Product Information MPI-200 **CONTROLS**

Programming adapter MPI-200

Application/specified usage

· Universal programming of Anderson-Negele sensor in 2-wire and 4-wire technology

Programming adapter MPI-200

Scope of supply

· Programming adapter MPI-200
· CD with PC software
· Adapter MPI-200-F for connecting to the NSL-F electronic unit

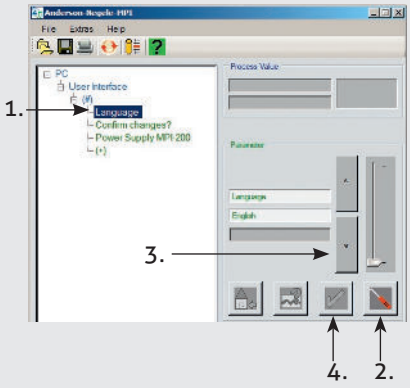
System requirements

· Operating system: WinXP (SP3 and higher), Vista (SP1 and higher), Win7
· Processor: min. 1 GHz CPU
· Available hard disk space: min. 10 MB (.NET is already installed)
· Windows installer: 3.1
· .NET version 4.0
· USB: 1 vacant USB interface USB 2.0
· Other requirement: CD drive for program installation
· Access rights: Administrator rights for installation

Installing the software

1. Insert the CD included with the MPI-200 into the CD drive
2. Double-click on the "Anderson-Negele Installer.msi" file to start the installation
3. Follow the instructions of the installation wizard
4. After the installation is finished, the following symbol appears on the desktop

MPI-200 user interface



Changing the user interface language

The software is factory-provided configured to English. It can be changed as follows:

1. Open the "**Language**" parameter
2. Press the button
3. Select the language using the arrow buttons
4. Save the setting by pressing the button
5. The interface now refreshes in the new language

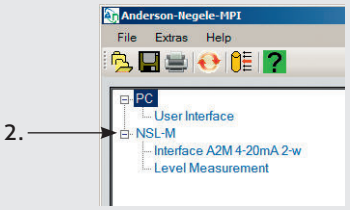
Connecting the sensor

1. Connect the sensor to the PC via the USB port.
2. The graphic user interface now refreshes and shows the sensor (e.g. level switch NSL-M).

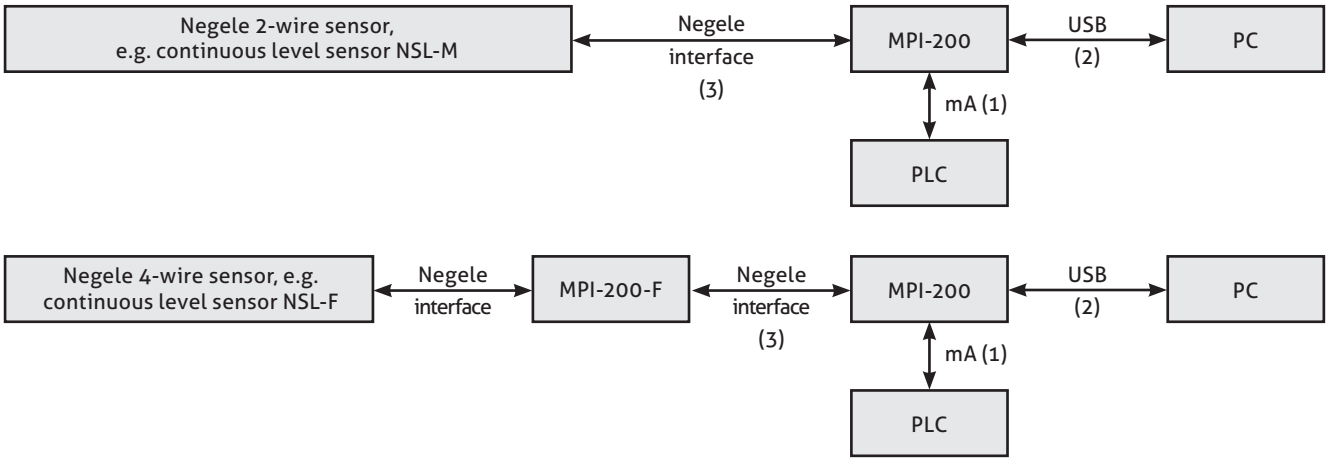
Advice

If the sensor is not displayed, check the power supply selection and change it if necessary.

MPI-200 user interface

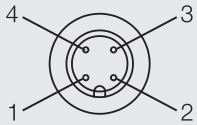


Signal flow during parameterization



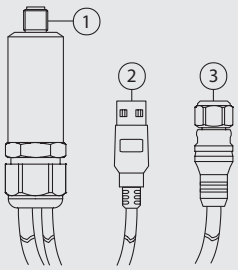
M12 connector assignment (connector 1)

1: +Auxiliary voltage
2: -Auxiliary voltage 4...20 mA
3: Data line for PC interface must not be wired
4: Data line for PC interface must not be wired



Connection of programming adapter MPI-200

1: External power supply via M12 connector (optional)
2: USB port for connection to PC incl. power supply if not supplied externally
3: Connection cable to sensor or adapter MPI-200-F

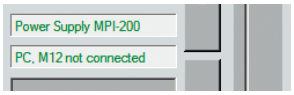


Supply voltage/power supply

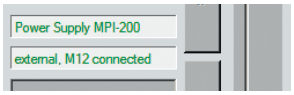
The equipment is delivered with the programming adapter set to a power supply from the PC. However, it is also possible to wire the programming adapter into the system and program the sensor afterward. To do this, the parameter for the power supply must be changed to "External supply". Proceed as follows:

1. Select the "Power supply MPI-200" parameter
2. Press the button and change the power supply parameter from

"PC M12 not connected"



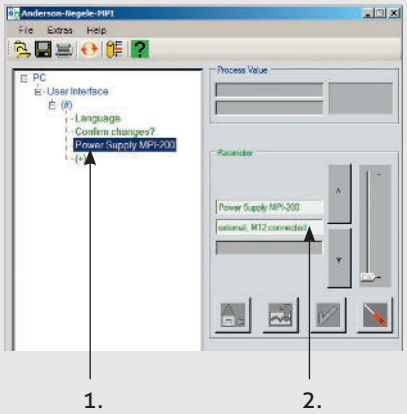
to



"External, M12 connected" using the arrow button

3. Press the button to save the change. The mask is refreshed

MPI-200 power supply



Advice

If the sensor is supplied from the control center/PLC, ensure that the power supply is set to "external, M12 connected". A supply from the PC would otherwise be superimposed on the 4...20 mA output signal and lead to an incorrect measuring signal.

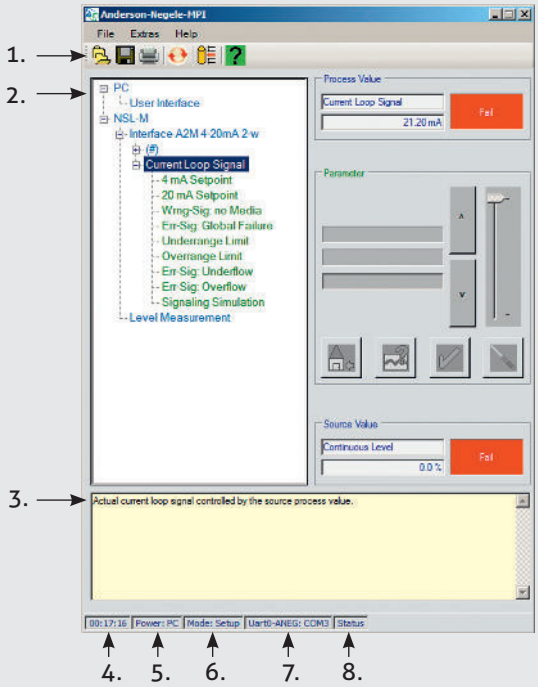
Maximum display

1: Button bar
2: Parameter structure
3: Details on the individual settings or parameters, if activated (? button)

Status bar

4: Operating time since start of software
5: Power supply
6: Mode
7: MPI-200 connection to PC
8: Status

User interface



Button bar: Button description and meaning

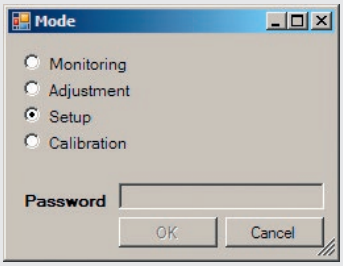
Parameter Data - Import Data File
Configuration profiles of sensors can be loaded

Parameter Data - Export Data File
Configuration profiles of sensors or their individual components can be saved

Parameter Data - Print
The parameter list of the connected sensor can be printed out

Reconnect!
Establishing a connection with a sensor/reading in the parameter structure again manually

Mode
Mode setting



Monitoring: Process values and service information can be viewed but not changed

Adjustment: Access to the most frequently required parameters

Setup: Access to special parameters that are primarily needed during installation (defaults settings on delivery)

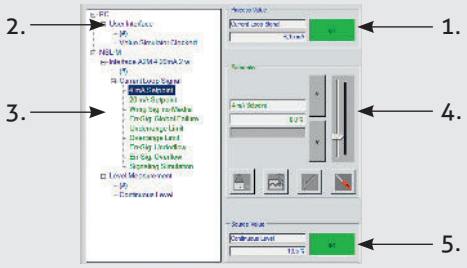
Calibration: Factory setting for calibration. Access to this menu is only possible on request

Help Text
Showing/hiding help texts

Basic structure

1: Data on current process value
2: Changeable PC parameters
3: Changeable sensor parameters, e.g. level switch NSL-M
4: Buttons to change parameter setting
5: Data on current source value

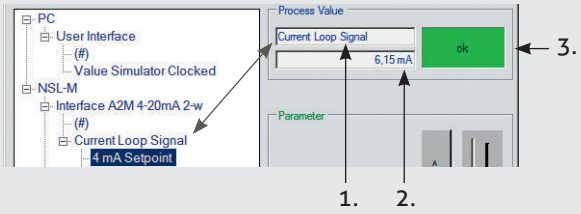
User interface



Note on parameter structure

 # General parameters: Clicking on this symbol opens a submenu that displays device-specific parameters not assigned to a specific process value.
When the mode is changed, or depending on the settings of the individual parameters, it is not possible to select other parameters or to change the parameters. For this reason, the software makes it impossible to open other submenus at the same time.

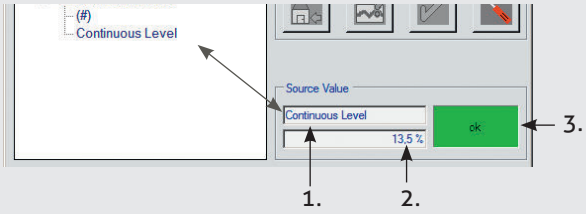
Process value



Current process value:

1: Name
2: Value with physical unit
3: Status display depending on displayed process value

Source value



Current source value:
input value for further processing of the process value

1: Name
2: Source value with physical unit
3: Status display depending on current source value

Advice

The status displays always relate to the current processing with correspondent settings of the values being displayed. The status may therefore vary. In this case, check the respective settings and readjust them if necessary.

Buttons in the "Process value" area

Change parameter: Make the parameter setting

Default parameter setting: The current setting is discarded and the parameter is reset to the default setting

System parameter suggestion: The parameter is set to a system suggestion (described in helpful information) and the currently displayed parameter is adopted (e.g. 4 mA for a mA setpoint)

Save parameter: The manually created setting is adopted and the display returns to the main menu

Discard parameter: The setting is not adopted and the display returns to the main menu

1st step

· Select the parameter in the path (e.g. Language)
· As soon as the parameter is selected, it automatically appears in line 1 of the parameter field
· The current setting is displayed in line 2 (e.g. German)

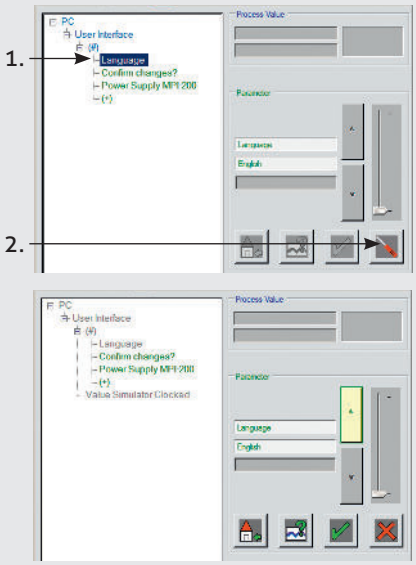
2nd step

· button is pressed
· The left side of the main menu (user interface) becomes inactive. This can be seen by the inactive navigation path and the active buttons on the right. All of the following settings are now made on the right.

3rd step

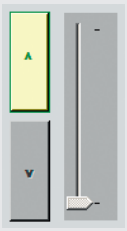
Set the desired parameter value The following options are available:

MPI-200 user interface

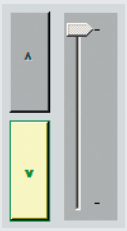


a: Manual entry

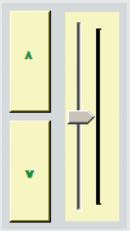
Parameters that can only be set to fixed values: By pressing the arrow buttons.



Only values that are greater than the currently displayed value are possible

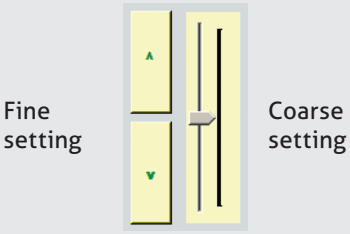


Only values less than the currently displayed value are possible



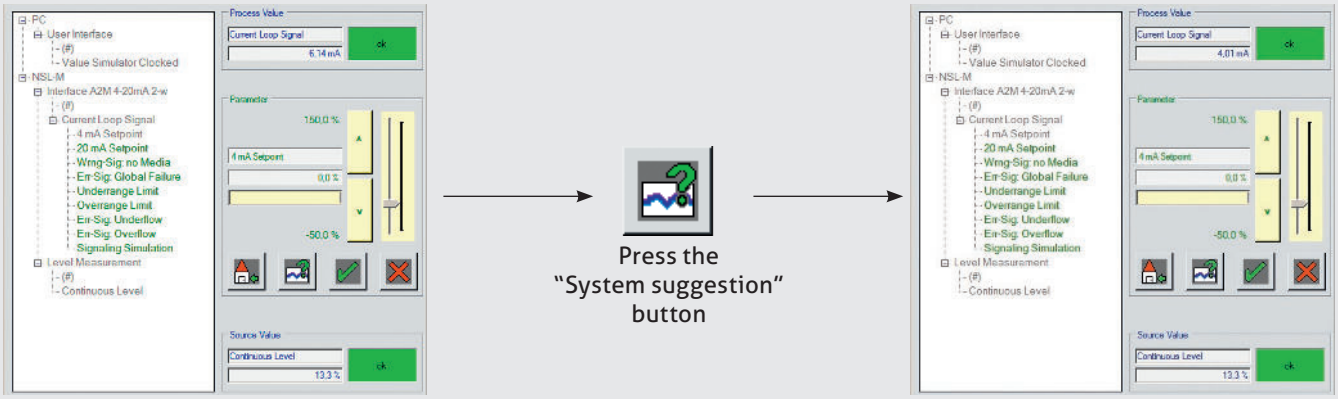
Values greater than or less than the currently displayed value are possible

Function of arrow buttons



b: Accepting a system suggestion

Parameters that are set directly via the application: by accepting a system suggestion.
(e.g. level switch, a tank is filled to a certain height.)



The current process value of 6.14 mA

is now defined as 4 mA

Advice

A change in the parameter value has an immediate effect on the corresponding sensor function. If the changed parameter value is to be retained permanently, close the change mode using the "Save parameter" button. Leaving the menu with the "Discard parameter" button resets the parameter to its value before the change.

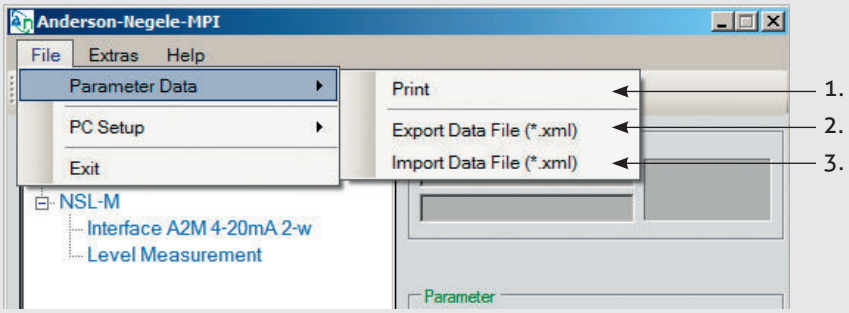
Printing and/or exporting parameters

Depending on the activation of a button in the button bar (see also page 3) or using the submenus described below, the parameter settings can be printed out in a list, duplicates of the list can be created or the parameter data of a sensor can be saved and copied to other identical sensors.

Submenu items

1: Print the parameter list directly
2: Save parameter data set on the PC
3: Load the saved parameter data set from the PC to the sensor

Calling up submenus



Selection options

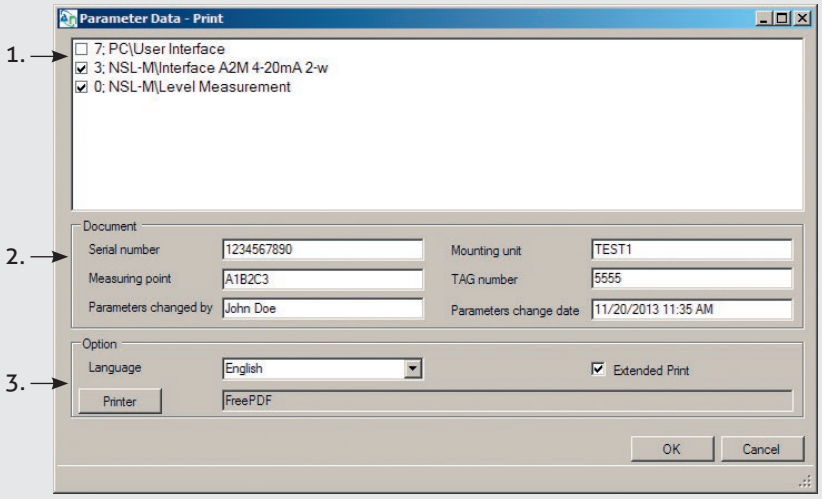
In the next step in each submenu, you can select which parameter families should be saved or printed (1.).

Additional input fields are available (2.) to assign a parameter list or a data set to a particular sensor/unit.

The serial number is a mandatory field; all other parameters are optional. These optional fields show the information of the sensor that was processed last. Unless this information is changed or deleted, it will also be printed out and saved.

After the language and the printer are selected in the option field (3.), the process can be completed by clicking the "OK" button.

Selection options/input fields



Export function of the parameter list

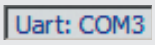
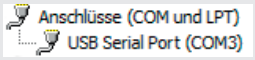
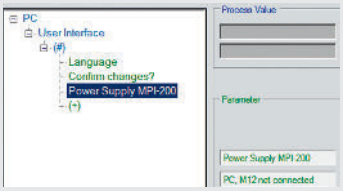
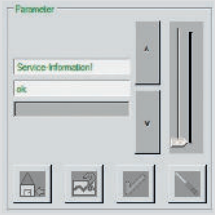
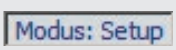
After the print menu is opened and the corresponding data are entered, a paper printout can be created.
To make sure you always have a copy of the parameter settings available in the form of a list (e.g. for quality assurance), it is recommended that you save the parameter list in .xml format in addition to printing it out.

Export/import of the parameter list

The import and export function can be used to load parameter settings onto another, identical device. This function can be used to store parameter data sets externally on the PC and to load them again when needed.

Information

The exported xml file can be saved locally on the PC or on a server and can be distributed/sent by e-mail or USB stick. This does not require special database or programming knowledge. The data is saved in the Microsoft Windows directory structure. The default file name depends on the entries in the serial number and TAG number fields. However, it can be changed or expanded manually if required. This import function can be used to load the xml file and upload it onto a sensor.

Troubleshooting		
Problem	**Check**	**Solution**
The device does not appear in the parameter structure	Are the MPI-200 and the sensor connected correctly?	Check the cabling.
	The program should automatically detect that a device has been connected or disconnected. If not, this function can be manually activated.	Clicking on the "Reconnect" button prompts the program to read in the device structure again. 
	If the USB connection was detected by the operating system, the COM no. appears in the bottom status line under "Uart:" ? 	Disconnect the USB cable from the PC and reconnect it.
	If the USB driver was correctly installed, the adapter is listed in the Device Manager. 	If the system asks for a manufacturer CD, please insert the supplied CD and specify the "FTDI" path of the CD drive.
	Is an external power supply is connected to the M12 connector of the MPI or is the "Power supply MPI-200" parameter set to "PC"?	Set the appropriate power supply. 
Error message when the software is started	Is .NET 4.0 or higher installed on the PC?	Install .NET from the supplied CD, path "NET4.0".
Error message "The COMx connection does not exist"	Was the MPI-200 connected just before the program was started? (The operating system detects the USB device while the program is being started.)	Start the program before connecting the MPI-200 or wait until the operating system has detected the USB device.
Editing buttons are inactive 	Depending on the parameter, some functions may be blocked or unavailable. In this case, the buttons are deactivated.	
Not all process values or parameters appear in the menu tree	Is the mode set as required? 	Set the mode to the required application. Depending on the setting, certain modes may be password protected. 
"Load/save PC settings" menu item	Only the settings for the PC user interface are stored on the hard disk.	In a later software version, it will also be possible to save and load the parameters of a connected device.

Transport/storage

- Do not store outside
- Store in an area that is dry and dust-free
- Do not expose to corrosive media
- Protect against solar radiation
- Avoid mechanical shock and vibration
- Storage temperature -40...+85 °C
- Relative humidity maximum 98%

Reshipment

- Sensors and process connection must be clean and must not be contaminated with hazardous media and/or heat-conductive paste. Note the cleaning information!
- To avoid damage of the equipment, use suitable transport packaging only.

Cleaning/maintenance

- In case of using pressure washers, dont't point nozzle directly to electrical connections!

Standards and guidelines

- Compliance with the applicable regulations and directives is mandatory.

Note on CE

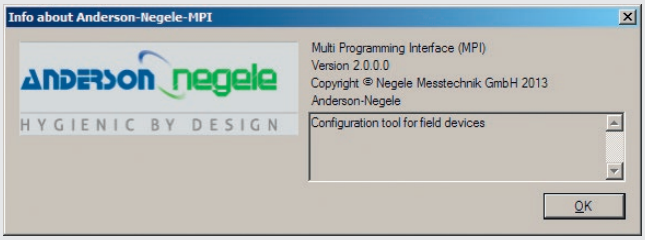
- Applicable directives:
  Electromagnetic Compatibility Directive 2014/30/EU
- Compliance with the applicable EU directives is identified by the CE label on the product.
- The operating company is responsible for complying with the guidelines applicable to the entire installation.

Disposal

- Electrical devices should not be disposed of with household trash. They must be recycled in accordance with national laws and regulations.
- Take the device directly to a specialized recycling company and do not use municipal collection points.

Information on the installed software version

Click on "Help > Info" in the main menu.



Order designation

MPI-200	Programming adapter for setting parameters of Anderson-Negele sensors with 2-wire and 4-wire technology, incl. PC software and adapter MPI-200-F MPI-200-F
MPI-200-F	Adapter for retrofitting the MPI-200 for use with NSL-F

MPI-200-F

Adapter MPI-200-F can be used to connect the electronic unit of an Anderson-Negele 4-wire sensor (e.g. NSL-F) and the MPI-200.

NSL-F Simple User Interface

50024 / 2.1 / 2019-10-07 / YG / EU

NEGELE MESSTECHNIK GMBH
Raiffeisenweg 7
87743 Egg an der Guenz

Phone +49 (0) 83 33 . 92 04 - 0
Fax +49 (0) 83 33 . 92 04 - 49
sales@anderson-negele.com

Tech. Support:
support@anderson-negele.com
Phone +49 (0) 83 33 . 92 04 - 720