

Documentation

TELID® 3T

Temperature Monitoring
RFID Temperature Transponder and Datalogger
13.56 MHz closed coupling RFID Solution

Contact/Copyright

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Introduction

Thank you for your purchase of our semi-passive sensor data loggers (TELID®311, TELID®314, TELID®312). Semi-passive sensor data loggers belong to the series 31x in the Telid®3T series.

Different TELID temperature data logger measures and stores up to 32,250 temperature values over -75°C to +140°C measurement ranges. The user can easily operate the temperature measuring process from checking status to evaluating the result by connecting the reader to the PC and running the given PC software.

Temperature measurement data can be graphed, printed, and saved. Measuring result data can be viewed using the optional TELID Data capture from software. Every sensor data logger from TELID®3T series has an integrated battery and internal memory for the power supply and data storage.

For example, the battery life for TELID®311 is up to 5 years (in sleep mode, with no logging), and depending on the measurement cycle at a temperature of +25 °C, sensor transponders in rollover mode:

Measuring cycle:	Lifetime:
10 seconds	average 80 days
1 minute	average 1 year
10 minutes	1 - 2 years
1 hour	2 - 4 years

There could be a negative impact on the battery capacity and on the complete lifetime of the data logger if it operates in extremely high or low temperatures for a long time. Furthermore, it must be noted that at very low temperatures (< -10°C), the entire battery capacity is not usable (reversible).

The total number of measurements in the continuous logging mode is up to 700,000 measurements.

Furthermore, this information about battery lifetime in active mode has been assigned a safety factor. In a practical case, a higher lifecycle can be achieved.

To minimize power consumption and therefore extend the lifetime of the data logger, it should be set into sleep mode.

Basic Information

The TELID®3T product series

microsensys has been operating for over 30 years in RFID technology as a developer and producer of its own RFID components. Your advantage in enjoying with **microsensys** results from extensive experience in the RFID market, customer-specific solutions, and the availability of transponders, data loggers, write/read devices, and software tools - all from one source.

The new TELID®3T series is based on the iID®3000 technology. The iID®3000 technology opens a second new product generation of **microsensys**.

About this documentation

The present document describes the components of the TELID®3T system and offers the operator the necessary skills for proper and safe use of the system. This document also serves as an instruction manual, which gives indications of possible causes and solutions if disturbances occur.

Before working with the TELID®3T system, you must have read and understood the operating manual! Keep this document so that it is always available.

Conventions and symbols

Instructions are numbered with a time sequence, grouped in units of action, and provided with the appropriate result.

Lists without chronological sequence are shown as point lists.

Safety instructions are marked with pictograms and signal words. It will be named the type and source, and the consequences of the danger and security information will be given

The elements of the evaluation software are identified as follows

- Buttons and menus are shown in bold and in a square bracket
(e.g. Button **[OK]**, Menu **[Settings]**)
- Menu and option sequences are divided with an arrow
(e. g. Menu [Settings] → [Programm configuration])
- Windows names are shown in quotation marks
(e.g. Window "programming TELID")

Used symbols and words

In the operating manual, the following symbols and signal words are used for the identification of threats or indications: (The safety instructions will be shown before each action.)



WARNING!

Indicates a potentially hazardous situation. If it is not avoided, the product or something in its vicinity could be damaged slightly.



ENVIRONMENTAL STATEMENT

Important instructions of environmental protection

Purpose

With the TELID® 3T system of *microsensys* you can record easily and seamlessly temperature patterns in various application areas.

For this, you have a complete RFID solution that optimizes your processes and makes them more transparent. The TELID® 3T system gives you access to the world of RFID: a contactless identification with transponders, data loggers, smart cards, or labels, as well as communication via read/write interface is possible.

The TELID® software allows reading, writing, and programming of the sensor components. A simple software-assisted evaluation saves you time and lowers your costs.

A summary of all temperature measurement data is possible in a database.

You can use the TELID® 3T system for example, in the following areas:

- Food (delicacies, frozen food, ...)
- Service and maintenance
- Medical and pharmaceutical industry
- Prototyping
- and many more

Intended Use

The TELID® 3T system should be used exclusively for monitoring temperature gradients in a non-explosive environment. Any other use is considered to be improper! The operator is liable for any resulting damages.

Correct use includes:

- compliance with these operating instructions
- observing legal accident prevention and environmental requirements compliance with the maintenance conditions

Illegal and therefore not appropriate for the intended use is particularly the use of TELID® 3T system outside of the aforementioned applications and with different operating conditions and technical data than written in the operating manual.



WARNING!

The operation of the TELID® 3T system is prohibited in acids or acidic liquids as well as in hazardous areas!

Also, illegal and inappropriate for the intended use is:

- using it in induction or microwave devices
- using it outside the acceptable temperature ranges
- unauthorized changes of components or the evaluation software without prior consultation with **microsensys GmbH**.

Battery lifetime of the TELID® 3T Dataloggers

All sensor transponders TELID® 3T have an integrated battery for the power supply. A replacement or loading the battery is not possible. To minimize power consumption and therefore extend the lifetime of the data logger, it should be set into sleep mode when no need for logging. The recommended storage temperature range is +5 °C ... +25 °C. Storage over 85 °C (for TELID® 311 and TELID® 314) and + 50 °C (for TELID® 312) may reduce the battery capacity and also the lifetime of the data logger. For proper disposal, please send the data back to the manufacturer.

Battery lifetime:

(in sleep mode, without active logging)

TELID® 311, 314 3 ... 6 years, TELID® 312, 312.nfc 2 ... 4 years

Battery life depends on the measurement cycle at a temperature of +25 °C, sensor transponder in rollover mode.

Measuring cycle:	Battery life:
10 seconds	>1 month
1 minute	>1 year
1 hour	>2 years

When the data logger operates above the stated temperatures for a long time, this may have a negative impact on the battery capacity and the data logger's lifespan. Furthermore, it must be noted that at very low temperatures (< -10 °C), the entire battery capacity is not available.

Accordingly, the storage is up to 700,000 measurements (relative to the total number of measurements in the continuous logging mode)

It is important to note that these information about battery lifetime in active mode has been assigned with a safety factor. In the practical case, a higher lifetime can be achieved.

The RFID communication takes place without energy from the battery; therefore, it does not affect the lifetime of the battery and data logger.

Delivery

For the TELID® 3T solution, *microsensys* provides a standard system for the PC or notebook, running on Windows® operating systems. Optionally or as a separate system, a mobile solution for the Android® platform is available. It can be downloaded from the Google Play Store. System partners of *microsensys* will receive a TELID® Library for using it in our own or customer-specific programs.

As TELID® Temperature Bundles, the following variants can be purchased:

TELID® Temperature Bundle V03

- 1 x iID® DESKTOPsmart USB
- 2 x TELID®311
- 1 x TELID® Dokumentation
- 1 x USB stick (TELID® driver engine, TELID®soft)
- 1 x Alu Etui

TELID® 311ac High Temperature Bundle

- 1 x iID® DESKTOPsmart USB
- 2 x TELID®311.ac
- 1 x TELID® Dokumentation
- 1 x USB stick (TELID® driver engine, TELID®soft)
- 1 x Alu Etui

*TELID®314.ac can be ordered additionally

Safety

Operation and problem resolution

Read the instructions carefully before using the system. Keep the operating manual carefully for future reference. Connect the system only in accordance with the instructions mentioned in the chapter “Initial start”. Use only accessories that are recommended by the manufacturer. A different accessory is a danger to the user and can damage the system.

Transport and storage



WARNING!

Environmental influences and condensation can lead to the destruction of individual components! An intermediate storage of the components outdoors is not allowed!

When transporting the components of the TELID®3T system, special care is important to avoid damage caused by force or careless transportation.

During transport, condensation due to large temperature fluctuations and surges should be avoided.

If the TELID® 3T system is not connected immediately after delivery, it must be stored properly in its original packaging to protect it against environmental influences.

Environmental conditions

Protect the TELID® 3T system against too low or too high storage temperature. Avoid storing the TELID® 3T system outside the recommended storage temperature stated in the data sheet for the single data logger.

Use TELID®311 dataloggers for harsh environmental conditions.

Please ask **microsensys** for data loggers and transponders that are resistant to harsh environmental conditions and certain chemical compositions.

System Description

General Information

With the TELID® 3T series of **microsensys** you can easily make a continuous monitoring of temperature trends in various fields. For this, an RFID-complete solution is available for you to optimize your processes and to make them more transparent.

Main components of the TELID® 3T RFID system are:

- TELID® Sensor data logger
- iID® Read/Write Interfaces (stationary or mobile read-write devices)
- Host Computers (PC, Laptop, Tablet, Industrial-Handheld, ...)
- Application Software Tools (TELID®soft 6, TELID®soft NFC)



Figure 2: TELID® 3T RFID system - Overview

These Software Components Are Required

General

To communicate with the **microsensys** RFID Read/Write interface, it may be necessary to install the RFID interface USB device driver. Due to the installation, the driver will be copied to the Windows system registry. Furthermore, *iID®CONNECTIONtool* and *TELID®soft* must be installed on the Computer. Detailed information can be found in the following chapters.

The RFID interface USB device driver will be installed automatically by connecting the Read/Write interface to the computer.

USB Device Driver for Operating Systems older than Windows 10

Complete the installation of the hardware device driver as follows:

1. Please ensure that you have admin rights to install and remove software and hardware devices
2. Turn on your pc and then wait for Windows to start
3. Before starting the setup procedure, please ensure that you have the **microsensys** USB driver available from one of the following sources:
 - a. <USB Drive:> \USB Driver\Microsensys USB devices driver CDM20602
 - b. Download form:
4. https://www.microsensys.de/downloads/SW_Install/USBdriver/
- 5.
6. Connect the RFID read/write device to the PC via USB connection cable
7. When you connect the read/write device to a designated interface on the PC for the first time, Windows shows a dialog box that new hardware (in this case, the RFID interface) has been found
8. If this dialog is not started automatically, please open the Windows Control Panel. Over the menu **[System and Maintenance]** and **[System]**, you can call up the **[Device Manager]**
9. In Device Manager, the "microsensys RFID interface" will be displayed with a yellow exclamation mark. Please click with the right mouse button on the entry and select **[Update Driver Software ...]** from the menu.

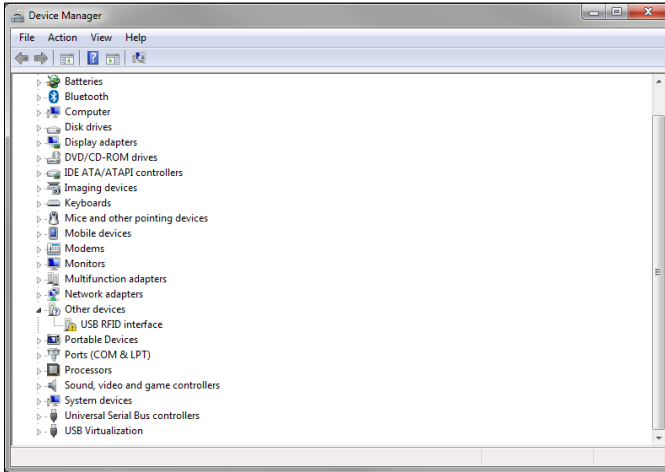


Figure 3: RFID interface USB driver Installation – Device Manager

10. In the following dialog box, select [Browse my computer for driver software]

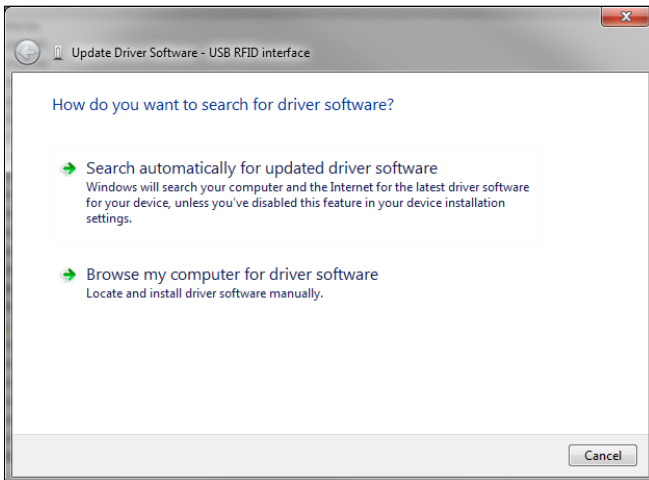


Figure 4: USB driver Installation – Driver Actualization 1

11. Now you will be prompted to specify the location of the driver software. To do so, click [**Browse ...**] and specify the main folder of the USB driver. This can be found either on the **microsensys** USB storage stick or when downloading from the internet in your self-selected directory. Please note that if you have downloaded the driver as a zip file from the internet, you must extract that file first. Confirm this process with [**Next**].

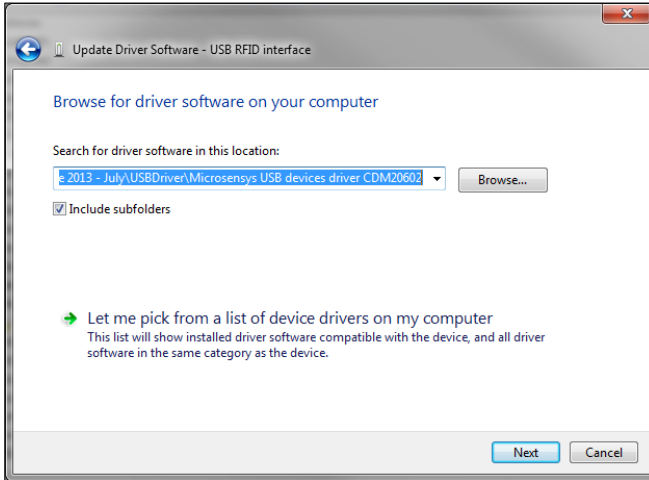


Figure 5: USB Driver Installation – Driver Actualization 2

If you have problems when installing the driver on Windows 8, we offer a special description. This is available for download on our website (<https://www.microsensus.de/downloads>) or simply speak to our support.

The driver software will now be installed. This can take a few minutes.

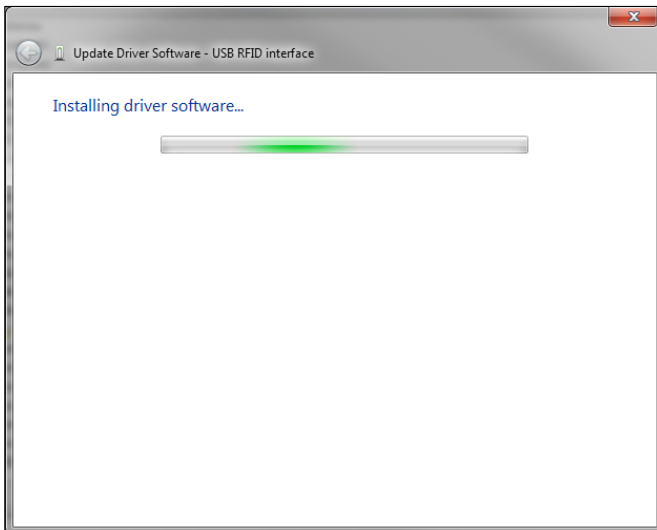


Figure 6: USB Diver Installation

Once the installation is complete, you receive a warning message.

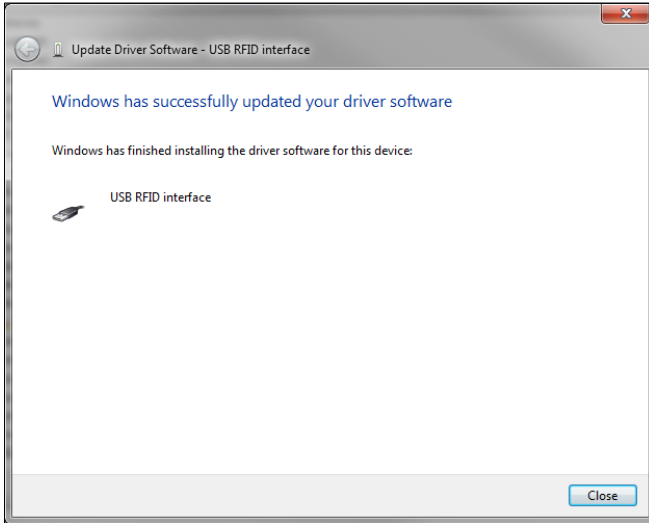


Figure 7: USB Driver Installation – Dialog Window

On successful completion of the installation, the device will be listed in the section USB controller.

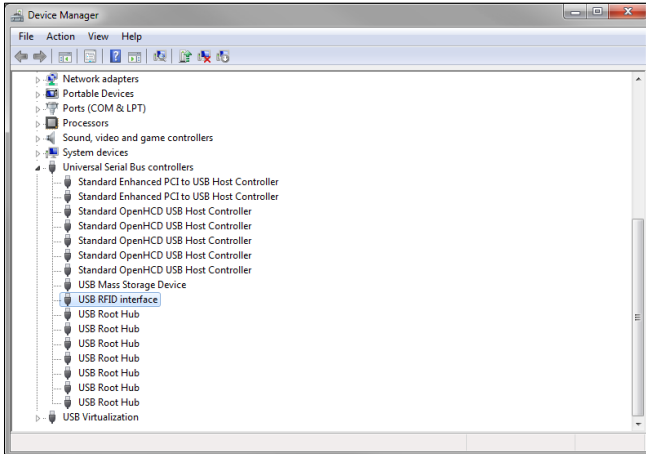


Figure 8: USB Diver Installation – USB RFID interface installed

The USB RFID read/write interface and device (e.g. iID® DESKTOP Reader) can now be used.

iID® CONNECTIONtool

General

iID® Connection Tool will be used to connect the RFID interface with your PC. As a rule, you only need to perform this process once. After that, the RFID interface is automatically detected by your system. If you want to use another RFID interface type or reader device (e.g., Bluetooth rather than USB), you must connect it to your PC and set it up again with the *iID® Connection Tool*.

Installation

Performs the installation of the software as follows:

1. Turn on your PC and then wait for Windows to start up
2. Open Windows Explorer. Select the "USB Storage drive", in the directory "Install", the folder "iID® reader connection tool", and run the installation file "Setup.exe" by double-click
3. - The software can also be downloaded from: <https://www.microsensys.de/downloads/CDContent/Install/iID%c2%ae%20reader%20connection%20tool.zip>.
4. - Please note if you have downloaded the tool as a zip file from the internet, you must extract that file first. Confirm this process with **[Next]**.
5. Follow the instructions on the screen

Now *iID® Connection Tool* is available on your PC.

Use

After starting, the *iID® Connection Tool* opens with the interface as displayed in Figure 9. To connect the RFID reader, please make the appropriate adjustments. If you use the TELID® 3T system, you usually use a USB Desktop Reader. For this reader, choose in the menu **[Options]**, **[Port Type]** to "USB" and **[Interface]** to "HF (13.56MHz)". Then, confirm the settings with **[Test and Save]**, as shown in Figure 10.



Figure 9: CONNECTIONtool – Start window



Figure 10: CONNECTIONtool - Options

If the reader device is connected properly, a confirmation screen will be displayed.

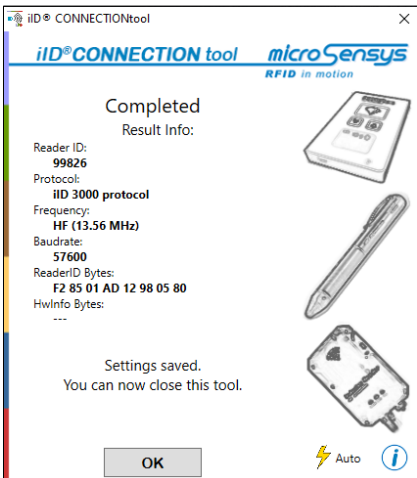


Figure 11: CONNECTIONtool - connection with the reader device complete

Evaluation Software TELID®soft

General

The *TELID®soft in version 6* has been developed to communicate with various readers. The stored data of TELID® data loggers and iID® read/write devices can be imported, analysed, and exported for further processing.

In this manual, the current software version at the time of publication of this manual is described.

For the latest information on developments or updates, please visit our website www.microsensys.de/downloads/ or contact our support team via email at support@microsensys.de.

Depending on the operating system (Windows version), the software images shown may vary from those on the screen.

Uninstall and updates



WARNING!

If you overwrite an existing version during installation (in the same program path), data sets already created may be lost. Prior to installation, back up the data in the directory "Database" in your program directory. A backup is also recommended when you uninstall.

Installation

Perform the installation of the software as follows:

1. Turn on your PC and then wait for Windows to start up
2. Connect the delivered USB storage stick to the PC
3. Open the Windows Explorer
4. Open the USB Storage Drive, navigate to the folder „ *Setup*“, and start the installation file „*setup.exe*“ by double click
5. The software can also be downloaded from:
www.microsensys.de/downloads/
 - a. Please note that if you have downloaded the driver as a zip file from the internet, you must extract that file first. Confirm this process with **[Next]**.
6. Follow the instructions on the screen.
7. If necessary, restart the PC.

Now *TELID®soft* is available on your PC.

Operation Manual

TELID® soft start

In Windows XP, Vista, or 7, click on the Windows start button **[Start]** → **[Programs]** → **[TELID®Soft]** → **[MICROSENSYS TELID®Soft 6]**. With Windows 8 and 10, go into the tile display, call up all the apps, and start from the folder “Microsensys”, the “TELID®soft 6”.

Alternatively, you can start the program by double-click on the program icon on the desktop.

Furthermore, there is also (depending on the selection during installation and the settings of your system) a shortcut in the Quick Launch bar of Windows to launch the software.

Interface settings

How to connect your reader device correctly to the system.

Positioning of the TELID® data logger to the reader device

For positioning the TELID® data logger takes the following guidelines into consideration:

Produkt:	Alignment to the read/write device
TELID®311 +125°C	Align centrally, with the <u>unmarked side</u> towards the reader.
TELID®311/ 314.ac	Align centrally, with the <u>unmarked side</u> towards the reader.
TELID®311.pro	Align centrally, with the <u>marked side</u> towards the reader.
TELID®311.ac.pro	Align centrally, with the <u>marked side</u> towards the reader.

Description of the Main Window

After starting the *TELID®soft*, in version 6, the main window opens. From the main window, you can start and use all functions and features.

An overview of these functions will be given in the following chapters.

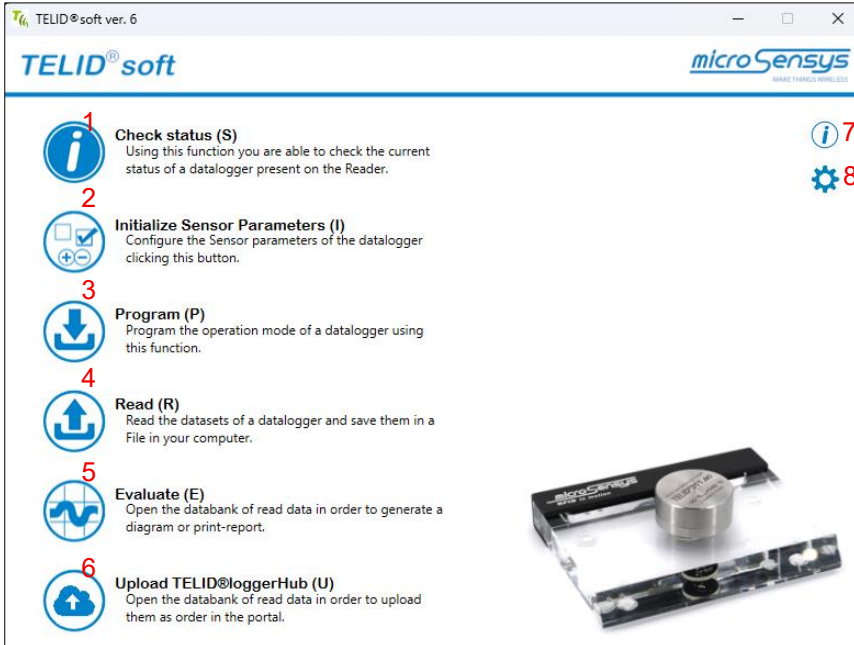


Figure 12: TELID®soft - Main Window

- | | |
|---|---------------------------------------|
| 1 | Check status |
| 2 | Initialize Sensor Parameters |
| 3 | Program |
| 4 | Read |
| 5 | Evaluate |
| 6 | Upload to the cloud (TELID®loggerHub) |
| 7 | Information |
| 8 | Settings |

(1) Check Status

This function gives the possibility to prove the status of each TELID® data logger.

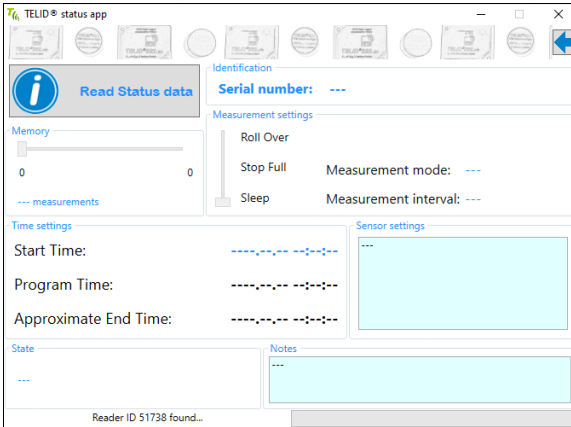


Figure 13: TELID®soft – Check Status

(2) Initialize Sensor Parameters

Use this function to read and display statistical data stored on the TELID® data logger in the form of a histogram.

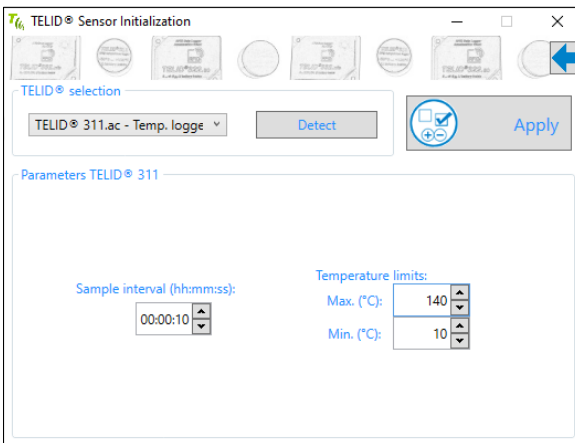


Figure 14: TELID®soft - Sensor Initialization

(3) Programming

By calling the function **[Program logger]**, the "Programming app" window is called up. By pressing the button **[Advanced]**, a further parameter settings window can be opened.

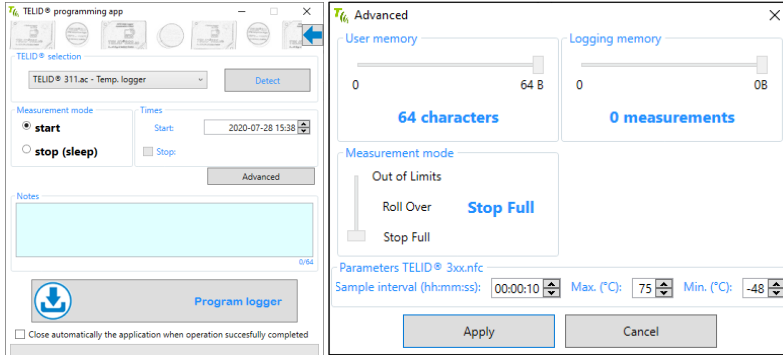


Figure 15: TELID®soft - Programming and further Settings

(4) Read

Use this function to read the readings stored on the TELID® data logger. The records are saved according to your settings.

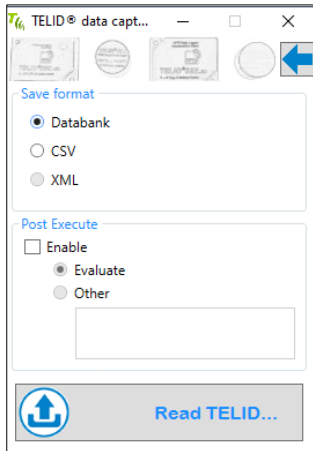


Figure 16: TELID®soft - Read

(5) Evaluate

The "Evaluate" function opens a database view that allows analysis of already-read data. For example, you can display the data in a chart as well as use a report function.

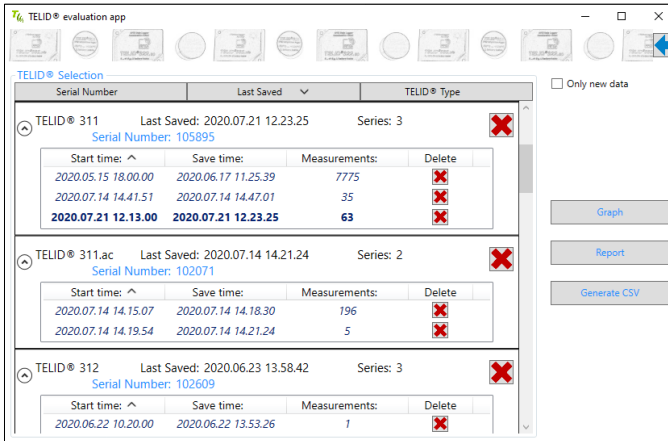


Figure 17: TELID®soft - Evaluate

(6) Upload TELID®loggerHub

This menu is for the interaction between TELID®soft and the TELID®loggerHub. It allows the upload of your locally stored logging reports into our cloud solution, so you can access and review the data online. For more information regarding this feature, contact us at sales@microsensys.de.

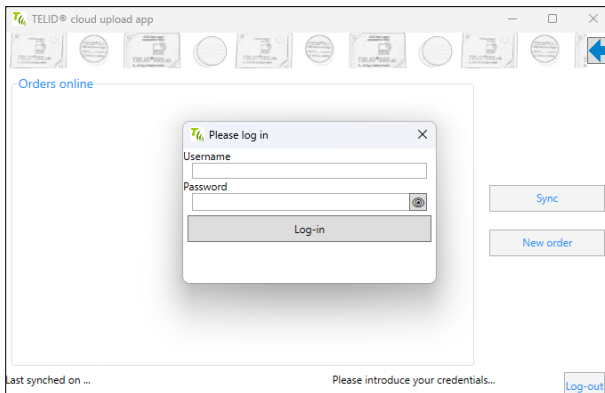


Figure 18: TELID®soft – cloud upload - Login Window

There is an overview of your already uploaded measurement order.

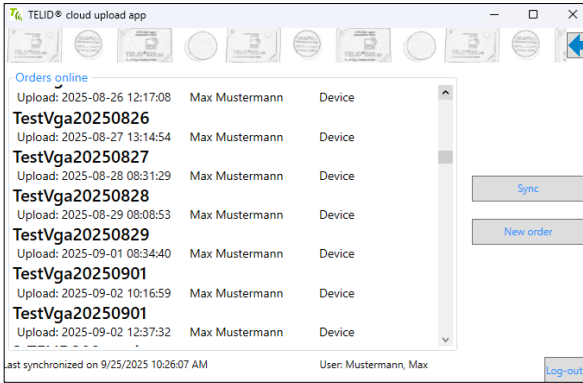


Figure 19: TELID®soft – Uploaded measurements

In this window, you can choose which report to upload and how to categorize this report.

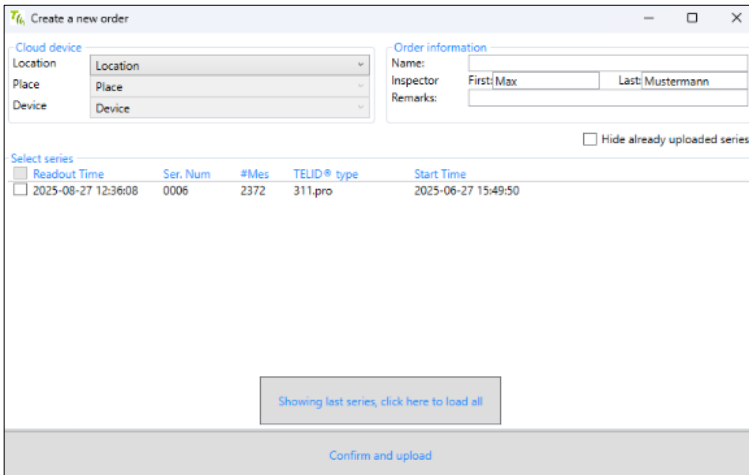


Figure 20: TELID®soft – Create you order for upload

(7) Information and Settings

These menus allow the user to get information about the program version and adjust a few settings. As units of sensor parameters and software language.

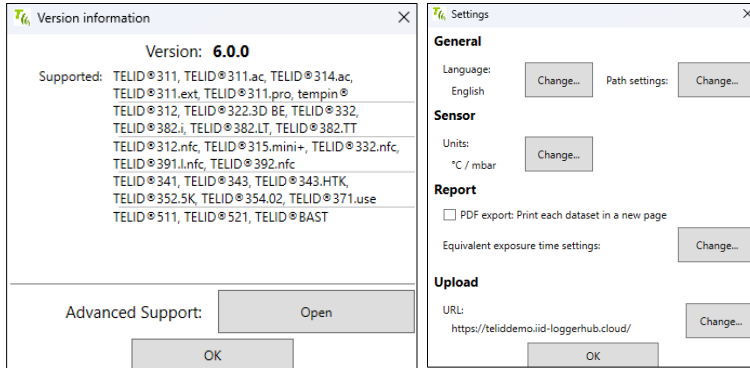


Figure 21: TELID®soft - Version Information and Settings

Check Status

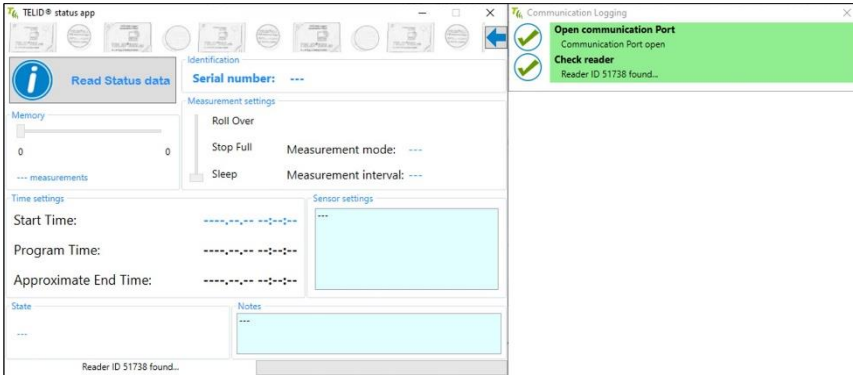


Figure 22: TELID®soft - Check Status

The "Check Status" function shows the current status of the data logger. In contrast to the option "Evaluate" not all the stored data in the data logger is read, but only the data of the so-called status block.

This function quickly and clearly shows the most important information about the current TELID® data logger, for example, compliance with the temperature limits. When the menu is opened, it first checks whether the reader is properly connected. This is displayed in the status display in the "Communication Logging" window. With a click on the button **[Read Status Data]**, the various parameters of TELID®s are read and displayed directly.

In the window "Communication Logging," you see again the steps that are performed to read the parameters.

Figure 23 describes an error status in which no data logger will be found.

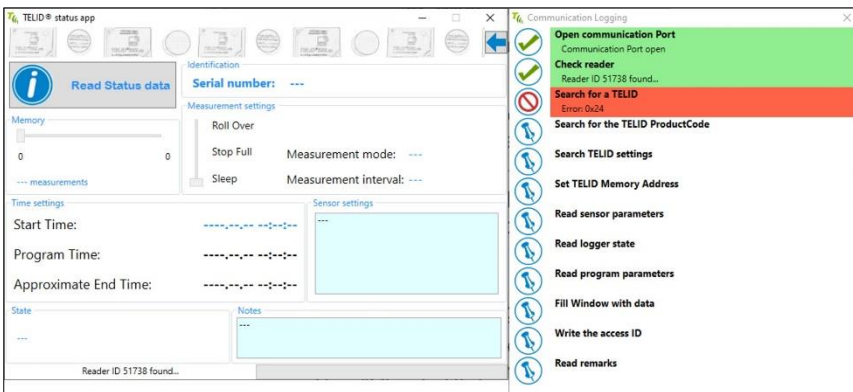


Figure 23: TELID®soft – Error Report

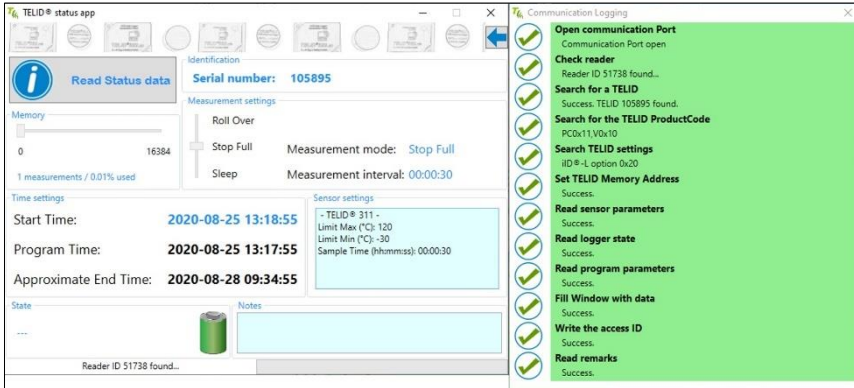


Figure 24: TELID®soft – Status information read successfully

Identification

Displays the serial number of the TELID® data logger

Memory

Displays the number of recorded or maximum set values

Measurement settings

Indicates the programming mode (Sleep, Stop Full or Roll Over) and the measurement interval in minutes

Time settings

Displays programming time, start time and expected end time

Sensor settings

Displays the defined minimum and maximum temperature

Status

Displays the approximate charge state of the internal battery

Notes

Shows more notes that have been saved on the TELID® data loggers during programming

Initialize Sensor Parameters

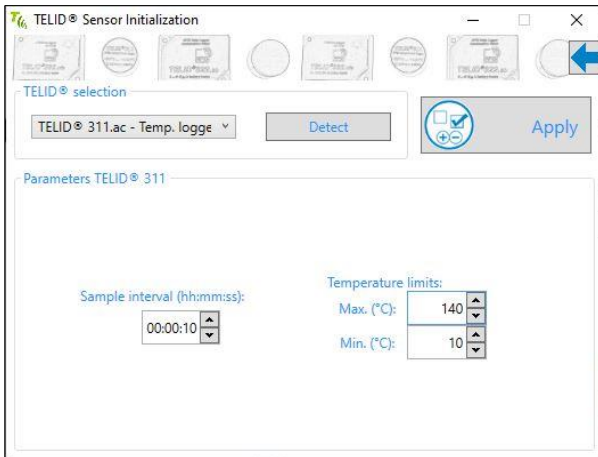


Figure 25: TELID®soft - Initialize Sensor Parameters

- In this menu item, you can set the measurement interval, which lies between two measurements. The measurement interval can be set in hours, minutes, or seconds. If you want a measurement interval in minutes, simply select the desired time in minutes. Setting in seconds is not taken into account in programming. However, if you want to measure in seconds, set the values for hours and minutes to 00, and select the corresponding second value. For example, the maximum time interval of TELID®311 is 4 hours and 15 minutes.
- Please note that the setting of very short measurement intervals in the seconds range harms battery life. We also recommend that the TELID® is always put into sleep mode after you have finished your measurement.
- You can also specify maximum and minimum temperature limits. Please note that this setting does not affect the measuring behaviour. The set temperature limits are only displayed in the analysis. Settings for “Compress Mode” are only available for TELID®312. More detailed information can be found on page 31.



Programming

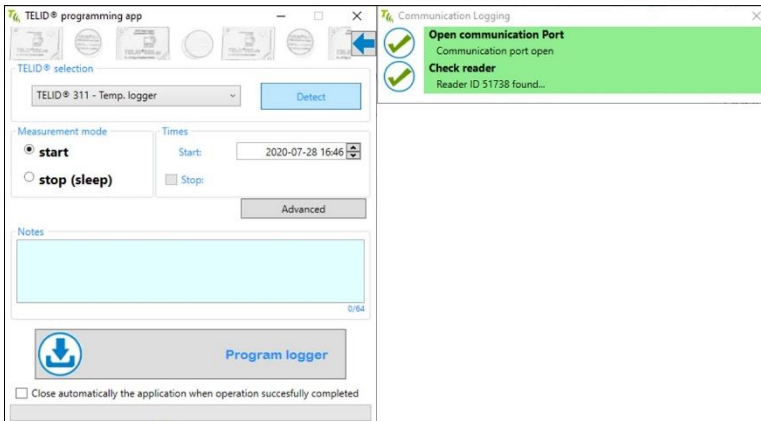


Figure 26: TELID®soft – Start screen - Programming

Click on the button **[Program]** and a window for programming a TELID® data logger opens. This window is divided into the following areas:

TELID® Selection

Selection of TELID® Types automatically from the list by pressing the button **[Detect]**

Measurement mode

Start or end programming (measurement) and set the data logger in “Sleep Mode”

Times

Set the date and start time here. In addition, a stop time with a date can be specified by selecting the tamping field

Advanced

Gets the dialog box with the advanced settings (see next chapter)

Notes

Filing of comments with a maximum of 64 characters, paragraphs can be inserted by pressing **[ENTER]** on the keyboard

Program Logger

This button starts the defined programming of the appropriate TELID® data logger

Close automatically

A tab set at the foot of the programming window automatically closes the window after successful programming of the TELID® data logger.

Advanced settings

Click on the button **[Advanced]** to call up a window with additional programming settings. It should be noted that there are different settings options for the different data logger models.

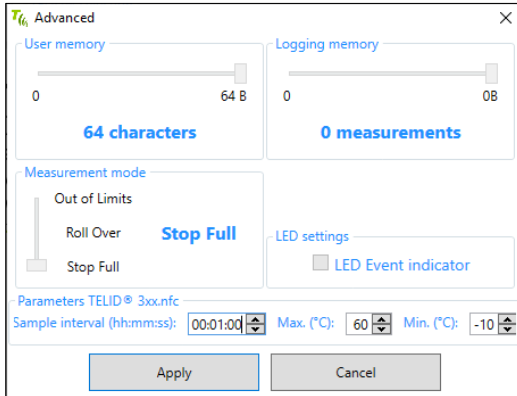


Figure 27: TELID@soft - Programming Advanced Settings

User memory

Here, it can be specified how many characters of the memo field are available. For the TELID®311, there are 64 characters that cannot be changed.

Logging memory

According to the measurement interval and the different TELID® data loggers, the number of measured values is adjusted. For a TELID®311, there are between 128 and 8192 values available.

All “.nfc” – TELIDs are an exception, and the logging memory will not be stated

Measurement mode

After recognizing the data logger and selecting the **[Advanced]** button, the window with advanced settings opens. "Roll Over" and "Stop Full" are available as standard measuring modes. In "Roll Over" mode, the memory is rolled over(re-writing) after reaching the number of measurement values set in advance. Measured values after the rollover are saved back to the beginning of the memory so that the first measured values are overwritten. This mode enables the evaluation of the last X measured values. A TELID® data logger, which was programmed in the "Stop Full" mode, terminates the series of measurements after reaching the set number of values and thus sets itself automatically in "Sleep" mode (power saving mode).

Measurement modes for TELID®312

Here are two extra modes available, "Compressed" and "Out of Limits". Using "Compress" mode, the amount of data storage may be reduced, especially for applications with less expected variations in measurement. Data is stored when the "Compressed" Mode band is exceeded only.

When "Out of Limits" is set, TELID dataloggers store each measurement exceeding the upper or lower limit defined during logger start. Events may include one data value or a collection of data values around breaching the rules

Single parameters for TELID®312 can be set in the menu "Initialize Sensor Parameters".

Start or stop measurement

Please make sure first that the correct TELID® type is selected. You can do this with the selection box in the "TELID® selection" setting itself, or let the system recognise itself by selecting the button **[Detect]**.

To start a TELID®3T data logger in the "Start" field, enter the desired time and date. Click on the button **[Program logger]** to transfer the values set to the TELID®. Is possible to select a specific stop time. To activate the entry of stop time, select the check box in front of "Stop". Now the time and date field is visible. If you do not choose a stop time, apply the standard settings for the "Measurement mode" set in "Advanced Settings" ("Stop Full" and "Rollover").



WARNING!

Please note that when you start the data logger, all the stored values in the data logger's memory will be deleted.

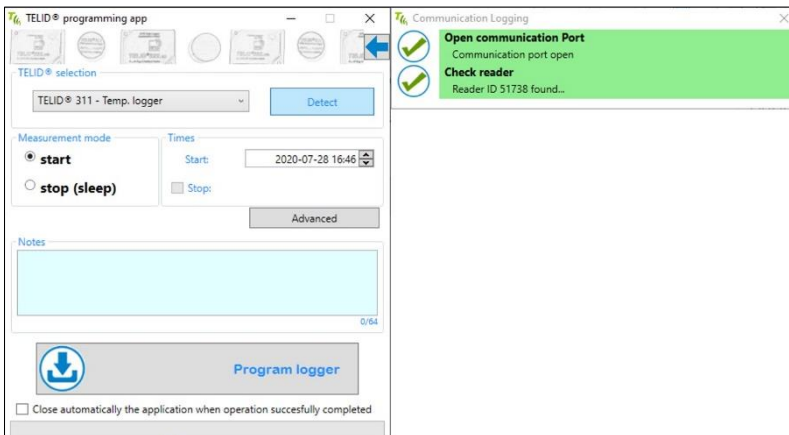


Figure 28: TELID®soft - Programming

The additional window "Communication Logging" shows the individual steps that are processed in programming. In addition, you will receive at the end of programming a summary of the values that have been transferred to the TELID®.

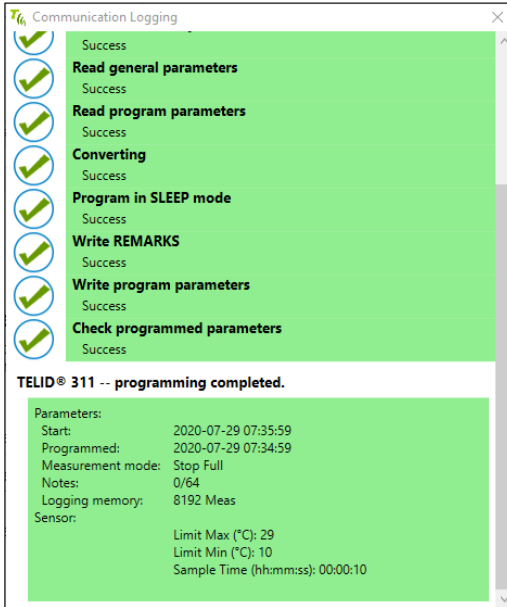


Figure 29: TELID®soft - Programming with summary

If you want to set a TELID® data logger to "Sleep" mode, this occurs via the selection "stop(sleep)" in the field "Measurement Mode" and pressing **[Program logger]**.

Read

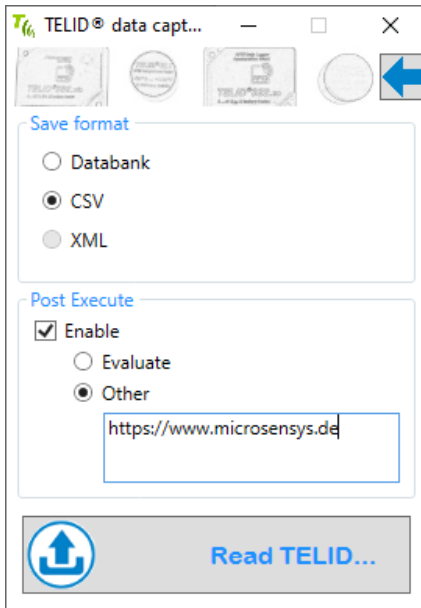


Figure 30: TELID[®]soft - Read

In the "Read" menu, you can read the temperature values stored on the TELID. As target format, you can select if the data is only written in the TELID[®]soft database [**Databank**] or if it is additionally to be saved as a "*.csv" file [**CSV**]. By clicking on the button [**Read TELID...**], you start the reading. It will read all the values stored up to that point. If you have selected the destination format CSV, a window opens at the end of the selection procedure in which you can select a folder to save the file and a file name. Close the process by pressing the [**Save**] button.

To open the TELID database, it is necessary to set checkmarks on [**Enable**] → [**Evaluate**] buttons in the menu "Post Execute". Checkmark on the button [**Other**] allows the user to write a function that will be started after the read process is complete. E.g., the microsensus homepage will be automatically opened after the reading process is complete.



WARNING!

If the data logger was not stopped, it continues to record values. The reading process does not stop the recording process and does not erase any data on data logger.

Evaluate

In the area “Analyze”, a comfortable database is implemented. The main part of the window provides a list of all existing, already read TELID® data loggers.

The view in the database is divided into the different data loggers. In the data logger field, the information includes TELID® type, serial number, the last save time, and the stored measurement series. The measurement series is laid out with start time, save time, and the number of measurement values. A new, unread series of measurements is indicated by the fact that it will be in bold.

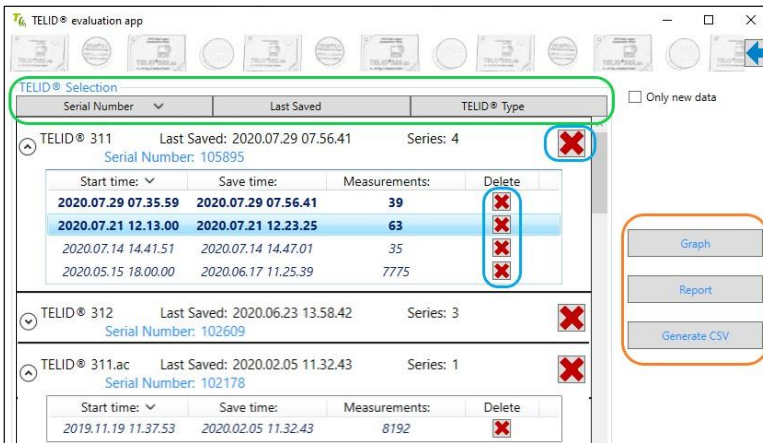


Figure 31: TELID®soft – evaluation app - database

The ‘Only new data’ checkbox allows you to display only the logged data that has not yet been opened.

Note: The term “(cal)” behind the TELID® Type indicates that it is a calibrated data logger.

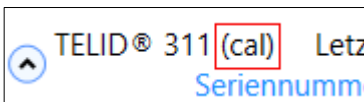


Figure32: TELID®soft - calibration indicator

To find a certain TELID® or a series of measurements faster, you can arrange the view in the head area by selecting the respective box. You can sort the view according to the serial number, the last save time, and the TELID® type. A simple click on the appropriate label field, according to which criterion you want to sort the view. By repeatedly clicking on the field, you select whether to sort in ascending or descending order. The symbol \square or \square indicates which criterion is being used to sort and whether sorting is in ascending or descending order. To view the series of measurements, you

can use the three buttons **[Graph]**, **[Report]**, and **[Generate CSV]**. Simply select the series of measurements by mouse click. The selected series will turn blue. If you want to delete an entry from the database view (and thus also its data from the database), this can be done by clicking on the red cross. If the red cross behind a series of measurements is clicked, only this series of measurements will be deleted. When the larger red cross at the level of the TELID[®] description is clicked, however, the whole TELID[®] is deleted from the database.



WARNING!

Once the series is deleted from the database, it cannot be recovered!

Graphic analysis

In the graphic analysis, the saved values are displayed graphically in a clear format.

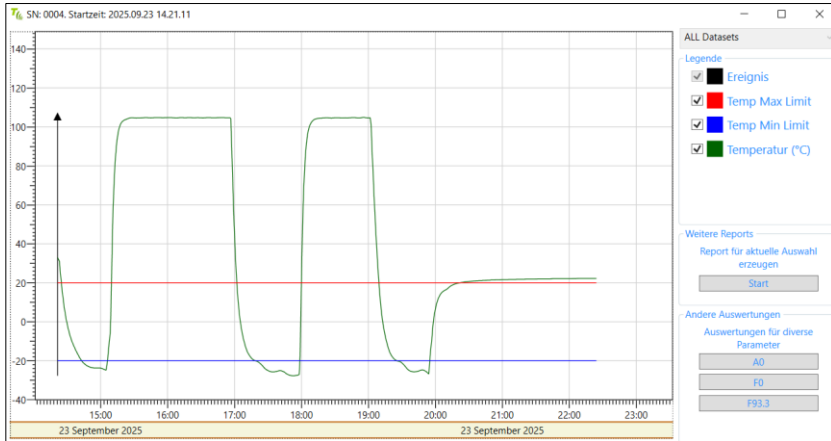


Figure 33: TELID®soft - Graphic Analysis of a Measurement Series

To view measurement ranges more accurately in the graphic analysis, you can adjust the resolution of the coordinate system. With the keyboard keys "+" and "-" or the scroll wheel in your mouse, you can zoom in and zoom out on the graph.

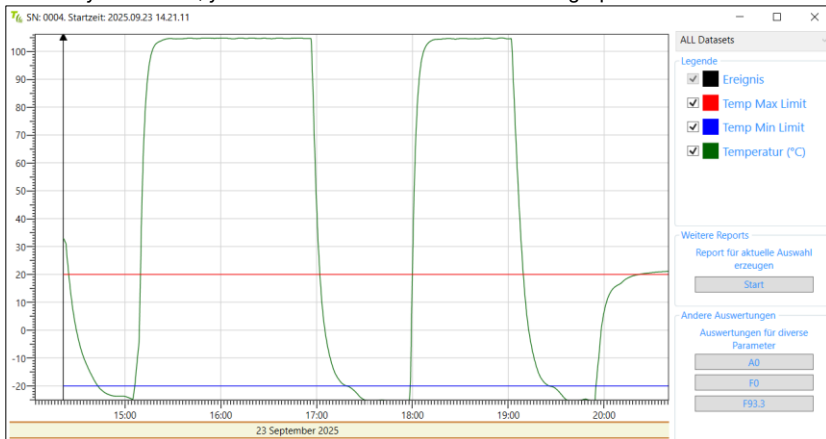


Figure 34: TELID®soft - Graphic Analysis of a Measurement Series, Zoom

In certain cases, you do not need the complete temperature cycle, but only a short section for a relevant evaluation. To select a section, hold Ctrl + select the area with the mouse. When you release the mouse button, only the selected area will be displayed in the chart.

For individual reports, a few possibilities are offered. Over the menu "Other reports" by selecting **[Start]**, you can generate a PDF report of selected temperature values.

In addition, under “Equivalent Exposure times,” you can generate special reports for parameters **[A0]**, **[F0]**, and **[F93.3]**.

If you click on the chart area with the right mouse button, you call up the context menu. Here you can customise the view to the window size with **[Fit to view]**. Additionally, you can copy a screenshot of the chart to the clipboard with **[Copy screenshot]** or save it directly as an image with **[Save screenshot]**. Calling up functions with combinations of keys is briefly described under **[Quick help]**.

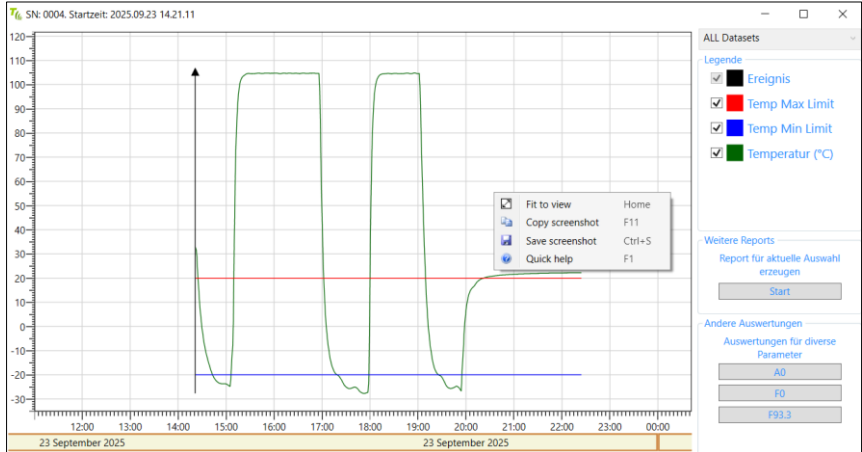


Figure 35: TELID[®]soft - Graphic view, additional menu

Report

The report function provides a comprehensive analysis in a printable format. The report contains, in a concise form, all relevant data, such as logger information, times, sensor parameters, average values, the graphic chart and the individual measured values. The TELIDsoft creates the report in PDF format, so it can be saved and printed with Adobe Acrobat Reader. Each report produced is also automatically saved in the following Windows user directory:

Documents\MICROSENSYS\TELID[®]Soft 6\TELIDReport

Information and Settings

Information

This button [i] in the main menu displays information about the program version and the supported TELID® types.

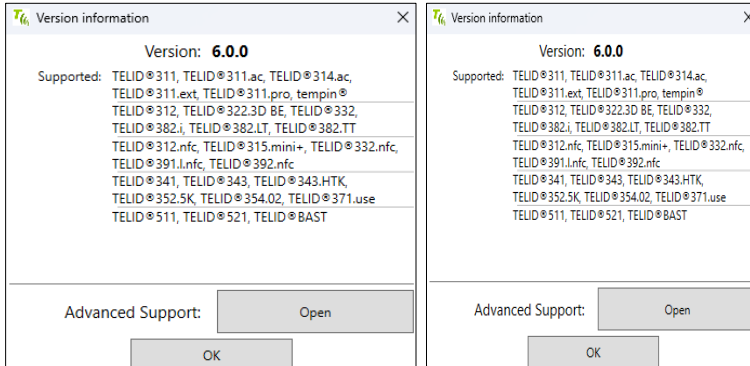


Figure 37: TELID®soft Information and Settings

Advanced support

You can use "Advanced Support" if you are having trouble with a TELID® data logger. Here, the complete memory of the TELID® is read and saved in a ZIP file. This file can then be sent by email to the **microsensys** Support Team. With the detailed information, we can help you specifically and ensure rapid and efficient support.

Connect the RFID reader device, place it over the TELID® data logger, and start the process by clicking the button **[Start Reading]**.

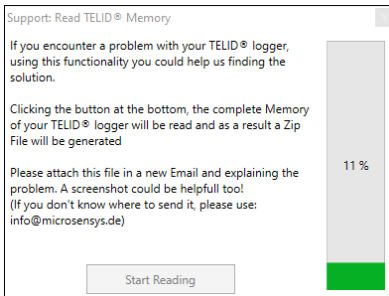


Figure 38: TELID®soft -Advanced Support

General Settings

The general settings window can be called by selecting [⚙] from the main window. Language, storage location, sensor unit, number of data records per report, and parameters A0, F0, F93 can be set in the different settings window. Each menu can be called over [Change...]. Created changes can be confirmed with [OK]. In order for the changes to take effect, it is necessary to close and restart TELID®soft.

Errors and how to deal with them

Observe warning and error messages when using the equipment. Correct any errors as follows:

Error by opening the connection port

Possible cause

1. No hardware driver installed on the PC
2. No connection established with iLD®Reader Connection Tool
3. Another software is using the chosen connection port

Solution

1. Install the USB driver for the RFID interface
2. Establish a stable connection between the PC and the RFID reader device
3. Stop another software that is using the same connection port

No TELID® data logger in the reception are

Possible cause

1. The data logger is not programmed correctly
2. The data logger is not aligned properly with the reader device

Solution

1. Connect the data logger, set all parameters, and program it
2. Align the data logger to the reader

No data found for TELID® data logger

Possible cause

The data logger is still in sleep mode or failure programming

Solution

Check the status data of the logger

Proof the parameters as Start Time / Measurement mode / Measurement interval

Error during TELID® operations

Possible cause

Is the TELID® in the functional area of the Read/Write Interface? Do you have the access rights for the TELID®? Are the adjustment settings / peripheral settings compliant with your device?

Solution

Proof settings and, if necessary, contact the Support Team of *microsensys*!

The licence interface is not activated

Contact the Support Team of *microsensys*!

For questions regarding the program execution, please contact *microsensys*.

Maintenance and care of the system TELID® 3T

Inform yourself about software releases on the website of **microsensys**:
<https://www.microsensys.de>.

If the TELID® data logger is not used, please set it in “Sleep mode. This can conserve its battery.

With potentially defective TELID® transponders, data loggers, or Read/Write Interfaces, please inform **microsensys** regarding possible warranty claims, repair and/or exchange requests.

Disposal Instructions



ENVIRONMENTAL STATEMENT!

To protect our environment and our health, please dispose of electrical and electronic devices according to the established rules (ENVIRONMENT PROTECTION - DIRECTIVE 2012/19/EU).

The disposal of packaging and used components must be done in accordance with the provisions of the country in which the system was installed. You can send back the used components to **microsensys**.

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