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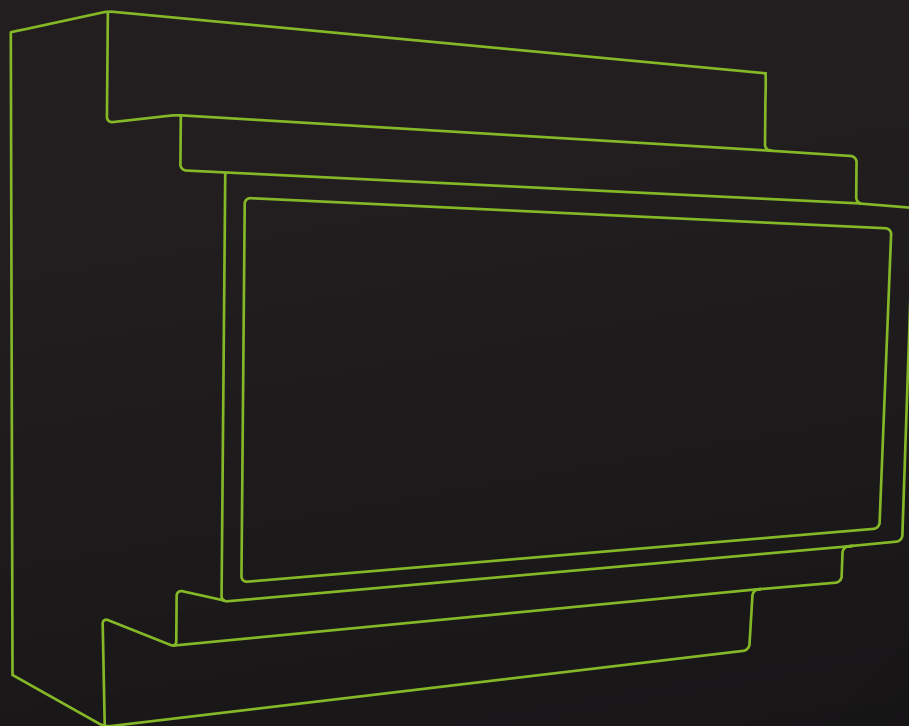
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# OPERATING INSTRUCTIONS

GSM ALARM





# INTRODUCTION

Please take a few minutes to read and become familiar with the advantages of the GSM alarm.

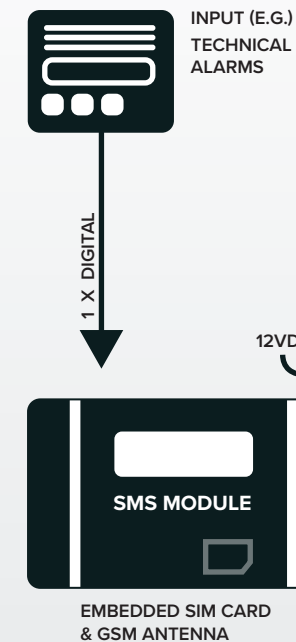
The GSM alarm gives you the opportunity to obtain information about the state of the freezer by sending a text message to one or several coded telephone numbers if the temperature exceeds the fixed range. A simple, effective and reliable alternative that provides increased safety, the GSM

alarm module can be connected to the majority of our products and most parts of the world, but some areas might be excluded.

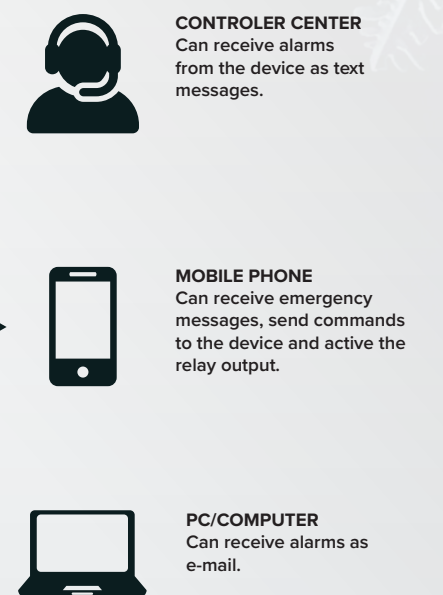


# FEATURES

## SUPERVISED AREA



## ALARM RECEPTION



## TRUE WIRELESS MONITORING

Arctiko SMS module is a flexible monitoring device - also for monitoring in difficult circumstances. The device is easy to install. Use of the alternative internal battery or a 12V DC power supply is all that is needed. Programming and configuration can be made from any ordinary mobile phone.

SIM card is inserted in the SMS module and connected to a conventional power supply in 12V DC. No additional installation is necessary. Alternatively, the SMS module is supplied with its own internal battery, so the module can send a message, in case of power failure.

## HOW THE SMS MODULE WORKS

### ► ARCTIKO SMS MODULE

The SMS module can receive alarms from source of input. The device then transmits the alarm via GSM network. The alarm comes within a few seconds and displays on a mobile phone.

Coding / setup or transcoding SMS Module can also be used by mobile phone and from here you can send commands to the device for activation or deactivation of the external device such as sirens, cameras, pumps, el. like in the surveillance area.

### ► INPUT / OUTPUT

The SMS module can receive alarms from an external device. The possibilities are extensive. The device can simultaneously manage a unit alarm relay for instance transmission of alarms to CTS or noisemaker.

### ► ALARM RECEPTION

The SMS module can send alert messages to 25 different mobile phones or to a call center. The messages are sent as SMS messages.

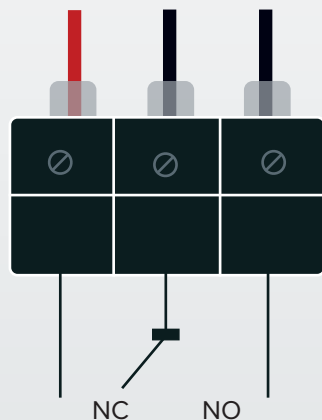
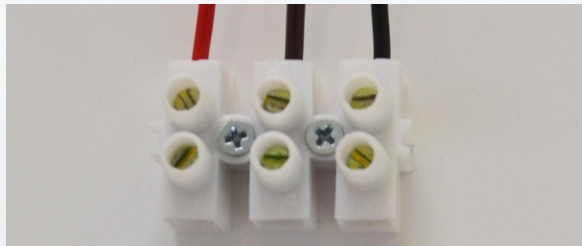


# INSTALLATION

The SMS module has 1 output and 1 input.

1. Mount the enclosed plugs in the remote alarm connection, which is located at the back of the unit.

Remote alarm condition: NO for Normally Open, NC for Normally Closed.



2. The SMS module shall be provided with its own SIM card to send and receive messages on the GSM network. Prepare your SIM card in a common phone:

Insert the SIM card to be used in a phone (remember that the phone must be turned off).

3. Check that the SIM card's PIN number is set to 1234 (standard for most carriers). If not, set the card's PIN code to 1234. (See *SETUP* page 7)
4. Open the SMS module by removing the 4 screws in the front. **NB! The unit must be turned off!**
5. Take the SIM card out of your mobile phone and mount it in the device. Remember to turn the SIM card correctly with the bevel edge outwards.
6. Ensure that any input and relay output is connected correctly and fit the front panel of the device again.
7. Connect the device to a standard 12V DC power

supply or battery. Wait approx. 10 seconds while the device establishes contact with the GSM network. When you hear 3 consecutive beeps and receive a SMS when the unit is ready.

## OVERVIEW

SMS module contains 1 relay output and 1 input.

### ► OUTPUT

The output is a potential relay, which is broken or plugged using instructions for the device. By booting the relay end is broken. Two screw terminals provides access to the relays. See figure.

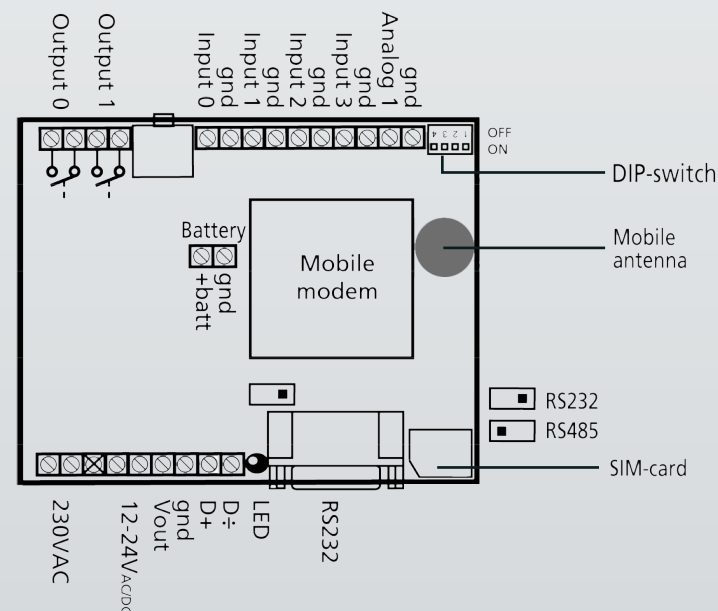
Spec: Max DC Voltage: 30V DC, 0.5 A.

### ► INPUT

Activation is by a short circuit between the screw terminals. Removing the short circuit disables the input. In both cases an alarm is dispatched from the device. See figure.

Spec: There may not be printed voltage on the screw terminals!

Power ex. battery:  
12V: 12 VDC  $\pm$  10%, 2mA



**NB! The position of the SIM card can be different on the PCB board.**

# SETUP (MOBILE PHONE)

If a GSM mobile phone is being used to setup the configuration it is being sent as SMS messages. What is being sent to the device is actually a text message where the first 4-digit password is followed by a command and possibly additional text - like this:

1234 A0 ALARM ON

**NB! Make sure to put intervals between the commands individual parts.**

## EXAMPLES

The following example shows a simple configuration of the SMS module, which includes change of password, creation of one alarm receiver (mobile phone) and inputting the alarm text.

### ► CHANGING THE PASSWORD

At the start of the SMS module the password is 1234. This can be replaced with a new password of your choice. Enter and send the following SMS - message:

1234 N0 +4522222222 4488

**NB! Remember space between each command part.**

1234 is the current password to the site. *N0* is the command that is used to change the password. The phone number +4522222222 is the SMS modules own phone number. 4488 is the new password.

**NB! +45 is the country code for Denmark, remember to use the correct country code that suits your location.**

When you hear 3 consecutive beeps and receive the following SMS the unit is ready:

OK>> N0 +4522222222 4488

### ► CREATE ALERT RECEIVER

The SMS module must "know" where to send the alert messages to. The next step is therefore always the creation of alarm recipient(s). Enter and send the following SMS - message:

4488 N1 +4577777777

4488 is the new password to the site. N1 is the command that generates first alarm receiver. The phone number +4577777777 is the number of the mobile phone to receive the emergency messages.

Now the Arctiko SMS module is ready!

The above 2 commands are the only ones which are needed to make the device ready for emergency reception. More opportunities for further configuration is described in the examples below and in code statement.

### ► POWER FAILURE ALARM

The power failure alarm is turned off when the SMS module is first turned on. To activate the power failure alarm enter and send the following SMS:

1234 JS

The SMS module should answer with the following SMS:

OK>> JS

In case of power failure the SMS module will send a SMS with the text:

B8 1234 POWER FAILURE

Once the power failure is over you should receive the following SMS:

S8 1234 POWER OK

### ► CODING OF ALARM TEXT FOR INPUT

This is how to encode the text to be sent when the input is broken:

4488 A0 ALARM ON

A0 defines broken text for entry.

This is how to encode the text to be sent when input 0 is connected:

4488 L0 ALARM

L0 defines connected text for entry.

# EMERGENCY TEXTS

B0 4488 ALARM ON

Alarm messages received when the input is broken.

S0 4488 ALARM OFF

Alarm messages received when the input connected. *4488* is the ID (identification number).

## SMS MESSAGES

Alarm messages are sent as SMS messages to a mobile phone.

## CODE SUMMARY

Below is a list of all the codes available for the Arctiko SMS module. The codes must be used for programming from a GSM mobile phone.

Please note: When sending commands to the SMS module, you must always start with the password (4 digits), followed by a space.

Password + space + command (2 characters) + possible text. Password and the first intervals are omitted in the code table below.

## CONFIGURING ARCTIKO SMS MODULE

AREA	DESCRIPTION
<b>1234 N0 +4522222222 4488</b>	Changes the existing password for the SMS module. +4522222222 is the SMS modules telephone number. 1234 is the existing password, 4488 is the new password. Must be 4 digits.
<b>1234 N0 +4522222222 4488 TEST</b>	Setting up the ID code to the SMS module. Sent with the alerts to recipient. When there is no ID code selected the ID code is the same as the password. The ID code can be in contrast to the password be numbers and letters and must be 4 characters.
<b>N1 +4577777777</b>	Creates Alarm receiver No. 1 when the alarm is sent as SMS. There are a total set up of 24 receivers. Same procedure for recipients N2, N3.....
<b>N1</b>	Deletes the alarm receiver No 1. Same procedure for recipients N2, N3.
<b>A0 TEKST</b>	By typing X0 forefront in the text indicates a filter at the entrance so that the alarm is first sent after 8 seconds. Input must be constant during this period to the emergency dispatch. If a filter is used, a text must also be specified on the input.
<b>L0 TEKST</b>	Encodes text to be displayed when the input is closed / completed.
<b>A0</b>	Deletes text for input in open / broken condition.
<b>L0</b>	Deletes text for input in the closed / connected state.

<b>IN</b>	Power Saving mode. Modem is switched off after 5 min. and the device can not receive SMS. If your device is connected to external supply, the modem will always be on.
<b>IK</b>	Power Saving mode. Modem is switched off after 5 min. but started 5 min. once a day. If your device is connected to external supply, the modem will always be on.
<b>IF</b>	Normal mode. Modem is switched on all the time. Default Setting.
<b>JS</b>	A message is sent to recipients when external supply is connected / removed. (POWER OK / POWER FAILURE)
<b>JF</b>	No message to the recipients when the external supply is connected / removed. Default Setting.
<b>P!</b>	Arctiko SMS module deletes all its settings. Beware!

## COMMANDS TO ARCTIKO SMS MODULE VIA SMS

COMMAND	DESCRIPTION
<b>ON</b>	Connects SMS module; alerts sent to recipients. Default Setting.
<b>OF</b>	Disconnecting SMS module; alarms are not sent to recipients.
<b>B0</b>	Breakes relay output.
<b>S0</b>	Connects relay output.

## AUTHOR/STATUS SMS MODULE VIA SMS

COMMAND	DESCRIPTION
<b>OK</b>	The SMS module returns a message on the current output power in % on the GSM network. (If the power is not higher than 25%, an external antenna should be used).
<b>OM</b>	The SMS module returns the version number.

## TYPICAL FAILURES BY ARCTIKO SMS MODULE

ERROR	CAUSE	SOLUTION
By booting the device flashes rapidly	A wrong pin code is used for the SIM card.	Set the SIM cards pin code to <i>1234</i> and restart the device.
The device can not send the alert	The SIM card does not work.	Check if the SIM card is mounted correct. Place the SIM card in a mobile phone and check whether you can both send and receive SMS messages.
	No voltage on the device.	Check if the red LED is lit. If not, the correct power supply must be used.
	Wrong recipient number.	Determine whether the correct recipient phonenumber is used and whether the number used for SMS is a mobile phonenumber.
	No GSM coverage.	Connect the device to the PC and send the instruction <i>OK</i> . The GSM signal strength is returned and must be greater than 25%.
	The device is not responding to configuration.	A wrong password is used for the device. Take the SIM card out of the device and change it in a GSM mobilephone to <i>1234</i> . Remember that the pin code must be activated.
	The device is busy.	Check if the red LED is lit. In that case the unit is busy. Wait until the red LED turns off or restart the device.

## NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.



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