INSTALLATION GUIDE
USER MANUAL

FL-4 TRANSFER

For Fluxmeter FL-4

Version 4.01 dated **2021-07**

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QM-System ISO 9001:2015 zertifiziert

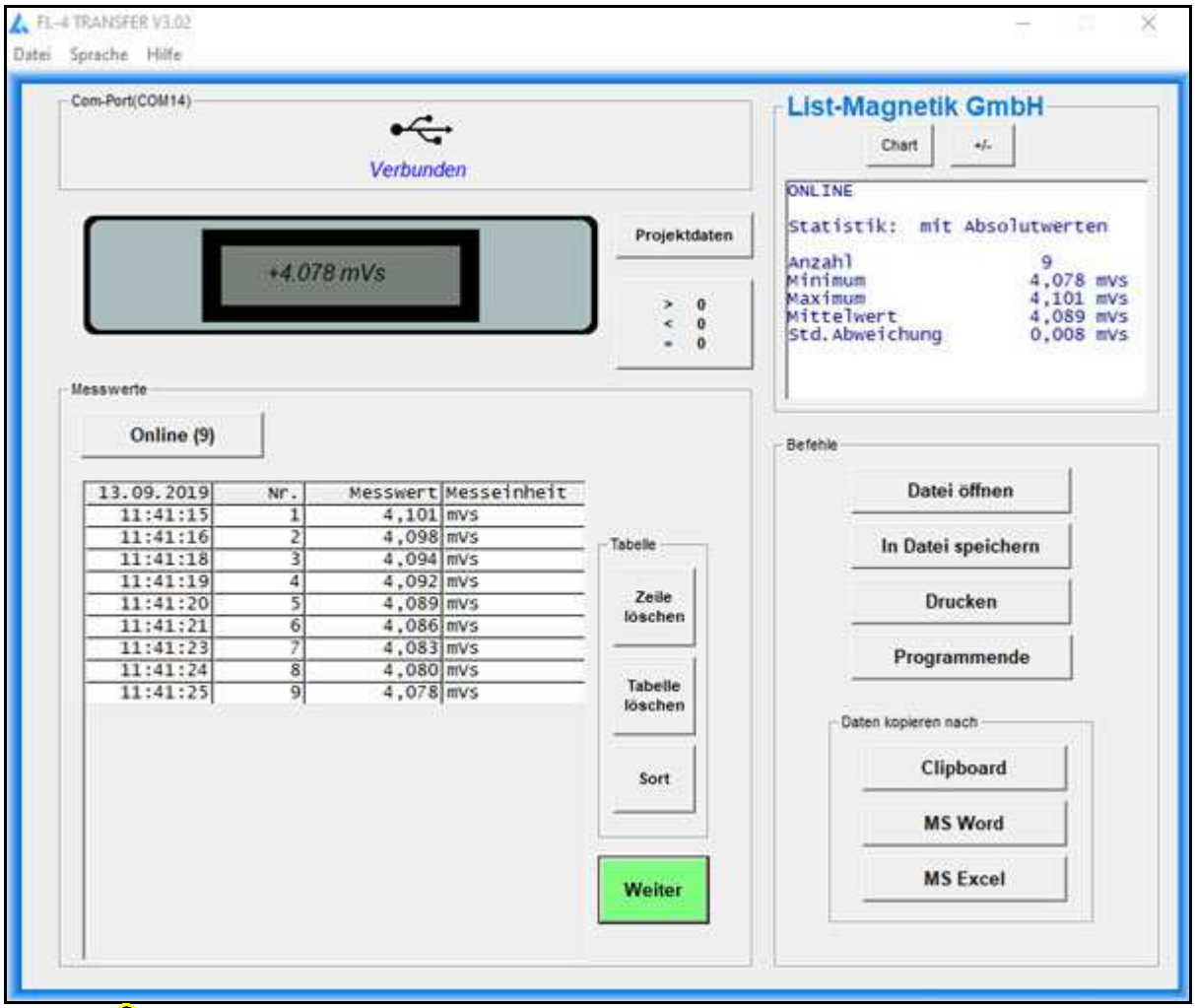
CONTENTS

FL-4 TRANSFER (2021-07)

1. FL-4 TRANSFER APPLICATION

At **https://www.list-magnetik.com/software** you can obtain the free of charge application **FL-4 TRANSFER** to transfer data from your Fluxmeter FL-4 device to a Windows PC or laptop.

With FL-4 TRANSFER you can measure online, you can print the results or transfer them to various applications like Microsoft Word or Microsoft Excel.



The stability of the Bluetooth connection is better the closer you hold the device to the PC or Bluetooth dongle.

If you have connection problems, please shorten the distance to 30 cm.

2. PREPARING CONNECTION

DETECTING THE COM-PORT FOR CABLE

After plugging in the USB cable into Fluxmeter FL-4 and PC, a so-called COM port is formed. This assignment remains permanent. Before starting the application FL-4 TRANSFER you need to know what this port is called.

3. INSTALLING THE APPLICATION

The installation package is called „FL-4 TRANSFER_Vxx_Setup.exe" xx = version number) and available for download at **https://www.list-magnetik.com/software**

If your firewall or virus scanner prevents or disallows an installation, you can ignore these warnings. The installation packages are free from viruses and advertisements, they are only distributed via our homepage.

The default paths used during installation are Windows 10

C:\Program Files (x86)\List-Magnetik\FL-4 TRANSFER
Constant program components

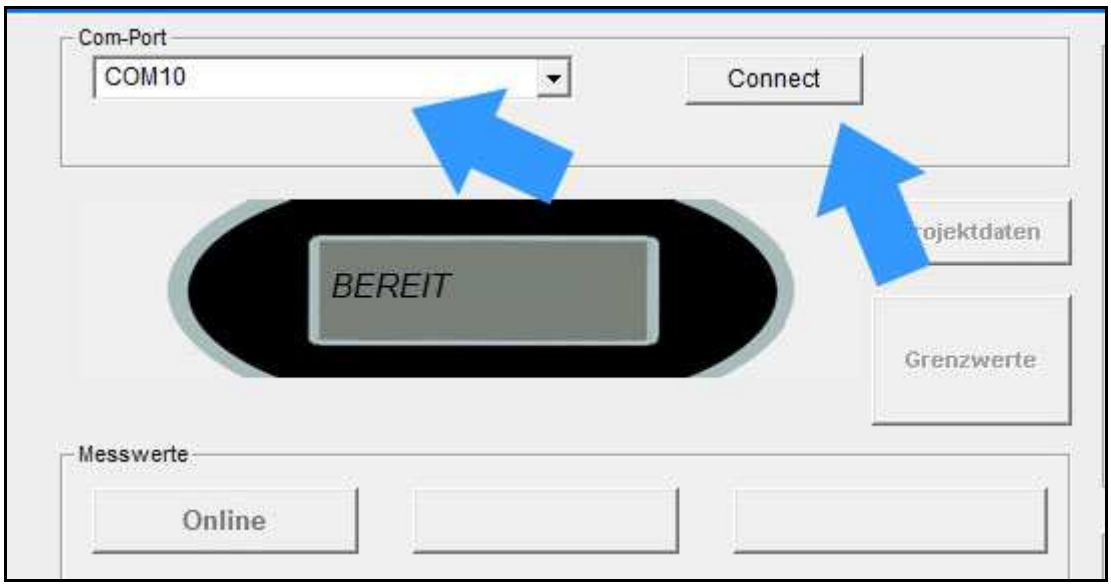
C:\ProgramData\List-Magnetik\FL-4 TRANSFER
C:\Users\<>\AppData\Local\VirtualStore\ProgramData\List-Magnetik \FL-4 TRANSFER
User-used and modified configuration data (COM port, language, limits, project data) and this manual

C:\Users\<>\AppData\Local\List-Magnetik\FL-4 TRANSFER
User created measurement series
Specification of the label of the project data

4. FUNCTIONS

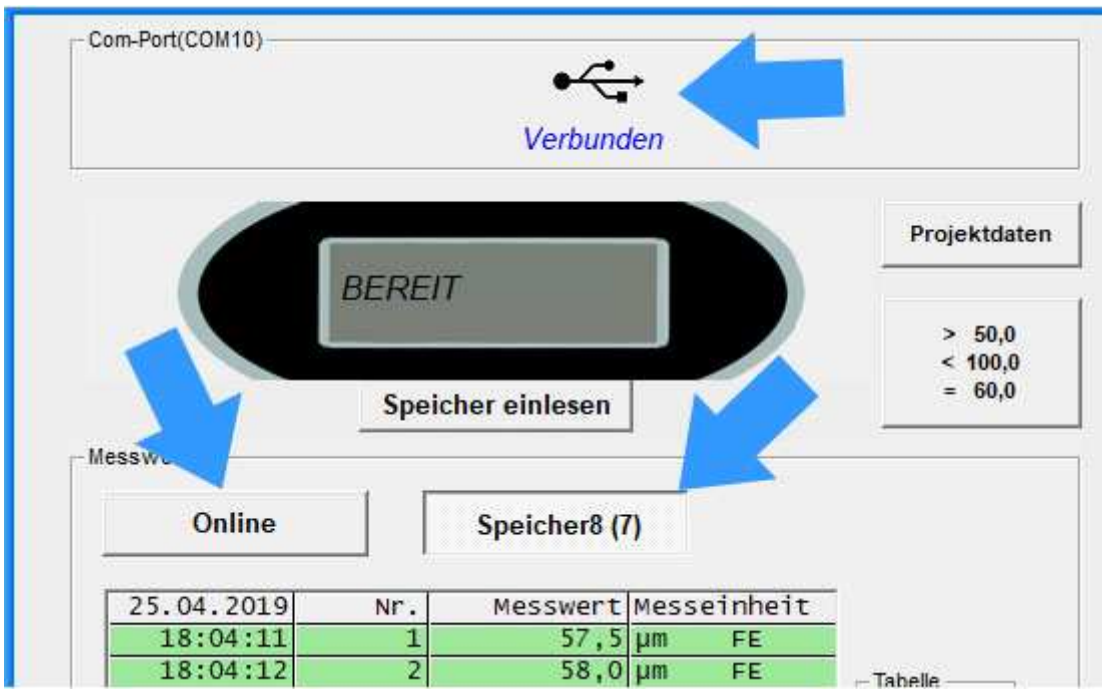
STEP 1: CONNECT

To connect, you need the number of the COM port, which you have determined in point 2. Your Fluxmeter FL-4 must be switched on.



After successful connection, the name changes to "Connected" and the selection box for the COM port becomes invisible. The selected and connected COM port is now in the frame above.

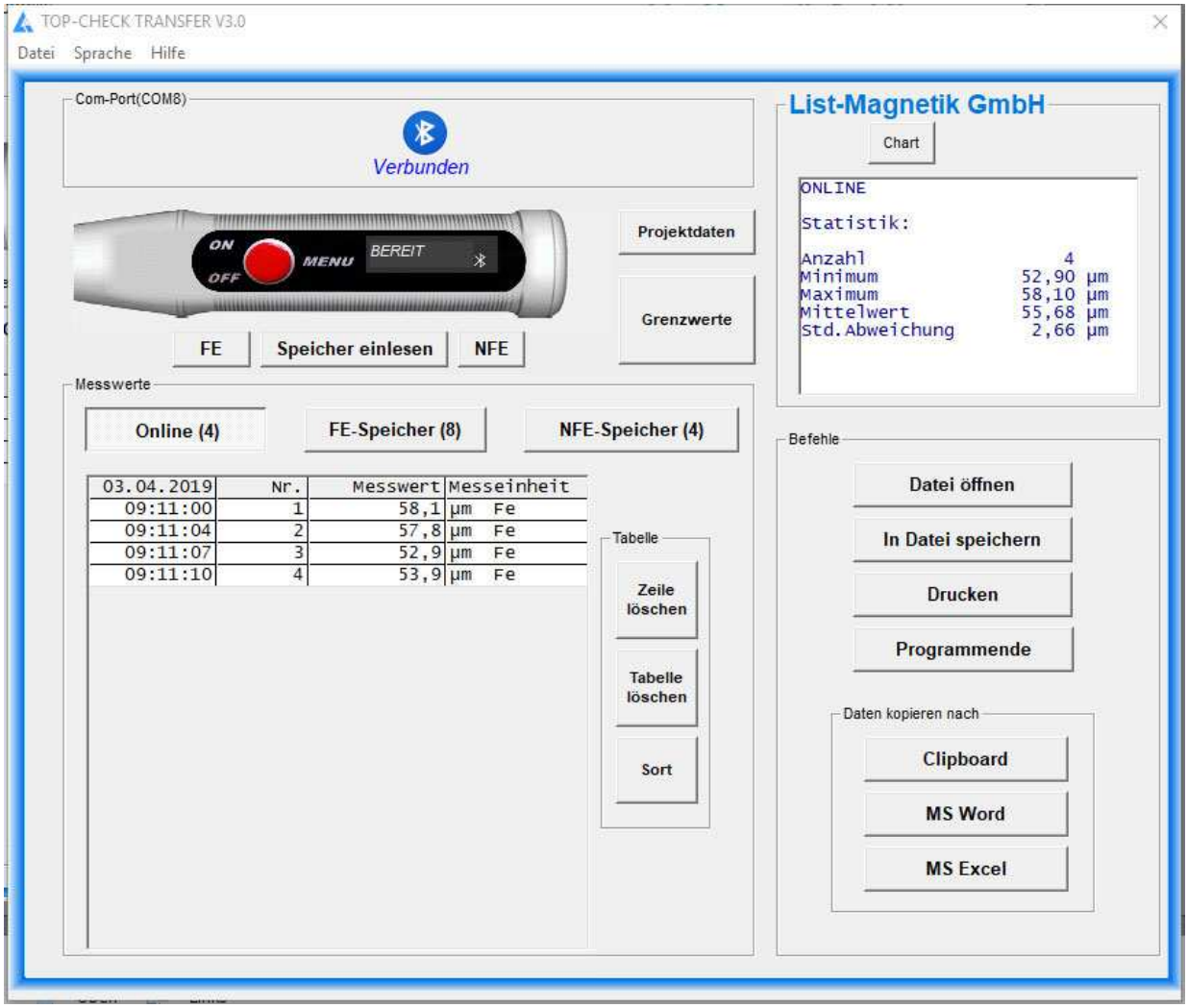
The button above the table is shown as "Online".

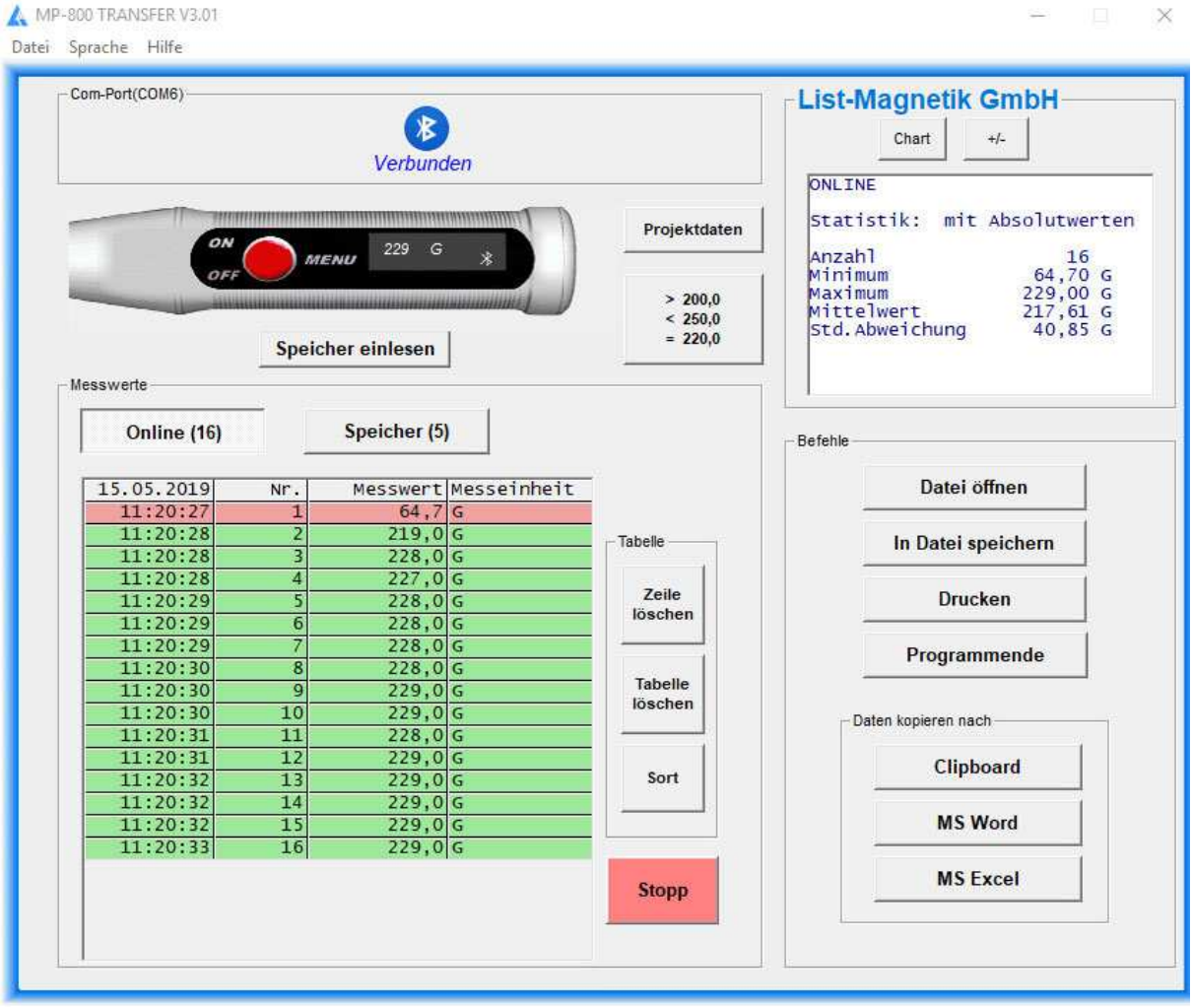


MEASURING ONLINE

Now you can start your work.

For example, you can directly perform online measurements.
To do this, click on the "Online" button on the left above the measured value table.

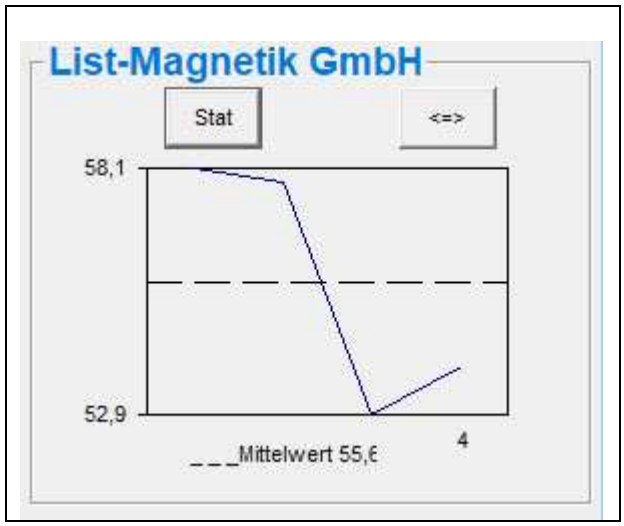




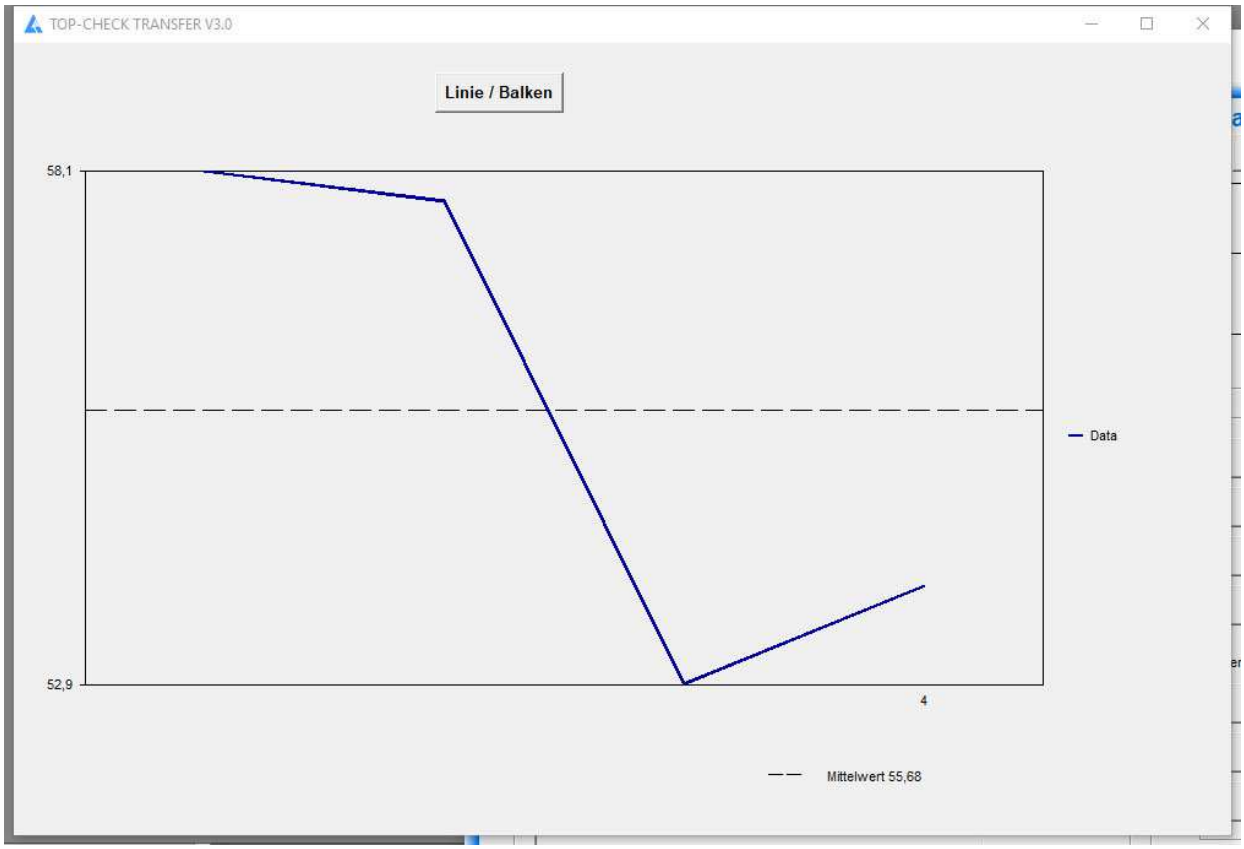
The online measurement permanently receives data from the device. Use the Start / Stop button on the bottom right, to interrupt the transfer, in order to limit the number of values. Likewise, you can start the transfer again.

Statistical values are automatically generated from the second measurement: Minimum, Maximum, Average (Mean) and Standard Deviation.
Note: The Standard Deviation is calculated with (n-1).

To toggle between the numeric statistic and a line diagram, please use the button Chart and Stat.



You can also switch to a larger view in the chart display with the button <=>. There, the representation can be selected as a line or bar chart.



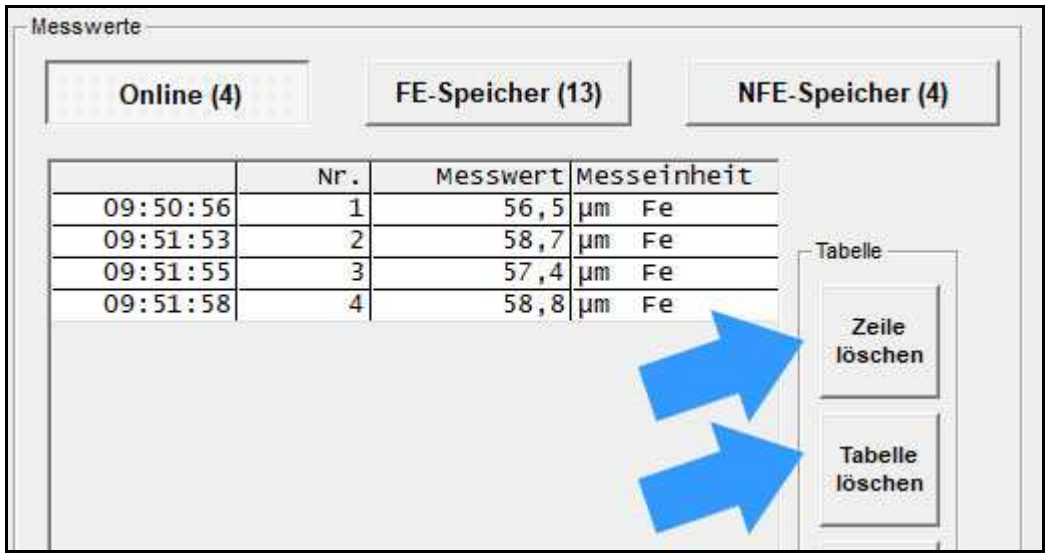
Absolute values or observance of the sign

For measurements of magnetic field strength, the value may be positive (north pole) or negative (south pole), depending on the location of the probe or the magnet. For many applications, the polarity is irrelevant, only the absolute value is considered. Therefore, for the measurement with a magnetic field meter, the statistical evaluation is preset to "absolute". You can toggle between the two viewing modes using the +/- button on the right above the statistics. When colorizing the measured values due to the limits, and when transferring the data to Excel, this current setting +/- is taken into account.

DELETE TAB, DELETE ROWS

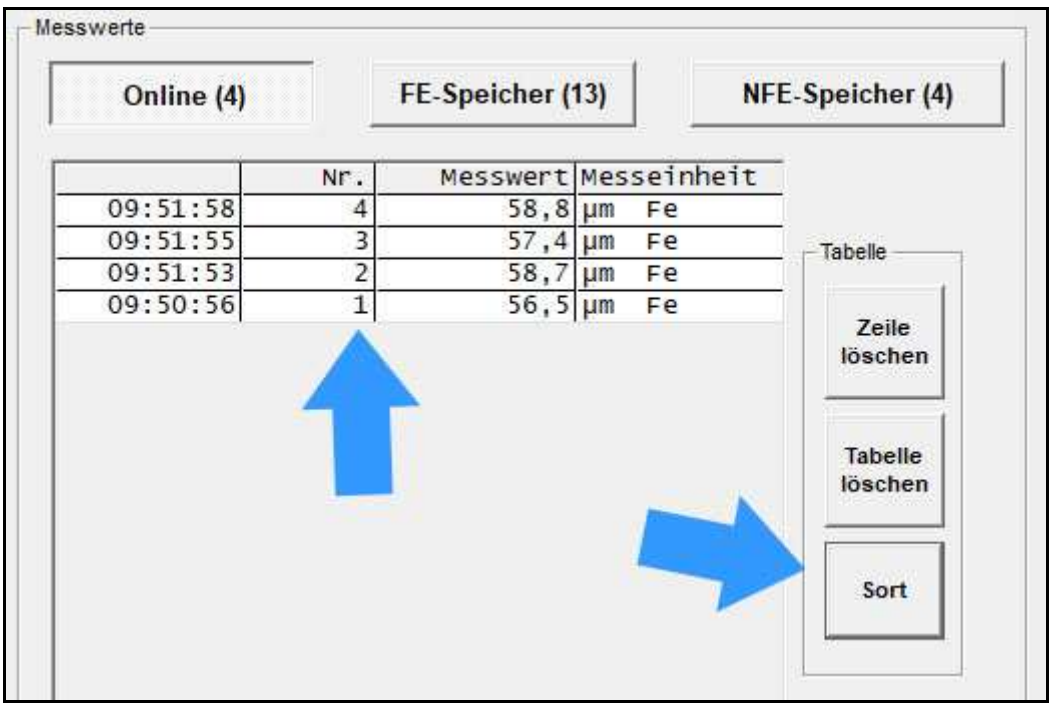
The table of measured values can either be completely deleted or individual lines can be displayed. The statistics will be automatically corrected afterwards.

Note:
The data in the device will not be deleted.
By reading again from the device, the deleted values are added again.



SORT TABLE

The tables with the measured values can be sorted in descending order from the last to the first one.



PROJECT DATA

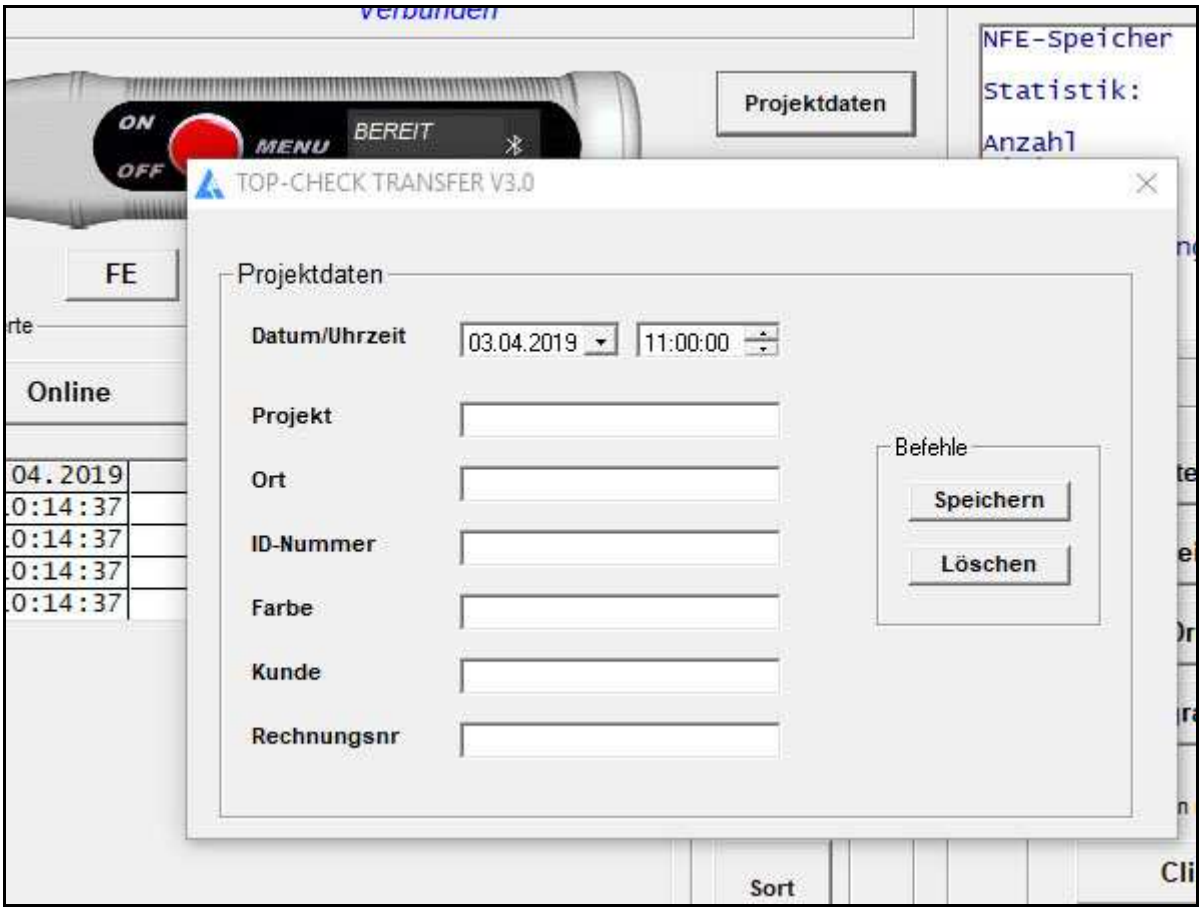
FL-4 TRANSFER allows you to edit project data for a measurement series. This project data will then be provided during printing, when transferring to Microsoft Word or Microsoft Excel, so that you can document the series of measurements.

You have a date / time information and 6 free text fields as project data available.

The free text fields can be defined by the user. In the configuration file "Projekt.ini" on the user data directory („C:\Users\<Your Name>\AppData\Local\List-Magnetik\FL-4 TRANS-FER"), you can define 6 fixed terms in German and English for yourself.

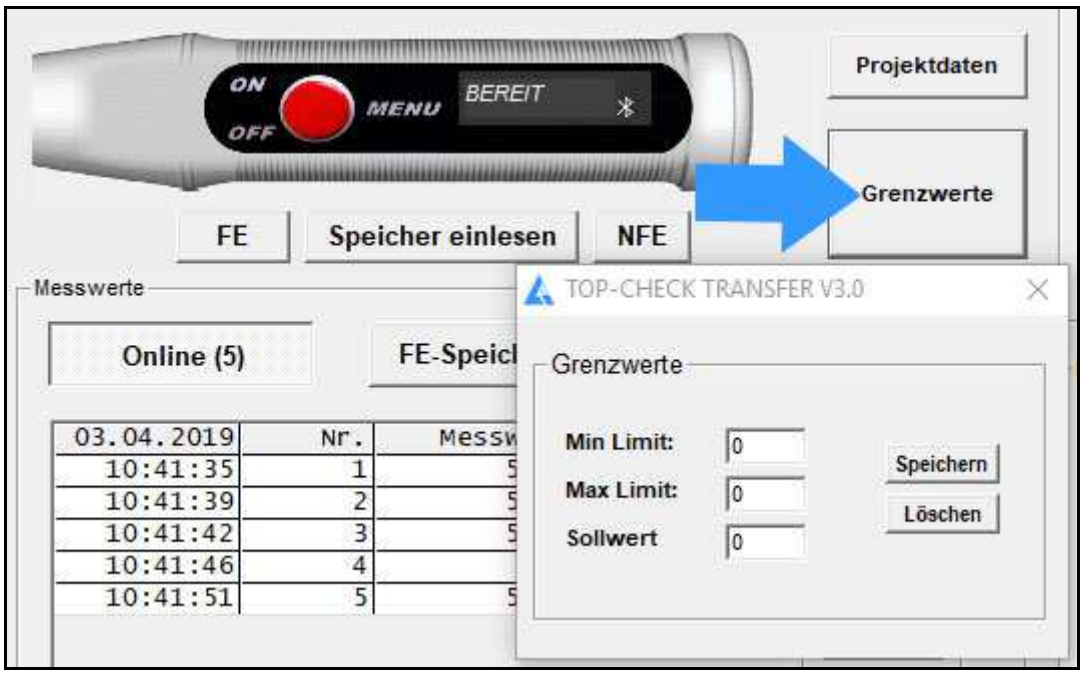
Example:

```
Projekt;Project;
Ort;Location;
ID-Nummer;ID No.;
Farbe;Color;
Kunde;Customer;
Rechnungsnr;Invoice No.;
```

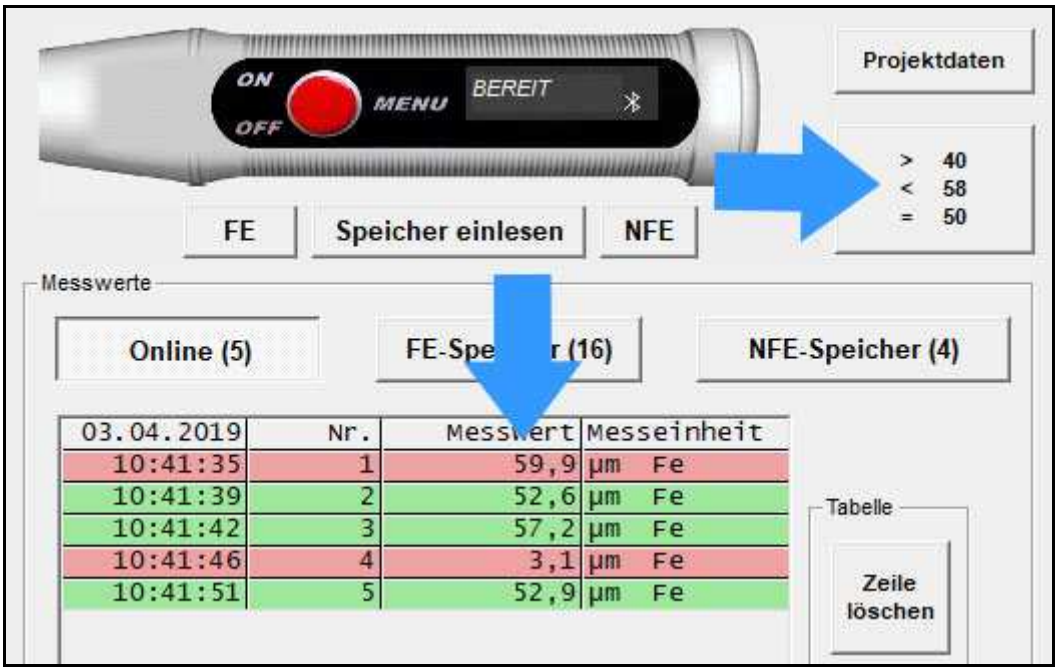


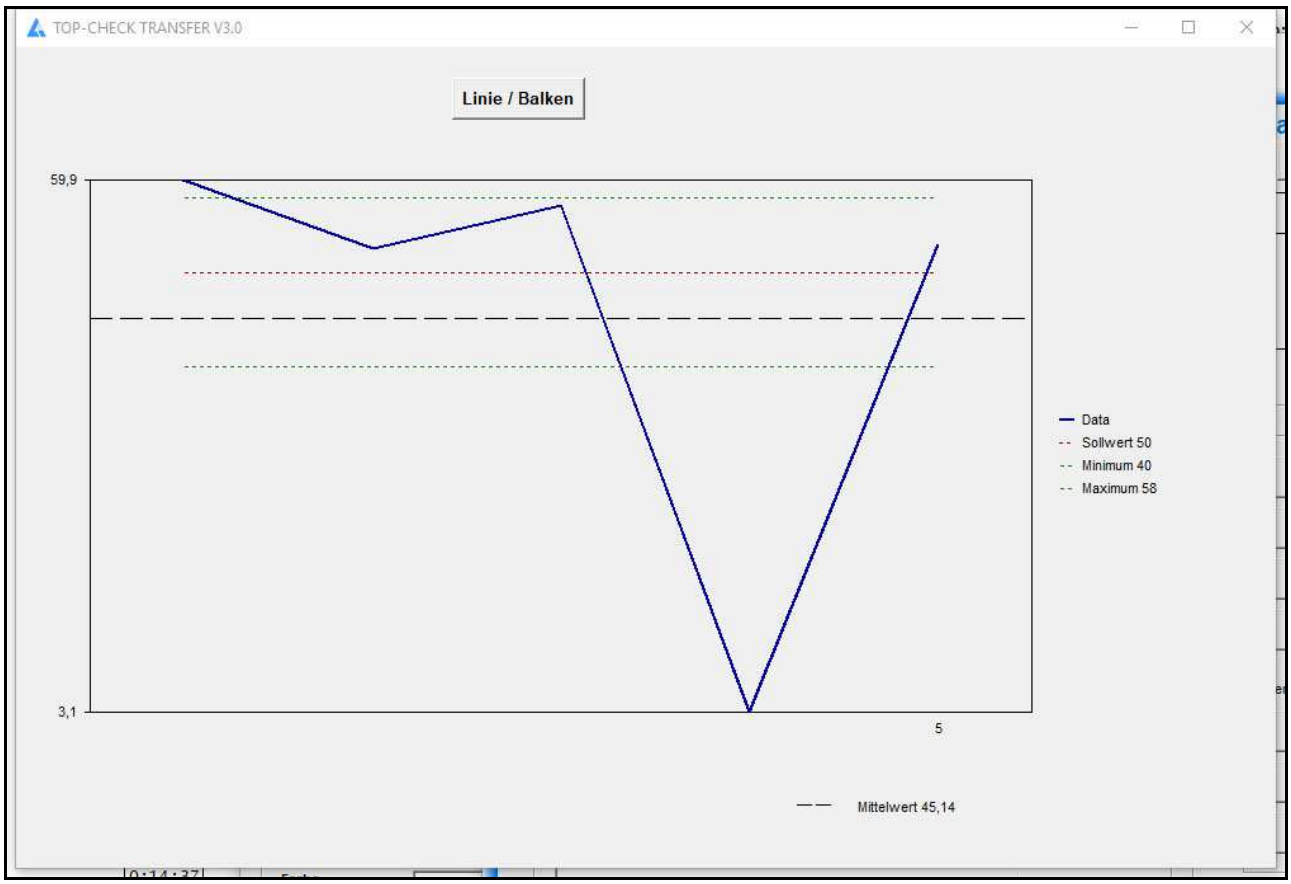
LIMITS

With limit values, an evaluation of your measured values after falling below or above a corridor is possible. If you have specified limit values, the measured values are highlighted in green (= in the corridor) or red (= outside). In addition, a target can be preset. The limits and the target are displayed in the charts (line or bar).



Example: Input of min limit = 40, max limit = 58.





Representation of the limits and the target in the line chart

Absolute values or observance of the sign when measuring the magnetic field

When coloring the measured values based on the limits, the current setting +/- is taken into account.

OUTPUT: FILE, PRINTER, APPLICATIONS

The measurement series can be stored in a file.
Files of type ".mes" are readable with a text editor.

With the button "Open Data File" such a series of measurements can be read again from file, for example to print it or to transfer to Excel.

FE-Speicher

Statistik:

Anzahl	33
Maximum	5220,00 µm
Minimum	85,90 µm
Mittelwert	2928,62 µm
Std.Abweichung	2025,07 µm

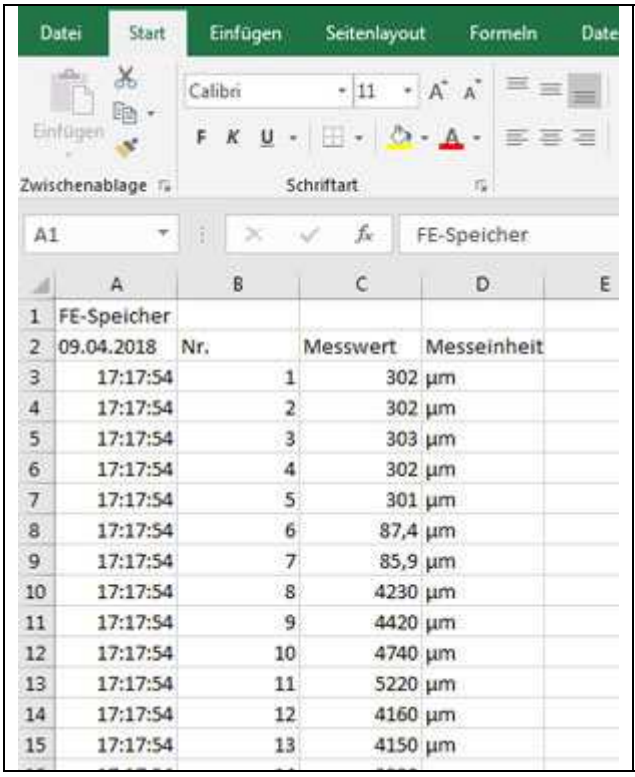
09.04.2018	Nr.	Messwert
17:17:54	1	302,0 µm
17:17:54	2	302,0 µm
17:17:54	3	303,0 µm
17:17:54	4	302,0 µm
17:17:54	5	301,0 µm
17:17:54	6	87,4 µm
17:17:54	7	85,9 µm
17:17:54	8	4230,0 µm
17:17:54	9	4420,0 µm
17:17:54	10	4740,0 µm

Example of a print output via button **Print**

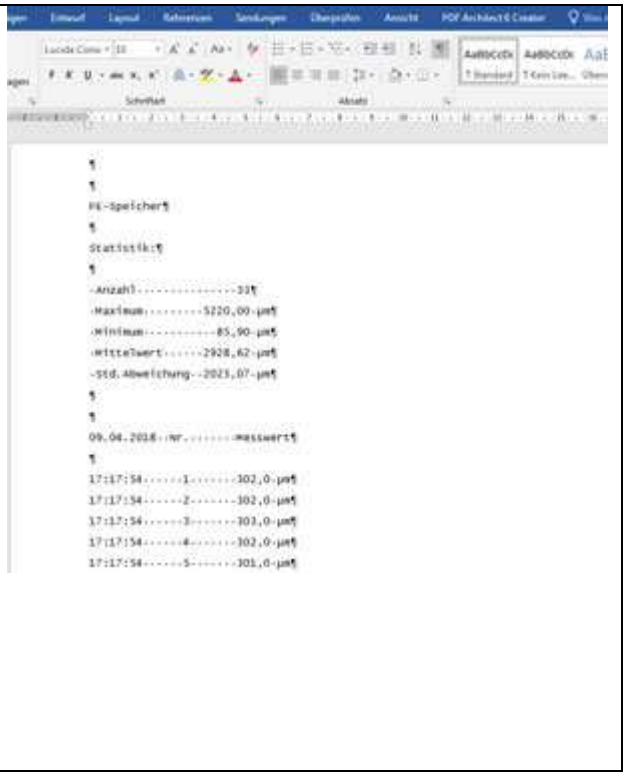
Via Clipboard you can hand over the measuring series to subsequent applications.

The Buttons **MS Word** and **MS Excel** only will work if the named Microsoft Office components are installed, but not with Open Office.

When transferring to Excel, you have the choice of outputting the data as a table or, in addition, graphically as a chart.



	A	B	C	D	E
1	FE-Speicher				
2	09.04.2018	Nr.	Messwert	Messeinheit	
3	17:17:54	1	302	µm	
4	17:17:54	2	302	µm	
5	17:17:54	3	303	µm	
6	17:17:54	4	302	µm	
7	17:17:54	5	301	µm	
8	17:17:54	6	87,4	µm	
9	17:17:54	7	85,9	µm	
10	17:17:54	8	4230	µm	
11	17:17:54	9	4420	µm	
12	17:17:54	10	4740	µm	
13	17:17:54	11	5220	µm	
14	17:17:54	12	4160	µm	
15	17:17:54	13	4150	µm	



Absolute values or observance of the sign when measuring the magnetic field

When transferring the data to Excel, the current +/- setting is taken into account.

OPEN DATA FILE

With then "Open Data File" button you can read in a saved data file again.

LANGUAGE AND HELP

The language can be switched between German and English in the upper menu bar.

In the Help menu, the manual can be opened in PDF format.

Under "Info" your device data (type, firmware version, MAC address) are visible.