



PCE  
Inst.



English

# User Manual

PC Software PCE-FM 200



User manuals in various languages (deutsch, français, italiano, español, português, nederlands, türk, polski, русский, 中文) can be found by using our product search on: [www.pce-instruments.com](http://www.pce-instruments.com)

last change: 9 April 2018  
v1.0



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## 1 Safety notes

Acquaint yourself with the operation of the measuring device before using it in combination with the PC software. For this purpose, use the instruction manual, which comes with your PCE product. All safety notes from the device's manual have to be observed as well when the device is used with this software.

The device and the software may only be used by qualified personnel. Damage or injuries caused by non-observance of the manuals are excluded from our liability and not covered by our warranty.

We do not assume liability for printing errors or any other mistakes in this manual.

We expressly point to our general warranty terms which can be found in our general terms of business.

If you have any questions please contact PCE Instruments. The contact details can be found at the end of this manual.

## 2 System requirements

- Operating system Windows XP SP3 or higher
- USB port (2.0 or higher)
- installed .NET framework 4.0
- minimum resolution of 800 x 600 pixels
- optional: printer
- processor with 1 GHz
- 4 GB RAM recommended
- CD-ROM drive

## 3 Installation

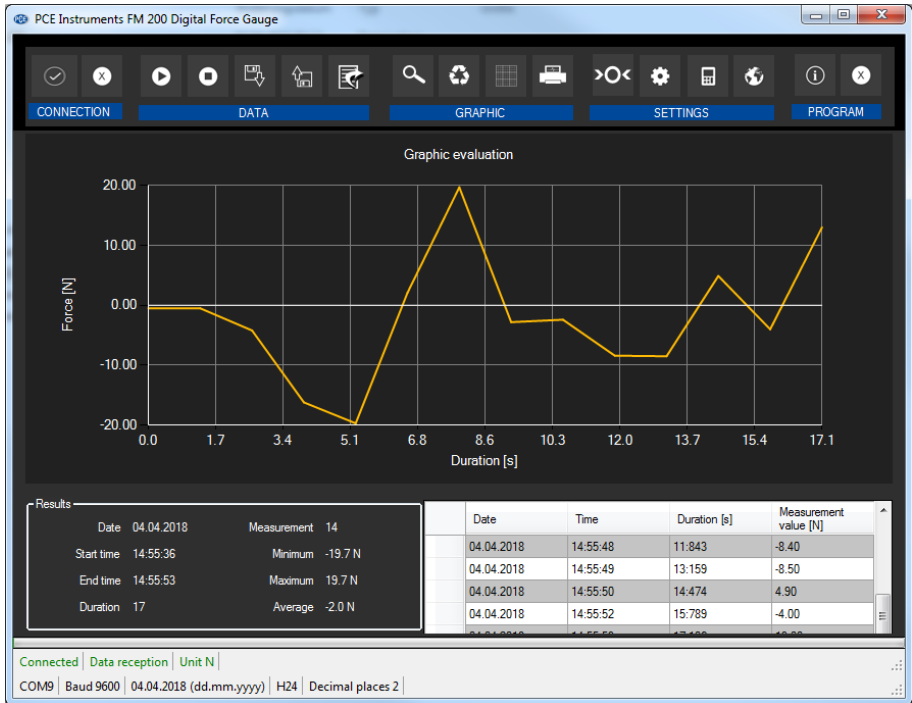
The software can be downloaded here:

[https://www.pce-instruments.com/english/download-win\\_4.htm](https://www.pce-instruments.com/english/download-win_4.htm).

Please run the "Setup-PCE-FM-200.exe" and follow the instructions of the setup.

## 4 Operation

### 4.1 Description of the user interface



The main screen consists of several sections:

Below the title bar, there is a tool bar with icons that can be selected by a mouse click. These icons are grouped according to their functions.

Below this bar, you can find an area where the measuring points are displayed graphically ("Graphical evaluation").













The next section below the graphic shows a chart with the measuring points determined on the right and an area with statistical data on the left-hand side.





The lower edge of the main window shows two status bars containing important information, directly above each other.

The lower bar shows the statistical settings of the program that can be defined in the settings screen.

The upper status bar shows the dynamic settings or data of the PCE-FM 200 which are directly taken from the connected device. These include the selected unit.


## 5 Meaning of the individual icons on the toolbar

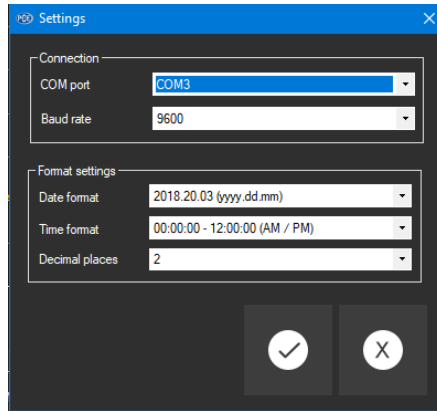
| Group "Connection"                                                                  |  |                                                                     |
|-------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|
|    |  | Connect to the PCE-FM 200                                           |
|    |  | Disconnect from the PCE-FM 200                                      |
| Group "Data"                                                                        |  |                                                                     |
|    |  | Start a measurement                                                 |
|    |  | Stop a measurement                                                  |
|    |  | Export a series of measurements                                     |
|    |  | Load a series of measurements from a file                           |
|    |  | Save a series of measurements in a file                             |
| Group "Graphics"                                                                    |  |                                                                     |
|    |  | Enlarge the graphics area ("Zooming") or move the enlarged graphics |
|    |  |                                                                     |
|  |  | Restore the original graphics                                       |
|  |  | Change the background and representation of the graphics            |
|  |  | Print the currently visible graphics                                |

| Group "Settings" |                                                                                   |                                                      |
|------------------|-----------------------------------------------------------------------------------|------------------------------------------------------|
|                  |  | Open settings dialog                                 |
|                  |  | Select one of the languages supported by the program |
| Group "Program"  |                                                                                   |                                                      |
|                  |  | Display an information dialog                        |
|                  |  | Exit the program                                     |

## 6 Operation


### 6.1 First use of the software

Before the PCE-FM 200 can work with the software, the assigned COM port must be set in the software once. It can be set via the "settings dialog" 



In addition to entering the connection data, the settings for the date and time format and for the decimal format can be made here.

### 6.2 Connect to the PCE-FM 200

After the desired settings have been made and the settings dialog has been closed with a click on the "Apply" button, the connection to the PCE-FM 200 can be established by clicking on the  icon.

If the connection has been successfully established, the term "Connected" is displayed in green on the status bar for the dynamic data.

If, however, no connection has been established, the term "Disconnected" is displayed in red.

### 6.3 Disconnect from the PCE-FM 200

By clicking on the  icon, an active connection to the PCE-FM 200 can be terminated.

If you exit the software while the connection is active, the connection will also be terminated.

## 6.4 Numerical display

| Date       | Time        | Duration [s] | Measurement value [N] |
|------------|-------------|--------------|-----------------------|
| 2018.20.03 | 04:44:02 PM | 06:373       | -2.90                 |
| 2018.20.03 | 04:44:02 PM | 06:399       | 0.00                  |
| 2018.20.03 | 04:44:02 PM | 06:423       | 0.10                  |
| 2018.20.03 | 04:44:02 PM | 06:448       | 0.20                  |
| 2018.20.03 | 04:44:02 PM | 06:472       | 0.20                  |
| 2018.20.03 | 04:44:02 PM | 06:496       | 0.20                  |

In the lower part of the main window, all the measured values are tabulated. The chart can be sorted by columns by clicking on the respective column heading ("Date", "Time", "Duration" and "Measurement value").

Note:

These data come directly from the PCE- FM 200; the time can thus deviate from the PC time.

## 6.5 Statistical data

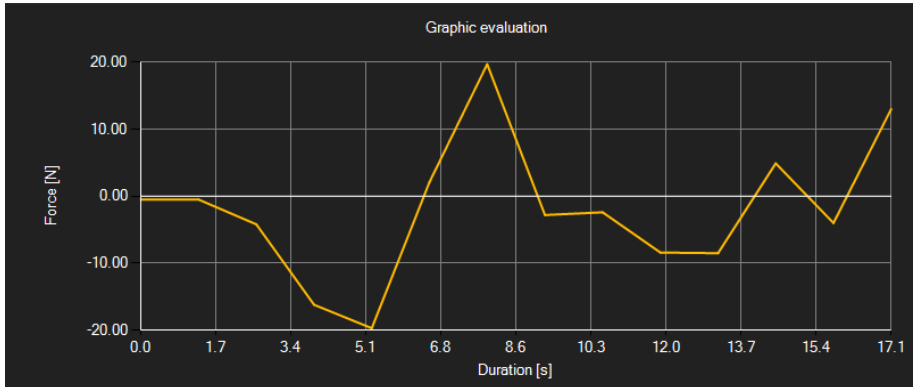
| Results    |             |             |        |
|------------|-------------|-------------|--------|
| Date       | 2018.20.03  | Measurement | 267    |
| Start time | 04:43:55 PM | Minimum     | -7.9 N |
| End time   | 04:44:02 PM | Maximum     | 19.8 N |
| Duration   | 06          | Average     | 4.4 N  |

The statistics include the number of measured points, the smallest and largest measured force levels and the average value. Also, they include the date, start time, end time and duration of measurement.

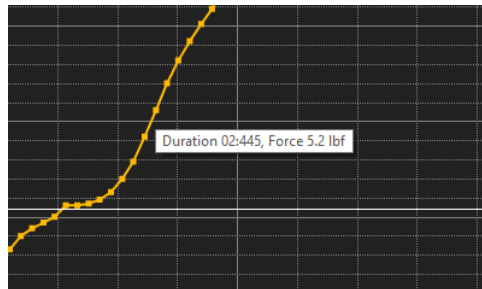



## 6.6 Graphical representation

In the area for the graphical evaluation, the selected unit ("N", "kgf", "lbf") is shown on the y axis and the duration (in seconds) is shown on the x axis.




Moving the mouse cursor to a point on the displayed line makes a small information window with the data (time and unit) of the currently selected measurement value pop up after a short time.





A freely selectable part of the displayed graphics can be enlarged. For this purpose, the corresponding icon in the toolbar ("Enlarge the graphics area ("Zooming") or move the enlarged graphics) must be a magnifying glass . Then, a rectangle can be drawn over a part of the graphics by holding the mouse button down. When the mouse is released, the selected area appears as a new graphic.


As soon as at least one enlargement has been made, it is possible to switch from enlargement mode to shift mode by clicking on the icon ("Enlarge the graphics area ("Zooming") or move the enlarged graphics) with the magnifying glass icon.


Shift mode is represented by the  icon.

If the mouse is now placed over the graphics area and then the left mouse button is pressed, the depicted section can be moved by holding the mouse button down.




Another click on the  icon changes back to enlargement mode, which is recognizable by the  icon.

The original graphics can be restored at any time by clicking on the  icon next to the magnifying glass or hand.

The background of the graphics and its representation can be changed via the  icon to the right. A click on the icon works like a switch: A single click makes the division of the background finer and adds some more dots to the graphics. A further click on the icon changes back to standard view.

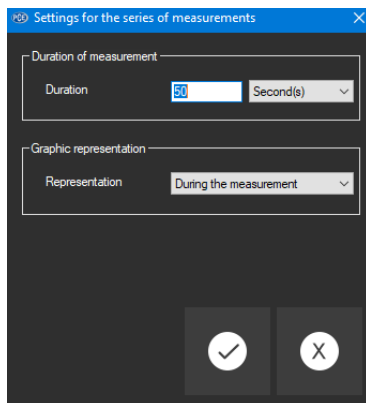
The currently displayed graphics can also be printed.


A click on the  icon opens the "Print" dialog.

## 6.7 Performing the measurement


If an connection to the PCE-FM 200 is active, a new measurement can be started.

After clicking on the corresponding icon in the toolbar ("Start a measurement"), a new dialog is displayed, with the help of which additional options, relevant for the upcoming measurement, can be determined.





An ongoing measurement can be terminated by clicking on the  icon in the toolbar.

## 6.8 Export of series of measurements

Measurement series can also be exported. The entire content of one series of measurements can be exported in CSV format by using the  icon of the toolbar.

## 6.9 Loading and saving series of measurements

A series of measurements can be loaded and saved via the  and the  icon in the toolbar.

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Specifications are subject to change without notice.