



PCE
Inst.



English

User Manual

PC Software PCE-FM 200 / PCE-FM 50N / PCE-FM 500N



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

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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.

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

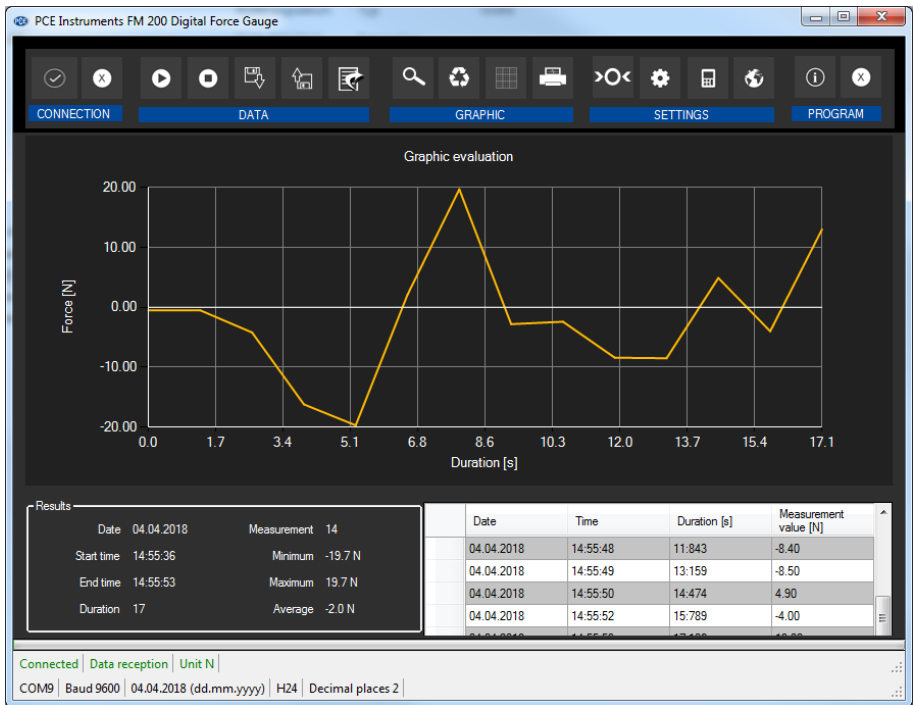
4 Meter Setup Configuration

Note – the meter requires you to enable "print" mode or F-12 in the FM meter options menu for data to be transferred to the PC.

Configure F-12 for "conti" or continuous sending.

5 Operation

5.1 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.


6 Meaning of the individual icons on the toolbar

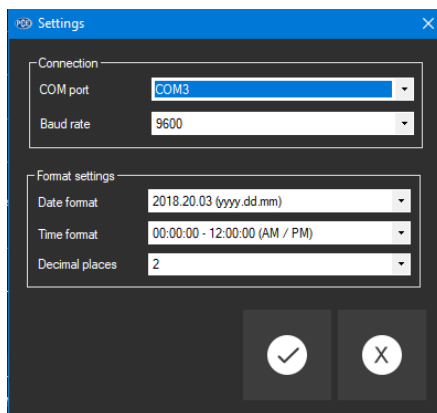
Group "Connection"		
		Connect to the PCE-FM 200
		Disconnect from the PCE-FM 200
Group "Data"		
		Start a measurement
		Stop a measurement
		Export a series of measurements
		Load a series of measurements from a file
		Save a series of measurements in a file
Group "Graphics"		
		Enlarge the graphics 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

7 Operation

7.1 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.

7.2 Connect to the PCE-FM 200

Note – the meter requires you to enable “print” mode or F-12 in the FM meter options menu for data to be transferred to the PC. Configure F-12 for “conti” or continuous sending.

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.

7.3 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.

7.4 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.

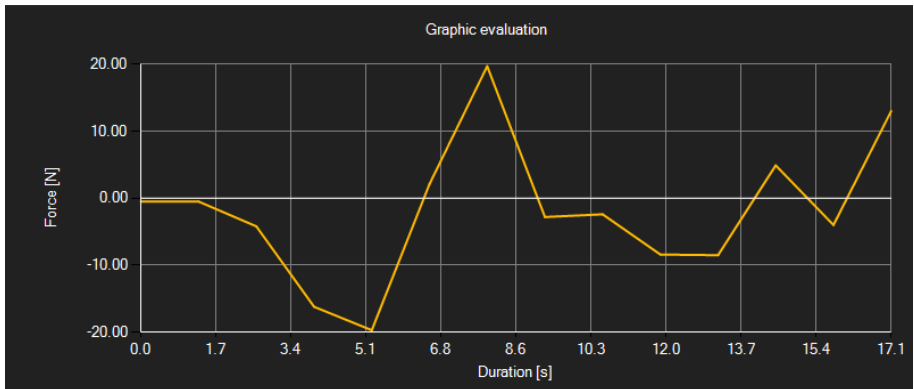
7.5 Statistical data

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

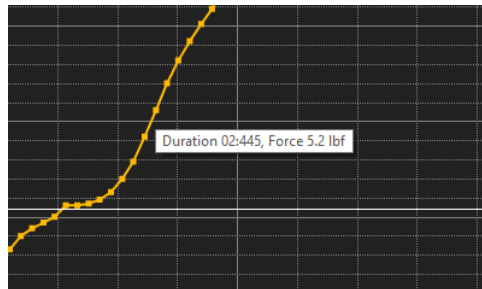
The statistics include the number of measured points, the smallest and largest measured force levels and the average value. Also, they include the date, start time, end time and duration of measurement.


7.6 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.

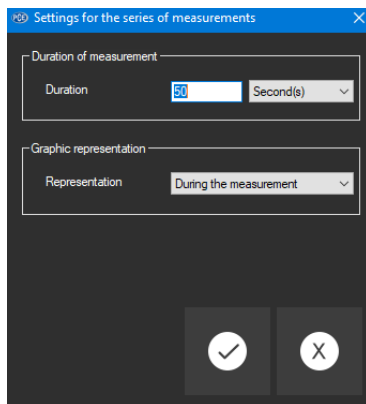
The currently displayed graphics can also be printed.

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

7.7 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.

7.8 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.

7.9 Loading and saving series of measurements

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



PCE Instruments contact information

Germany

PCE Deutschland GmbH
Im Langel 4
D-59872 Meschede
Deutschland
Tel.: +49 (0) 2903 976 99 0
Fax: +49 (0) 2903 976 99 29
info@pce-instruments.com
www.pce-instruments.com/deutsch

France

PCE Instruments France EURL
23, rue de Strasbourg
67250 SOULTZ-SOUS-FORETS
France
Téléphone: +33 (0) 972 3537 17
Numéro de fax: +33 (0) 972 3537 18
info@pce-france.fr
www.pce-instruments.com/french

Spain

PCE Ibérica S.L.
Calle Mayor, 53
02500 Tobarra (Albacete)
España
Tel. : +34 967 543 548
Fax: +34 967 543 542
info@pce-iberica.es
www.pce-instruments.com/espanol

United States of America

PCE Americas Inc.
711 Commerce Way suite 8
Jupiter / Palm Beach
33458 FL
USA
Tel: +1 (561) 320-9162
Fax: +1 (561) 320-9176
info@pce-americas.com
www.pce-instruments.com/us

United Kingdom

PCE Instruments UK Ltd
Unit 11 Southpoint Business Park
Ensign Way, Southampton
Hampshire
United Kingdom, SO31 4RF
Tel: +44 (0) 2380 98703 0
Fax: +44 (0) 2380 98703 9
info@industrial-needs.com
www.pce-instruments.com/english

Italy

PCE Italia s.r.l.
Via Pesciatina 878 / B-Interno 6
55010 LOC. GRAGNANO
CAPANNORI (LUCCA)
Italia
Telefono: +39 0583 975 114
Fax: +39 0583 974 824
info@pce-italia.it
www.pce-instruments.com/italiano

The Netherlands

PCE Brookhuis B.V.
Institutenweg 15
7521 PH Enschede
Nederland
Telefoon: +31 (0) 53 737 01 92
Fax: +31 (0) 53 430 36 46
info@pcebenelux.nl
www.pce-instruments.com/dutch

Chile

PCE Instruments Chile S.A.
RUT: 76.154.057-2
Santos Dumont 738, local 4
Comuna de Recoleta, Santiago, Chile
Tel. : +56 2 24053238
Fax: +56 2 2873 3777
info@pce-instruments.cl
www.pce-instruments.com/chile

Hong Kong

PCE Instruments HK Ltd.
Unit J, 21/F., COS Centre
56 Tsun Yip Street
Kwun Tong
Kowloon, Hong Kong
Tel: +852-301-84912
jji@pce-instruments.com
www.pce-instruments.cn

China

PCE (Beijing) Technology Co.,Ltd
1519 Room, 6 Building
Men Tou Gou Xin Cheng,
Men Tou Gou District
102300 Beijing
China
Tel: +86 (10) 8893 9660
info@pce-instruments.cn
www.pce-instruments.cn

Turkey

PCE Teknik Cihazları Ltd.Şti.
Halkalı Merkez Mah.
Pehlivan Sok. No.6/C
34303 Küçükçekmece - İstanbul
Türkiye
Tel: 0212 471 11 47
Faks: 0212 705 53 93
info@pce- cihazlari.com.tr
www.pce-instruments.com/turkish

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Specifications are subject to change without notice.