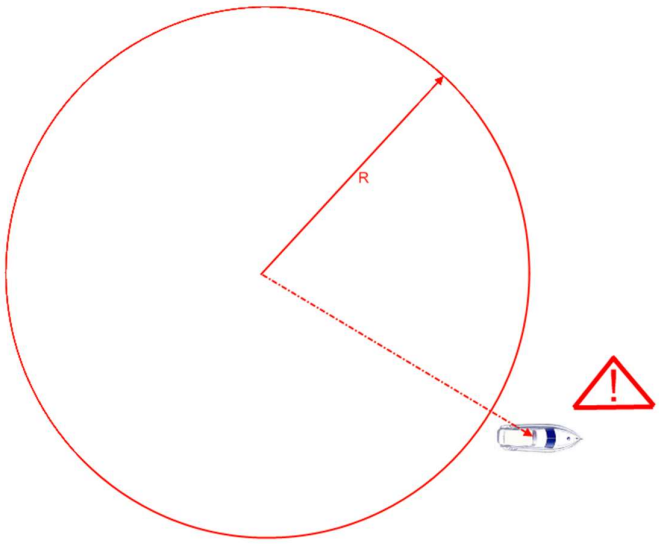
The origin is a circumference of settable radius whose centre is acquired by an event (ring, SMS or event).

The alarm on virtual origin can be applied to boats or any other vehicle. After docking or parking, the alarm can be turned on using the digital input or by sending an SMS or ring (if ring command is set). MyALARM GPS will now monitor the vehicle to ensure it does not exit the R radius of the virtual origin whose centre is the docking or parking position:



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An alarm is generate if the vehicle is moved and exits the virtual origin:



When the alarm is turned off, the vehicle can be moved without generating an alarm and turned back on at the next dock or park.

The vehicle must remain outside the virtual origin for at least 3 GPS acquisitions to generate an alarm. The GPS refresh time can be set using the setup software and is 10 seconds by default. Thus, to generate an alarm (with 10 second GPS refresh time) the vehicle must continuously remain outside the origin for at least 40 seconds.

ATTENTION!

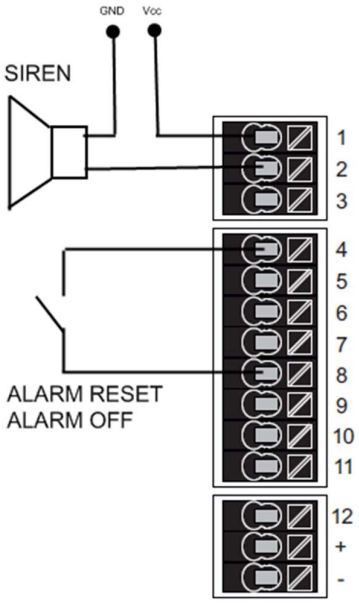
If alarms on virtual origin and maximum speed are enabled simultaneously, you cannot distinguish which of the two generated the alarm.

30.5.1. Alarm on virtual origin: connection example

Connections to apply the alarm on virtual origin are essential since the alarm can be turned on/off by a ring or SMS and the alarm received by audio call or SMS.

However, it is convenient to install an alarm on/off system directly on the vehicle's dashboard and connect a siren to an output (the drawing refers to the terminal block of a MYALARM2 -2, for MyALARM2-3 refer to the installation manual:

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30.6. "Tracker" function

A function can be set to track the GPS position at settable times (default: 2 minutes) via SMS or EMAIL. The "tracker" function can be set to automatically turn on in the event of alarm or on SMS command.

ATTENTION!

If the GPS signal is insufficient (for example, indoors), the tracker function stops until the GPS signal is sufficient to send coordinates.

30.7. GPS coordinate log

GPS coordinates can be logged just like any other variable.

The following tags are saved in the GPS coordinate log:

LAT: latitude

LON: longitude

V: speed (in Km/h)

ALT: metres above sea level (metres).

GPS coordinates are provided in WGS84 standard in degrees to be directly compatible with Google Maps ™
.

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Following is an example of a .csv file with GPS coordinates:

INDEX;TYPE;TIMESTAMP;LAT;LON;V;ALT
1;LOG; 21/05/2013 12:05;45,396141;11,956049;0,000000;73,119713

30.8. Sending an alarm via audio message

A default audio message or a different one can be recorded using a PC with microphone for each alarm.

The call is made to the first member in the set group. If this number answers the call, the second member is not called. Otherwise, if the first member does not answer the call, MyALARM2 GPS will call the second until someone in the group answers the call.

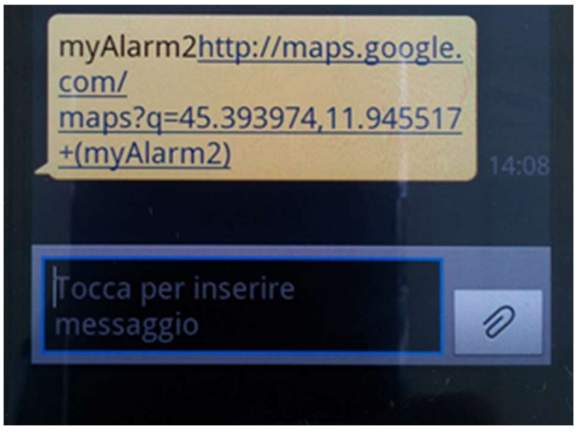
If no one in the group confirms receipt, MyALARM2 will restarting calling the first number in the group (for a maximum of 3 times).

ATTENTION!

- ***DO NOT hang up while MyALARM2 GPS is making a call since the SIM answering machine may answer. In this case, MyALARM2 GPS will consider the call answer valid.***
- ***Seneca recommends turning off the answering machine on phone numbers authorised to receive audio calls.***

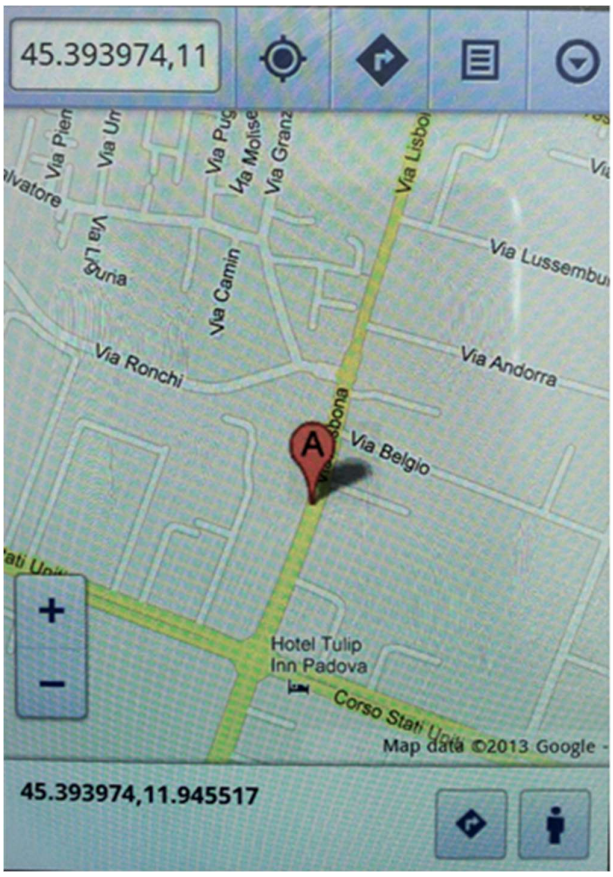
30.9. Current position on SMS and direct display on Google maps™

MyALARM2 GPS can send the current GPS position via an SMS link to Google maps™. This operation can be run on either action or SMS command:



Using a Smartphone with data connection, tap on the SMS link to display the current position map;

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30.10. Additional SMS commands for the MyALARM2 GPS model

SMS COMMANDS SPECIFIC TO THE MyALARM2 GPS MODEL	
GET GPS	*Returns the current position link to Google maps™ via SMS.*
EMAIL GPS	*Returns an email to administrators with the current position link to Google maps™.*
SET GSM.GPS <radius>	*Sets the new virtual origin radius in kilometres (example for a 500 metre radius, enter 0.5) and turns on the alarm on virtual origin.*
SET GSM.GPS 0 <speed>	*Turns on the alarm on speed using the km/h limit, disabling the virtual origin alarm.*
SET GSM.GPS <radius> <speed>	*Sets the new virtual origin radius in kilometres (example for a 500 metre radius, enter 0.5) and turns on the alarm on virtual origin.* *It also turns on the alarm on speed using the limit set in km/h.*
SET GSM.GPS 0 0	*Turns off the alarm on virtual origin and on speed.*
SET GPS.TRACK ON	*Starts the tracking function.*
SET GPS.TRACK OFF	*Stops the tracking function.*
SET GPS.ORG	*Sets the current GPS coordinates as the centre of the virtual origin.* *Acquired GPS coordinates are also used to calculate sunrise and sunset.*

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30.11. Additional actions for the MyALARM GPS model

Compared to other MyALARM2 models, the GPS version adds the following actions that can be used for events and as fast commands.

ACTION	*COMMENT*
USE COORDINATES AS ORIGIN	Uses current GPS coordinates as the centre of the virtual origin and to calculate sunrise/sunset.
SEND CURRENT GPS POSITION	Sends the current GPS position via SMS with link on Google maps ™
START TRACKER	Starts the GPS tracking function.
STOP TRACKER	Stops the GPS tracking function.

31. FIRMWARE UPDATE

In order to include new functions, the system includes MYALARM2 firmware update options.

The last available firmware version is included with each Easy MyALARM2 software release.

2 different update modes are available for MyALARM2 firmware:

Via USB: This is the easiest method. A complete update takes about 5 minutes. It is necessary to connect MYALARM2 to a PC with the Easy MyALARM2 software installed.

Via microSD card: This is the faster method. A complete update takes about 20 seconds. A microSD adapter for PC (many mobile phones can also read/write microSD) and a microSD card are required. This method is convenient when several MyALARM2 devices are to be updated.

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32. Update via USB (using Easy MyALARM2 software)

Open the "Software Update" section to update firmware via USB. Follow the on-screen instructions to successfully complete this operation.

ATTENTION!

-BEFORE UPDATING firmware, note the current configuration.

-Once the firmware is updated, the previous setup may be modified thus MyALARM2 MUST be setup again.

-Keep in mind that a subsequent Easy MyALARM2 software version may not be compatible with the MyALARM2 setup file generated by a previous version.

32.1. Update via microSD card (without using a PC)

MyALARM2 firmware can be updated via microSD card formatted with the FAT16 or FAT32 filesystem (purchased microSD cards are usually already formatted this way).

Proceed as follows to update MYALARM2 firmware:

1. Copy the filed called “MYALM2.BIN” containing firmware to a microSD card; the file is included in the free Easy MyALARM2 software (available for download at www.seneca.it) and is automatically copied during installation to folder “\Documents\Seneca\Easy MyALARM2\update”.

   The file is copied to the main microSD folder.

2. Plug in MYALARM2 (do not use it when battery powered).
3. Insert the microSD card in the specific MYALARM2 slot; a firmware update message will appear.
4. Press the "OK" key
5. The green led starts to flash at a half second intervals for about 30 seconds. MYALARM2 writes the new firmware in flash memory during this phase.
6. At the end of this phase message “OK: EXTRACT SD CARD” appears on the screen. Remove the microSD card.
7. If the firmware copied in the microSD card is the same version as the one already installed, message "FW UP-TO-DATE" will appear on the screen.
8. At this point MyAlarm2 turns off, completes the update procedure (signalled by the green led flashing for another 10-20 seconds) and automatically restarts.

The firmware update can be checked in two ways:

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-The firmware code (4 numbers) followed by the build (2 numbers) appears on the screen when the device is turned on.

-Connecting MYALARM2 to setup software, the firmware version (at the bottom left: “Connected to MYALARM2 FW 2XXX”) has changed.

ATTENTION!

-BEFORE UPDATING firmware, note the current configuration.

-Once the firmware is updated, the previous setup may be modified thus MyALARM2 MUST be setup again.

-Keep in mind that a subsequent Easy MyALARM2 software version may not be compatible with the MyALARM2 setup file generated by a previous version.

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33. TROUBLESHOOTING

PROBLEM	SOLUTION
Sending an SMS command: email test no email reaches the administrator's email address	-Make sure the set APN corresponds to the mobile service provider's and whether access requires authorisation. Refer to http://wiki.apnchanger.org/Main_Page -Make sure the GSM/LTE signal is over or equal to 2/7 -The email ended up in SPAM -The SMTP server supports SSL protection and the gateway was not correctly set -A competitor's SMTP server was set instead of the one for the SIM used.
Sending an SMS command: ftp test no ftp file reaches the set ftp server	-The FTP server folder does not exist. Create the folder on the ftp server first. -Make sure the ftp server IP address/name are correct -Make sure the ftp server login user name/password are correct
The GSM/LTE signal is always 0/7 and the GSM/NET led continues to flash fast	-The inserted SIM is not recognised. Clean or replace the SIM -The SIM PIN is enabled. Insert the SIM in a mobile phone and disable the PIN or enable it and insert the PIN code in the setup software
The GSM/LTE signal is too low	-Wait at least 10 minutes from startup before reading the GSM/LTE value -Try using another mobile service provider's SIM -Move the MyALARM2 installation -Use an optional external antenna: for further information, contact Seneca or visit the MyALARM2 section at www.seneca.it.
Residual credit is not sent for the SIM	-Check the method used to receive residual credit from the mobile service provider (ring or SMS, SMS request text).

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	-The SIM is not top-up but subscription
MYALARM2 worked correctly for a few days/months but stopped sending SMS and logs.	-No SIM credit. Top-up the SIM card. -The SIM card expired because credit was never topped up for more than one year. Replace the SIM card or contact your mobile phone provider.

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