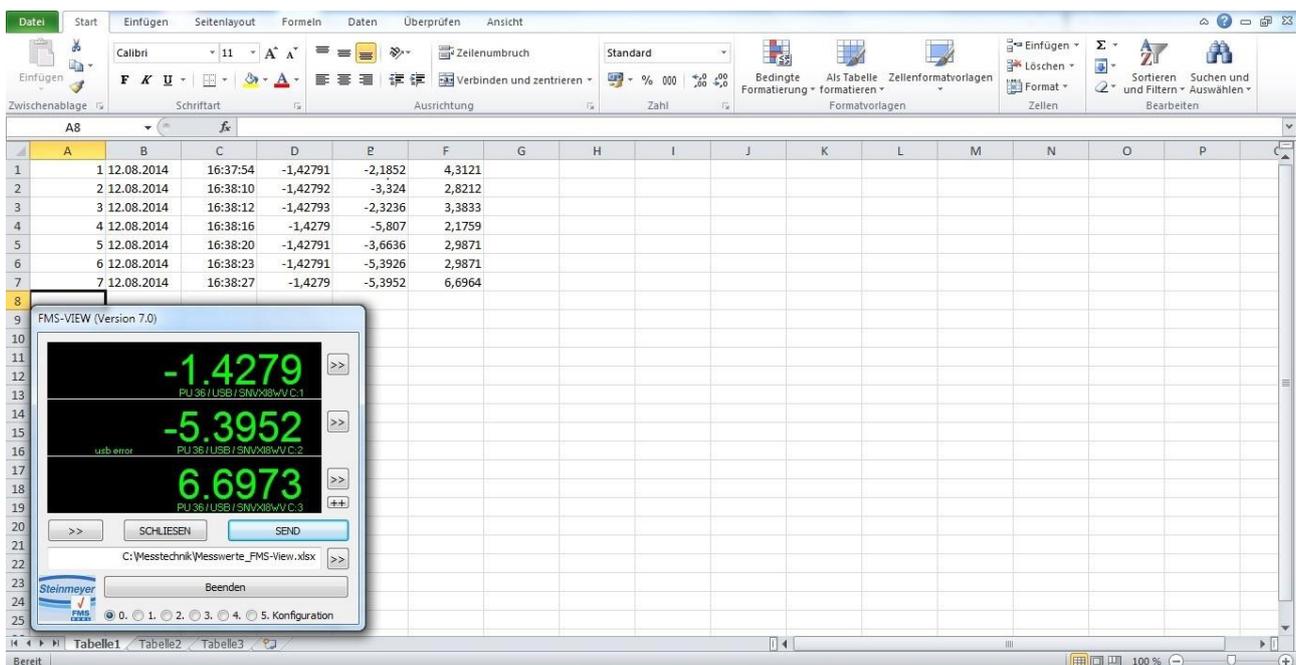


Operating Instructions

FMS-VIEW

Version: 7.0



Display of digital measuring values as well as transfer to "EXCEL".

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1. Installation:

The software is installed on the PC by executing the installation programme. You may require administrator rights for this.

The relevant device drive has to be installed in order to be able to use the measuring tools with USB interface and "Microsoft Excel" also has to be installed for data transfer (tested as of version 2007).

CAUTION: It needs to be a "real" Excel installation with purchased key! So-called "click to run" versions are NET programmes which are not installed on the computer and therefore have no COM.

You can detect a "click to run" version by checking if your computer seems to an available "Q" drive. The consequence is a "Microsoft Office Excel missing!" error message, and Excel won't start up. The same error message can also occur for the operating system Windows XP. We recommend using Windows 7.

A configuration file (*fms_view.cfg*) is created in the Windows user data directory at the first start of the programme. The current configuration settings are saved there.

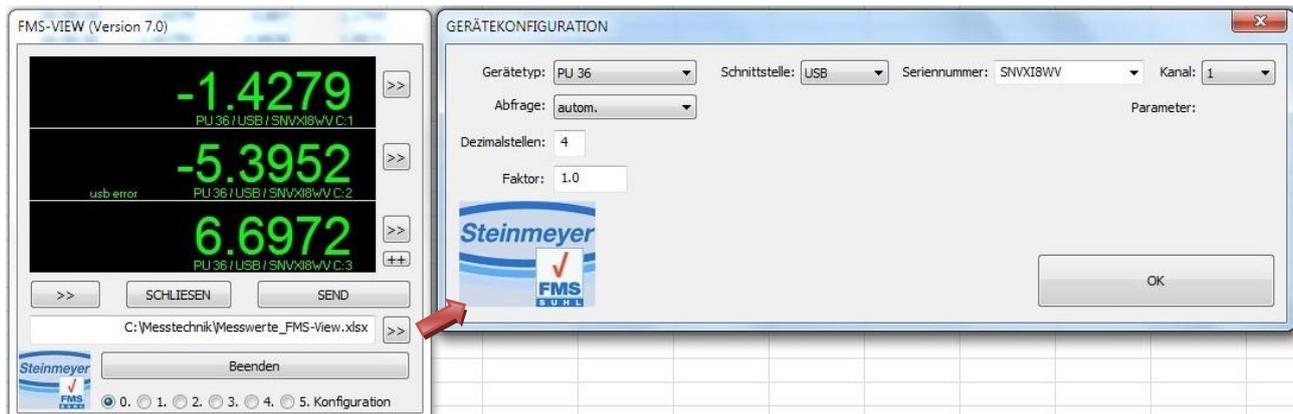
The installation programme only allows the installation of one programme instance. It is, however, possible to operate the programme multiple times on the same computer with different configurations. For this purpose, copy the programme files into any different folder and start the programme from this location.

2. Licensing:

After installation, the programme works for a limited time as a trial version (can be seen on the title: trial version) with full range of functions. The programme can be licensed permanently by entering a valid license number in the configuration window.

3. Set-up of a measuring value:

The programme starts with a window which is kept in the foreground on Windows at all times. First, a connection to a measuring tool has to be established. For this purpose, the switch panel >> is activated.



Further selection fields (interface, serial number and measuring channel) become visible depending on the device type. All serial interfaces - currently available on the PC - are displayed automatically in the list. For USB devices, the list is determined with the serial numbers.

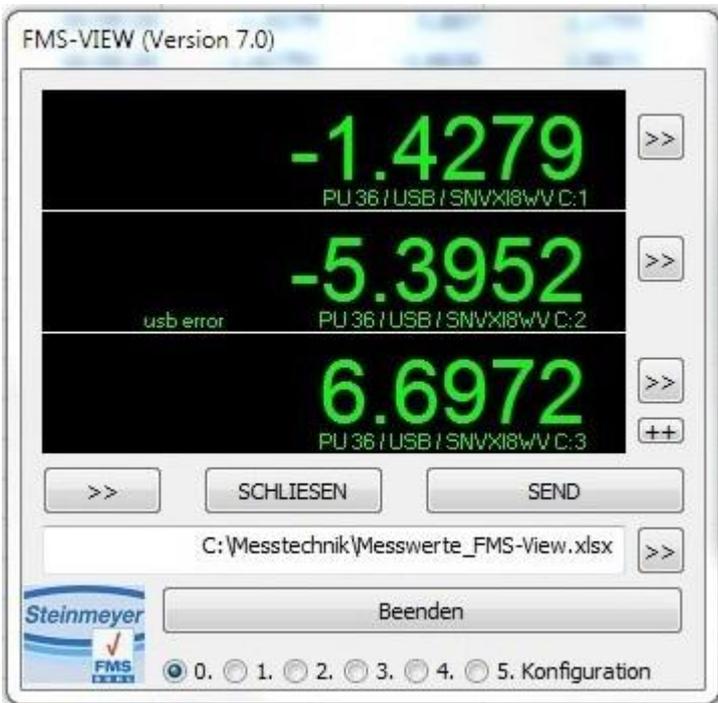
For some devices (currently PU36, PU60, PU300), there is an option to use the internal max/min function. The desired selection is carried out via the channel field (channel 51, 52, 53). All 3 variations can be shown in parallel - the parallel display of max/min and channel 1...3 from the same measuring device is not possible.

Additionally, the query method and the decimal point number can be selected. The current value is continuously displayed for automatic queries. Furthermore, it is also possible to trigger the query using the keyboard or to wait for a value from the measuring tool. When using several measuring tools, then "waiting" for a measuring value is only conditionally possible since it may not be achievable to provide all measuring values at the same time.

4. Set-up of additional measuring values:

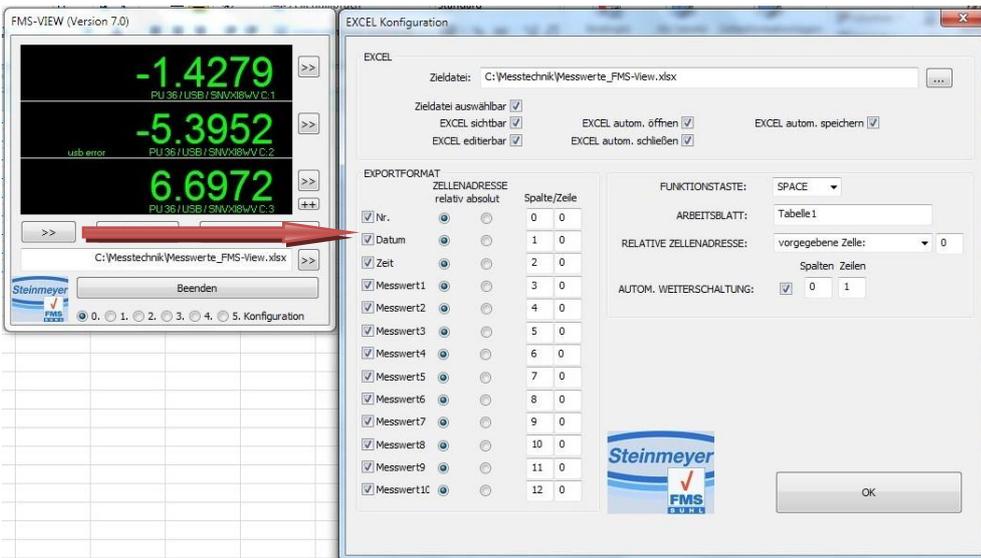
A maximum of 10 measuring values can be displayed and exported with FMS_VIEW.

Extension is provided via the switch panel **++** and by selecting an additional measuring tool type. To remove any measuring value, it is only necessary to set the measuring tool type to “-”.



5. Set-up of Excel transfer:

The configuration window opens with the switch panel **>>**.



EXCEL:

Target file: An existing target file has to be selected for the Excel transfer.

Select target file: Upon activation, the target file selection is also shown in the display window and can be quickly edited there.

Excel visible: Control of the Excel view

Excel can be edited: Control of the Excel execution

Open/close/save Excel automatically: Control of the Excel execution

Information: Excel has to be visible and editable in order to be able to specify a target address with the mouse.

EXPORT FORMAT:

In addition to the maximum 10 measuring values, it is also possible to transfer a date, time and sequential number. Each value can be activated or deactivated.

Where the individual data is inserted into the Excel file is determined by the "CELL ADDRESSES". There are two different modalities that can be mixed individually.

Relative: The target address is located at a relative position to the reference cell. Any move (in columns or rows) to the reference cell can be specified.

Example:

```
Reference cell = B5
Column      =   2
Row         =   0
-----
Target address= D5
```

Absolute: The target address is at a pre-defined, fixed cell.

Example:

```
Absolute column= D
Absolute row=   5
-----
Target address= D5
```

A reference cell is always necessary for relative target addresses. There are again two options (**RELATIVE CELL ADDRESS**).

1. The currently activated cell in the worksheet is used as reference cell.
2. A "fixed" reference cell is defined in the Excel file. This means that there is a cell in the worksheet which has the address of the reference cell (e.g. the cell "R1" includes the text: "A1" – hence "A1" is the reference cell). Opposite to the "currently activated" reference cell, which changes with every mouse click, the information from this address cell does not get lost that easily. The method is best suited for the continuous "updating" of data sets. Furthermore, the user can influence the target position via macros.

Automatic forwarding:

If several data sets are to be exported subsequently into the Excel file, then this function has to be activated. This automatically calculates the relevant new target addresses for new data sets. "Automatic forwarding" only works for "relative" target addresses. The general principle is that the reference cells are moved after every import by the specified column and row offset (e.g. offset: 0/1 – has the effect that only ever one row is updated).

Information: Column moves are only possible to a limited extent, since currently only columns "A" to "Z" are available! For rows, however, it is possible to have several thousands of data sets (depending on Excel version).

FUNCTION KEY:

The selected function key allows both the measuring value request from the device as well as the transfer of current values to Excel. FMS_VIEW constantly monitors the keyboard for confirmation of the selected key, however, there may be problems if Excel or other programmes also react to this function key.

It is possible to avoid this issue by using an unused key or by setting the Windows-Focus always on FMS_VIEW.

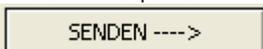
Important information:

- If EXCEL is in "input mode" then the export is blocked with an error message.
- Older or also future Excel versions are possibly not (yet) supported (no functional guarantee).
- It is possible to open files multiple times (even invisibly) due to the flexibility of the Excel options or careless handling. This may lead to a loss of data!
- Excel files which are opened via the operating system (Explorer) cannot be edited. Always use the programme's OPEN function.
- The previous target file (if open) has to be closed when changing target file.

6. Operation:

After successful configuration, the measuring values are displayed in the window.

With the switch panel:



data transfer to Excel occurs. If the Excel file is not yet opened, this is done automatically.

The Excel file can also be opened or closed manually at any time. This is particularly useful if you want to select the target/reference cell with the mouse prior to the first transfer.



Then the programme closes and so does the Excel file. The current position of the window is saved and assumed again at the next start-up.