PC Tool

GB **Installation and operating instructions**

CONTENTS

		Page
1.	**PC Tool**	**3**
2.	**Introduction**	**4**
	Requirements	
	Configuring the PC tool	
	Configuring a modem connection	
	Connecting to a unit	
	Establishing a direct connection via PC Tool link	
	Establishing a direct connection via G100 gateway	
	Establishing a modem connection via G100 gateway	
	Establishing a connection chosen from telephone book	
	Unit not responding	
	Disconnecting and reconnecting	
	Using the tool	
	User interface overview	
	Navigation with keyboard	
	Monitor	
	Monitor	
	System overview	
	Unit overview	
	Alarm log	
	Min./max. log	
	Summation counters	
	Commands	
	Edit & view settings	
	Edit & view settings	
	Basic settings	
	Trip & warning settings	
	Trip counters	
	Save settings	
	Saving a standard configuration	
	Loading a standard configuration	
	My installations	
	My installations	
	Managing installations	
	Managing units	
	My standard configurations	
	My standard configurations	
	Importing a standard configuration	
	Exporting a standard configuration	
	CU 3	
	CU 3 max. current configuration	
	Adjusting time in the CU 3	

1. PC Tool

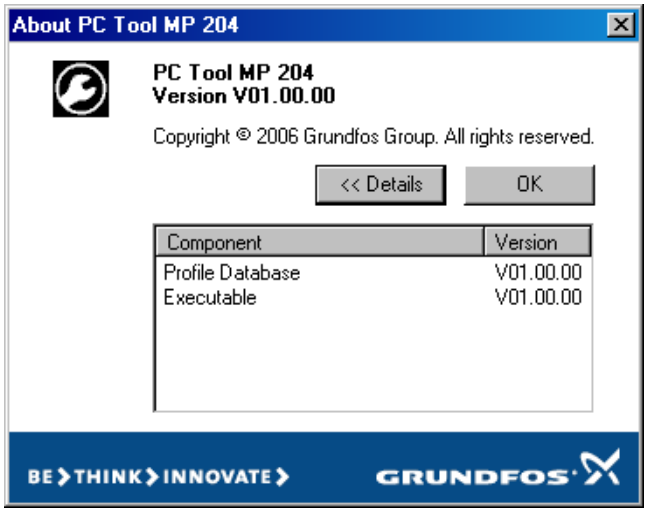
Version: V.02

2. Introduction

The Grundfos *PC Tool MP 204* is a management and service tool for MP 204 and CU 3 motor protectors.

The tool can be used for on-site service as well as for verification and management.

Click **Help** > **About** in the menu bar to see the current version of the PC tool.



This manual covers the general aspects of using the PC tool. It provides no information on specific application topics.

2.1 Requirements

Processor	Pentium III 900MHz or higher
RAM	Min. 256 MB
Free hard disc space	Min. 300 MB
Operating system	Microsoft Windows 2000 SP4 or later. Only US versions guaranteed.
Monitor resolution	1024 x 768 pixels*)
Peripherals	CD-ROM drive. Mouse or other pointing device. RS-232 serial port.
Other requirements	PC Tool Link or G100 gateway

*) Recommended

3. Configuring the PC tool

A direct connection and/or modem connection can be configured, depending on how you want to communicate with the unit.

3.1 Configuring a modem connection

Before configuring a modem connection, set up the modem in the Windows environment. In most cases, the modem is set up via 'plug and play'. For further information, consult the modem manual.

To configure the modem connection, click **Tools > Options** and select the **Modems** tab.

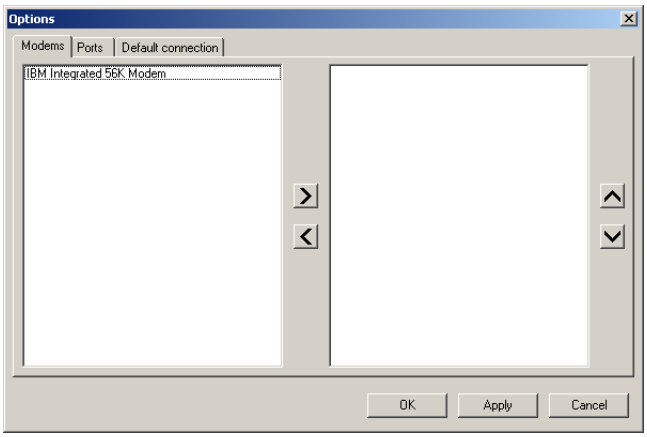
The **Modems** window opens.

The left window displays all unassigned modems.
The right window displays all assigned PC tool modem ports.

The first time the **Modems** window is opened, the PC tool modem ports window is empty.

Use the left/right arrow to add/remove a modem connection for the PC tool.

When you have selected a modem connection, click [**Apply**] and/or [**OK**].



It is possible to assign multiple modem connections. The assigned modems will be displayed in a selection box when you try to establish a modem connection to a unit. The order in which the modems appear in the selection box can be controlled with the up and down arrows.

If no modems appear in the list, you have to configure a modem in the Windows environment.

4. Connecting to a unit

Note: If two or more units are connected to the same Grundfos GENIbus, each unit must have a unique GENIbus address assigned, for example with the Grundfos R100 remote control.

Connection to a unit can be made in four different ways:

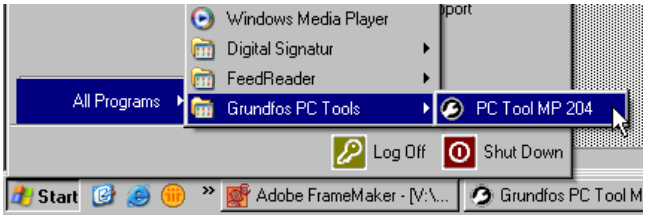
- Direct connection via PC Tool link
- Direct connection via G100 gateway
- Modem connection via G100 gateway
- Connection chosen from telephone book.

The direct connection is mainly for on-site service and management.
The modem connection is mainly for off-site service and management.

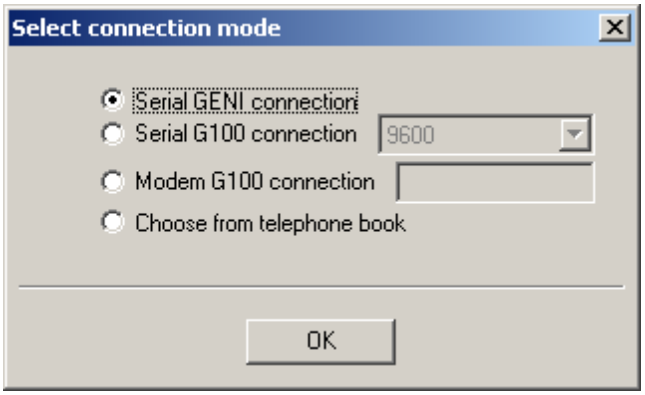
4.1 Establishing a direct connection via PC Tool link

If you want to use the direct connection, your PC must have a free serial port (RS-232) and a PC Tool Link kit. Connect the cables before turning on your PC.

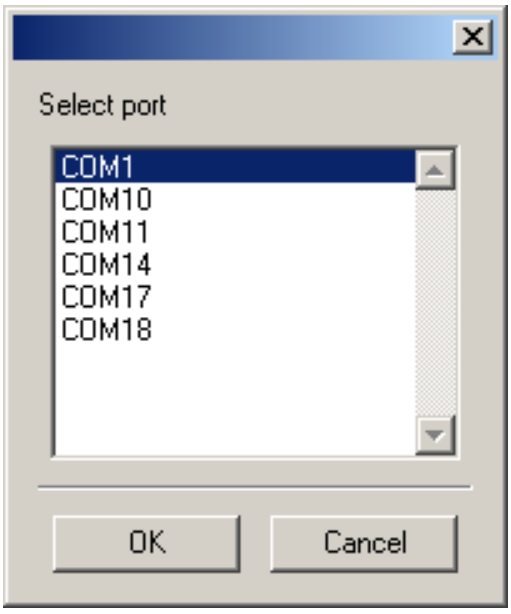
Turn on your PC. To start the PC tool, click **Start > All Programs > Grundfos PC Tools > PC Tool MP 204**.



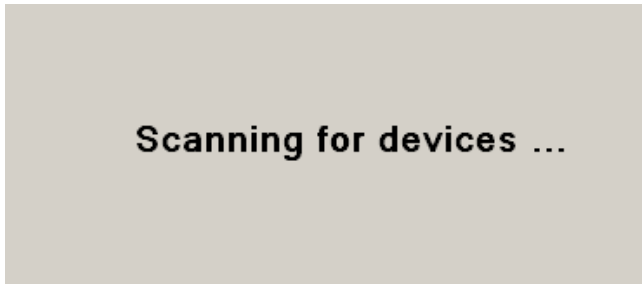
When the PC tool starts up, a **Select connection mode** dialog box appears. To establish a direct connection, select **Serial GENI connection**. Click [**OK**] or press [**Enter**].



If two or more COM ports are available, a selection box appears. Select the COM port to which the PC Tool link is connected.



During the connecting process, status information will be displayed.

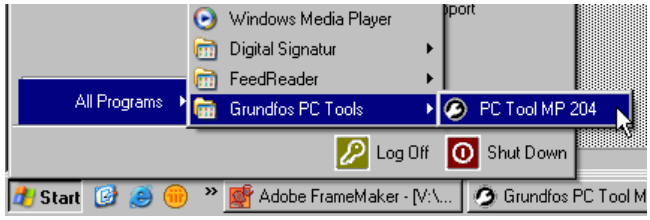


When the connection has been established, the On-line icon appears in the lower right corner.

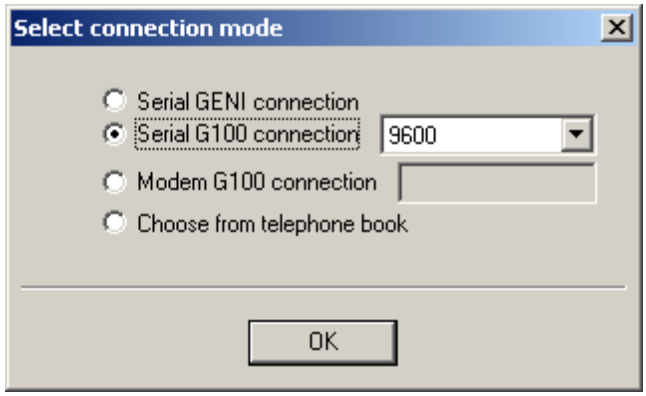
When the connection has been established, the PC tool opens the start window. The PC tool is ready for use.

4.2 Establishing a direct connection via G100 gateway

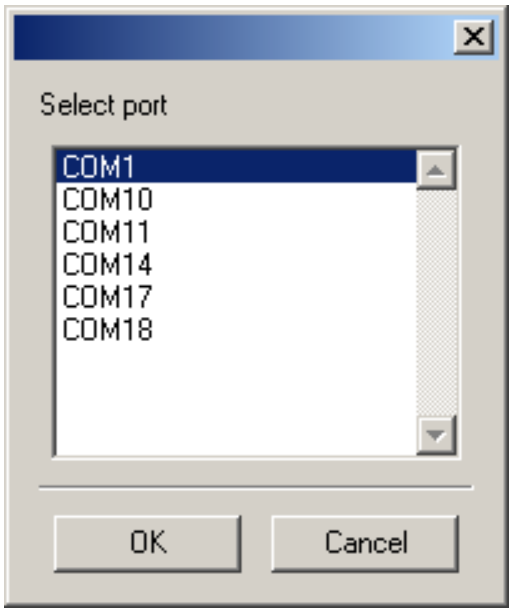
Turn on your PC. To start the PC tool, click **Start > All Programs > Grundfos PC Tools > PC Tool MP 204**.



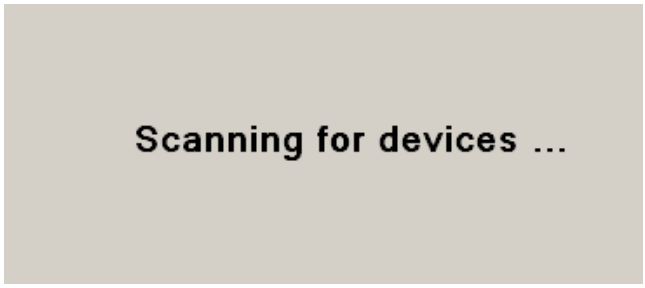
When the PC tool starts up, a **Select connection mode** dialog box appears. To establish a direct connection, select **Serial G100 connection** and select connection speed in the drop-down box. Click [**OK**] or press [**Enter**].



If two or more COM ports are available, a selection box appears. Select the COM port to which the PC Tool link is connected.



During the connecting process, status information will be displayed.



When the connection has been established, the On-line icon appears in the lower right corner.

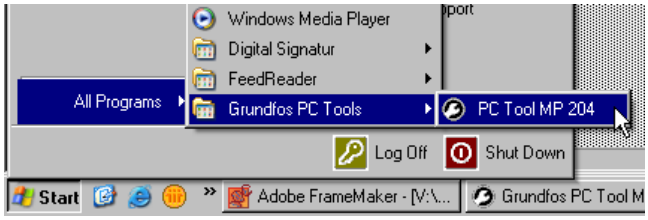
When the connection has been established, the PC tool opens the start window. The PC tool is ready for use.

4.3 Establishing a modem connection via G100 gateway

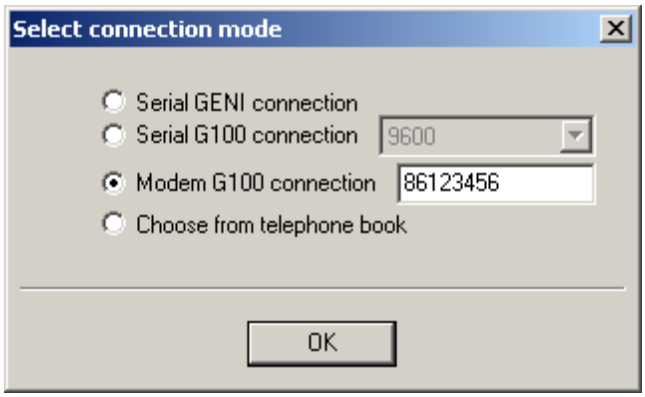
It is only possible to establish a modem connection to a unit with a modem.

If you use an external modem, connect it to your PC.

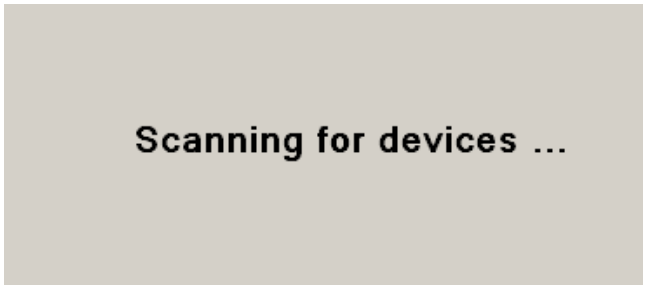
Turn on your PC. To start the PC tool, click **Start > All Programs > Grundfos PC Tools > PC Tool MP 204**.



When the PC tool starts up, a **Select connection mode** dialog box appears. To establish a modem connection, select **Modem G100 connection** and enter the telephone number. Click [**OK**] or press [**Enter**].

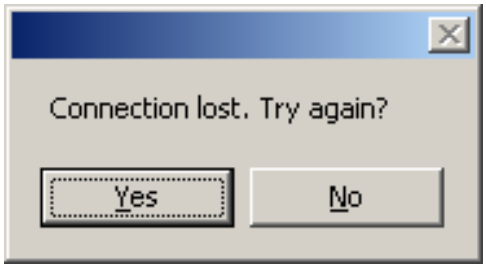


During the connecting process, status information will be displayed.



When the connection has been established, the On-line icon appears in the lower right corner.

If the connection attempt fails, an error message appears. Before you try to reconnect, check the modem connection.

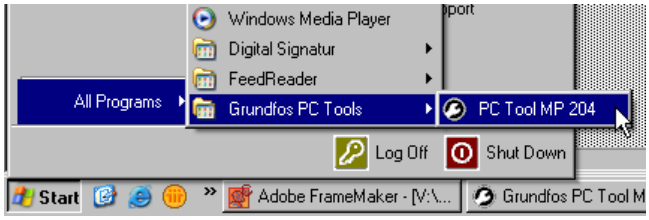


When the connection has been established, the PC tool opens the start window. The PC tool is ready for use.

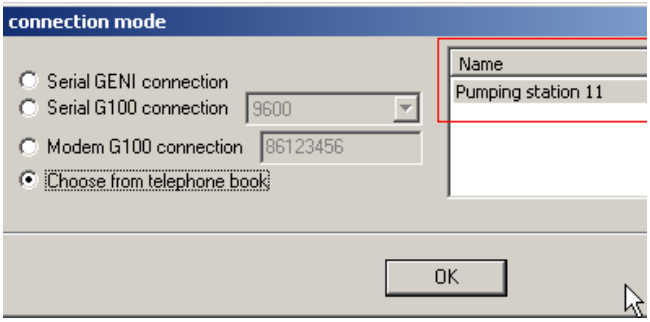
4.4 Establishing a connection chosen from telephone book

If you use an external modem, connect it to your PC.

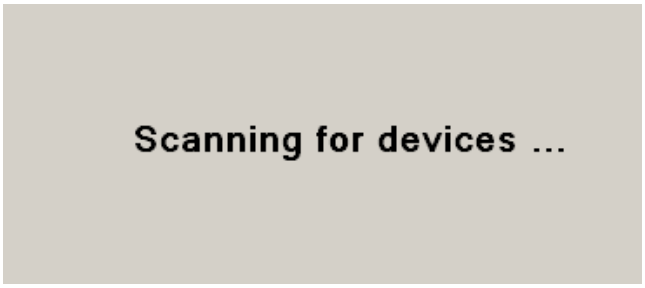
Turn on your PC. To start the PC tool, click **Start > All Programs > Grundfos PC Tools > PC Tool MP 204**.



When the PC tool starts up, a **Select connection mode** dialog box appears. To establish a connection, select **Choose from telephone book** and select installation name in the drop-down window. Click [**OK**] or press [**Enter**].

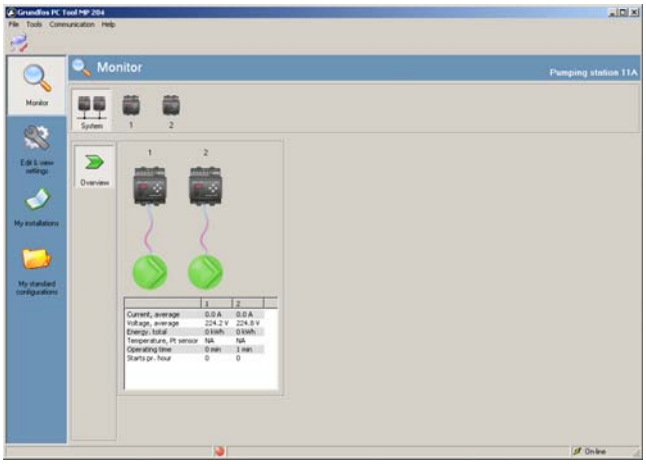


During the connecting process, status information will be displayed.



When the connection has been established, the On-line icon appears in the lower right corner.

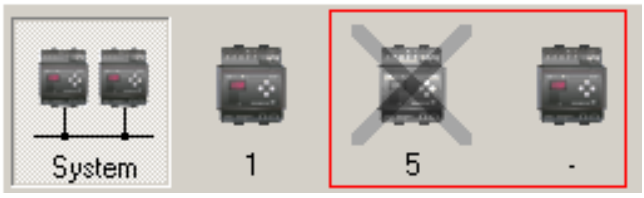
When the connection has been established, the PC tool opens the start window. The PC tool is ready for use.



4.5 Unit not responding

If a unit is not responding or missing, the unit icon has an “X” across it and turns grey.

A new unconfigured unit will have the name “–”.

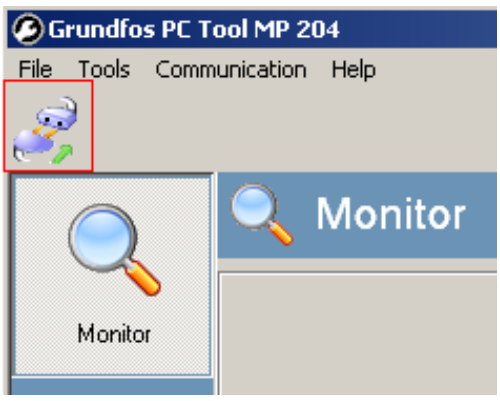


4.6 Disconnecting and reconnecting

When you are on-line with a unit and want to disconnect, click the disconnect icon.

When the PC tool is disconnected from the unit, the On-line indication in the lower right corner changes to Off-line.

To reconnect the unit, click the connect icon.



When the icon is clicked, the connection dialog box appears.

The connect and disconnect icons can be clicked at any time.

5. Using the tool

This section describes how to use the PC tool. The description starts with a general overview, followed by a description of each of the PC tool main functions (user functions).

5.1 User interface overview

The user interface is divided into four main sections:

5.1.1 Menu and tool bars

The menu and tool bars change according to the selected user task.

5.1.2 Task bar

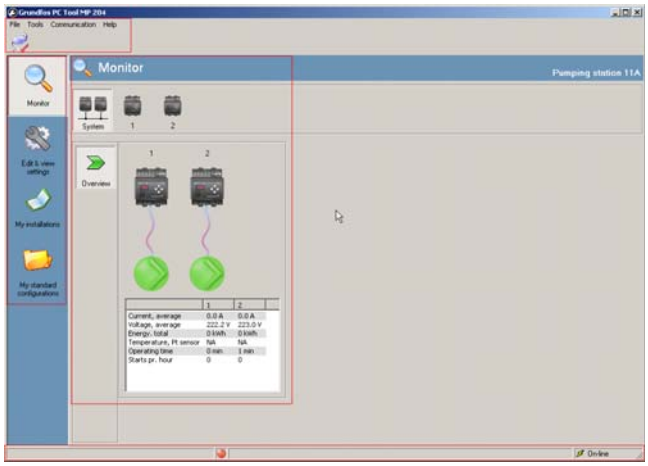
The task bar comprises all supported user tasks or user functions.

5.1.3 Work area

The work area is the area where the user function works.

5.1.4 Status bar

The status bar displays status information and messages about current activities.



5.2 Navigation with keyboard

ALT + UP / ALT + DOWN: Navigates up and down in the task bar.

TAB / SHIFT + TAB: Moves cursor to next/previous position.

In the **Monitor** and **Edit & view settings** windows:

CTRL + TAB / CTRL + SHIFT + TAB: Moves between units.

ALT + LEFT / ALT + RIGHT: Moves between sub tasks (arrows).

6. Monitor

6.1 Monitor

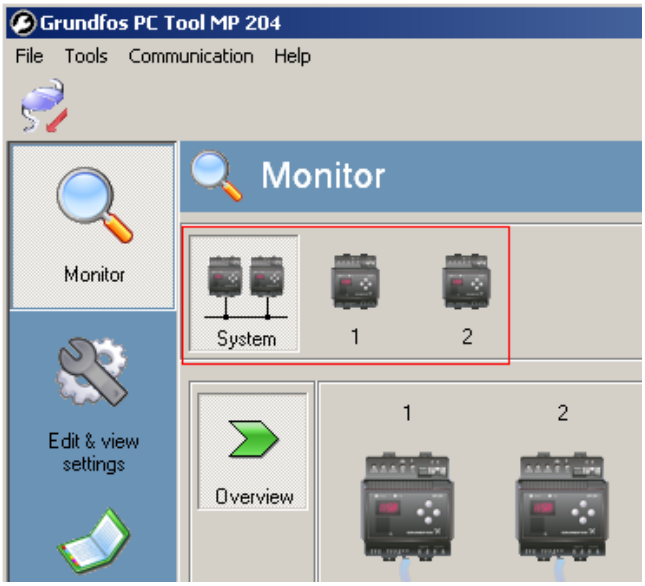
You can choose to monitor

- the **System**, which gives a system overview with key values of each connected unit, or
- a specific unit, which gives a detailed overview with all values of the unit.

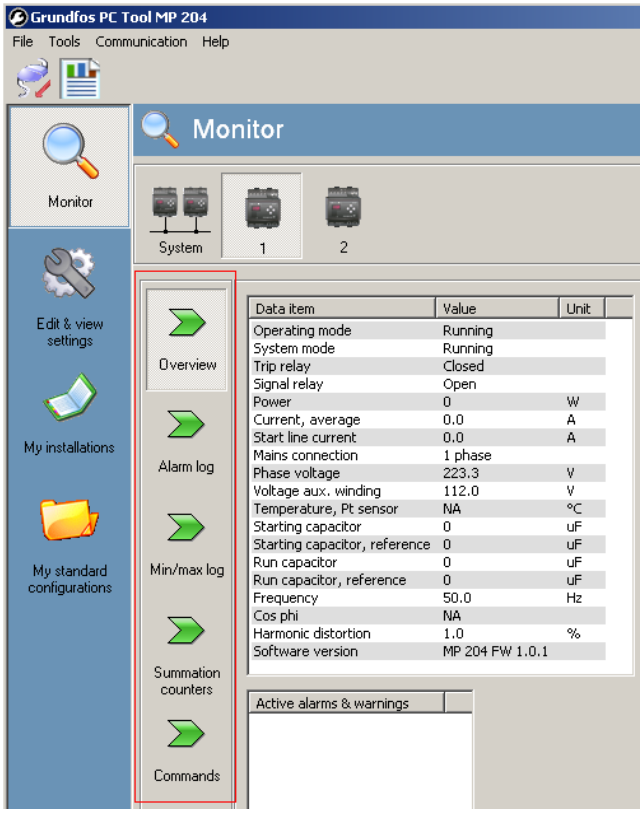
The monitor function also allows you to view logs.

Although the monitor shows real-time data, there will be some delay in responding to commands and from data shown in the unit.

In the unit selection bar, you can select **System, 1**, **2,** etc. The number below the icon is the R100 unit number.

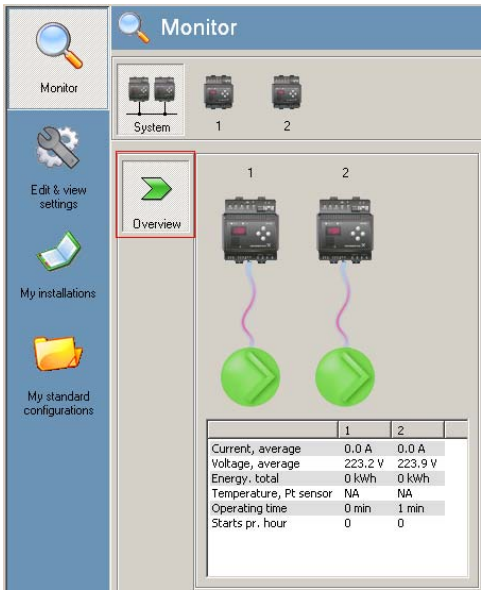


In the navigation bar, you can select **Overview**, **Alarm log**, **Min./ max. log, Summation counters** or **Commands** depending whether **System** or a *unit* is selected. Each view gives you detailed information on the selected item. Each view is described in the following sections.



6.2 System overview

The **Overview** displays the current status and key values of all connected units.



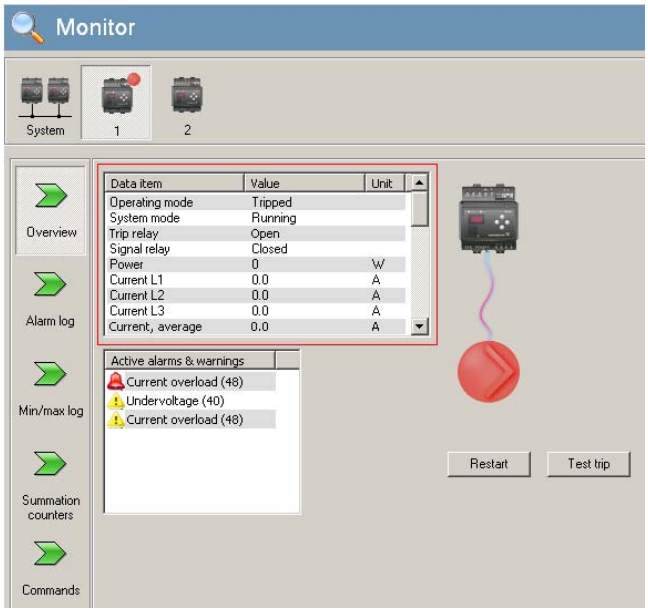
Symbols indicating the current status of the units:

Symbol	Description
	Running
	Running, but with warning
	Tripped

If a unit has tripped, a red icon appears at the tripped unit.

6.3 Unit overview

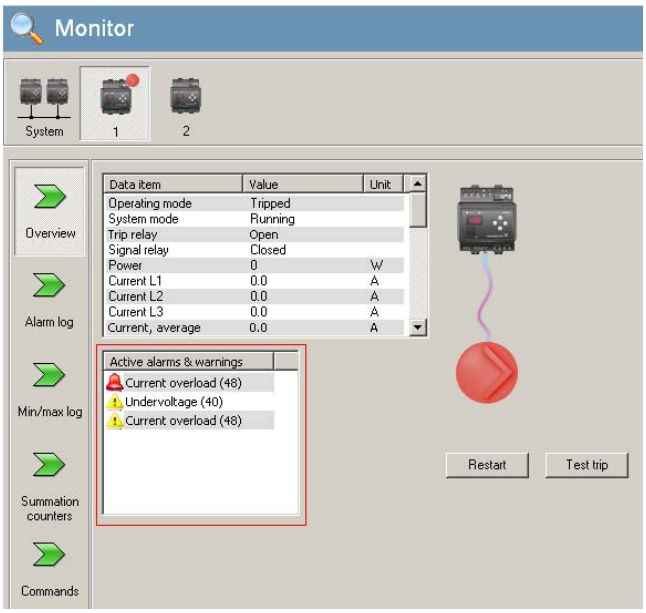
The unit overview is divided into four sections.
The **Status** section displays all status values of the unit.



The **Active alarms & warnings** section shows current alarms and warnings.

Note: The alarms and warnings are not indicated in the order of occurrence.

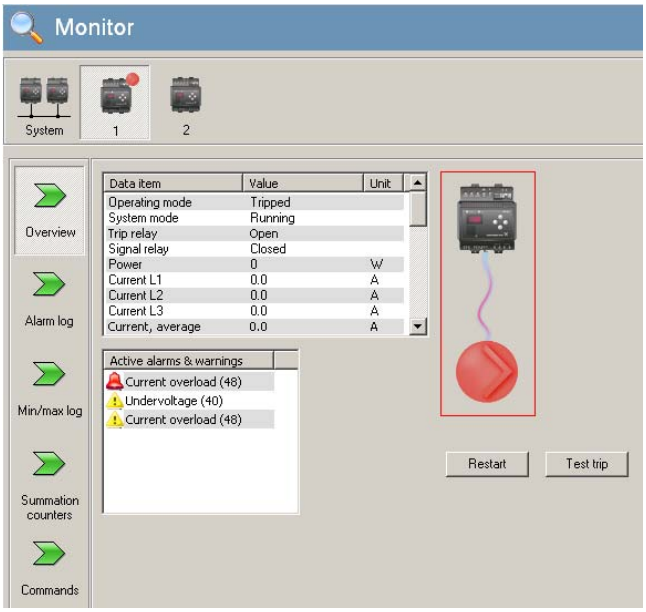
The number in brackets is the alarm or warning code shown in the display of the unit.



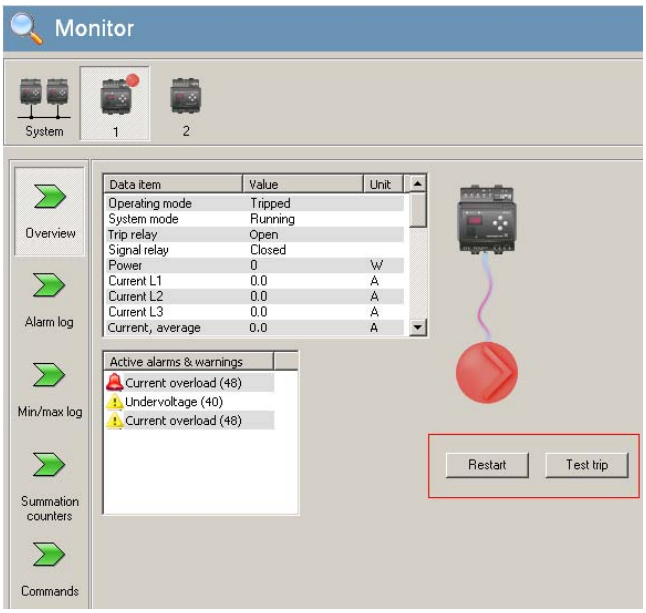
Symbols for **Active alarms & warnings**:

Symbol	Description
	Alarm
	Warning

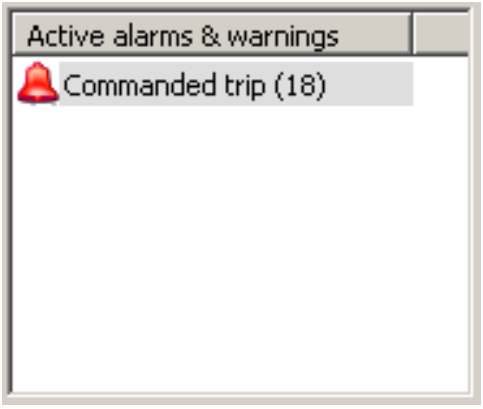
The **Graphical** section displays the current status of the pumps.



The **Control** section allows you to [**Restart**] the unit or to run the [**Test trip**] function.



The [**Test trip**] function tests the alarm and trip relays. The alarm message **Commanded trip (18)** appears in the **Active alarms & warnings** section.

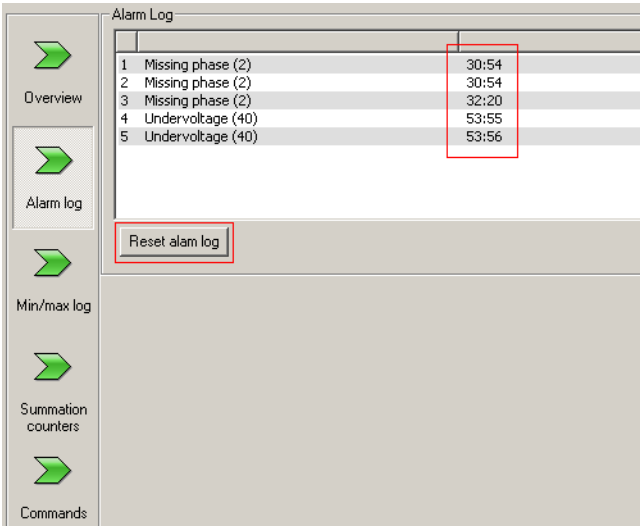


6.4 Alarm log

The **Alarm log** view displays the latest five alarms logged by the unit. To clear the log, click [**Reset alarm log**].

The time displayed to the right indicates the time which has passed since the MP 204 tripped.

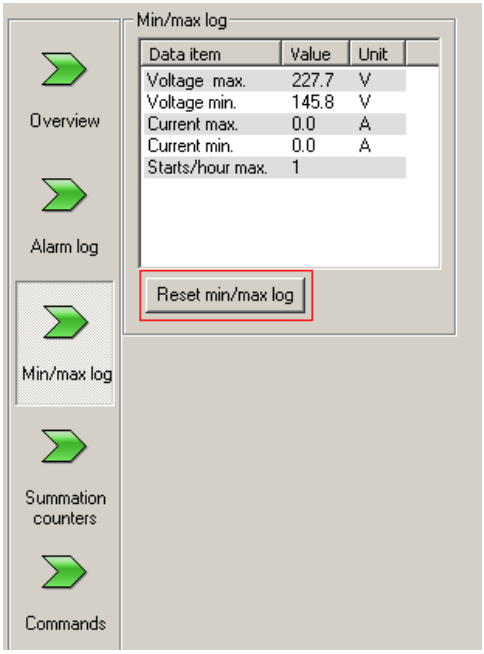
Note: The time is measured only as long as the MP 204 is powered. The clock stops when the MP 204 is no longer powered.



6.5 Min./max. log

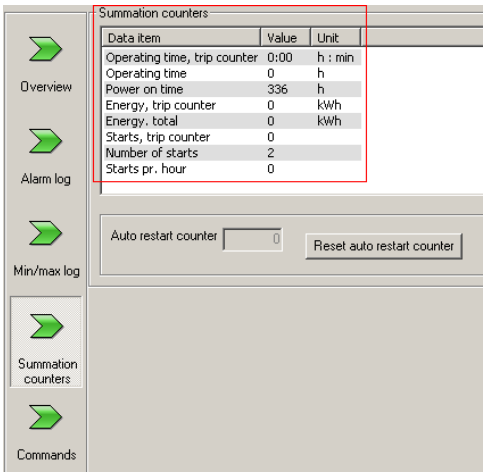
The **Min./max. log** displays maximum and minimum values. To

clear the log, click [**Reset min./max. log**].

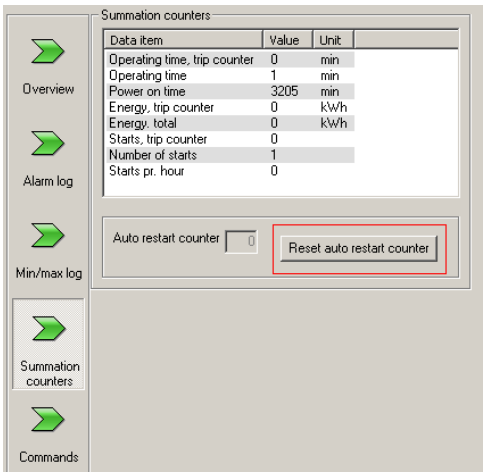


6.6 Summation counters

The **Summation counters** view gives an overview of counters. It is possible to preset or reset a **Trip counter** in the **Edit & view settings** window. The other counters are cumulative and cannot be reset.



To clear the **Auto restart counter**, click [**Reset auto restart counter**].



6.7 Commands

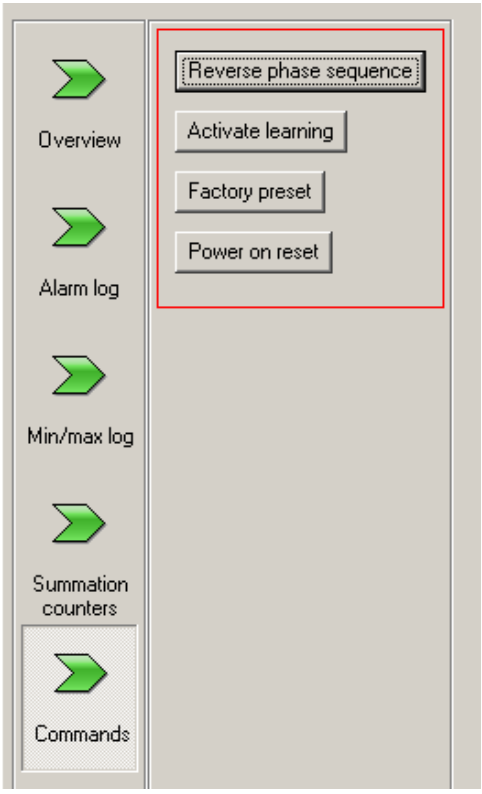
To activate a function in the unit, click the appropriate button.

[**Reverse phase sequence**] reverses the phase sequence. See **Unit overview**.

[**Activate learning**] reactivates the learning process.

[**Factory preset**] resets the unit to factory settings.

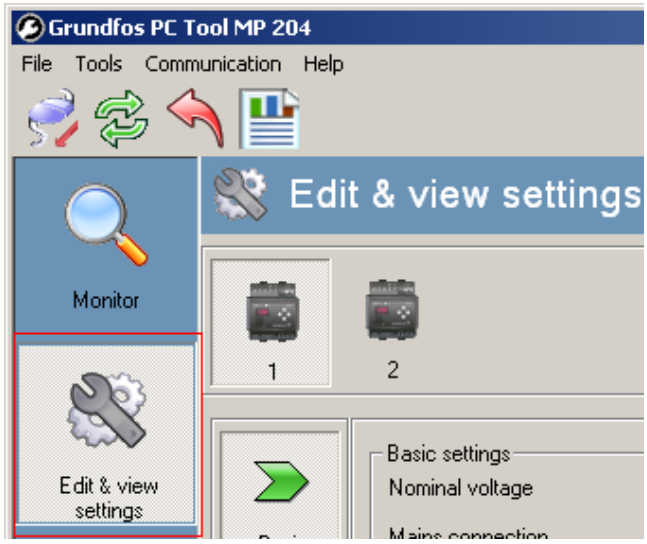
[**Power on reset**] restarts the unit, i.e. same as disconnecting and reconnecting power supply.



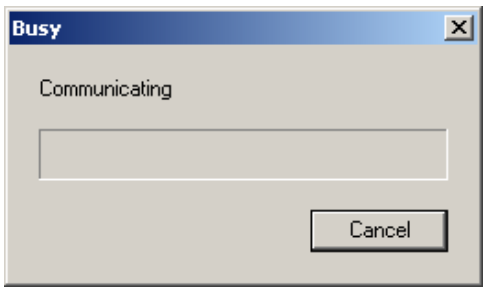
7. Edit & view settings

7.1 Edit & view settings

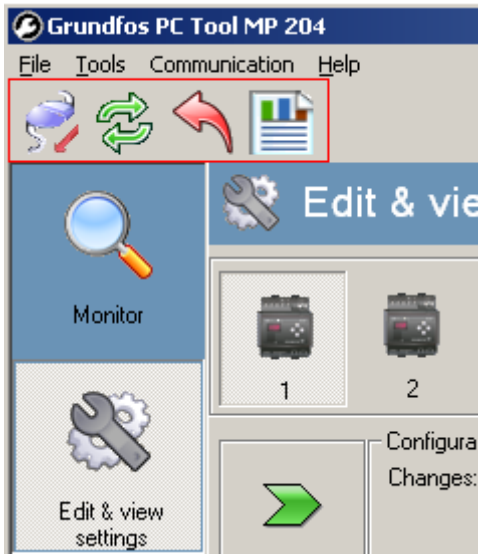
To change unit settings, click **Edit & view settings**.



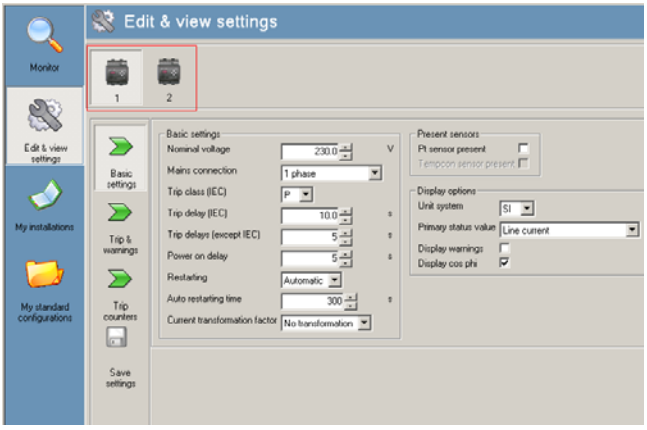
When the PC tool is reading data from the units, a progress bar appears.



In the toolbar, you can click the **Disconnect**, **Reload**, **Undo** or **View report** icons.



In the main window, select the unit to be set.



Use the navigation bar to select

Basic settings

Trip & warning settings

Trip counters

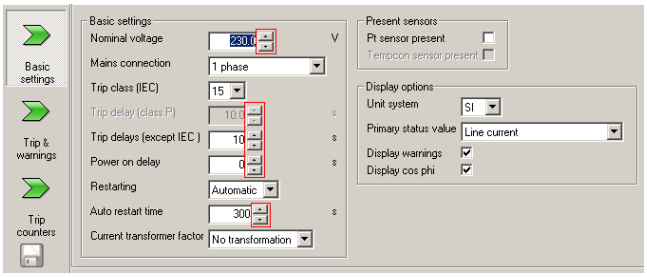
Save settings.

Each view is described in the following sections.

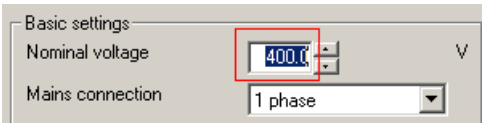
7.2 Basic settings

The changes are not saved to the unit until you click the **Save settings** icon.

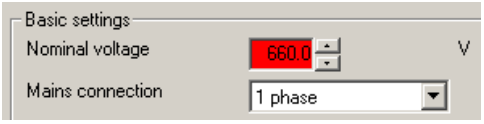
Use the up and down arrows to change the values,



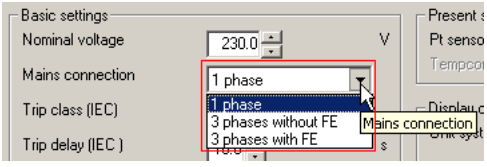
or enter a value directly in the field.



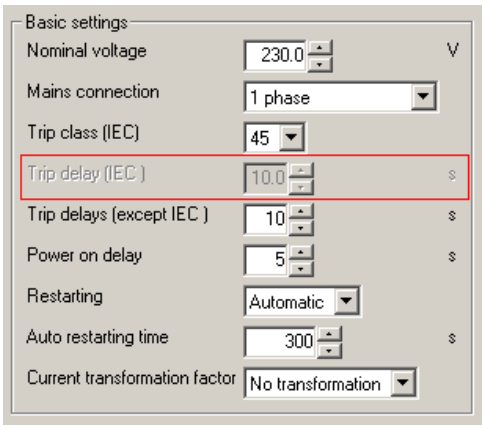
If you enter an invalid value, the field turns red and you cannot save the changes to the unit.



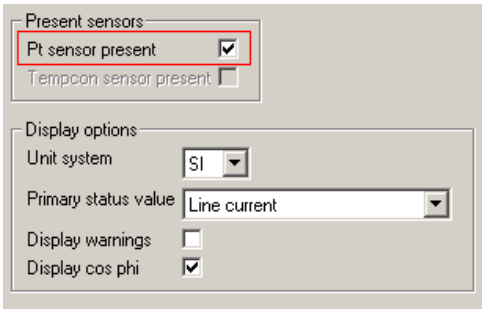
To change the setting in a drop-down box, click the arrow. Then you will get a list of options. Select the appropriate option.



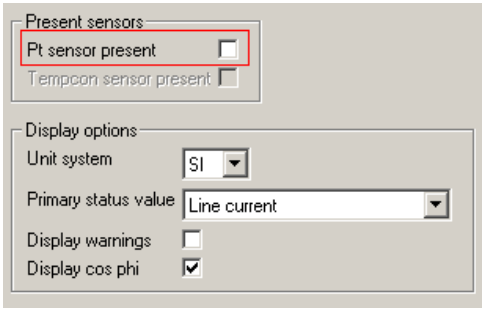
A dimmed grey box indicates that the box and data values are disabled due to another setting that automatically disables the box and data values.



A check mark enables a function.

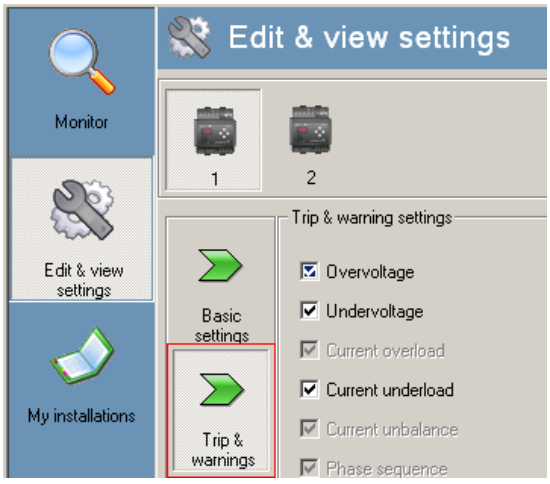


If the check box is empty, the function is disabled.

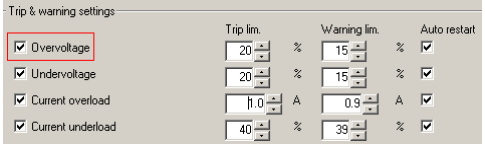


7.3 Trip & warning settings

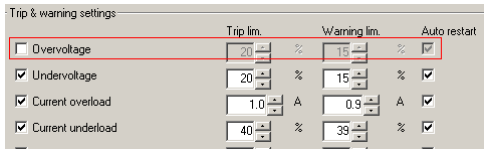
To set trip and warning limits, select **Trip & warning settings**.



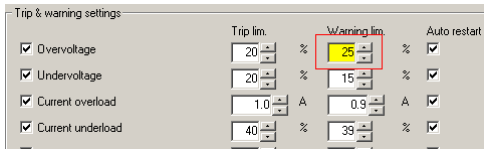
A check mark enables the trip and warning function.



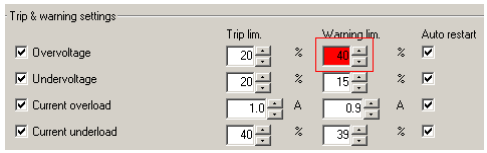
To disable a trip and warning function, remove the check mark. The text and value fields are dimmed grey.



If you enter contradictory values, the field turns yellow, but you can still save the changes to the unit. This is useful if, for instance, you want the unit to trip without any warning.

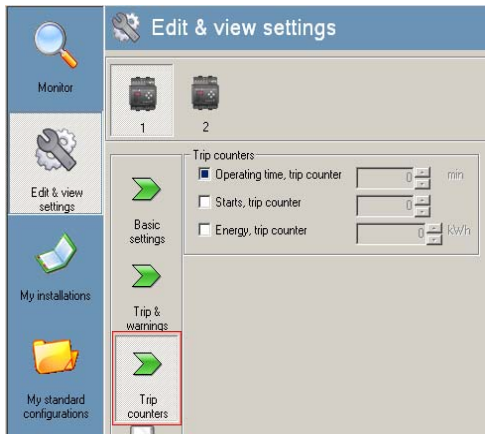


If you enter an invalid value, the field turns red and you cannot save the changes to the unit.

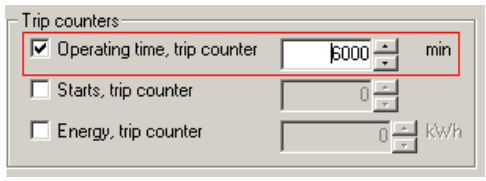


7.4 Trip counters

To preset trip counters, click **Trip counters**.

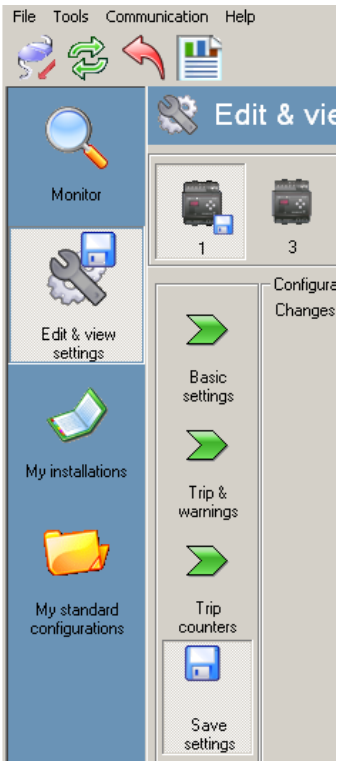


To preset a counter, write-enable the field by putting a check mark in the check box and enter a value.

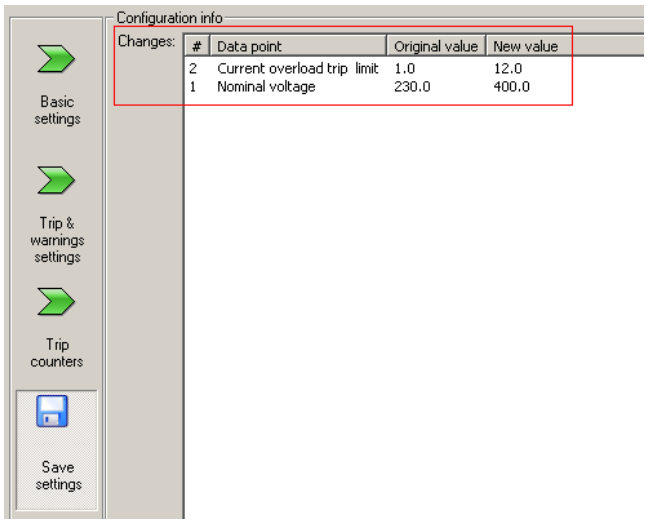


7.5 Save settings

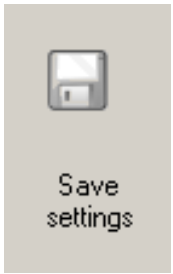
To save your changes to the unit, click the **Save settings** icon.



A window shows the values that have been changed.

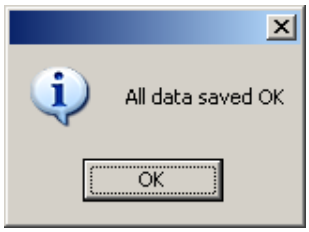


If no changes have been made or invalid values have been entered, the icon is dimmed grey.



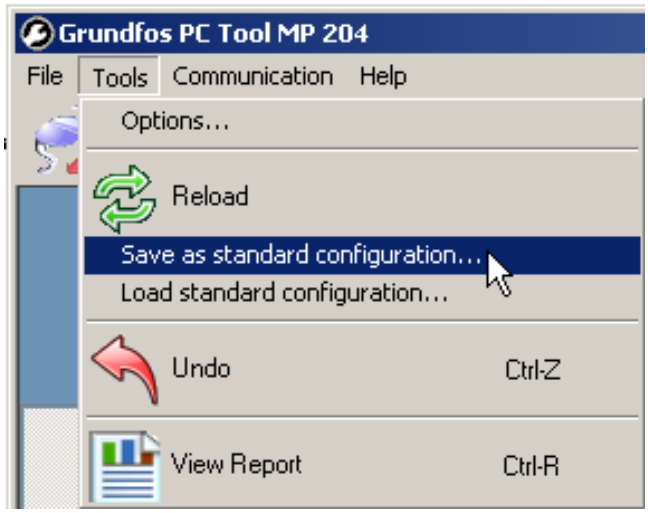
To save the data to the unit, click [**Save**].

When the data has been saved successfully, a message box appears. Click [**OK**] to continue.

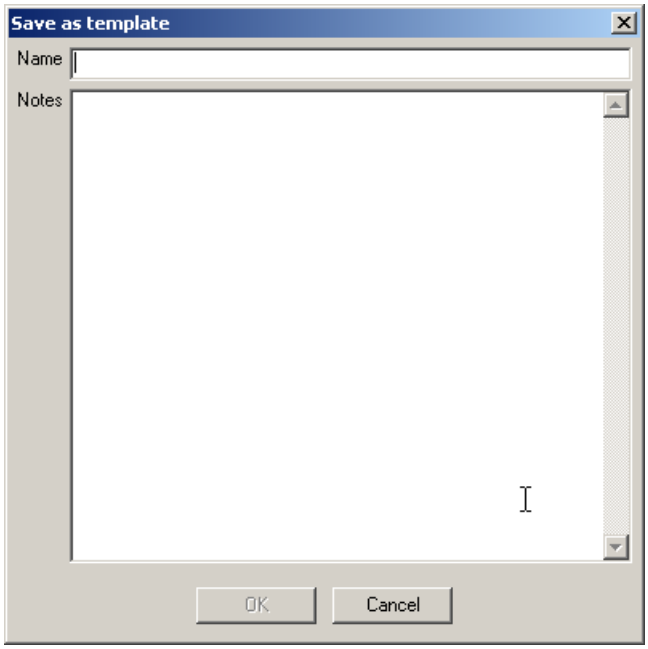


7.6 Saving a standard configuration

To save the current settings as a standard configuration for later use, click **Tools** and select **Save as standard configuration**.



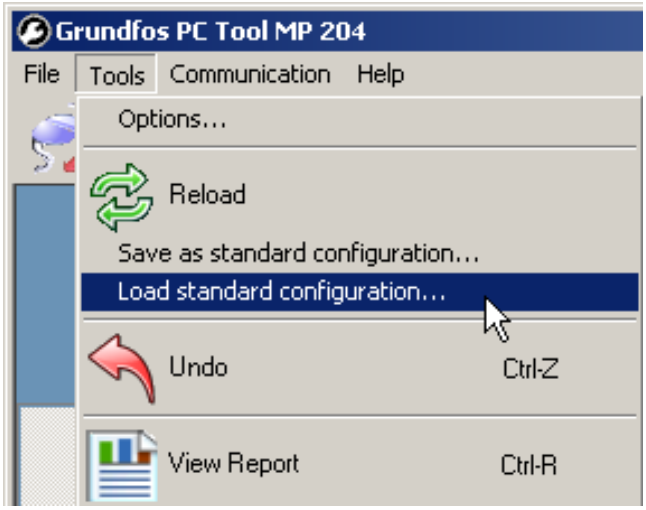
Enter a **Name** and, if necessary, additional information in the **Notes** field. Click [**OK**].



A list of saved standard configurations can be found in **My standard configurations**.

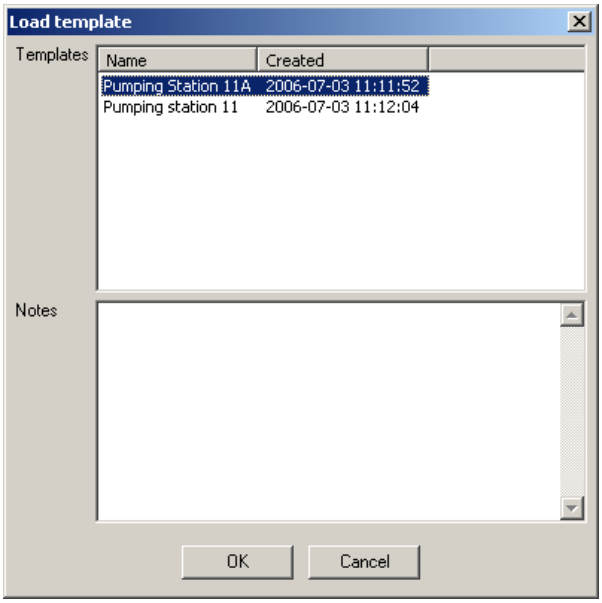
7.7 Loading a standard configuration

To use a standard configuration, click **Tools** and select **Load standard configuration**.

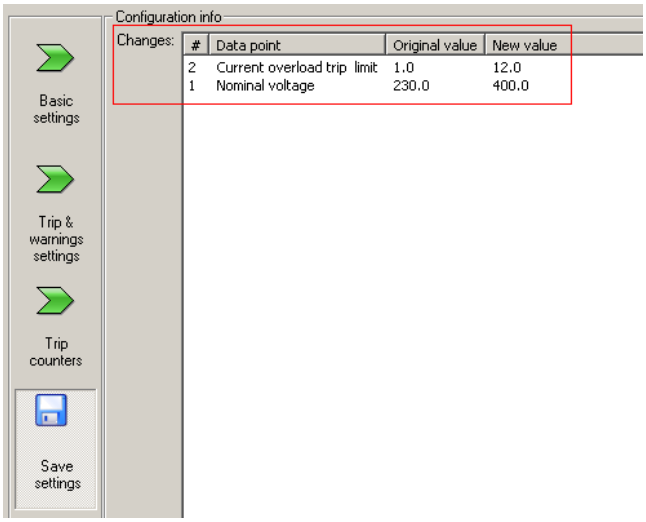


Select template and click [**OK**].

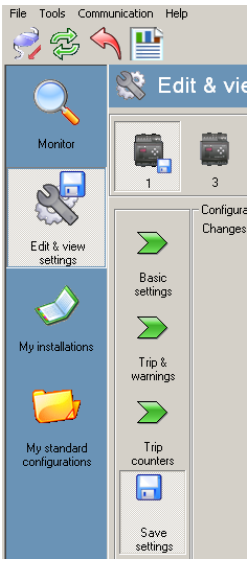
Note: All current settings will be overwritten. To undo a loaded template, click the **Reload** icon.



When a standard configuration has been loaded, it will be indicated in the **Save settings** window.

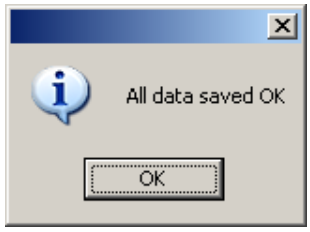


To save the loaded configuration to the unit, click the **Save settings** icon.



To save the data to the unit, click [**Save**].

When the data has been saved successfully, a message box appears. Click [**OK**] to continue.



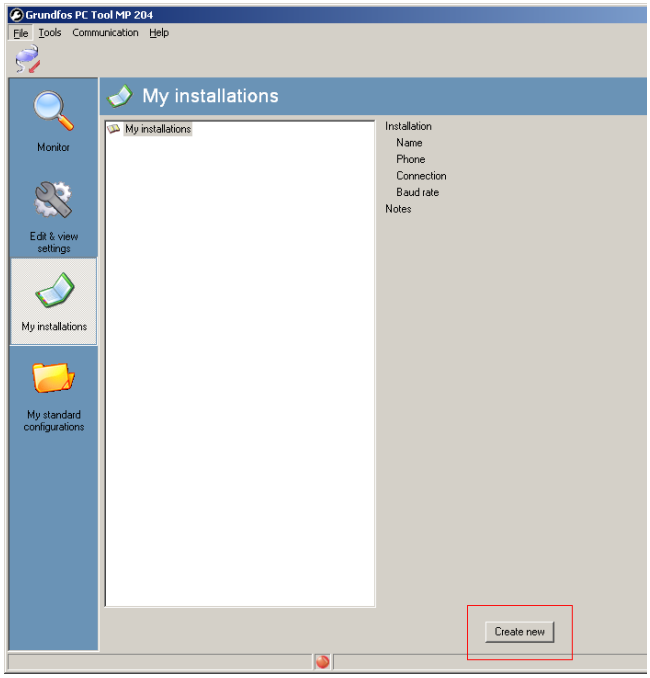
8. My installations

8.1 My installations

An installation is a named GENI network.

In the main window, you can add or modify an installation.

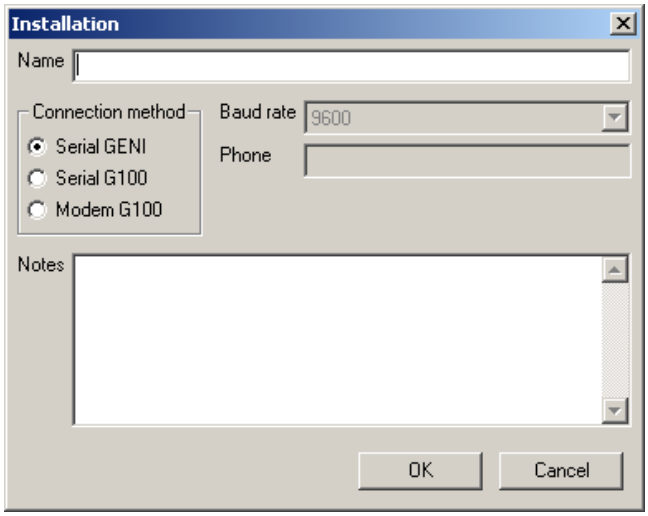
To add the current installation to **My installations**, click [**Create new**].



Enter a **Name**, select a **Phone** number, a **Connection method** and, if applicable, a **Baud rate**.

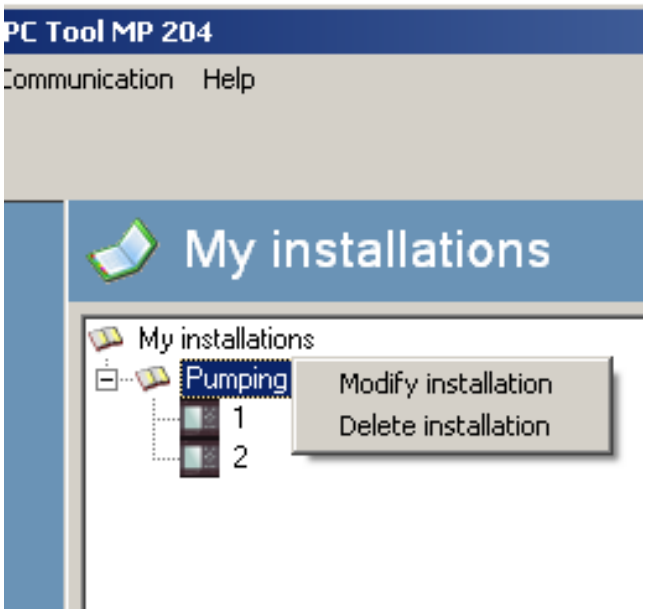
As additional information, you can enter a short description in the **Notes** field.

Click [**OK**].

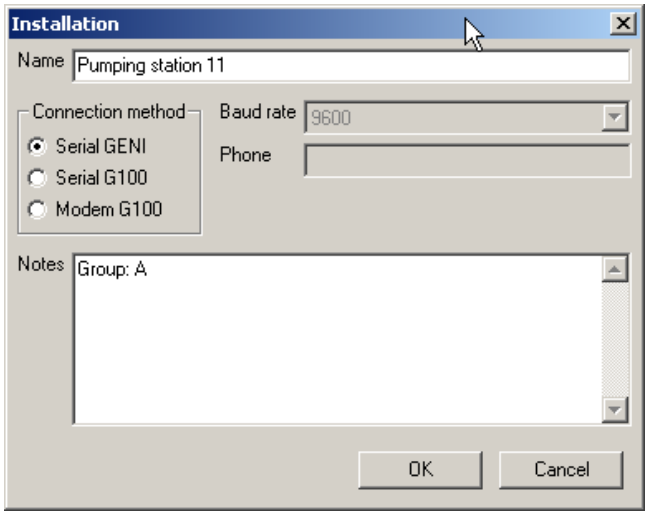


8.2 Managing installations

To modify or delete an installation, right-click on the relevant installation and select **Modify installation** or **Delete installation**.



When you have modified the installation, click [**OK**].



8.3 Managing units

To modify a unit, change the position of the unit or delete a unit, right-click on the relevant unit and select

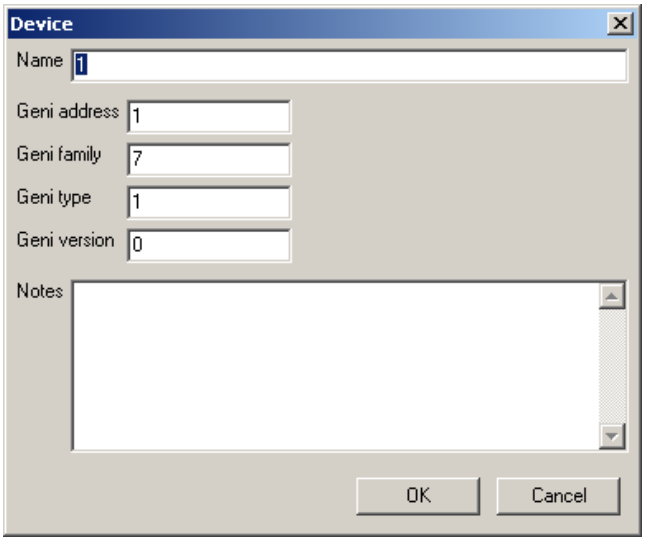
Modify unit – Modifies the settings of the unit.

Move unit up – Changes the position of the unit.
The top most unit will be shown as left most unit in the **Monitor** and **Edit & view settings** sections.

Move unit down – Changes the position of the unit.

Delete unit – Deletes the unit from the installation.

When you have modified the unit, click [**OK**].



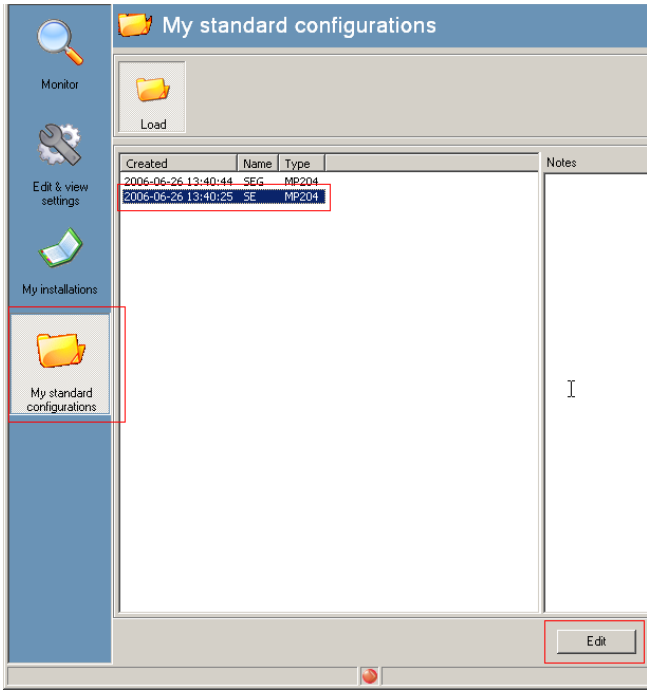
9. My standard configurations

9.1 My standard configurations

A standard configuration is a template containing settings for a specific pump type. i.e. a pump with temperature sensor.

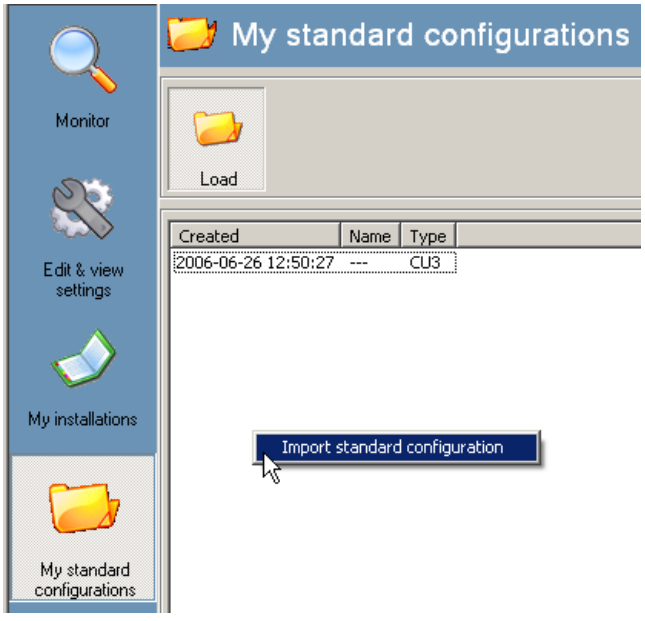
To view or modify a standard configuration, click **My standard configurations**. Select the configuration and click [**Modify**].

Modify the standard configuration as described in section **Edit & view settings**.

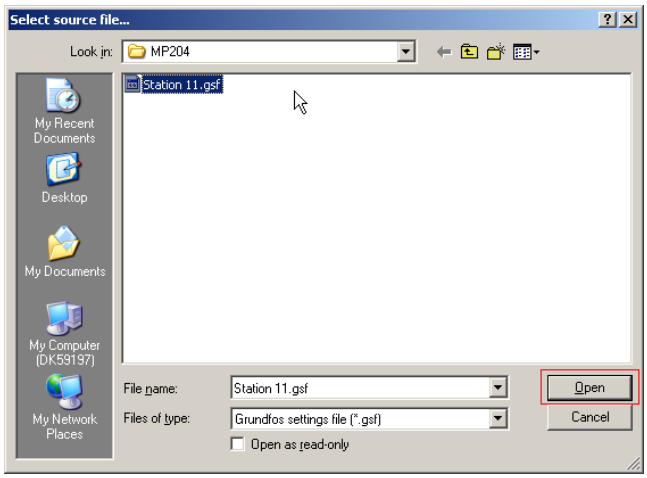


9.2 Importing a standard configuration

To import a standard configuration, right-click on an empty space and select [**Import standard configuration**].



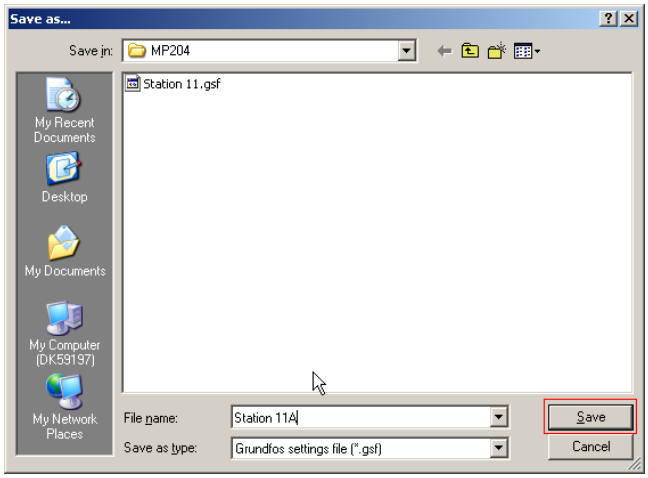
Browse to the file and select the file. Click [**Open**].



9.3 Exporting a standard configuration

To export a standard configuration, right-click the relevant configuration and select [**Export standard configuration**].

Browse to the folder where you want the configuration file to be saved and enter a name. Click [**Save**].

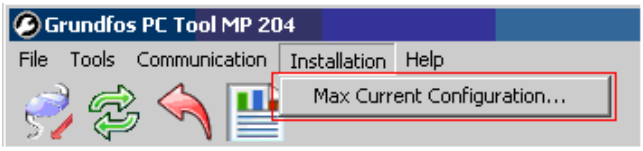


10. CU 3

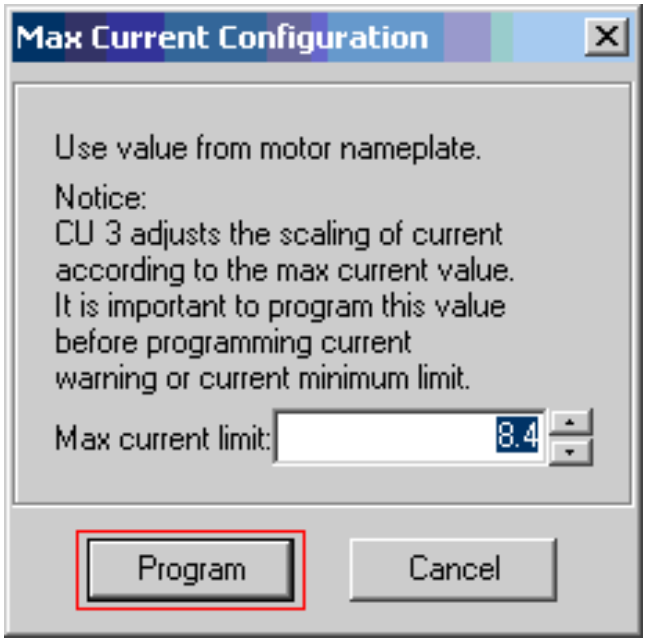
10.1 CU 3 max. current configuration

To program the **max. current limit**, click **Installation** and select **Max. current configuration...**.

Note: This must be done before programming current warning and current minimum limit.



Enter **Max. current limit**. Use the value from the motor nameplate. Click [**Program**].

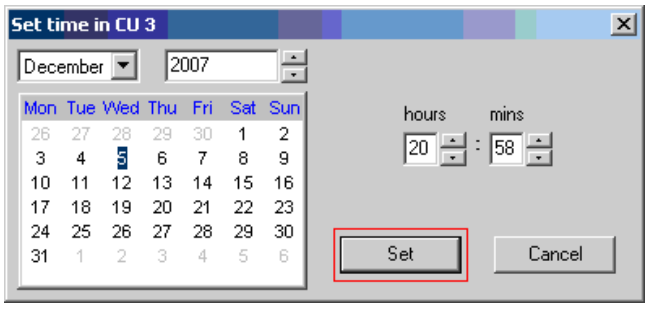


10.2 Adjusting time in the CU 3

To adjust the time, click the clock icon.

Note: This function will not work with all versions of the G100.

Adjust time and date and click [**Set**].



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