



Manual

iMetos TNS

iMetos CP

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1. Unpack your iMETOS – the different models

The iMETOS will consist in minimum of one stainless steel holder wearing the small Box with the

electronic and the modem, the battery, the solar panel and the antenna.

Beside of the iMETOS itself you will find in its box a pair of clamps to mount it on the pole. If it has an anemometer you will find the cup wheel and a small allen key. If it has an anemometer and a wind direction sensor it will have two more mounting clamps and a holder for wind direction and wind speed. Beside of this you will find a manual and a letter with you access codes for <http://www.metos.at/fieldclimate>



The different models of i metos CP

Art.No.	<i>iMetos cp - Internet based Monitoring device Irrigation & Plant Protection, incl. 1 5 mt Interface ECH870 Battery 12AH, GPRS based, Logger, Mounting brackets, Sensors as per model, soil moist. Sensors not incl.</i>
CP50	iMetos cp (Temperature with convection cap)
CP100	iMetos cp (Temperature and Rel. Humidity)
CP120	iMetos cp (Global Radiation, Temperature and Rel. Humidity)
CP150	iMetos cp (Global Radiation, Rainfall, Temperature and Rel. Humidity)
CP200	iMetos cp (Rain, Temperature, Leaf Wetness and Rel. Humidity)
CP250	iMetos cp (Temp., Rel. Humidity, Radiation, Rainfall, Leafwetness)
CP280	iMetos cp (Temp., Rel. Humidity, Radiation, Rainfall, Windspeed)
CP300	iMetos cp (Temp., Rel. Humidity, Radiation, Rainfall, Windspeed, Leafwetness)

The iMetos TNS

Art.No.	<i>iMetos II base unit - Internet based logger, Battery 12AH GPRS based, Logger, Mounting brackets, Sensors as per model, 2MB memory (approx. 180 days)</i>
TNS30	iMetos II - base unit (no sensors)

Sensors as specified by the Customer.

2. iMETOS common principles: Preparation

- Check the SIM card with a mobile Phone
- To see if it starts without SIM-PIN request.

If not use the security settings of the mobile phone to switch off the SIM-PIN request.

- To see if it can receive SMS messages.

If not you have to use a different SIM Card in the iMETOS to receive the SMS message.

- To see if it can send SMS messages.

This is only needed if you like to use an iMETOS SMS alert service.

- To see if it can connect to the internet.

If your mobile phone uses GPRS internet connection this is the easiest way to prove this.

- Enter the SIM card

Sometimes the iMetos station requires a special SMS with the settings for APN (Access Point Name)

- Send the SMS with the GPRS settings

- Connect the battery power.
- Check the blinking code.

Send the SMS with the GPRS settings:

- You need the serial number of the iMETOS i.e. 00000D1C
- You need the telephone number of the SIM card you use in the iMETOS to receive the SMS
- If you use a SIM card from a mobile phone which has been in use please delete all saved SMS messages from this SIM card upfront
- Enter the SIM card into the iMETOS
- Send an SMS with the message:

! SerialNr 0 **APN**,**USERNAME**,**PASSWORD** !

! 00000D1C 0 **gprs.zain.bn**,**(*)**,**(*)** !

Sometimes there is no username and password required then it looks like this:

! 00000D1C 0 **gprs.zain.bn**,, !

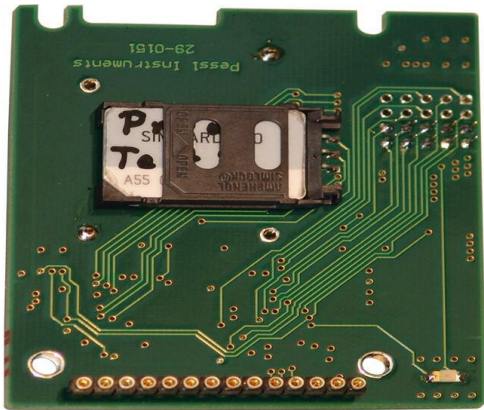
Normally an SMS is forwarded quite fast, but if an SMS needs longer than 1 or 2 minutes to be forwarded it could be that the modem of the iMetos goes to sleep. In this case please enter the SIM card for the iMetos in a mobile phone and select the option to store all SMS messages on the SIM card and not in the phone. Use a second phone and send the SMS with the setting for APN to the number of the SIM card for the iMETOS station. After receiving the SMS you can put the SIM card into the iMETOS then the iMETOS will read this message and use it.

Unplug battery and solar panel and plug in again and check the blinking code.

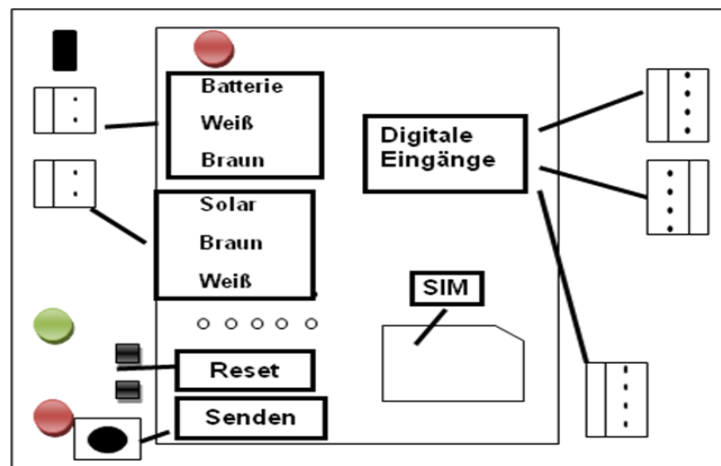
3. Start-up the iMETOS

To start up the iMETOS you will need a valid GSM contract with the possibility to send at least 5MB data on GPRS per month and with the ability to send and receive SMS-messages. This contract has to be activated up front. Please make sure that the PIN code of the SIM-card is deactivated. To deactivate it you will need a mobile phone of the same company.

Next open the electronic box of the iMETOS and enter the SIM-card.



Reset the unit by disconnecting the battery and the solar panel and connect them again after 1 minute. Note when the solar panel stays connected no reset is performed. Now the iMETOS starts with a self test and it starts up the modem and registers in the Internet. The success of this can be observed by a blinking code of the iMETOS LED and the modem PCB LED.



Blinking code

- **Connect to power:** iMETOS LED short on - long off blinking, wait for modem
- **GSM connecting:** GSM LED short on - long off, iMETOS LED short on – short on – long off
- **TCP/IP connected:** GSM LED short on – long off, iMETOS LED short on – short on – short on – long off
- **Data successfully send** iMETOS LED short on –short on – short on – short on – long off
- **Test not successful:** iMETOS LED stays on

If the SIM card has been successfully inserted your iMETOS has registered in the internet and it will send data to the internet following the schedule you have set for this iMETOS in <http://www.metos.at/fieldclimate>

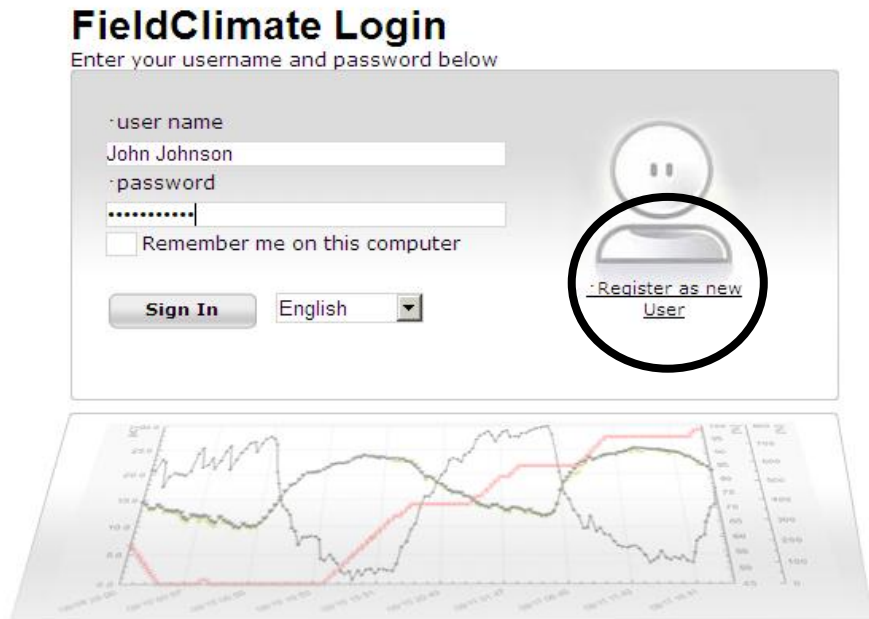
4. Setting up the iMETOS in [http:// fieldclimate.com](http://fieldclimate.com)

FieldClimate.Com is the web service you are intended to use your iMETOS with. It allows you to see the data in graphs or tables. It provides interfaces for automatized downloads and it provides a powerful decision support system for plant protection and irrigation.

4.1. Register yourself as a user on FieldClimate.Com

To use the services on FieldClimate.Com it is needed to register as a user for this. Please press the link with you see surrounded by the circle on the graph beside.

The registration screen which comes up now asks you for a username and a password and it needs your email address as well as your postal address and some information about the company. Please note you will have to enter the real email address. A acknowledge email is sent to your inbox and its containing link has to be used to activate the newly created user account on FieldClimate.Com.



FieldClimate Login
Enter your username and password below

· user name
John Johnson

· password
.....

☐ Remember me on this computer

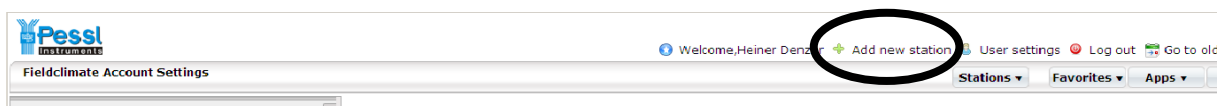
English ▾

[Register as new User](#)

The image shows a login form with fields for username and password, a 'Remember me' checkbox, a 'Sign In' button, a language dropdown set to 'English', and a link to 'Register as new User' which is circled in black. Below the login form is a preview of a data graph.


4.2. Add the iMETOS to your account

If you have got the activation email and you activated the account you will be able to enter to FieldClimate.Com. Now the system welcomes you with the error message that there is no iMETOS connected to this new account. To change this, press the “Add New Station” link.



The image shows the 'FieldClimate Account Settings' page. The top navigation bar includes links for 'Welcome, Heiner Dens', 'Add new station' (circled in black), 'User settings', 'Log out', and 'Go to oic'. Below the navigation bar are tabs for 'Stations', 'Favorites', and 'Apps'.

It will ask you for a serial number and a key. Now the little silver coloured sticker which came with your iMETOS has to be used. This sticker contains two keys. Key 1 gives the power to change all the



[Add a new Station](#)

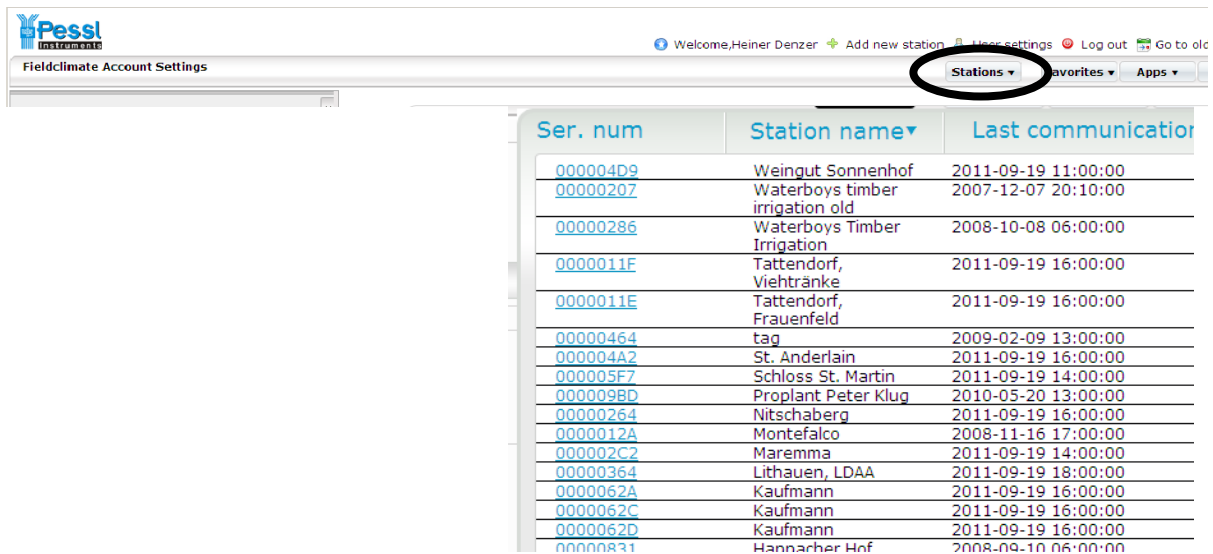
Information

· Serial No.

· Key

The image shows a form titled 'Add a new Station'. It has a section for 'Information' with fields for 'Serial No.' and 'Key', and a 'Submit' button.

settings on the iMETOS whereas key 2 is only valid to use the data of the system. To be able to set up the iMETOS please enter the key 1 here. If you entered the correct key your station list will be enlarged by this iMETOS and it can be selected.

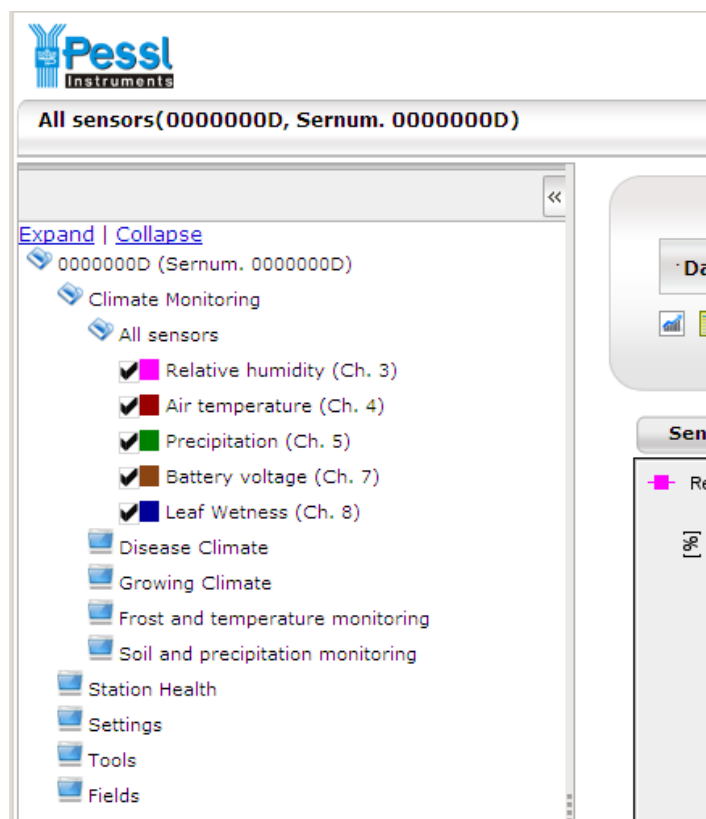


Ser. num	Station name	Last communication
000004D9	Weingut Sonnenhof	2011-09-19 11:00:00
00000207	Waterboys timber irrigation old	2007-12-07 20:10:00
00000286	Waterboys Timber Irrigation	2008-10-08 06:00:00
0000011F	Tattendorf, Viehtränke	2011-09-19 16:00:00
0000011E	Tattendorf, Frauenfeld	2011-09-19 16:00:00
00000464	tag	2009-02-09 13:00:00
000004A2	St. Anderlain	2011-09-19 16:00:00
000005F7	Schloss St. Martin	2011-09-19 14:00:00
000009BD	Proplant Peter Klug	2010-05-20 13:00:00
00000264	Nitschaberg	2011-09-19 16:00:00
0000012A	Montefalco	2008-11-16 17:00:00
000002C2	Maremma	2011-09-19 14:00:00
00000364	Lithauen, LDAA	2011-09-19 18:00:00
0000062A	Kaufmann	2011-09-19 16:00:00
0000062C	Kaufmann	2011-09-19 16:00:00
0000062D	Kaufmann	2011-09-19 16:00:00
00000831	Hannacher Hof	2008-09-10 06:00:00

4.3. The iMETOS Menu

When you selected an iMETOS and the site has reloaded the menu visible on the left side of the screen is valid for the selected iMETOS. The menu starts with the given name and serial number of the station. Pessl Instruments tried to structure the menu following the frequency you will need the different entries. Therefore the menu starts with the links responsible for data presentation. It can be used to open graphs and tables of:

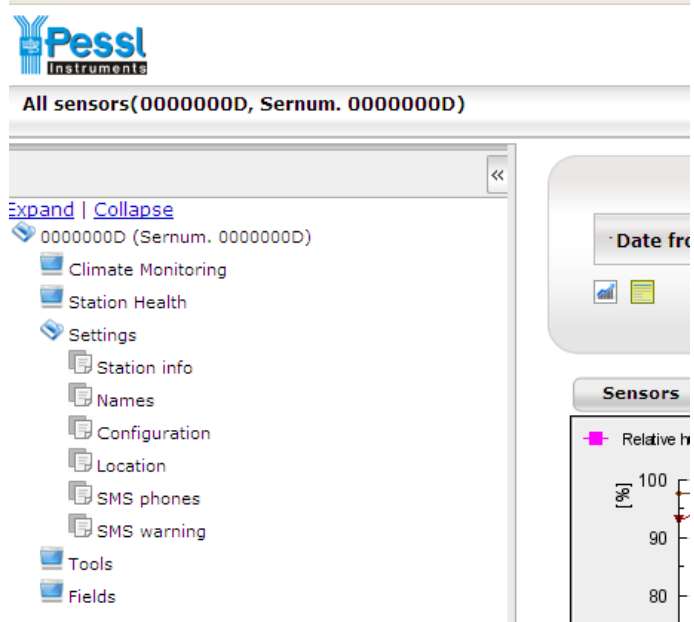
- **All sensors**
- **Disease related Climate sensors**
- **Plant Growing related Climate sensors**
- **Sensors for Frost and temperature monitoring**
- **Sensors for Soil and precipitation monitoring**



The menu entry “**Station Health**” shows battery voltage and solar panel voltage to inform about the charging situation. “**Settings**” are used to control the behaviour of the iMETOS in the field and in the internet. “**Tools**” contains a set of helpful functions for data presentation and data use.

4.4. Settings for your iMETOS

The settings menu starts with the link “**Station info**” which displays you information about the name, type and software of the iMETOS. It shows you the GPS position which has been set for this station. It lists the duration of the data recorded on FieldClimate.Com for this station. From this screen you will be able to look for the statistics of the internet connections done by the iMetos and some events logged by the device.



The link “**Names**” leads you to a screen where you can enter a given name for the station and for all sensors. The “**Configuration**” link lets you enter the logging interval, the time zone, the transmission times and a telephone number to which an emergency SMS is send on malfunction of the iMETOS. “**Location**” offers you a tool to enter the GPS position of the iMETOS by the use of maps or satellite pictures. The links “**SMS phones**” and “**SMS warning**” are needed to set up an alert system for frost or soil moisture.

4.5. Giving names to the iMETOS

Every iMETOS is significant named by a serial number. For the most users it is more convenient to name it after the site it is installed. Therefore the names screen offers the possibility to enter a given name.

Station name(0000000D, Sernum. 0000000D)

Station name: 0000000D

User defined station name:

Code	Chain	Channel	Sensor name	User defined Sensor name	Unit	
1	0	3	Relative humidity	<input type="text" value="Relative humidity"/>	[%]	<input type="button" value="Ok"/>
0	0	4	Air temperature	<input type="text" value="Air temperature"/>	[°C] <input type="button" value="v"/>	<input type="button" value="Ok"/>
6	0	5	Precipitation	<input type="text" value="Precipitation"/>	[mm] <input type="button" value="v"/>	<input type="button" value="Ok"/>
7	0	7	Battery voltage	<input type="text" value="Battery voltage"/>	[mV] <input type="button" value="v"/>	<input type="button" value="Ok"/>
4	0	8	Leaf Wetness	<input type="text" value="Leaf Wetness"/>	[min] <input type="button" value="v"/>	<input type="button" value="Ok"/>

If you enter the name, the “**update**” link has to be pressed to save this entry on the web server. In the sensors name menu the given name for the sensor can be entered and the colour for the sensor can be changed by clicking on the colour field. These settings have to be send to the web server by pressing the “**OK**” link in the specific line.

4.6. Setting the Configuration of an iMETOS

Users of a new iMETOS have to visit this link to select the time zone. If the time zone is not set the iMETOS will assume to be in Greenwich time (GMT). The setting for logging interval and transmission times will work with the default values as long it is not changed.

Configuration(0000000D, Sernum. 0000000D)																									
Name	0000000D																								
User defined name	0000000D																								
Logging interval [min] info	60 min ▼																								
Emergency SMS No.	<input type="text"/>																								
Time zone	GMT +01 Belgrade, Bratislava, Budapest, Ljubljana, Prague ▼																								
Data transfer interval every day	<table border="1"> <tbody> <tr><td><input checked="" type="checkbox"/> 0:00</td><td><input checked="" type="checkbox"/> 1:00</td><td><input checked="" type="checkbox"/> 2:00</td><td><input checked="" type="checkbox"/> 3:00</td></tr> <tr><td><input checked="" type="checkbox"/> 4:00</td><td><input checked="" type="checkbox"/> 5:00</td><td><input checked="" type="checkbox"/> 6:00</td><td><input checked="" type="checkbox"/> 7:00</td></tr> <tr><td><input checked="" type="checkbox"/> 8:00</td><td><input checked="" type="checkbox"/> 9:00</td><td><input checked="" type="checkbox"/> 10:00</td><td><input checked="" type="checkbox"/> 11:00</td></tr> <tr><td><input checked="" type="checkbox"/> 12:00</td><td><input checked="" type="checkbox"/> 13:00</td><td><input checked="" type="checkbox"/> 14:00</td><td><input checked="" type="checkbox"/> 15:00</td></tr> <tr><td><input checked="" type="checkbox"/> 16:00</td><td><input checked="" type="checkbox"/> 17:00</td><td><input checked="" type="checkbox"/> 18:00</td><td><input checked="" type="checkbox"/> 19:00</td></tr> <tr><td><input checked="" type="checkbox"/> 20:00</td><td><input checked="" type="checkbox"/> 21:00</td><td><input checked="" type="checkbox"/> 22:00</td><td><input checked="" type="checkbox"/> 23:00</td></tr> </tbody> </table>	<input checked="" type="checkbox"/> 0:00	<input checked="" type="checkbox"/> 1:00	<input checked="" type="checkbox"/> 2:00	<input checked="" type="checkbox"/> 3:00	<input checked="" type="checkbox"/> 4:00	<input checked="" type="checkbox"/> 5:00	<input checked="" type="checkbox"/> 6:00	<input checked="" type="checkbox"/> 7:00	<input checked="" type="checkbox"/> 8:00	<input checked="" type="checkbox"/> 9:00	<input checked="" type="checkbox"/> 10:00	<input checked="" type="checkbox"/> 11:00	<input checked="" type="checkbox"/> 12:00	<input checked="" type="checkbox"/> 13:00	<input checked="" type="checkbox"/> 14:00	<input checked="" type="checkbox"/> 15:00	<input checked="" type="checkbox"/> 16:00	<input checked="" type="checkbox"/> 17:00	<input checked="" type="checkbox"/> 18:00	<input checked="" type="checkbox"/> 19:00	<input checked="" type="checkbox"/> 20:00	<input checked="" type="checkbox"/> 21:00	<input checked="" type="checkbox"/> 22:00	<input checked="" type="checkbox"/> 23:00
<input checked="" type="checkbox"/> 0:00	<input checked="" type="checkbox"/> 1:00	<input checked="" type="checkbox"/> 2:00	<input checked="" type="checkbox"/> 3:00																						
<input checked="" type="checkbox"/> 4:00	<input checked="" type="checkbox"/> 5:00	<input checked="" type="checkbox"/> 6:00	<input checked="" type="checkbox"/> 7:00																						
<input checked="" type="checkbox"/> 8:00	<input checked="" type="checkbox"/> 9:00	<input checked="" type="checkbox"/> 10:00	<input checked="" type="checkbox"/> 11:00																						
<input checked="" type="checkbox"/> 12:00	<input checked="" type="checkbox"/> 13:00	<input checked="" type="checkbox"/> 14:00	<input checked="" type="checkbox"/> 15:00																						
<input checked="" type="checkbox"/> 16:00	<input checked="" type="checkbox"/> 17:00	<input checked="" type="checkbox"/> 18:00	<input checked="" type="checkbox"/> 19:00																						
<input checked="" type="checkbox"/> 20:00	<input checked="" type="checkbox"/> 21:00	<input checked="" type="checkbox"/> 22:00	<input checked="" type="checkbox"/> 23:00																						
<input type="button" value="submit"/>																									

The logging interval is set to 60 minutes by default. Shorting the logging interval will increase the power consumption and the data transfer costs. It can be set to every multiple of 5 minutes in between 10 and 120. The time zone has to be set. For data transfer all 24 hours can be selected. Using less transfer times will decrease the data transfer costs. The settings are sent to the web server by pressing the “**submit**” link.

4.7. Defining the iMETOS Location

It is more than helpful to define the iMETOS location. First it is the base of geo linked services on iMETOS and second it helps the team doing services on you iMETOS a lot, when they can find the iMETOS without the help of you or your employees.

To define the location a map service is used in which you can select the map or the satellite view. If you enter the address where the iMETOS is installed the correct part of the map will be opened. The zoom + and – allows you to zoom into the map and you can set the iMetos very accurate in its real position. Please enter the altitude if you like to use weather forecast for this device.

If you have the correct GPS position on base of you car navigation system or the agricultural GPS you can enter this data and press the “**submit**” link. Now you can see if the position is correct by checking the map.

After choosing the correct position please enter the submit button.

Location(0000000D, Sernum. 0000000D)

Latitude
37.21562

Longitude
14.06471

Altitude

↑

← →

↓

+

-

Karte Satellit Hybrid

Latitude 37.21562

Longitude 14.06471

Apply

Fattoria Deliella

POWERED BY Google

Kartendaten ©2011 Tele Atlas - [Nutzungsbedingungen](#)

Your address:

4.8. SMS Alerts Numbers

To use the SMS alerts two links are needed. Both can be used first. The SMS numbers are used in case an alert has to be sent. Please enter here the telephone number with the country code. The name entered before the telephone number is not used by the iMETOS. It is a service for you to memorise to whom the iMETOS should send the SMS message.

Enter the number and the name and press the “**submit**” link. If you like to delete a telephone number form the list, use the red cross next to name and number.

SMS Phones(0000000D, Sernum. 0000000D)

Phone number	Name	
00436641521544	Heiner Denzer	×

Add

Phone number	Name	
<input type="text"/>	<input type="text"/>	<input type="button" value="submit"/>

4.9. SMS Alerts Thresholds

To use the SMS alerts two links are needed. Both can be used first. The “**SMS Warning**” link opens a screen which allows selecting a threshold for alert on exceeding (max) or falling short of (min) this. Press the edit button beside of the sensor a threshold has to be set.

SMS Warning(00000000D, Sernum. 00000000D)

Code	Chain	Channel	Name	Warning	Unit	Warning
1	0	3	Relative humidity	min	--	
1	0	3	Relative humidity	max		
0	0	4	Air temperature	min		
0	0	4	Air temperature	max		
7	0	7	Battery voltage	min		
7	0	7	Battery voltage	max		

Back to

Warning Thresholds [info](#)

Sensor	Air temperature
Sensor code	0
Sensor Chain	0
Sensor Ch	4
Unit	C
min	
1	delete
2	delete
3	delete
	add

Now a new screen comes up giving you the possibility to enter the values you wish. After every value you have to press the “**add**” link. Values which are in the list can be deleted by pressing the “**delete**” link.

The number of possible thresholds is various depending on iMETOS type. It showed that it has been enough for all applications.

5. Installing the iMETOS with the climate sensors in the field

Solar panel, battery, temperature and relative humidity, global radiation, rain gauge and barometric pressure are part of the main system. There are usually no long cables for these sensors. Wind speed and Wind direction sensors will need a cable because they have to be mounted on the end of the pole. They normally come with 3 m cable. The soil temperature sensor is coming with 5 m cable. It has to go to ground. Leaf wetness comes with 5 m cable. This sensor is mounted in the canopies of the trees or vines.

Convection cup and global radiation sensor are mounted on top of the holder. They are dismounted during transportation and have to be mounted after unpacking. Just push them under the 3 screws which are prepared in the housing for each of them and fix the screws with a Philips 1 screwdriver.

The solar panel might be clapped down for transportation. Screw the 3 screws in and it will be clapped out. On some systems for cooler climate the solar panel can come on a separate holder. In this

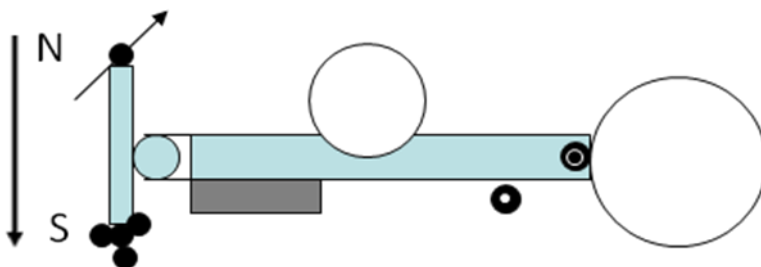
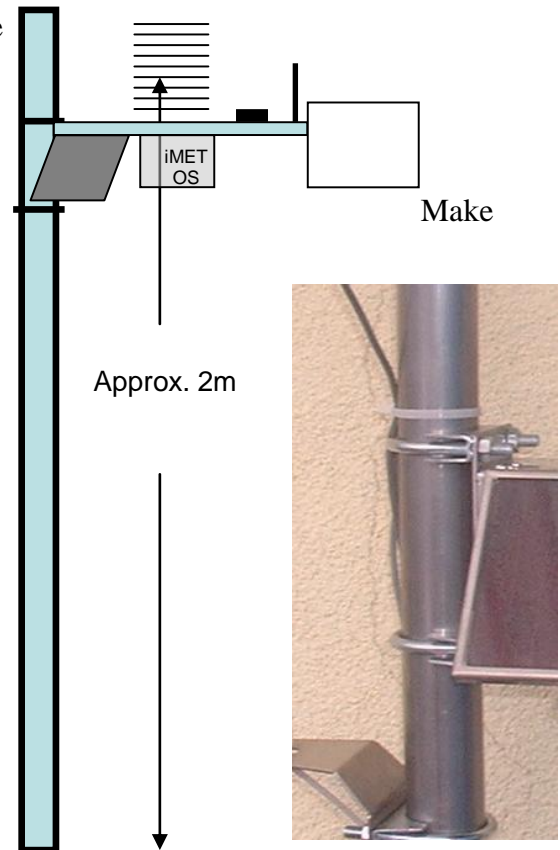


case please fix this holder on the mounting pole by using the clamps which have been added to the package for this purpose.

The temperature and relative humidity sensor should be mounted 2 m above the ground. This is the standard measurement for this climate factors in agricultural meteorology.

The iMETOS is mounted on the post with two clamps. Make sure that the pole is buried as straight as possible. How horizontal the climate station is mounted can be checked by the little water lens at the rain gauge.

On northern hemisphere the solar panel should be exposed to south and the same the global radiation sensor. The wind direction sensor should point towards north and the wind speed sensor should point towards south again.



The leaf wetness sensor comes with a cable tie to be mounted on a brunch of the tree or vine. Please mount this sensor in a position with allows the sensor to pick up the early rain and to stay wet in shadow.

The soil temperature sensor should be buried in earth. How deep it should be buried is depending from the goal which should be reached with the sensor. The have an impression of root growth and nitrogen mineralization in vines or apples in early spring it is best be burry it by 10 to 20 cm. If you want to assess the emergence possibilities of seeds it is depending on the sowing depth of the seed. Using it in corn (maize) would mean to burry it by 5cm and using it for sugar beets would mean to burry it by 2 or 3 cm only.

The wet bulb temperature sensor is mounted in the height of the lowest plant organ which should be protected from frost. Two clamps are packed with the unit to mount this sensor on the post.

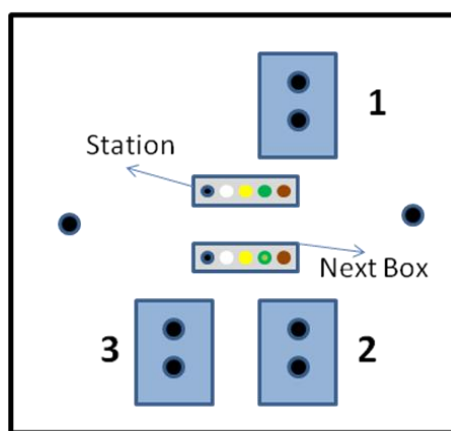


Water level sensors are equipped with 15 m cable to give the sensor into the water. It is combined with a barometric pressure sensor to give the actual air pressure.

6. Installing the soil moisture sensors

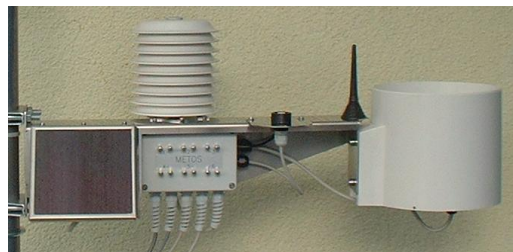
Watermark sensors are returning water tension too. The range of this sensor is in between 10 and 2000 mbar. This sensor fits for all gardening crops, soft fruits, for all tree fruits and for all agricultural crops. It is easy to use and allows applying a controlled deficit regime for crops which can accept.

WM BOX



6.1. Installing the watermark sensors

The watermark sensors are connected to the WM BUS electronic box. The Box gives the possibility to connect 3 sensors to the connectors inside the box. The enumeration of the sensors see picture WM BUS. To connect the sensors you need a 2,5mm screwdriver to open and close the screws.



Before installing the watermark sensors in soil they should be prepared. For preparing please water the sensors 2 times for 12 h and let them try again. The prepared sensors can be buried. This can be done by trilling 20mm holes with a soil probing auger and wetting the holes. But make sure the sensor is pressed down to the button of the hole. Water tension measurement is very sensible to air gaps below the sensor.

The WM BUS is connected to the i metos Board by a cable with a RS 485 PCB with a Plug. This plug can be connect to each digital input.

If you have more than one WM BUS you can connect the second on the connector in the WM BUS

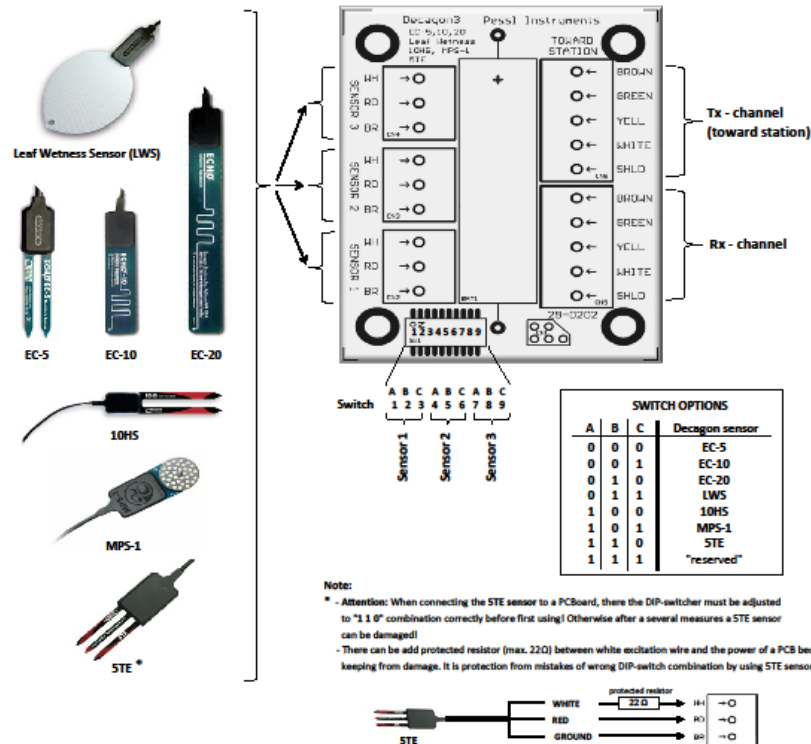
In this case you do not need the RS 485 PCB. It is possible to connect up to 6 WM BUS in one chain the total cable length can be up to 300m.

6.2. Installing the ECHO Sensors

The ECHO sensors are connected to the ECHO 870 Interface.

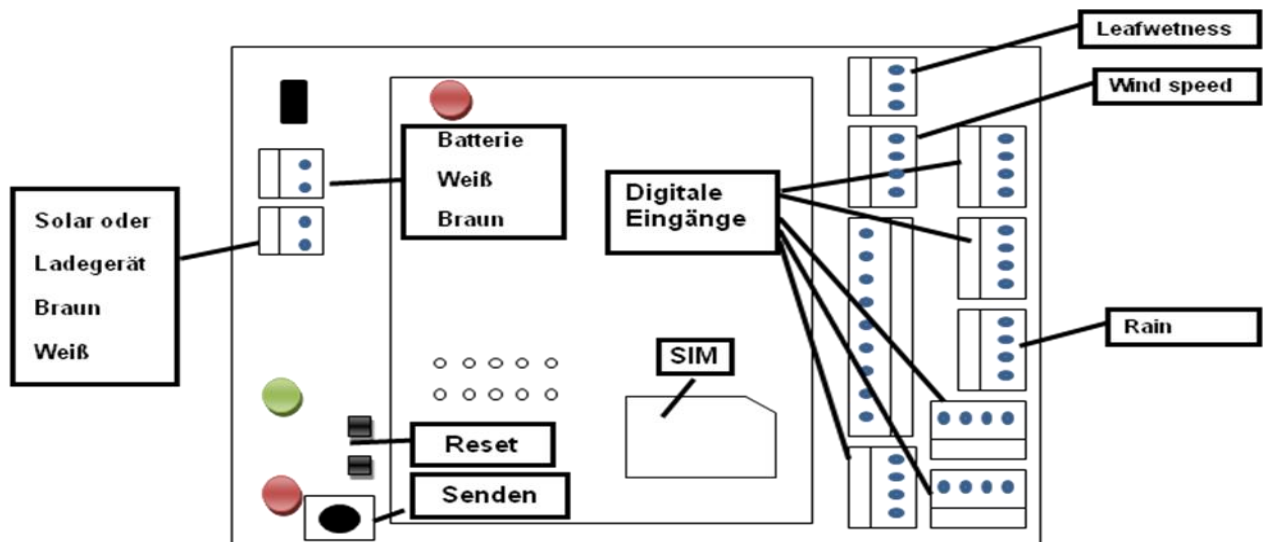
On this Interface you can connect different types of Decagon Sensors (see picture)

* Connection schema of DecagonSens3 (29-0202)
(Firmware version: DecagonSens4.asm)
(version 1.0)



The ECO 870 Interface is connected to the i metos Board by a cable with a RS 485 PCB with a Plug. This plug can be connect to each digital input.

If you have more than one ECO 870 Interface you can connect the second on the connector in the ECO 870 Interface. In this case you do not need the RS 485 PCB. It is possible to connect up to 6 ECO 870 Interface in one chain the total cable length can be up to 300m.

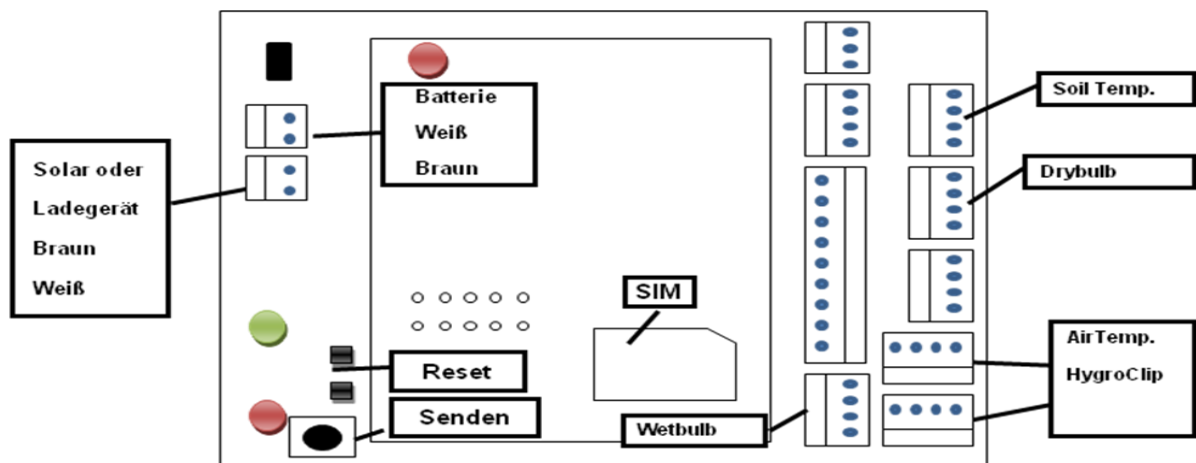


7. Installing new sensors on the iMETOS

Each iMETOS can be expanded to the maximum possible number of sensors. It is equipped with specific inputs for rain, wind speed, leaf wetness, temperature and relative humidity and for watermarks, gypsum blocks or echo probes. Beside of this it has 3 digital inputs more which can be used for a range of different sensors and sensor chains.

iMETOS is able to distinguish in between the different sensors added to the 3 digital inputs. If we connect a global radiation, a photosynthetic active radiant sensor, a wind direction, a barometric pressure sensor or a temperature sensor – they can be detected by their frequency. When we connect digital sensors with a numerical output like chains of tensiometers, they can be detected by their identifier.

7.1. Installing soil temperatures, wet bulb temperatures or dry bulb temperatures

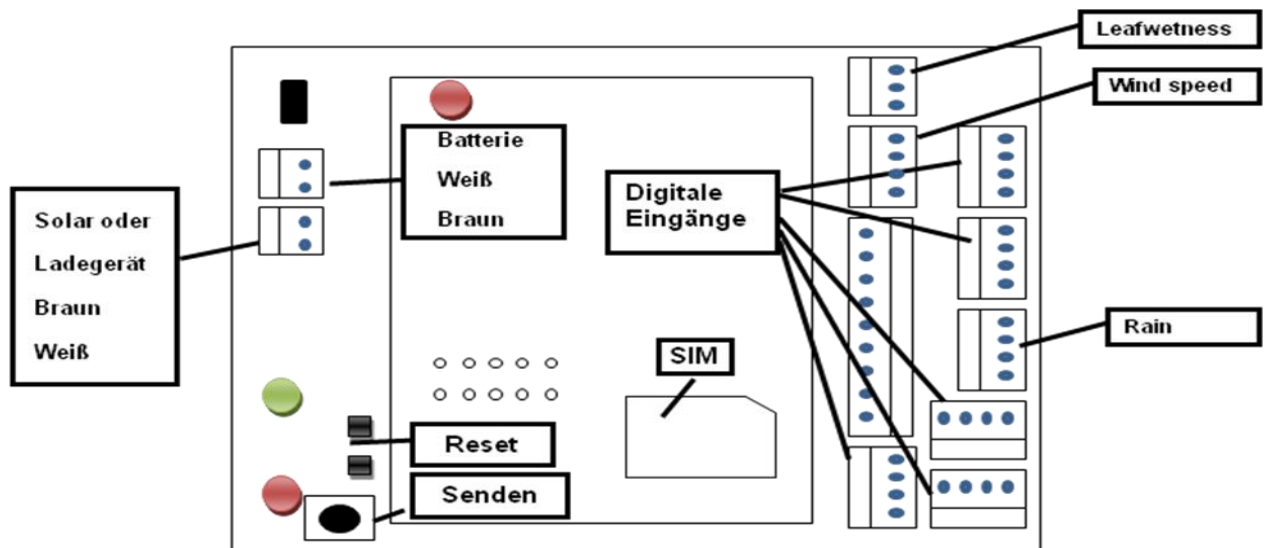


iMETOS is able to distinguish between different sensors. All the temperature sensors iMETOS is normally equipped with are basing on the same IC and they are not distinguishable. Therefore iMETOS make assumptions on the most common temperature sensors for horticulture and agriculture. If sensors are connected like shown in the schematic aside, they will be recognised as this sensors.

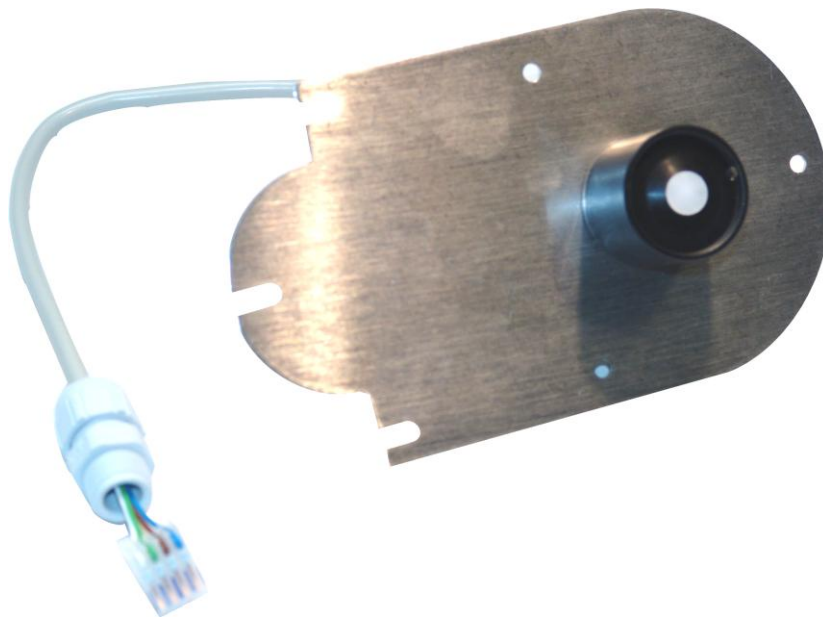
If you connected the temperatures to these connectors and they are not one of the sensors which are preset, please rename them on the website <http://www.metos.at/fieldclimate>. If you are going to rename the sensors in the internet, every combination of temperature sensors is possible.



7.2. Installing a global radiation sensor



The global radiation sensor identifies itself by its frequency. It can be connected to every one of the three not specified digital inputs. The design of the iMETOS makes it more comfortable to enter the box from the right side and to use the middle connector in the right row.

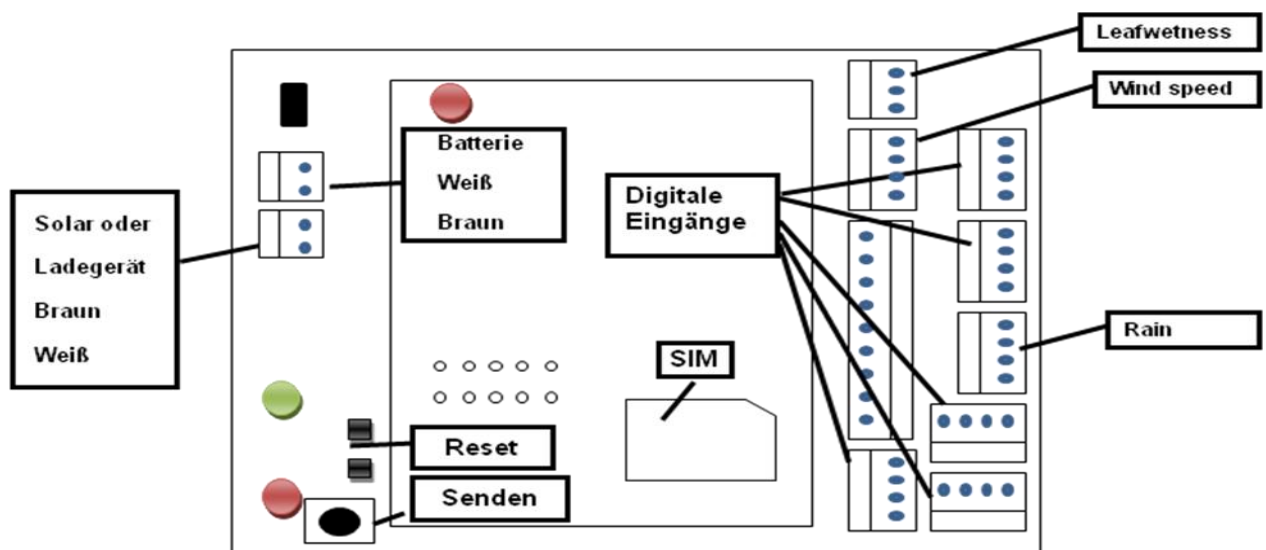


To fix the global radiation sensor on the iMETOS holder unscrew the three screws right of the box and fix the global radiation holder with this screw.

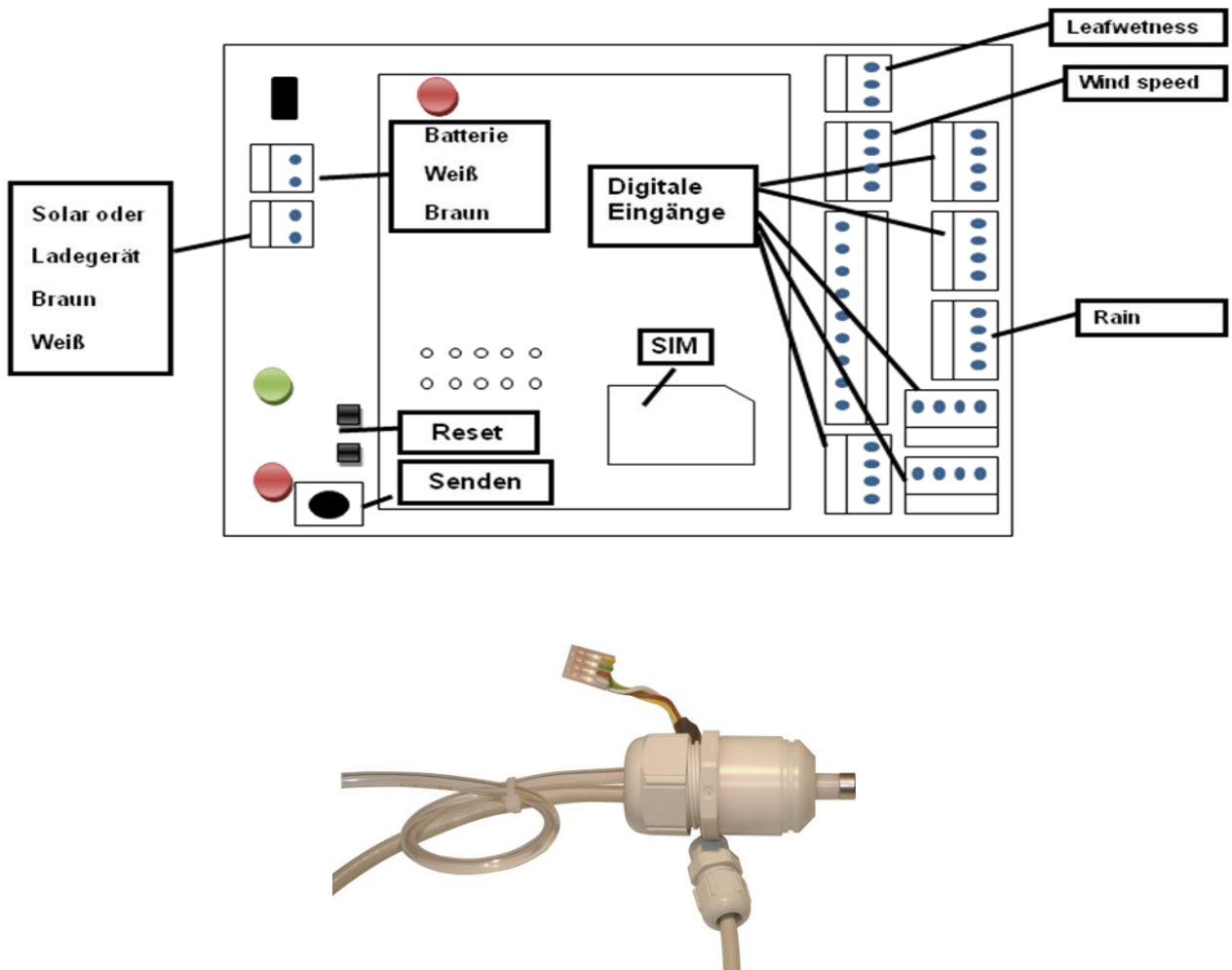
7.3. Installing the wind direction sensor

The wind direction sensor identifies itself by its frequency. It can be connected to every one of the three not specified digital inputs. The design of the iMETOS makes it more comfortable to enter the box from the downside and to connect the sensor to either the lowest connector in the left row of connectors on the right side or the one most above in the right row.

The wind direction sensor is different from the other sensors in its mode of measurement. It uses its own intelligence to measure every second. It transmits the average of its readings on every request from the main unit. To be able to measure during the periods the main unit sleeps this sensor has its own small battery. This battery should last for 10 years. If this sensor fails to work after several years please note that it might be the battery which is empty.



7.4. Installing the barometric pressure sensor



The barometric pressure sensor connected to one of the digital Inputs on the PCB inside the box.

8. Maintaining the iMETOS

When the solar panel of the iMETOS is exposed to the sun and it gets enough sunlight it should recharge the lead acid battery of the system constantly. With this the system should have enough power for years. The lifespan of the lead acid battery can be expected to be 5 to 6 years with sufficient reloading from the solar panel. Insufficient reloading will shorten the lifetime of the battery. In case of insufficient reloading of the battery the system will reduce the frequency of data upload to the amount which is needed to make sure that no data will be missed on the server. With this power use will be reduced and battery power will last longer.

The maintenance needed for the sensors depends on the different sensors. Temperature sensors will not need any maintenance for their lifetime whereas the rain gauge will only work properly when it is cleaned periodically.

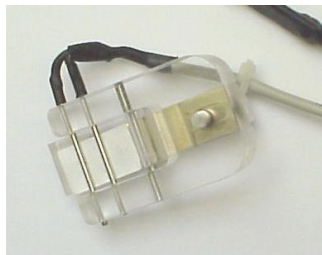
8.1. Maintaining the rain gauge

The funnel of the rain gauge has several small holes to lead the water into the dipping bucket. This holes end to be closed by leafs. Please check the funnel periodically for leafs. The inner side of the rain gauge is a very attractive refugee for several insects. Please check this specially at the end of summer where wasps tend to use the funnel.

The rain gauge can be recalibrated if this is needed. It should kip at 4ml filled into the double spoon. The kipping point can be selected by the white plastic screws below the spoon.



8.2. Maintaining the leaf wetness sensor



The filter paper which is used as a sensing element for the leaf wetness sensor is destroyed after to many wettings and dryings. It has to be changed in dependence of rain frequency.

8.3. Maintaining the temperature and relative humidity sensor



The temperature sensors of iMETOS are free of any maintenance as long they are used in a proper way and the cables are not damaged. The relative humidity sensor is affected by pollution in dependence of the severity of the pollution. In clean air this sensor will give accurate readings for 3 and more years but in polluted air it may give inaccurate high readings after some years of use. In this case the sensor has to be changed against a new calibrated one.

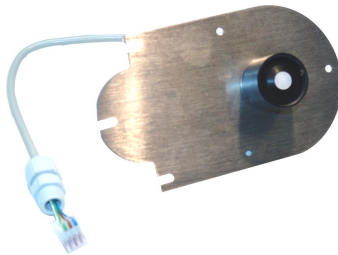
8.4. Maintaining the soil temperature sensor

The soil temperature sensor does not need any maintenance. If it fails it is nearly always do to shorted wires.



8.5. Maintaining the global radiation sensor

The global radiation sensor should be cleaned every month.
After 2 or 3 years the sensor has to be calibrated in our Factory



8.6. Maintaining the wind speed sensor

The wind sensor should be examined whether the cup wheel is low-friction.
If that is not the case sent the sensor for service to us.
If the cup wheel is damaged please orders a new one.

9. General Terms and Conditions of Trade

§ 1 Application of Terms

- (1) Our deliveries and services are subject to the following Terms and Conditions of Trade. We do not accept opposing terms and conditions on the part of our customer or terms and conditions deviating from our own Terms and Conditions of Trade unless such agreement is given expressly and in writing.
- (2) Our Terms and Conditions of Trade also apply if we carry out an order without reservation, while being aware of opposing or deviating terms and conditions on the part of the customer. We hereby expressly reject order confirmations given by the customer which refer to his deviating terms and conditions of purchase.
- (3) Our Terms and Conditions of Trade also apply to all future business transaction with our customer.

§ 2 Offers and Conclusion of a Contract

- (1) Unless agreed upon otherwise, we are bound to our orders for 14 days starting with the date of the offer. After that we can revoke them, even after their acceptance by the customer.
- (2) The customer is bound to his order for 14 days. Our acceptance is given in writing, by telefax or by e-mail, unless we deliver or invoice immediately.
The same applies in the event of amendments, modifications and collateral agreements.
- (3) This form is the binding order confirmation.

§ 3 Scope of Deliveries and Services

- (1) The scope of deliveries and services is determined by the agreements between the parties. Information regarding the scope of deliveries and services do not constitute any warranty on our part to assume the risk of availability of sub-supplies. We reserve the right to claim that we ourselves were not supplied correctly or on time by our suppliers.

Any guarantee or any warranty as to the availability of the products or their components requires an express written agreement between the parties, in which the terms “guarantee” or “risk of availability” are expressly used.

- (2) The details given in our offer/our order confirmation shall determine the quality of the products, which is owed by us. In case of discrepancies between the offer and the order confirmation, the order confirmation shall prevail.

Specifications contained in catalogues, brochures, circulars, advertisements, illustrations and price lists are not binding, unless they have been expressly become part of the contract.

Details mentioned in our order confirmations and drawings which relate to the quality of the product do not constitute any guarantees, particularly no guarantees as to the durability.

Even after conclusion of the contract we are entitled to deliver a comparable product instead of the product agreed upon, provided that this product has been improved compared to the stipulated product and complies with all functions stipulated by the contract. This applies particularly also to additional functions, which were not included in the delivery object originally agreed upon.

- (3) In so far as we deliver software, the details given in the description and the documentation of this software shall determine the quality of this software. We carry out the installation of software only on the basis of a separate agreement. If no such agreement exists, the installation shall be carried out by the customer.
- (4) The scope of deliveries and services does not include training of the customer’s employees. A training course needs to be agreed upon between the parties expressly and in writing.
- (5) We only assume responsibility for installation if expressly agreed between the parties in text form under the Austrian Civil Code.

Unless otherwise agreed upon, installation by us is limited to putting the delivery object up and putting it into operation. These are obligations resulting from the sale of the product. An acceptance of performance under the law of contracts for work and services does not take place.

§ 4 Use of the Software

- (1) In so far as the delivery objects include software or we deliver software subsequently, the customer is granted a non-exclusive license unlimited in time, the scope of which is defined as follows.
- (2) The customer is entitled to reproduce the software delivered or contained in the product only as far as the respective reproduction is necessary in order to use the delivery objects. Necessary reproductions include the installation of the software, which is recorded on the original data carrier, on the bulk memory of the product as well as loading the software on the internal memory. Furthermore the customer may copy the software for backup purposes. However, only one single backup copy shall be made and kept. This backup copy shall be marked as backup copy of the delivered software and shall carry a reference to our intellectual property visible on the data carrier.
- (3) Multiple use of our software and/or use in a network requires our express consent in text form under the Austrian Civil Code and a respective supplementary agreement.
- (4) Recompiling the software to other code forms as well as other types of reverse engineering including changes of the software must be approved by us in advance and in writing. Should we refuse to remedy a defect and should the above-mentioned proceedings be necessary for the correction of the defect, our consent is not required.
- (5) The customer is not entitled to sell or give away the software itself, without the delivery object, to third parties

without our written consent.

§ 5 Cooperation of the Customer

(1) The customer is obliged to cooperate in every respect required for the performance of our contractual obligations. Unless agreed upon otherwise between the parties, particularly the following cooperation is required:

- As regards installation of hardware the customer is obliged to put at our disposal premises equipped with a periphery that meets all necessary technical requirements for the installation of the hardware. Shall our delivery objects be connected to the internet the customer must provide the necessary telecommunication access features in working order.

- As regards the installation of software the customer has to provide us with the hardware, on which the software due is to be installed and to keep this hardware in a condition ensuring a 100 per cent working order.

(2) Should the customer not comply with his cooperation duties and should we thereby incur additional expenses, e.g. travelling expenses, expenses for hotel accommodation, or personnel costs, the customer is obliged to reimburse such additional expenses. Waiting periods caused by the customer's failure to perform his cooperation duties will be billed on the basis of our usual hourly rates.

§ 6 Prices

(1) Unless agreed upon otherwise, our prices are ex works, plus the turnover tax applicable in the Federal Republic of Austria at the respective time. Unless agreed upon otherwise, all other costs are to be born by the customer, for example costs for packaging, transport, insurance, customs etc.

(2) The prices mentioned in our offer are based on our calculations at the time when our offer is made. Should the prices for technical components required for the delivery objects increase by at least 10 per cent after the offer was made respectively the contract was concluded concerning a contract which provides for an obligation of one of the parties which lasts for more than 4 months, we are entitled to increase the stipulated prices by the proportional extra costs.

(3) Invoices are made out in the agreed currency subject to the proviso that the exchange rate (parity price) of the Euro valid on the date of delivery shall serve as the basis for calculation.

§ 7 Payment

(1) Payments shall become due on the agreed date for payment. If no date for payment has been fixed, payments will become due upon receipt of the invoice or an equivalent statement of account. Should the date of receipt of the invoice or the statement of account be uncertain, payments will become due upon receipt of our deliveries or services.

(2) If more than one invoice is outstanding, payments made by the customers will be used to settle the claim longest outstanding.

(3) Payments by draft or check are not considered as payment in cash. Drafts or check are only accepted by way of provisional performance. All discount charges, collection charges, fees or taxes resulting from the acceptance, transfer or cashing of a draft are to be born by the customer. We are not obliged to present drafts, check and other methods of payment on time. If a draft is not discounted or not cashed on time, the entire outstanding debt or the balance of the debt is due for payment.

(4) If the customer does not meet his payment obligations, particularly if he stops payments, we are entitled to claim the entire outstanding debt at once, even if we have already accepted check or drafts. In this event we are also entitled to refuse to carry out the performance of our outstanding obligations, until the customer effects payment or provides sufficient collateral securities.

(5) The customer is not entitled to set off his claims against ours, or to a right of retention, unless his counter claims have been either acknowledged by us or finally established by a Court of Law.

§ 8 Terms of Delivery, Default and Non-Performance

(1) Terms and dates indicated by us are not binding, unless they have been expressly fixed in our order confirmation in writing. Delivery time is the date fixed in writing in the order confirmation. Should all documents, necessary approvals, cooperation etc. to be supplied by the customer not be produced at least one month before the date of delivery, said date of delivery shall be extended by one month, starting with the date on which all the above-mentioned documents, necessary approvals, cooperation etc. have been completed and received.

(2) The date of delivery shall be considered as having been met if the goods have left our factory within the agreed time of delivery, or, in the event of collection by the customer he has been informed of our readiness for shipment.

(3) If we can prove, that we have not been supplied on time by one of our suppliers despite careful selection of our suppliers and despite the conclusion of the necessary contracts under reasonable conditions, the term of delivery shall be extended by the delay which has been caused by our supplier's failure to supply us on time. Should the before-mentioned hindrance last for more than one month, the customer shall be entitled to cancel the contract with respect to the part not yet fulfilled. Claims for compensation are excluded in this event.

We shall only be entitled to avail ourselves of the above-mentioned circumstances if we inform the customer about them immediately, i.e. within 3 working days after we have obtained knowledge.

(4) In the event of our being prevented from fulfilling our contractual duties after the conclusion of the agreement by unforeseen, unusual circumstances, which could not be prevented despite taking appropriate measures under the individual circumstances, particularly by interruption of operations, administrative sanctions or interventions, delays of the supply of essential raw material, energy shortages, etc., the delivery period will be reasonably extended. Should performance of delivery become impossible due to the above-mentioned circumstances, we shall be released from our obligation to deliver.

If the above-mentioned circumstances persist for more than one month, both parties shall be entitled to cancel the contract with respect to the part not yet fulfilled.

The customer is not entitled to claim damages from us in these cases of force majeure. We shall only be entitled to avail ourselves of the above-mentioned circumstances if we inform the customer about them immediately.

This provision applies accordingly in the event of lockouts or strikes.

(5) In the event of delay in accepting performance, the customer has to indemnify us for the loss caused by this breach of contract, in particular for expenses incurred as a result of the storage of the goods. This does not apply if this breach of contract is not attributable to the customer. In this case the customer's obligation to reimburse costs is limited to the expenses incurred by us due to the storage of the goods. After fixing an adequate time limit for accepting delivery but without success, we are further entitled to dispose otherwise of the goods and to supply the customer within a reasonably extended term.

The customer is obliged to effect payments by the agreed date for payment even if he is in default of acceptance. In so far as we dispose otherwise of the goods, the customer is no longer obliged to pay interest on the overdue accounts as of the date of such an otherwise disposal. However, we are not obliged to dispose otherwise of the goods.

§ 9 Passing of the Risk/Shipment

(1) If the delivery object is shipped to the customer upon his request, or if the handing over is done – as it normally is – ex works, the risk of accidental destruction or accidental deterioration of the merchandise passes to the customer together with the handing over to the person entrusted by us with the dispatch, but no later than when the merchandise leaves our works or warehouse; this risk passes irrespective of whether the dispatch took place from the place of performance or who bears the freight costs. If the merchandise is ready for shipment and the shipment or accepting delivery of the merchandise is delayed due to circumstances beyond our responsibility, the risk passes on to the customer upon his receiving our notice of readiness for shipment. We arrange for an insurance of the delivery objects only on the customer's express request.

(2) Unless otherwise determined by the customer, the mode of shipment is at our discretion. We are under no obligation to use the cheapest mode of shipment. The packaging will be invoiced and not be taken back, unless stipulated otherwise by legal provisions, e.g. the "Verpackungsverordnung", or unless otherwise agreed between the customer and us in a particular case.

(3) Samples, originals, and other objects provided by the customer will be stored in an appropriate manner. It is incumbent upon the customer to arrange for any theft, fire, water or other risk insurance; unless the customer entrusts us to effect a respective insurance the costs of which are to be born by the customer. The same applies accordingly if we store goods produced for the customer on his request.

§ 10 Retention of Title

(1) Delivered goods shall remain our property until all outstanding debts resulting from the business relationship between us and the customer have been paid in full. The customer is entitled to resell the goods within his normal business.

(2) In the event of processing or combination of the delivered goods, the retention of title also applies to the new goods and we shall be considered as their manufacturer. If our merchandise is processed or connected with goods or equipment of third parties, we do not own, we will own the share of the joint property in the new object which is determined by the ratio of the invoice value between our merchandise and the other processed merchandise.

(3) If the delivery object is inseparably connected with other objects, we do not own, we will own the share of the joint property in the new object which is determined by the ratio of the value between the delivery object and the other combined goods at the time of their combination.

(4) The outstanding claims of the customer resulting from resale of the goods to a third party shall be considered to have already been assigned by the customer to us at his very moment in total or to the amount of our share of the joint property as security (cf. § 10 clause (2)); we hereby accept the assignment. The customer is entitled to collect these claims until we revoke this authorization or he stops payments. The customer is not entitled to assign these claims, not either in order to collect these debts by way of factoring unless the factor is obliged to transfer the collected amounts directly to us as long as we still have outstanding claims against the customer.

Upon our request the customer must give us the information necessary for collecting the assigned claims, including a copy of the contract with his customer, the invoice and a list of the payments received from his customer.

(5) The customer will advise us immediately of any compulsory execution measures levied by third parties against merchandise sold by us under retention of title, or against claims assigned to us in advance, and will forward to us the documents required for an intervention from our side.

(6) If the customer is in default with his payments twice within six months, or if the customer is insolvent or objective

criteria indicate his insolvency, we shall be entitled, in the case of resale of the goods, to collect the assigned outstanding amounts directly from the customer's customer. Our right to cancel the contract remains unaffected.

(7) At the request of the customer we are obliged to release the security to which we are entitled at our own discretion, should the value of such security exceed the claims to be secured by more than ten per cent.

(8) The customer holds the merchandise sold by us under retention of title for us. He must effect fire, theft and water insurance for it. The customer hereby assigns his claims for compensation against insurance companies and other persons or entities liable for compensation resulting from the kind of damages mentioned in sentence 2 to us to the amount of our respective claim. Should there be a prohibition of assignment, the customer guarantees, that the insurer expressly grants consent to the assignment.

§ 11 Product Control and Product Warning Obligations

(1) In order to protect third parties against dangers which may emanate from our products, the customer is obliged to monitor the product continuously with regard to its safety (product control obligation). The customer will advise us of dangers emanating from the product immediately in writing as soon as such dangers become apparent (product warning obligation).

(2) If claims based on violation of the product control obligation and/or the product warning obligation should be asserted against us by third parties, such liability will be passed on to the customer, if our liability has been caused by a violation of the product control obligation and/or the product warning obligation attributable to the customer.

§ 12 Notice of Defect

The customer's obligation to examine the goods and to make a complaint in respect of a defect immediately on receipt is determined by Austrian Commercial Code (HGB).

§ 13 Liability for Defects/Limitation Period

(1) If the delivered goods and/or the installation and/or the documentation are defective or if certain conditions of the goods do not comply with a guarantee given by us, we have the choice of either repairing the defective goods or replacing them by goods free of defects.

(2) Should two efforts to remedy a defect fail, the customer shall be entitled to choose whether to cancel the contract or to reduce the purchase price.

If the defect has been caused by gross negligence or willful intent on our part, the part of our vicarious agents or persons employed by us in the performance of our obligations and/or if the defect leads to a breach of essential contractual obligations (cardinal obligations) attributable to us, and/or to attributable personal injury, injury to life or to health, or if we have given a guarantee for certain conditions of the goods, the customer may also claim damages. Should our breach of cardinal obligations have been caused by slight negligence and result in financial damage or damage to the customer's property, the claim for damages is limited to typically foreseeable losses.

In these cases there shall be no liability for production stoppages or lost profit.

This limitation on liability applies accordingly to our vicarious agents and persons employed by us in the performance of our obligations.

(3) Should we choose to repair the defect, we shall bear the expenses incurred. This does not include costs resulting from the fact, that the customer has moved the delivered goods from the customer's headquarters or from the delivery location.

If the repair of the defect consists of the exchange of plug-in parts, which can be exchanged without additional technical changes, we may perform our obligation to remedy the defect by sending the plug-in part to the customer combined with instructions for the exchange.

(4) The customer is not entitled to warranty claims

- with regard to defects which have been caused by unreasonable treatment or excess wear by himself or his own customers,

- in the event of operating errors or application errors,

- if the delivery object has been tampered with or altered by incorporating parts not originating from us, except where the defect has not been caused by such changes,

- where assembly or usage instructions, of which we have informed the customer, have not been observed by the customer or his own customers, except in cases where the defect has not been caused by such non-compliance,

- for the suitability of the merchandise for a particular purpose of use, unless this specific use is mentioned in the order confirmation or in written instructions enclosed with the goods, or the suitability for a particular purpose of use has been expressly confirmed by us.

If the defect has been caused by a circumstance, which does not oblige us to warranty, the customer will reimburse us for all expenses caused by his claim.

(5) The regular limitation period for claims based on defects of the delivered goods, which are usually not used for buildings, is 1 year from the delivery of the goods to the customer and, in cases of an installation due by us, from the

performance of the installation.

In so far as we are liable for damages the shortening of the limitation period does not apply to claims for damages based on defects caused by gross negligence or willful intent, attributable breach of essential contractual obligations (cardinal obligations), as well as personal injury, injury to life or to health attributable to us, or if we have given a guarantee as to a certain quality of the goods.

If we have expressly given a guarantee as to a certain quality of the product, the limitation period for claims resulting from this guarantee is 2 years from delivery of the sales object, to which the guarantee relates. If we have given a guarantee as to the durability, the limitation period for claims resulting from this guarantee expires when the term, for which the guarantee as to the durability was given, ends. This limitation period also starts from the delivery of the goods, to which the guarantee relates.

If the duration of guarantee is less than one year, the limitation period is defined by § 13 clause 5 of these General Terms and Conditions of Trade.

(6) If the delivered goods are second-hand goods, any liability for defects is excluded. This limitation on liability does not apply to claims for damages based on gross negligence or willful intent, attributable breach of essential contractual obligations (cardinal obligation), as well as attributable personal injury, injury to life or to health, as well as in case of a guarantee given by us as to a certain quality of the product.

(7) Any possible application of the Product Liability Act remains unaffected.

§ 14 Claims for Compensation Resulting from Breaches of Duties to Protect, Default and Non-Performance

(1) Our liability for defects as to quality and defects of title are not affected by this section (§ 14). The provisions of §§ 13 and 15 of these General Terms and Conditions of Trade apply to this kind of liability.

(2) Claims for compensation resulting from other breaches of duties on our part, particularly duties to protect interests warranting protection and/or obligations arising out of quasi-contractual relationships are excluded unless they are based on gross negligence or willful intent, attributable breach of essential contractual obligations (cardinal obligations), or personal injury, injury to life or health caused by us, our vicarious agents or persons employed by us in the performance of our obligations.

If we are liable for breach of cardinal obligations based on slight negligence, the claim for compensation of financial damages and damage to property is limited to typically foreseeable losses.

In these cases there shall be no liability for production stoppages or lost profit.

(3) This limitation on liability provided for under § 14 clause 2 applies accordingly to claims in tort.

(4) Claims for compensation resulting from delay in delivery or from failure to perform cannot be asserted against us unless they are based on willful intent or gross negligence on our part, on the part of our vicarious agents or persons employed by us in the performance of our obligations.

This limitation on liability does not apply in the event of breach of essential contractual obligations (cardinal obligations) attributable to us.

If we are liable for damages based on slight negligence (breach of cardinal obligations), the claim for damages is limited to typically foreseeable losses.

In these cases of slight negligence there shall be no liability for production stoppages or lost profit.

Any possible right to cancellation of the contract, which the customer may have in the event of delay in delivery or failure to perform remains unaffected by this limitation on liability.

(5) Claims for compensation resulting from other breaches of duties, default or non-performance under this section, which are no claims for defects as to quality and/or defects of title, are subject to a limitation period of one year as of the end of the year during which the claim arose and the customer obtained knowledge of the circumstances justifying the claim or his lack of such knowledge was due to gross negligence. The maximum time periods for limitation of actions provided for under § 199 Sec. 2 and 3 Austrian Civil Code remain unaffected by this provision.

This restriction does not apply to claims for damages based on gross negligence or willful intent, attributable breach of essential contractual obligations (cardinal obligations), as well as personal injury, injury to life or health, caused by us, our vicarious agents or persons employed by us in the performance of our obligations.

(6) Any possible application of the Product Liability Act remains unaffected.

§ 15 Intellectual Property Rights

(1) Claims for compensation resulting from the infringement of trademarks, patents, patent applications, utility models, registered designs or copyrights of third parties against us, our vicarious agents or persons employed by us in the performance of our obligations are excluded, unless they are based on gross negligence or willful intent of ourselves, our vicarious agents or persons employed by us in the performance of our obligations or we have guaranteed that the above-mentioned intellectual property rights will not be infringed.

This limitation on liability does not apply in cases of breach of essential contractual obligations (cardinal obligations) attributable to us, our vicarious agents or persons employed by us in the performance of our obligations.

If we, our vicarious agents or persons employed by us in the performance of our obligations are liable for damages based on slight negligence (breach of cardinal obligations), the claim for damages is limited to typically foreseeable losses.

In these cases of liability based on slight negligence there shall be no liability for production stoppages or lost profit.

This limitation on liability applies accordingly to our vicarious agents and persons employed by us in the performance of our obligations.

(2) The customer's right to cancel the contract due to the infringement of the above-mentioned intellectual property

rights remains unaffected.

(3) Where claims based on the infringement of third party rights are asserted against us, the customer may prove this defect of title only by having a final judgement of a Court of Law entered against him. This does not affect the customer's right to make us a third party defendant in the infringement lawsuit.

§ 16 Suspension of the Limitation Period Due to Negotiations

(1) Negotiations concerning liability for defects or other claims for damages shall only be considered to exist, if the parties have stated in writing, that they are negotiating such claims. Should the reference to this requirement in writing constitute an abuse of legal rights, neither party may plead the observance of same.

§ 17 Trade Secrets/Data Protection

(1) Plans, drawings and technical particulars, which we hand over to the customer, remain our property. The handing over of the documents mentioned does not create any rights of the customer in these documents, particularly no license. The customer may not use these documents, particularly he may not copy them, reproduce them or hand them over, make them accessible to or disclose them to third parties without our written consent. This applies even if the documents are not marked as confidential information.

(2) The customer ensures, that his employees, consultants, shareholders and others, who will become privy to these trade secrets, will be obliged in writing to safeguard our trade secrets to the extend described above.

(3) These obligations continue to apply after the termination of contractual relations.

(4) We are entitled to process data concerning the customer, which we obtain regarding the contractual relationships or in connection with them, irrespective of whether they come from the customer himself or from third parties, in observance of the Data Protection Act.

§ 18 Place of Performance, Applicable Law, Place of Jurisdiction, Partial Invalidity

(1) Place of performance with regard to deliveries and payments is Weiz.

(2) These General Terms and Conditions of Trade and the entire contractual relationship between us and the customer shall be subject to the law of the Federal Republic of Austria, excluding the UN-Convention on Contracts for the International Sale of Goods (CISG).

(3) Exclusive place of jurisdiction for all disputes resulting directly or indirectly from the contractual relationship shall be Weiz or, at our discretion, the place where the customer has his headquarters.

(4) Collateral agreements, reservations, changes or amendments must be made in writing.

(5) Should individual clauses of these General Terms and Conditions of Trade be or become invalid, the remaining parts shall remain valid.

Should other provisions agreed upon in connection with the cooperation with the customer be or become invalid, the validity of all remaining provisions or agreements shall remain unaffected. In this event the parties shall be obliged to construe or to amend the invalid clause, so that the economic purpose of the invalid clause will be best achieved in a legally valid manner.

Valid: Septembre 2009 up to next version