USB-Mesy 2 – 570.77

Quick reference guide

Installation and operation

USB-Mesy 2 – 570.77

USB-Mesy 2 – 570.77

Congratulations for the purchasing of your new SEF USB-Mesy 2. You have now a modern and capable device for an easy temperature measurement to your disposal. The readout and the analysation of the recorded Data occurs on your Windows-PC (Microsoft Windows 2000® and Microsoft Windows XP®).

! Please check the scope of delivery before the beginning of operation. !

<u>Scope of delivery:</u>
- 1 USB-Mesy 2 – 570.77
- 3 thermocouple sensors type k, length 0,5m
- 1 USB- connecting cable, connector A/Mini-USB, length 1,8m
- 1 installation CD-ROM
- 1 external power supply 5V/1A
- 1 quick reference guide USB-Mesy 2 – 570.77

<u>optional available accessories (not included in the delivery)</u>
- Temperature insulating box 571.77 *" Thermo Protection Box"*
- thermocouple sensors with the length 1m, 1,5m, 2m, 3m and 5m
- extension cords for thermocouple sensors in different lengths

USB-Mesy 2 – 570.77

1. Installation, beginning of operation:

Software installation

$\Rightarrow$ Before connecting the hardware the software must be installed.
$\Rightarrow$ Please insert the enclosed CD-ROM in the CD-ROM drive of your PC.
$\Rightarrow$ Open the file "Setup.exe" from the CD-ROM.
$\Rightarrow$ Follow the instructions on the screen.
$\Rightarrow$ If wanted a new installation path can be created.
$\Rightarrow$ After the end of the installation procedure the software of the USB-Mesy 2 is installed on your PC.

Hardware installation

$\Rightarrow$ Install the software first.
$\Rightarrow$ Connect the USB-Mesy 2 with the enclosed USB- connecting cable to a free USB port of your PC.
$\Rightarrow$ The operating system will recognize the new USB device and will install the necessary driver automatically.

Instruction:
Charge the internal accumulator of the Mesy completely before the first use. For this purpose connect the USB-Mesy 2 with a free USB-port of your PC. The charge of a complete empty accumulator via the USB-interface will take approx. 10 hours.
You can use the external power supply to charge the Mesy alternatively. For this keep attention for the instructions on the USB-Mesy 2 case. With the external power supply the time for the charge will only take approx. 1 hour. A nearly empty accumulator will be signalised by the red LED "Power". If the accumulator is completely empty, the Mesy will switch off automatically. A possible running measurement will be stopped, too.

1 hour charging time at USB-port   -> 10 min. Mesy operating time
1 min. charging time with external power supply   -> 10 min. Mesy operating time

USB-Mesy 2 – 570.77

2. Starting the Software

⇒ Choose Start/programs/ADC/Mesy for Windows or open the link <Mesy for Windows> on your desktop.

3. Operation of the measurement software

⇒ In the program "Mesy for Windows" you can call the following functions:

File/…

o	…/New	-	Create a new "measurement" or "reference"
o	…/Load	-	Load a "measurement" or "reference"
o	…/Close	-	Close the program "Mesy for Windows"
o	…/Save	-	Save the actual temperature profile with the actual name
o	…/Save as	-	Save the actual temperature profile with a free definable name
o	…/Delete	-	Close and delete the actual measurement
o	…/ End program	-	Close the program

Mesy/…

|			
o	…/Type	-	Choose the used Mesy type. The following choices are available: " USB-Mesy 570.70" " USB-Mesy 570.77" " Serial Mesy model"

USB-Mesy 2 – 570.77

- o …/Mode - " Online measurement" – for real time measurement
  " Read memory" – read the data of the recorded measurement

- o …/Read status - Read the actual Mesy status

- o …/Adjustment - Open the window for adjustment

Extras/…

- o …/change main password - Open the window for changing the main password

Description of the buttons in the main program

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
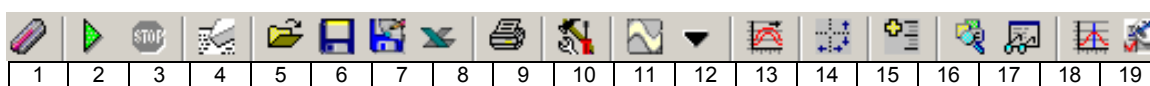
1. opens a window to adjust a trigger temperature; after reaching this trigger temperature the Mesy will start the measurement automatically
2. starts the measurement or the reading of the memory
3. stops the measurement or the reading of the memory
4. deletes the actual shown measurement values
5. opens a window to load a measurement
6. saves the actual measurement with the actual name
7. saves the actual measurement with a free definable name and path
8. saves the actual measurement as a Microsoft Excel$^{©}$ - file
9. opens a window to print the actual measurement values
10. opens a window to adjust the measurement parameters like measurement interval and the measurement time for real time measurement
11. opens a window to load a reference profile
12. opens a window to manage reference profiles
13. extracts a reference profile out of a measured profile
14. scales the actual measurement automatically so that the complete profile is shown on the monitor
15. interpolates the actual measurement so that the profile is shown straightened
16. opens a window to prepare the measurement analysis, here you can prepare extensive analysis of the recorded profile
17. runs a measurement analysis with the predefined parameters
18. fades marker in/out
19. opens a window to create and edit markers

USB-Mesy 2 – 570.77

4. Executing the measurement

Instructions for the operation:

During the operation an internal temperature of the Mesy of more than 60°C must be avoided categorical. Otherwise heavy damages can appear at the electronic of the Mesy 570.77. An internal temperature of more than 60°C will be signalised by an interval beep (0,5 sec.) if the Mesy is switched on. If this sound appears the Mesy should be taken to a cooler place immediately. The signal will sound as long as the temperature will fall under 40°C again. Only then a new measurement can be started.

Please use the optional available "Thermo insulating box 571.77" for an optimal heat protection. With this box you can use the Mesy in ambient temperatures up to 300°C and residence times up to 450 seconds without problems.

a) Executing the measurement

Proceed the following steps to run a measurement with the USB-Mesy 2 with the standard parameters:
- Connect the desired number of thermocouple sensors with the inputs "Channel 1…3".
- Press the button "On/Off" at the Mesy until you hear a short beep for 5 times to switch on the USB-Mesy 2. To press the buried button you can use a ball pen for example.
- Press the button "Measure Start/Stop" until you hear a long beep to start the measurement. The measurement begins. Measurement values will be recorded with the predefined interval of 0,5 seconds and will be stored in the memory of the Mesy.
- After you have recorded all desired measurement values press the button "Measure Start/Stop". You will hear two long beeps and the USB-Mesy 2 stops the measurement.
- Press the button "On/Off" until you hear two long beeps to switch off the Mesy.

Attention:
A starting of a new measurement will overwrite the previous recorded values!

- Connect the USB-Mesy 2 with your PC to read the recorded measurement values. The Mesy will switch on automatically.

USB-Mesy 2 – 570.77

o Start the software "Mesy for Windows" and press the button (2) to read the recorded values. The values will be readout from the memory of the USB-Mesy 2 and will be shown on the monitor.

b) Adjustment of the measurement box:

Thermocouple sensors are available with different accuracies. With this function you can adjust the USB-Mesy 2 for each connected sensor.
This adjustment is a two point adjustment. Temperatures measured with the Mesy will be compared with a second calibrated temperature value.

Example for an adjustment

⇒ Take the USB connecting cable and connect the USB-Mesy 2 with your PC.
⇒ Connect the thermocouple sensors of type K with the measurement system.
⇒ Start the software "Mesy for Windows"
⇒ Choose in the pull down menu Mesy/… …/Adjustment
⇒ With the button <Reset> you can reset the adjustments values back to the standard settings at any time. After confirmation the values will be reset.
⇒ You can also readout the already existing adjustment values by pressing the button <Read>.
⇒ please provide two pots filled with an insulating fluid with two different temperatures, for example 25°C and 100°C.

! Attention: Don't use water, danger of short circuit! **!**
(for example oil is an adequate medium)

! Attention: take care while handling hot media **!**

! Danger of burns !

⇒ The channels will be adjusted together at 25°C first and then at 100°C.
⇒ Insert the ends of the thermocouple sensors of all 3 channels in the pot with the 25°C fluid.
⇒ Start with channel 1. Select channel 1 in the adjustment menu.
⇒ Enter the value 250 (temperature in 1/10 °C) in the field >Adjust Lo<.
⇒ Press the button <Adjust Lo>.

USB-Mesy 2 – 570.77

⇒ In the table you will see the entered value and the measured value of the USB-Mesy 2 now.

⇒ Follow the same procedure for the channels 2 and 3.

⇒ Now the channels will be adjusted with the temperature 100°C.

⇒ Insert the ends of the thermocouple sensors of all 3 channels in the pot with the 100°C medium.

⇒ Start with channel 1. Select channel 1 in the adjustment menu.

⇒ Enter the value 1000 (temperature in 1/10 °C) in the field >Adjust High<.

⇒ Press the button <Adjust High>.

⇒ In the table you will see the entered value and the measured value of the USB-Mesy 2 now.

⇒ Follow the same procedure for the channels 2 and 3.

⇒ Close the window "Adjustment"

⇒ If you press the button "Start" a measurement will start. With a correct adjustment you should see the graphs of all channels at 25°C or at 100°C (end of thermocouple sensors must be in the according fluid).

Instruction:
If there is any malfunction of the USB-Mesy 2 you can use the hidden button in the lower right corner (under the inscription "0,5 – 600 s/Sample) to switch off the Mesy. Use a ballpen for example to press the button.

USB-Mesy 2 – 570.77

Notes:

USB-Mesy 2 – 570.77

Notes:

USB-Mesy 2 – 570.77

For any questions please contact us under phone no.. +49 41 36- 909 0

Your SEF- Roboter GmbH Team