USB

UsbCom
Standard / Professional©
Software

3759562

Version 2.1

C€

Contents

UsbCom Standard / Professional 2.1©

Introduction

With the UsbCom Standard Software in conjunction with a measuring instrument with a data output; MultiCom, DataVariable or MarConnect and the appropraite data cable you can transfer your measured values into a text file, into Microsoft Excel or via a keyboard code into any application. In addition to a USB port it is also possible to use a serial COM interface with the suitable data cable for data transmission.

With the UsbCom Professional Software full version (optional), you can operate up to 127 measuring devices (subtract the amount of hubs being used) via the USB hubs and one additional serial COM interface, thus you can easily centralize multiple measuring devices to one measurement station. With the aid of a USB foot switch (optional) you can also transfer your measured values from each individual measuring devices to a text file, forms or to separate MS Excel columns.

Note: When connecting several USB hubs together (for example when cascading) these must be operated by an external power supply.

Please read the following instructions carefully so that you are familiar with the UsbCom Software.

Installation

In order to start the installation of the UsbComSoftware, please execute either the SetUp-MarComStd.exe or SetUp-MarComProf.exe file in the root directory of this CD and follow the instructions. Once successfully installed you may plug in the USB cable and continue with the installation of the driver. If you wish to connect multiple USB data cables (only possible with the full version of UsbCom Professional) we recommend that you install the cable and driver successively. A brief guide to getting started can be found in CD box, a PDF instruction manual can also be found on this CD.

Minimum system requirements:

- DVD or CD drive
- MS Windows 7, Vista, XP oder 2000
- One free USB-interface 1.1 or higher
- Up to 10 MB of available hard disk space
- Recommended: MS-Excel 97 or higher

Start program

After starting the program a status window will appear.
In this status window you can instantly see whether a measuring device has been connected and recognized (a colour signal field in the top right hand corner of the window) as well as the last transferred measured value will appear.
This window must always be open so that the measured values can be transferred to a text file, into Microsoft Excel or via a keyboard code!
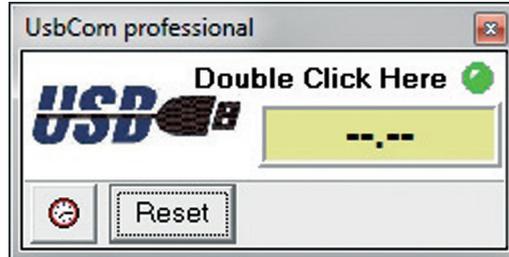

With a double click upon the status window the configuration window will then open.
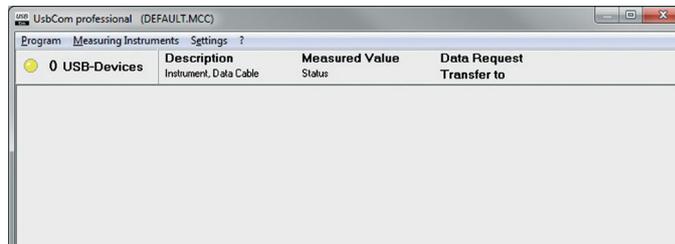
In this configuration window the connected measuring devices will be displayed and configured. Normally, after the first installation only the free serial COM interface will be shown, as long as the computer being used has further COM interfaces.

Now, you can plug in the USB data cable, please follow the instructions regarding the driver installation contained in the brief guide. Once the driver is successfully installed, the new connected measuring device will appear in the configuration window. With multiple USB data cables repeat these steps accordingly (with UsbCom Professional only).

When the driver installation of the data cable is successfully installed, the new measuring device will appear in the configuration window, along with the description of the connected USB data cable and a description of the measuring device. In order to activate the new data cable go to the Measuring Instruments menu and select Refresh. The connected measuring device can be edited.
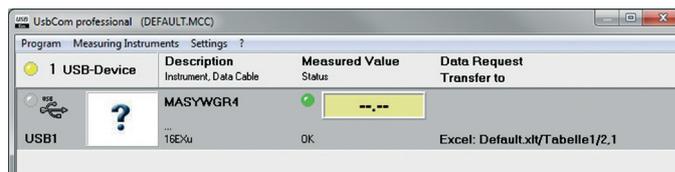
Menu bar and configuration

1.   Program
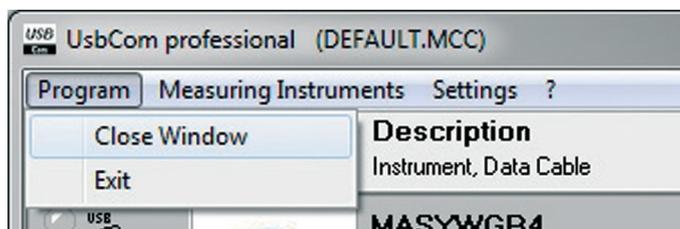
1.1   Close window

With this menu you can close the configuration window, alternatively click on the cross with the red background in the top right hand corner of the configuration window. Even when the configuration window is closed the status window is still open and it is still possible to transfer measured values. With a double click upon the status window the configuration window will reopen.

1.2   Exit

Click on Exit the complete UsbCom Program including the status window will be closed, no further measured values will be transferred. Alternatively, click on the cross with the red background in the top right hand corner of the status window.

2. Measuring Devices
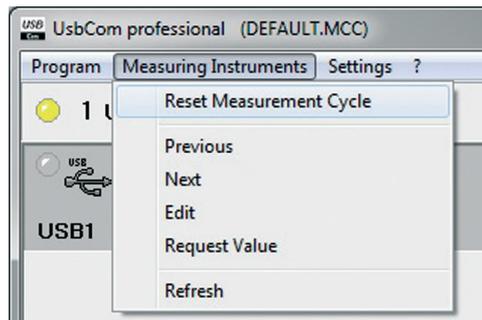
2.1 Reset Measurement Cycle

In the parameter window the MC-I data cable (e.g. foot switch), or a measuring device; the defined measuring cycle will be reset to zero. See section 5.1 MC-I Switch and 5.2 Measuring Device.
Alternatively, the measuring cycle can also be reset by clicking the Reset button in the status window.

2.2 Previous

The highlighted field (marked grey) in the configuration window will move to the preceding measuring device e.g. from USB2 to USB1. The highlighted measuring device can then be edited.

2.3 Next

The highlighted field (marked grey) in the configuration window will return to the following measuring device e.g. from USB 2 to USB 3. The highlighted measuring device can then be edited.
Tip: To edit a measuring device simply click on it.

2.4 Edit

With *Edit* the parameter window of the aforementioned active and grey highlighted measuring device will open. Here the settings for the connected measuring device can be made. **See „5. Parameterize Measuring Devices"**
Tip: The parameter window can also be opened with a double click on the image of the measuring device in the configuration window.
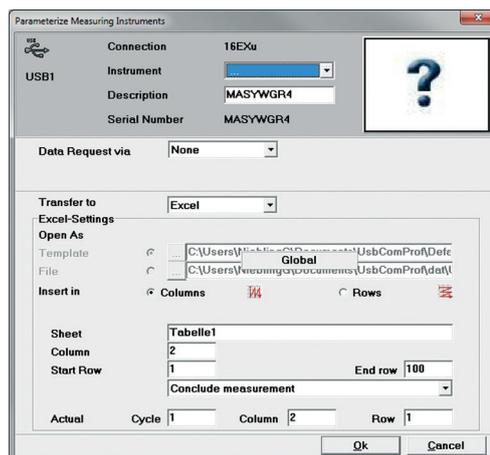
2.5 Request Value

For test purposes a measuring value from a measuring device can be requestedwerden.

2.6 Refresh

The USB port will be examined for a detached or a newly connected cable, additionally the configuration window will return to the last saved version.
Attention: When the cable is either plugged in or out the configuration will automatically be refreshed!
Amended settings and settings that have not been saved will be lost!

3. Settings

3.1 Load (Only available with UsbCom Professional)

Here the previously saved configuration settings can be reloaded.

3.2 Save (Only available with UsbCom Professional)

The actual configuration settings will be saved under the actual opened file (e.g. DEFAULT.MCC).
Attention: previously saved configuration settings will be overwritten!

3.3 Save As (Only available with UsbCom Professional)

The actual configuration settings can also be saved under a different file name, therefore it is possible to save and reuse multiple configuration settings. **Note:** If the cable does not have a USB plug, which is required for stored configuration, it will not be shown. If an additional cable is attached which is not for the stored configuration, then this will be shown in its initial non-configured state.
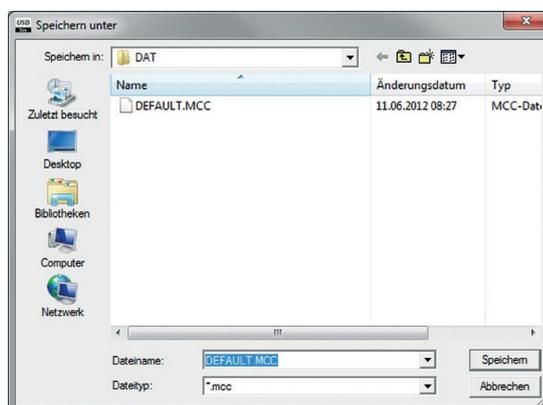
3.4 Language

Select a different language.
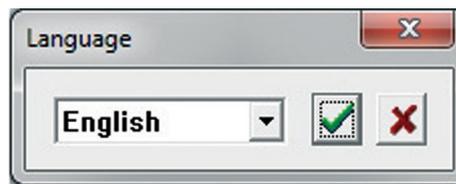
3.5 COM

This menu offers a clear overview of the serial COM interface that is not in use; they can be shown or hidden in the configuration window. (Only COM1 is available with UsbCom Standard).
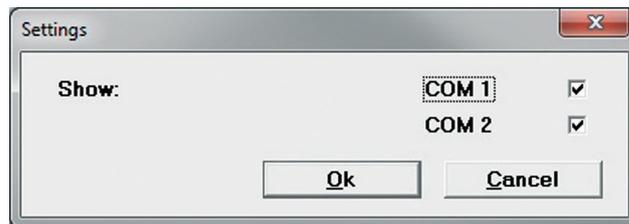
3.6 File

The global Excel file settings for all measuring devices are conducted here.

If global is activated, then the following settings under „*Open As*" are valid for all measuring devices. The measured values of all measuring devices are then transferred into a combined Excel file, however the settings under „*Open As*" in the parameter window for measuring devices are marked in a light grey and thus cannot not be edited.

If global is de-activated, then the following settings under „*Open As*" in the parameter window of the individual measuring devices can be altered separately, therefore for example the values from each individual measuring devices can be send to a different Excel file.

With „*Open As*" you can select an Excel file and the path (push button with 3 dots) for all the measuring devices. Additionally you can choose whether to open a particular template or a particular file for data acquisition.
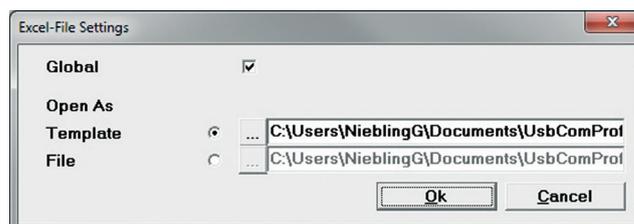
3.7 Signal Beep

Select or deselect a beep (audible signal tone) for the transmission of measured data and for the end of a measuring series. The audible signal tone is a Wave file.
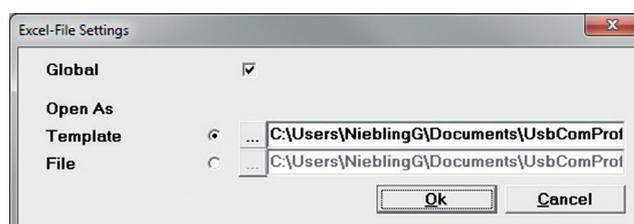
4. Information (?)
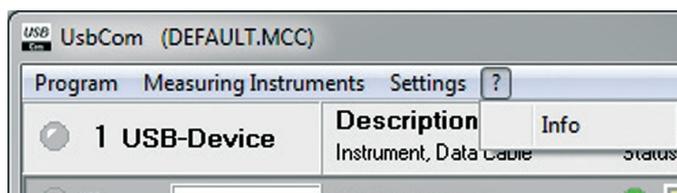
4.1 Info

Information regarding the UsbCom Software.

5. Parameterize Measuring Devices

5.1 MC-I Switch

The MC-I Cable is fitted on one end with a jack bush so that it can connected to a relay (e.g. foot switch) with a jack plug (according to JIS C 6560, 3.5 mm), thus multiple foot switches can be assigned via a USB hub to control individual or multiple measuring devices.
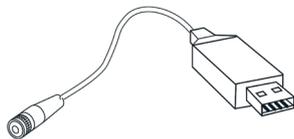
MC-I Cable
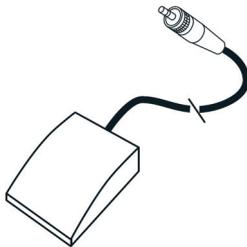
Foot switch
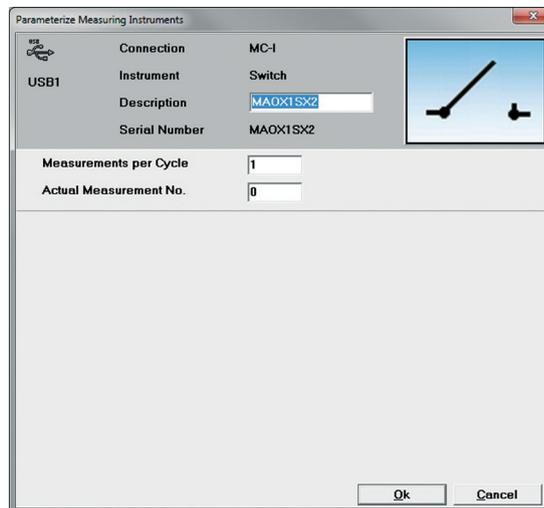
- Connection: Description of the connected data cable (e.g. MC-I)

- Instrument: Description of the connected device (e.g. switch)

- Description: A more detailed description can be entered (e.g. foot switch) in order to clearly identify the switch

- Measurements per Cycle:
  Enter the number of measurements per cycle for example: when you enter 3, the foot switch must be operated 3 times before a cycle can begin, this is important to the allocation of the measuring devices.

*Example:* If by „Measurements per cycle" 3 is entered and by the parameterize measuring device (see 5.2) the 2 Data Request via," MC-I Switch is selected, the appropriate switch and the option „with Measurement No. 2", then every second time (2 times) the foot switch is operated a measured value will be transferred in the cycle. The first and third (1 and 3) activation of the device, no value will be transferred, here another device could be allocated.

- With measuring devices were the „Measurement No. 1" and „Measurement No. 3" are allocated, the first and third activation of the foot switch these measured values will be transferred.

Note: Please make sure that when entering „Measurements per cycle" and „with Measurement No." that in the parameter window the measuring devices correspond logically. For example, do not „with Measurement No" enter 5, while by „Measurements per cycle" only 3 has been entered.

- Actual Measurement No:
  Here the actual status of the cycle is shown, if necessary one can skip to a certain point in the cycle.

5.2 Measuring Device

In this menu all the most important settings for each of the measuring devices can be administered.
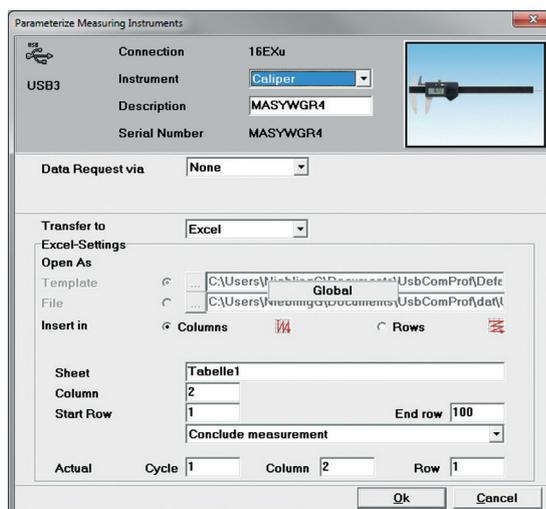
- Connection cable: Select the connected data cable (e.g. 16EXu or Opto Duplex). When connecting the USB data cable, the cable will automatically be recognized and cannot be edited.

- Instrument: Select the connected measuring device, the selected device will also be displayed as a picture for easier recognition.

- Description: Enter an appropriate description of the connected measuring device (e.g. Caliper) or the measurement task.

- Data Request: Select a data request, request measured values.
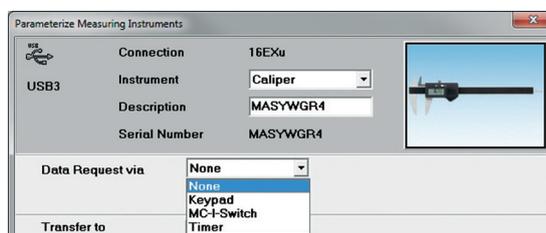
With „None" the value must be send with the measuring device, for example with the Data button on the data cable*.*

Note: Regardless of which data request has been selected the measured value can always be send directly from the device!

If the window is a light grey, the contents cannot be selected and the connected measuring device will not support request measured values. In this instance the measured value can be sent from the measuring device (e.g. by pressing the DATA button).

Via a *keypad*, request measured values with a predetermined button on the keyboard e.g. F1, F2 up to F12.

Note: The functions buttons F1, F2 etc. are deactivated in MS Excel!
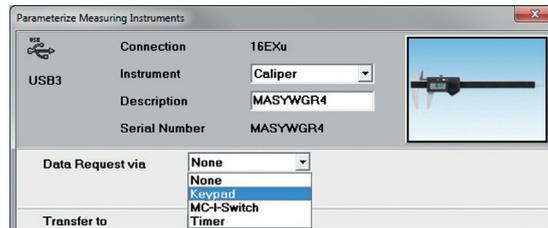
Via a *MC-I Switch* (foot switch); select additional values with either „*per Measurement*" (i.e. each time the switch is operated a value will be sent) or „*with Measurement No.*" (i.e. the values that are to be send to the measuring cycle after X-times activation of the switch). How to define the measuring cycle can be found in section 5.1 MC-Switch.
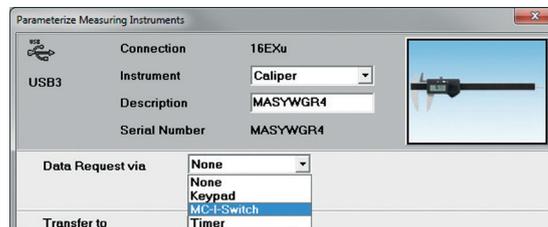
Select via the *Timer* the time control settings of a cyclical data request. The cycle can be entered in hours, minutes and seconds. The timer cycle will be shown as a Timer symbol in the configuration window, the symbol can be used to start or stop the timer.

Additionally, a pull-down menu for starting and stopping the timer is available, select whether the timer is to be started and/or stopped via a function key (e.g. F1), a MC-I switch (e.g. foot switch) or global via the timer button in the status window. In this way several timers for various measuring devices can be simultaneously started and stopped at the same time.
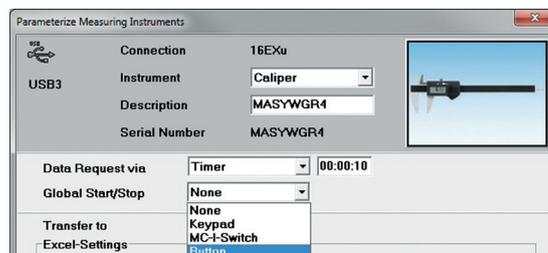
- Transfer to: Select in which data format the values should be sent to (e.g. MS Excel, text file or keyboard code).

With „*Text file*" the measured values taken from a measuring device will be transferred to a text file; enter the path and the description of the text file with *„File"* and then *„Text file-Settings"*.

Note: When using several measuring devices the values of each individual measuring device should be transferred into separate text file.
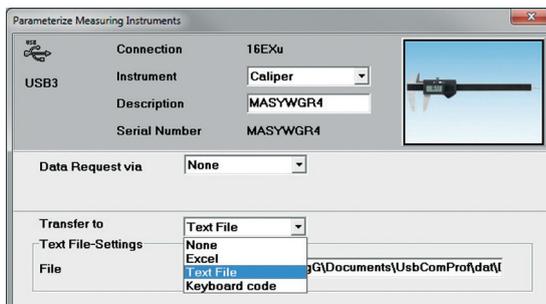
With „*Excel*" the values are transferred into Microsoft Excel. If global (see 3.6 File) is deactivated, you can select a separate Excel file or template as the destination. If global (see 3.6 File) is activated then the measured values of all measuring devices are transferred into a common Excel file or template. The set up possibilities in „Open As" for the individual measuring devices are deactivated, the global Excel file settings can be conducted; see section „3.6 File". Additionally, you can enter in the respective *„Sheet"*, the respective *„Column"* and the respective *„Start Row"* in which the values will be prompted.
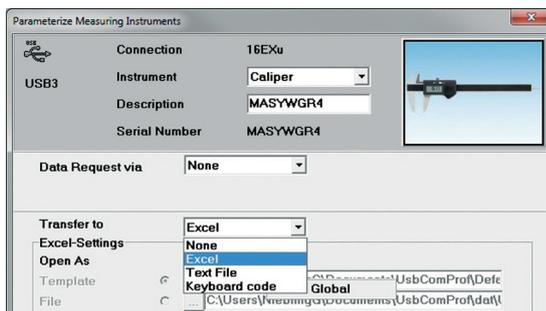
Note: When a write protected Excel file or template is used, the write protection must be removed from column 256 (IV)!

Use „Insert in" to select whether the measured values will be transferred into a column or row.
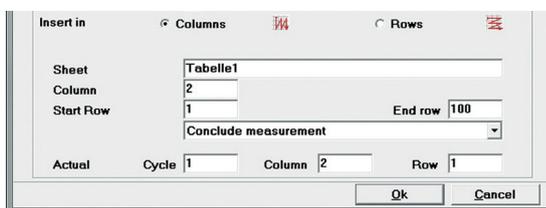
With „*Sheet*" enter the name of the sheet; with „*Column*" select a column and with „Start row" select the start row for the measured values. Once this has been conducted, define last row „*End row*" in which the measured values will be transferred to. Finally, determine what should happen once the measured values have be transferred to the last cell.

With „Conclude measurement" the transmission will stop and a message window will appear on the screen, informing you that the measurement has been concluded.

With „Continue measurement in next column/row" measurement will continued in the next column, here it is possible to define an additional end column. In this way yon can transfer measured values to columns in a zigzag form from a measuring device.
At the end of the defined last column and row, appears a message that the series of measurements has been concluded.

With „Continue measurement in..." appears another bar in which you can define where (Sheet, column etc.) the measurements should continue. „Continue measurement in..." can be cascaded up to 99 times.

When „Insert in" rows are selected, then the above description applies according to the row.

In the field „*Actual*", the cycle and the actual cell (row and column) in which the data is to transferred is shown (defined). These values can be also changed, for example after deletion of measured values into a certain cell to be transferred. In this way data can be transferred to cells in which the previous value was deleted. Once the empty cells are used, „fill up" the transmission normally, continues without overwriting the previously transferred value.

Note: A individual measurement cycle can be reset either via the menu Measuring Instruments - „Reset Measuring Cycle" or with the push button „Reset" in the status window (see 2.1).

With „*keyboard code*" transfer to, the measured values of the measuring instrument are transferred into the actual current position of the cursor. Therefore, it is possible to transmit the measured value independently of the software application. Measured values can therefore be transferred into MS Access, OpenOffice or into a CAQ program.
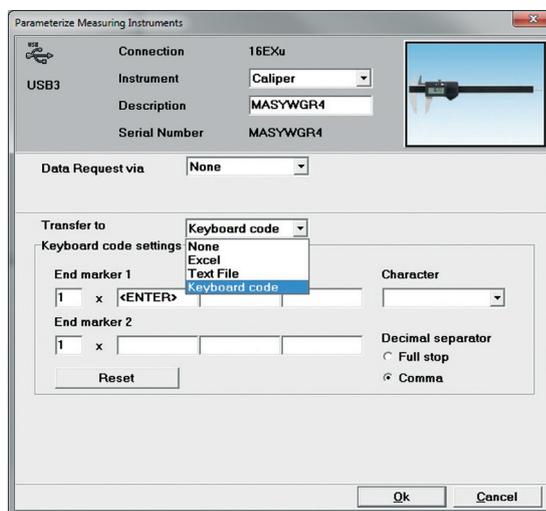
With the keyboard code settings you can define 2 end markers and there number. Once a measured value has been transferred the sequence of the End markers will be also be sent. For example, if ENTER has been selected, this corresponds to pressing the enter key on the keyboard (measured value is transferred and the position of the measured value depends upon the chosen End markers / sequence). In this way you can jump to any field in your form or table after a measured value has been transmitted.
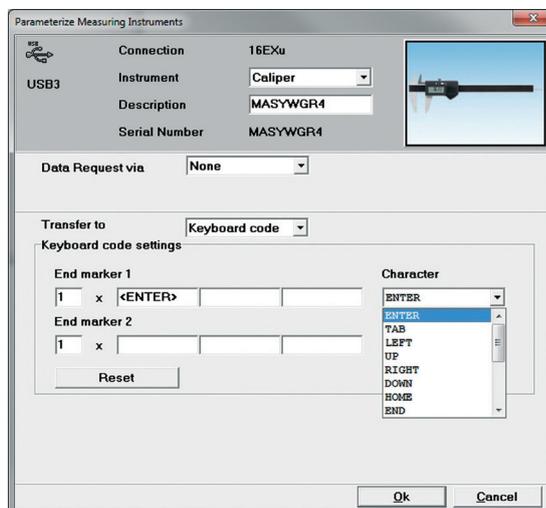
In order to select the End marker click on the ENTER field and select the required character from the Pull-Down menu.

With the decimal separator select the decimal separator according the type used in the country you are in or according to type used in the application.

6.   Overview of the Status and Configuration Windows

Status window

Last sent measured
value is displayed

Global Timer
(Start/Stop)

Reset the
measuring cycle

Configuration window

Description of the
connected measuring
instrument

Description of
measuring
task

Last sent
measured value
is displayed

Data Request via. (e.g.
switch or keyboard -
button F1)

USB plug-in
position

Description of the
connected data
cable

Request of the
measured value
via the Timer
(Start/Stop)

Destination file
and path to
where the values
are to be sent

Notes

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