

# METOS Compact SMS

The smooth change of a product

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## METOS<sup>®</sup> Compact the Technical Specifications

- Single Board Climate Station
- 512 kb Flash Memory
- 8 bit Siemens  $\mu$ Processor
- 12 Minute Measurement Interval
- 12 Minute Logging Interval
- 13 Specified Sensor Inputs
- **1 unspecified Analogous input**
- RS232 Serial Interface **with 19200 Baud**
- 7 bit Programmable Alarm Output
- Operating Temperature -20°C to 60°C
- Two 6 Volt 4 Ah Lead Acid Batteries
- Solar Power Supply
- Less than 450  $\mu$ A Average Power Consume without Communication
- Less than 3 mA Average Power consume with daily data download



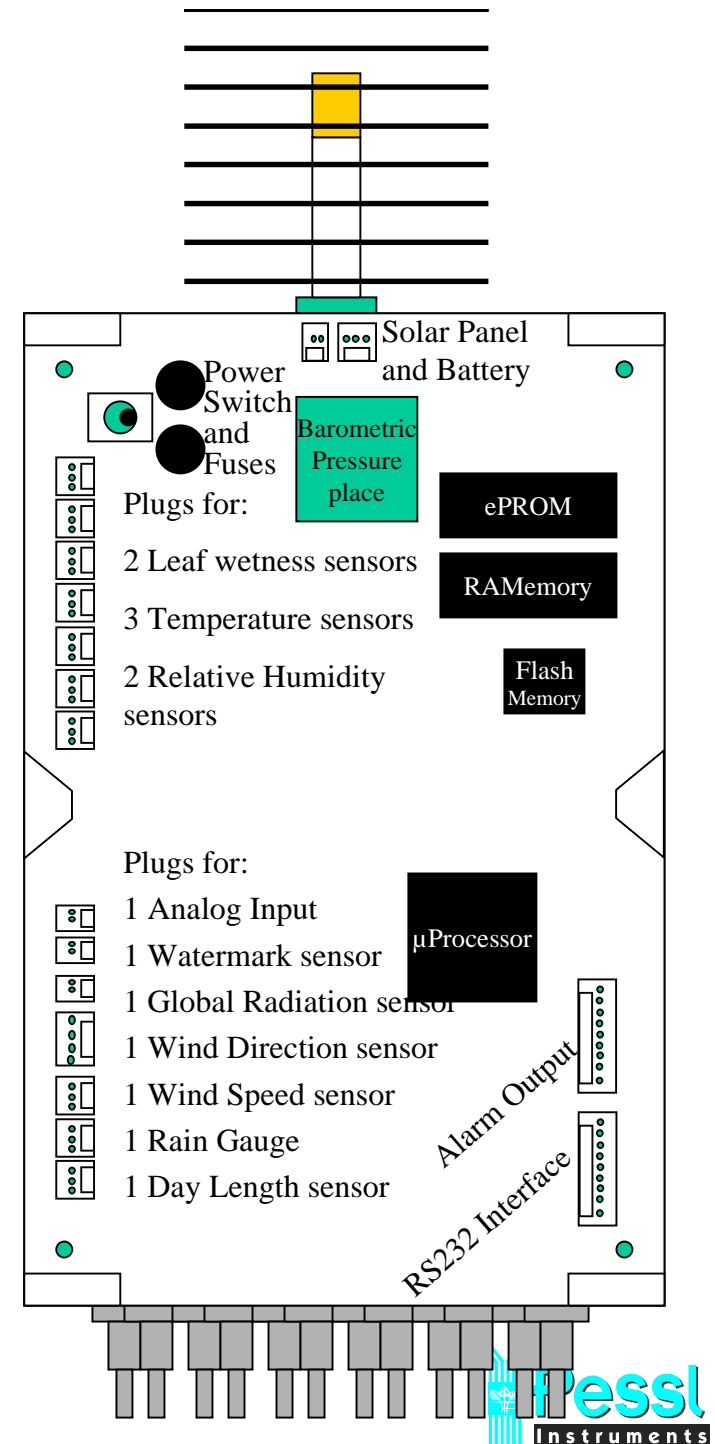
The actual METOS Compact is representing more than 14 years of experience in producing electronic climate stations by Pessl Instruments.

# METOS<sup>®</sup> Compact



More than two years ago the former barometric pressure input has been changed to an open unspecified input place. This gives bigger opportunities to adapt the system on specific needs. The extended use of one unspecific analogous input place:

- Barometric pressure
- Second Watermark sensor
- tensiometer
- conductivity
- ....



# METOS<sup>®</sup> Compact



More than two years ago the standard speed and the behaviour of the serial interface has been changed to 19200 and the support of hardware handshake. This change was made to support the use of GSM modems. It is still possible to change the speed to lower Baud rates by the use of a specific command:

This change of Baud rate will be part of the upcoming software version.

GSM modems are working with 9600 up to 14400 Baud in air. This is only possible if the speed on the serial line is equal or higher than 9600 Baud.



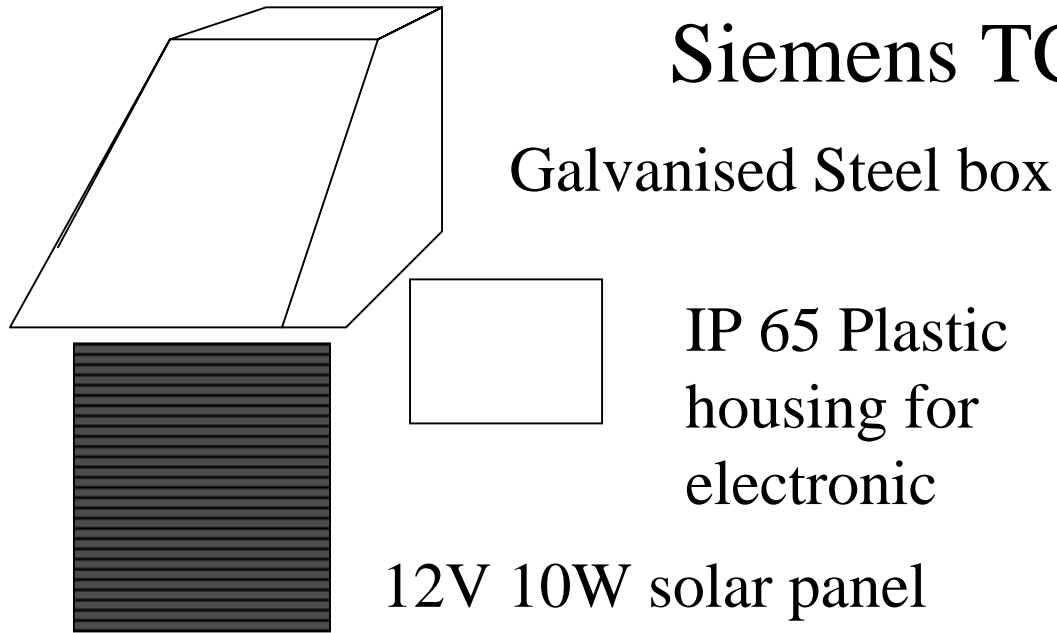
# METOS<sup>®</sup> Compact GSM Solutions

Since more than six years we are delivering GSM solution. This solutions have changed quite a bit during the years. At this time we are supporting 2 solutions for different applications.

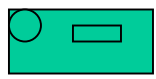
- 12V Package: Big Solar Panel and car battery with Siemens TC35
- 6 V Package: METOS Compact Battery with METOS Compact solar panel and Wavecom modem


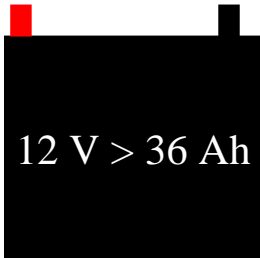


# 12V Package: Big Solar Panel and car battery with Siemens TC35



 12V 6 A solar charging controller

 TC35 modem and antenna with cable and holder

  12 V > 36 Ah  
SIM card and battery is purchased locally

sturdy

simple

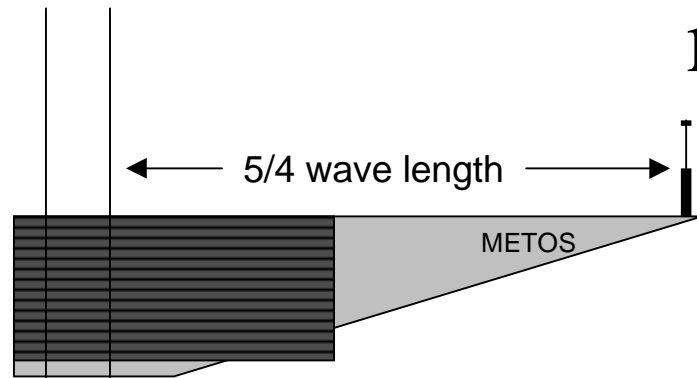
powerful

winter hard

big

expensive

# 6 V Package: METOS Compact Battery with METOS Compact solar panel and Wavecom modem



sturdy

simple

Solar panel 6V 1.6W



power efficient

Lead Acid Battery 6V 4Ah



winter adaptable

Metos Solar charging controller



small

Wavecom modem antenna and cable



cost effective

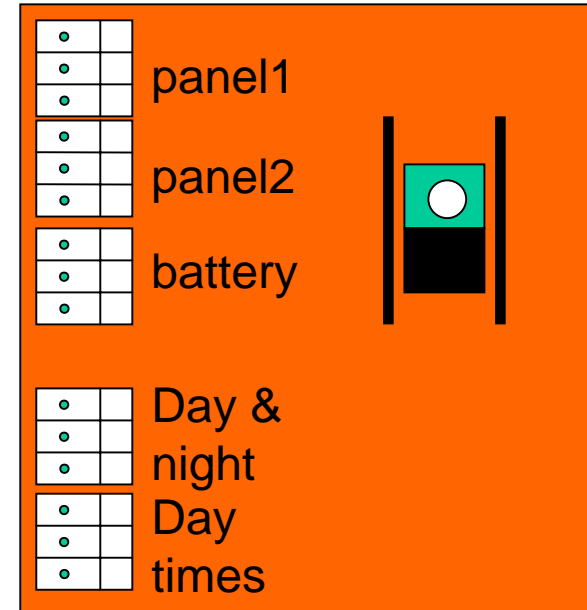
SIM card has to be purchased locally



The new METOS Solar charging controller gives the opportunity to use a small solar package nearly everywhere

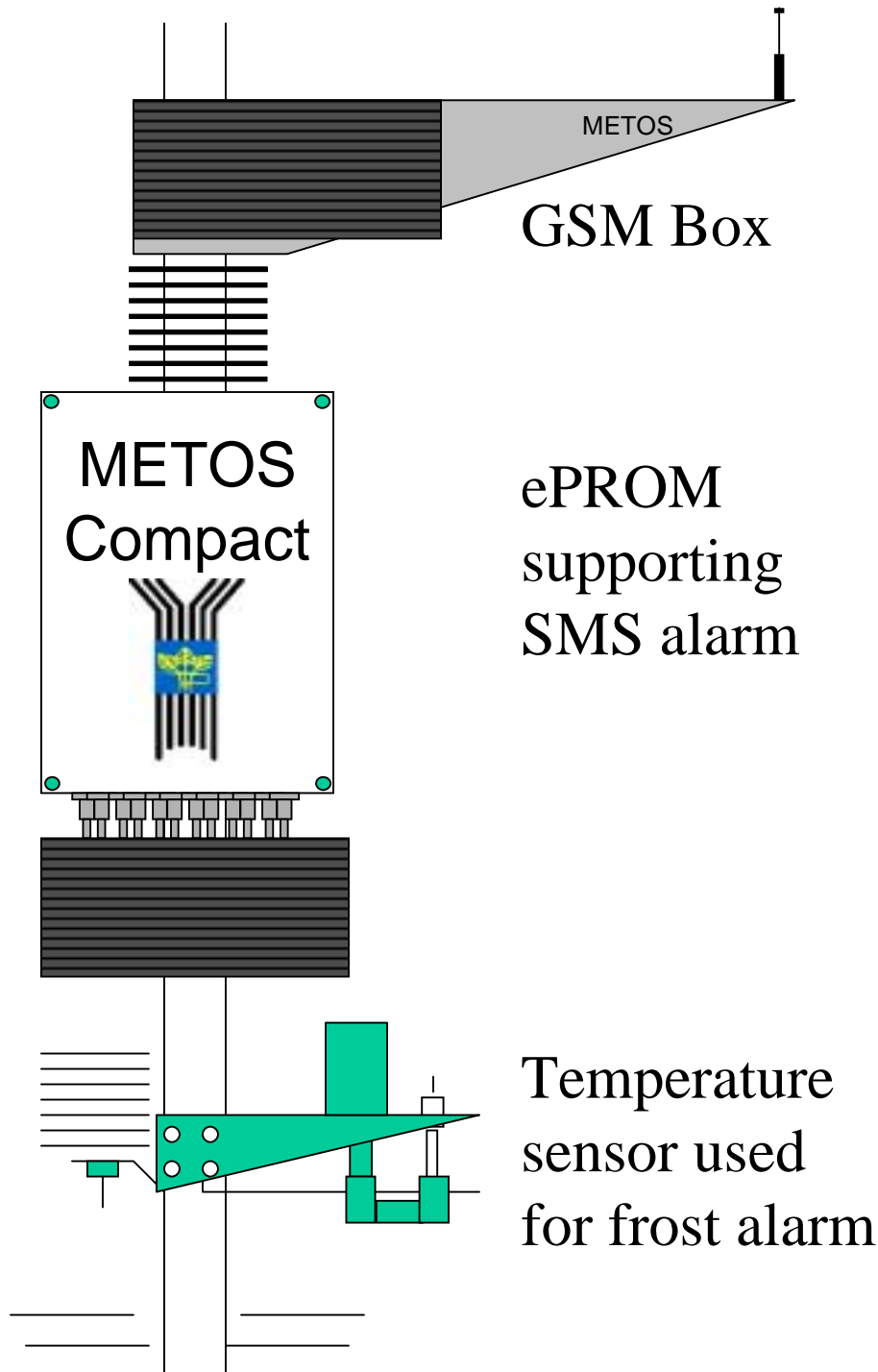
## Features

- support of 2 solar panels
- support of all day consumer
- support of only day consumer



Easy adaptable to the local sun shine situation. Mediterranean climate will not need more than one solar panel for all year 24 hour use. In winter fog areas it will help to switch off the consumer if the solar panel has no power. This means all day use most the time of the year and day time use only from late fall to spring. In northern European areas where sun shine hours are limited it can be beneficial to connect a second solar panel.

# What makes a METOS Compact SMS?



- The SMS alarm like it is at this stage is designed for frost warnings e.g. for apple growers.
- It could be expanded to other sensors if there is evidence to do it.
- It is designed to be used with GSM networks because of their standardisation

# SMS Alarm Features

## Common Features

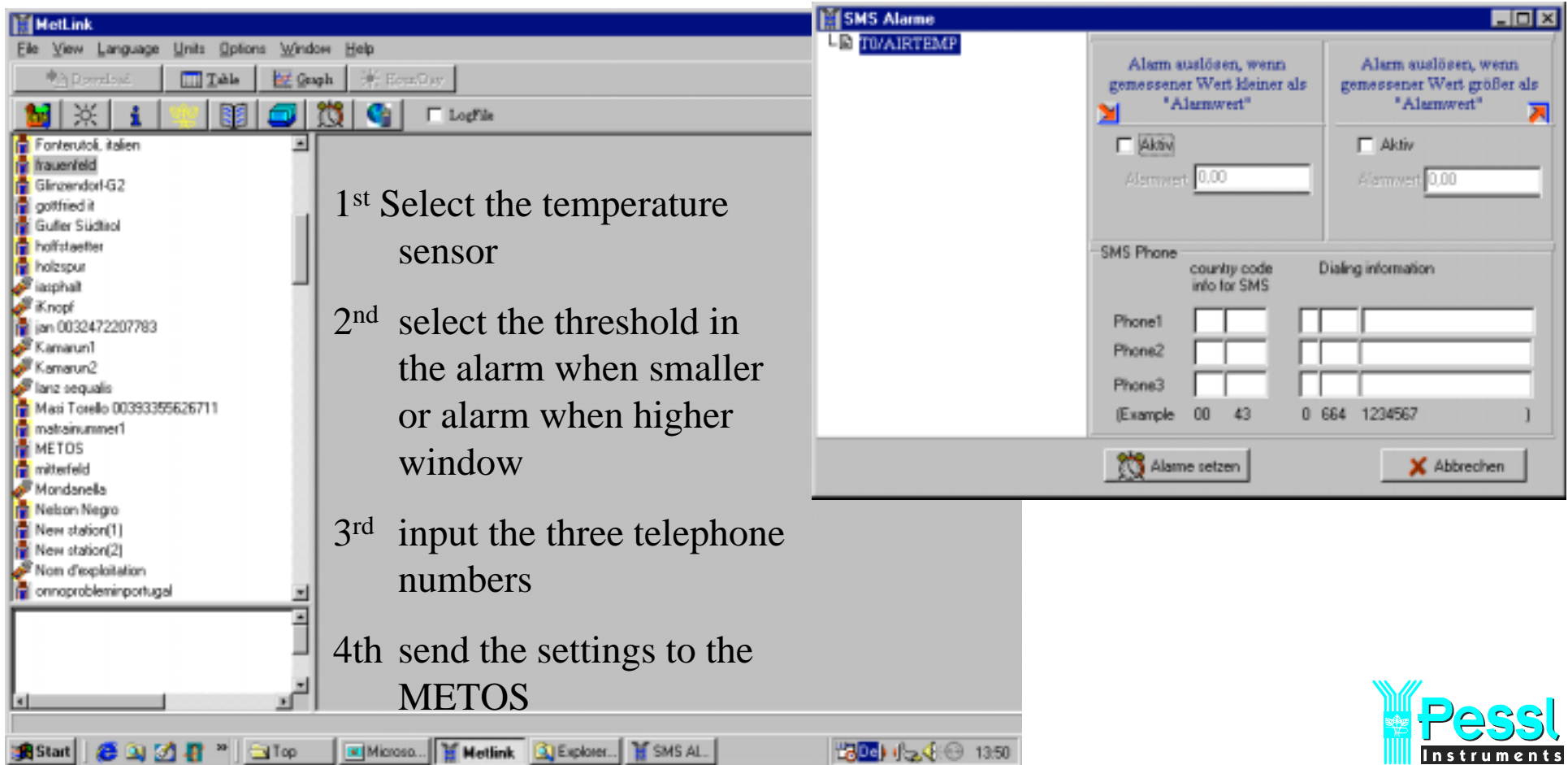
- Overall availability of GSM signal
- mobile phones are part of common life
- good delivery service inside GSM networks is guaranteed in most European countries
- no extra receiver for the alarm is needed

## METOS specific features

- 3 receivers possible
- selectable sensor
- selectable threshold
- multiple settings possible
- easy set-up by MetWin or in future via cell phone
- telephone will ring after receiving SMS

# How to set up an SMS alarm from PC

Use MetWin2 or MetLink to set up the SMS alarm. If your climate station supports this feature the SMS button is visible. Before using the SMS button make sure that all the sensors on the METOS are working. This is easiest to take a data download and to check the value.



The image shows a screenshot of the MetLink software interface. The main window displays a list of climate stations on the left, including 'Forsterutol, italien', 'frauenfeld', 'Glinzendorf G2', 'gotfried it', 'Guller Südtirol', 'hofstaetter', 'holzspur', 'isphall', 'iknopf', 'jan 0032472207783', 'Kamarun1', 'Kamarun2', 'lanz sequalis', 'Maxi Torello 00393355626711', 'maltaummer1', 'METOS', 'mitterfeld', 'Mondanella', 'Nelson Negro', 'New station(1)', 'New station(2)', 'Non d'exploitation', and 'onnoproblemportugal'. The 'METOS' station is selected. A secondary window titled 'SMS Alarme' is open, showing configuration options for an SMS alarm. The window has a tab labeled 'T0/AIRTEMP'. It contains two sections for alarm settings: 'Alarm auslösen, wenn gemessener Wert kleiner als "Alarmwert"' and 'Alarm auslösen, wenn gemessener Wert größer als "Alarmwert"'. Each section has an 'Aktiv' checkbox and an 'Alarmwert' input field set to '0.00'. Below these is the 'SMS Phone' section, which includes 'country code info for SMS' and 'Dialing information' fields. There are three rows for 'Phone1', 'Phone2', and 'Phone3'. An example is provided: '(Example 00 43 0 664 1234567)'. At the bottom of the window are buttons for 'Alarme setzen' and 'Abbrechen'.

1<sup>st</sup> Select the temperature sensor

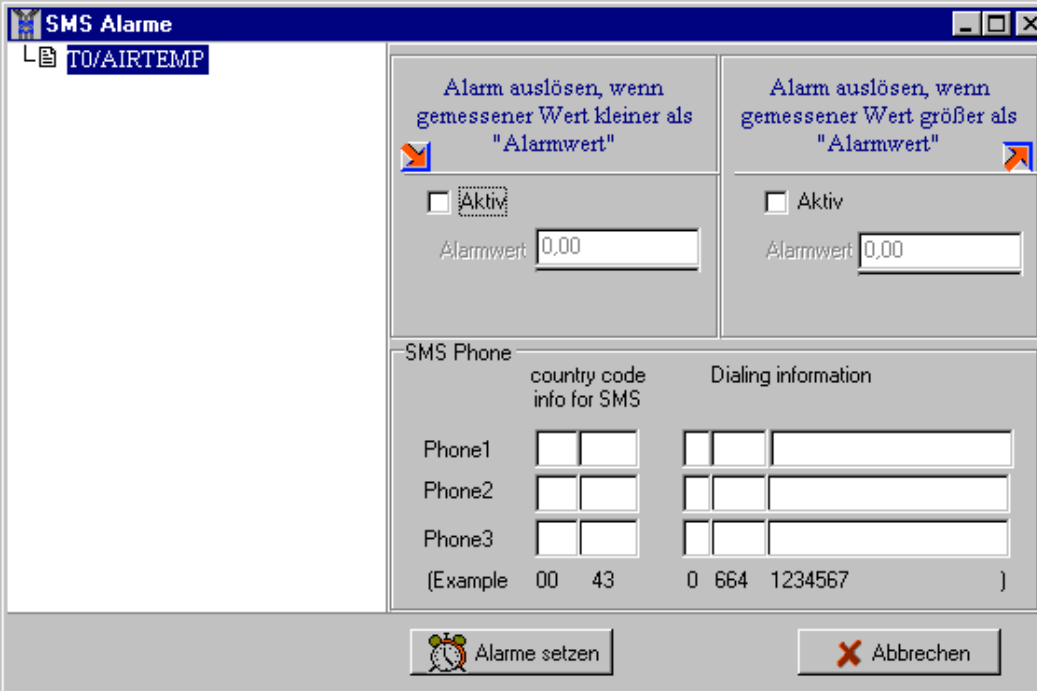
2<sup>nd</sup> select the threshold in the alarm when smaller or alarm when higher window

3<sup>rd</sup> input the three telephone numbers

4<sup>th</sup> send the settings to the METOS

# How does the SMS Alarm work

An alarm is send when the situation is reached. If the situation is left and reached again another alarm goes out. If the situation stays for less than 5 hours no other alarm is made if it is longer than 5 hours a second alarm will occur.



The screenshot shows a software window titled "SMS Alarme" with a sub-header "TO/AIRTEMP". The window is divided into several sections:

- Left Panel:** A large empty area with a small icon and the text "TO/AIRTEMP".
- Top Right Section:** Two columns of settings for alarm triggers.
  - Left Column:** "Alarm auslösen, wenn gemessener Wert kleiner als 'Alarmwert'". It includes an "Aktiv" checkbox (unchecked) and an "Alarmwert" input field containing "0,00".
  - Right Column:** "Alarm auslösen, wenn gemessener Wert größer als 'Alarmwert'". It includes an "Aktiv" checkbox (unchecked) and an "Alarmwert" input field containing "0,00".
- Bottom Section:** "SMS Phone" configuration.
  - country code info for SMS:** Three input fields labeled "Phone1", "Phone2", and "Phone3". Below them is an example: "(Example 00 43 )".
  - Dialing information:** Three input fields for dialing information, with an example: "0 664 1234567 )".
- Bottom Buttons:** "Alarme setzen" (with an alarm clock icon) and "Abbrechen" (with a red X icon).