

GRUNDFOS iSOLUTIONS MONITOR

LDU display guide



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FIRST TIME INSTALLATION:

Date and Time setting

The first time the product is switched on, you must set the date and time to continue:

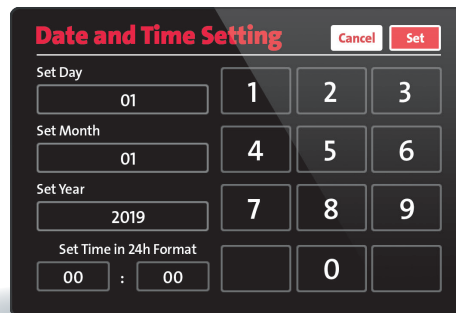
- Set the date and time. All data logging is based on the data entered.
- Press the Set button to store your setting.

Site Information

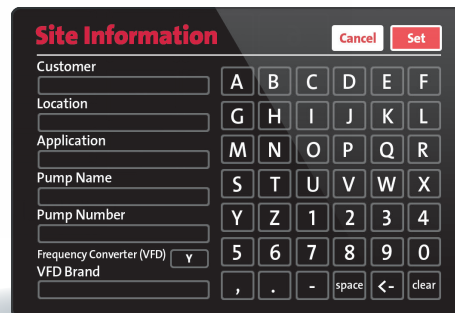
- Enter data about the specific installation.
- This data is stored locally together with the logged data.
- Press the Set button to store your settings.

Startup

- When the installation settings are made, you will see the main screen.
- Time, date and site information will be saved after 10 minutes.



The 'Date and Time Setting' screen features a dark background with red text for the title and buttons. It includes input fields for 'Set Day' (01), 'Set Month' (01), and 'Set Year' (2019). To the right of these fields is a 3x3 grid of buttons with numbers 1 through 9. Below the year field is a 'Set Time in 24h Format' section with input fields for hours (00) and minutes (00), and a single button for 0. 'Cancel' and 'Set' buttons are in the top right corner.



The 'Site Information' screen has a dark background with red text for the title and buttons. It contains input fields for 'Customer', 'Location', 'Application', 'Pump Name', and 'Pump Number'. To the right of these fields is a grid of buttons for letters A-Z, numbers 1-4, and a numeric keypad (5-0). Below the grid are checkboxes for 'Frequency Converter (VFD)' (checked) and 'VFD Brand'. At the bottom are input fields for a comma, period, minus sign, space, left arrow, and clear. 'Cancel' and 'Set' buttons are in the top right corner.



This document explains the display menus and how GRUNDFOS iSOLUTIONS MONITOR can be configured. For information on how to mount the product on a pump, see the Quick Guide for GRUNDFOS iSOLUTIONS MONITOR.

net.grundfos.com/qr/i/99465248

MAIN SCREEN:

The main screen includes the following two areas:

- displaying the parameter values
- the options: "SETTINGS", "EVENT LOG" and "CURVES"

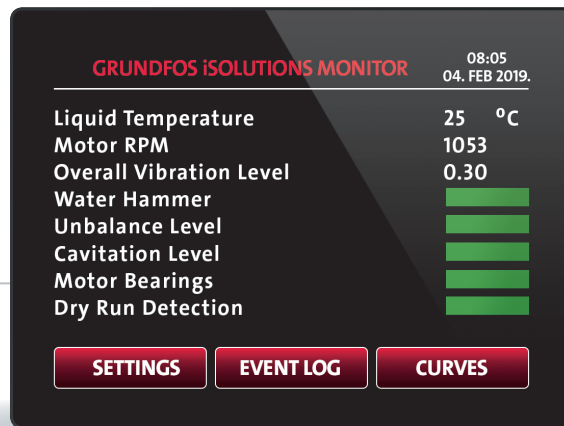
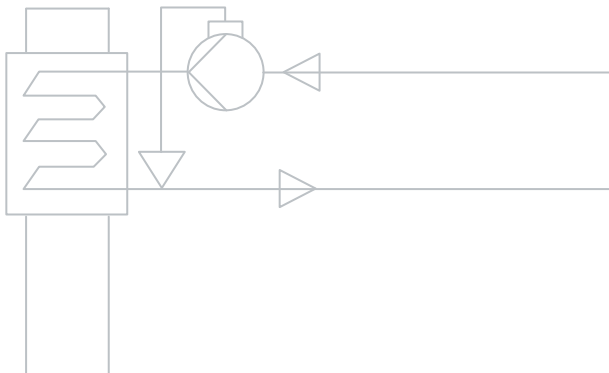
Parameters and values

The actual value and status for each monitored parameter are stated on the screen.

These are the parameters:

- Liquid temperature*
- Motor RPM
- Overall vibration level
- Water hammer
- Unbalance level
- Cavitation level
- Motor bearings
- Dry run detection

* The temperature is inactive = fixed value 25 °C (77 °F)



Main screen options

SETTINGS. The following settings can be made or changed:

- SD card logging period
- Temperature scale (°F or °C)
- Temperature limits (low and high)*
- Date and time setting
- Calibrate
- Calibrate RPM
- Relay Reset
- Baseline setting

EVENT LOG. Shows events with time stamps.

CURVES. Shows history data and alarm limit for each of the monitored parameters.

* The temperature limits are inactive.

MAIN SCREEN OPTIONS

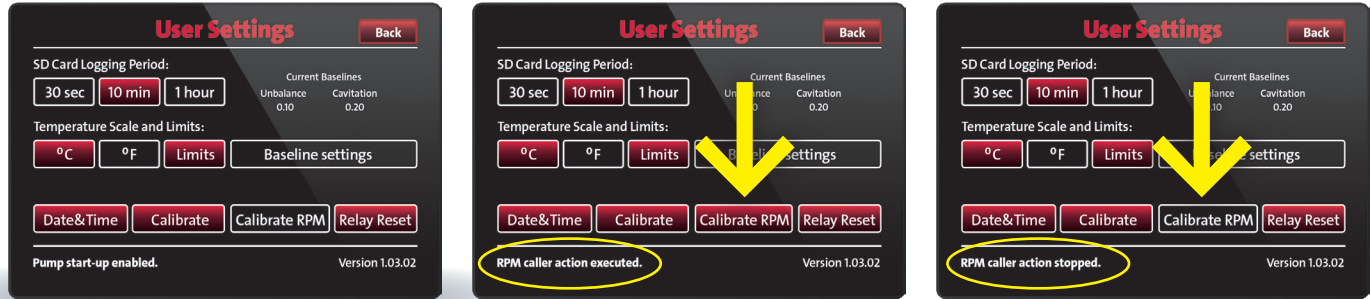


Figure 1: When the Calibrate RPM button is activated, the button is coloured red and the activation is stated in clear text. When it is deactivated, the button is clear and the deactivation is stated in clear text.

User Settings

• SD Card Logging Period

You can choose one of the following three settings: 30 sec, 10 min (default), 1 hour.

• Temperature Scale and Limits

The temperature scale can be in °C or °F. Limits are inactive.

• Current baselines

The baseline values for the application appear after 10 minutes of operation, when the calibration is activated. The calibration ends after 24 hours of operation. If the calibration is not started, the baseline values are set to very high default values.

• Baseline settings

These values can be changed if necessary, and this affects the warning/alarm limits for Unbalance and Cavitation only.

• Date & Time

Changing the date and time affects the log file on LDU.

• Calibrate

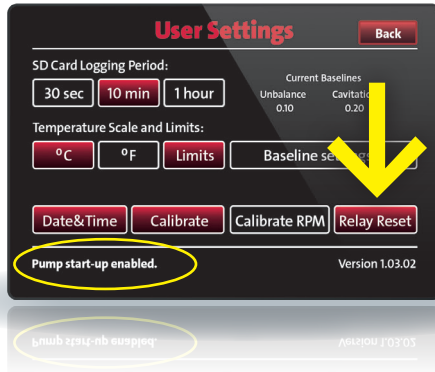
The calibration should be enabled when the pump is installed and running. After 10 minutes, pre-baseline values are displayed and used to set limits for Unbalance and Cavitation only. The calibration ends after 24 hours of operation.

When finishing the full 24 hours calibration, the baseline values could change in comparison to the pre-baseline values.

• Calibrate RPM, fixed speed pumps only

An optional function that overrides continuous RPM analysis and replaces it with a fixed range. This makes the sensor more robust against interference of other rotating equipment.

Activate the function when the pump is running stable at normal speed. After the first use, a power-cycle of the LDU will automatically enable this option, even if it was disabled before power cycling. If needed, it can manually be turned off again.



• Relay Reset

This button releases the dry run relay.

The relay is activated after 30 seconds of continuous dry run.

After 30 seconds with the relay activated, it switches off and retries. If there is a dry run for 30 seconds, the relay is permanently activated.

Release "Relay Reset" before leaving the installation.



EVENT LOG

The event log is split in the following two different loggings:

1. Event log for SETTINGS
2. Event log for ALARMS/WARNINGS

"Event Log, SETTINGS"

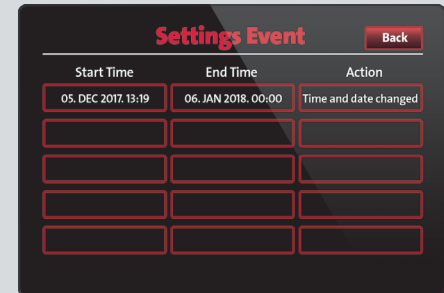
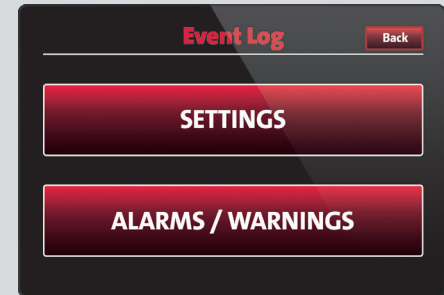
This event log lists the system settings made or changed.

For example Log interval, Calibration, Date & Time, or Calibrate RPM.

"Event Log, ALARMS/WARNINGS"

Each option gives access to the event log for the selected monitored parameter.

Low and high temperature data is not available.



CURVES

When activating the "CURVES" on the main screen, there is a library of history data for each of the eight monitored parameters.

You can choose the following options for the time period shown: Year, Month, Week, Day or Hour.

The curve shows the minimum, maximum and actual values.

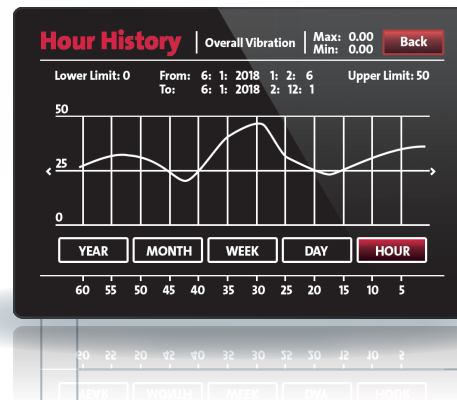
Alarm limits are visible, if inside the display range.

Click on the left arrow to go back in data.

The curve load time for a week, for example, is longer than for an hour.



Figure 2:
Example of
the history
curve,
showing
the overall
vibration level



FAULT DETECTION:

When a fault is detected, it will be indicated as an alarm with a red screen showing the actual fault detected.

If there are several alarms, the newest one is stated on the screen.

Alarms also appear in the event log, including the time of reset of the fault.

Alarm reset

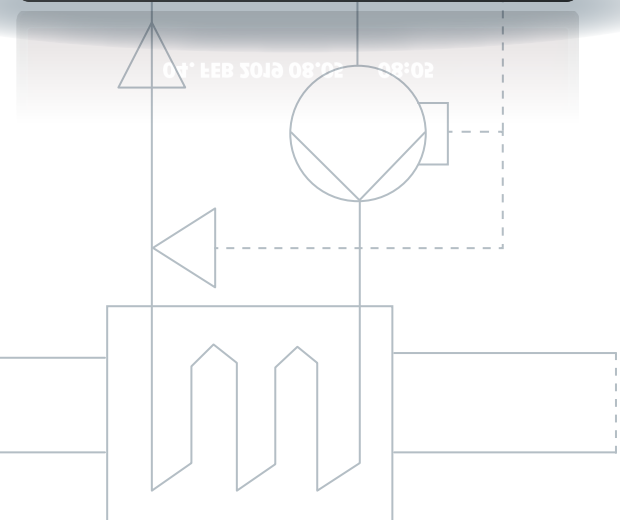
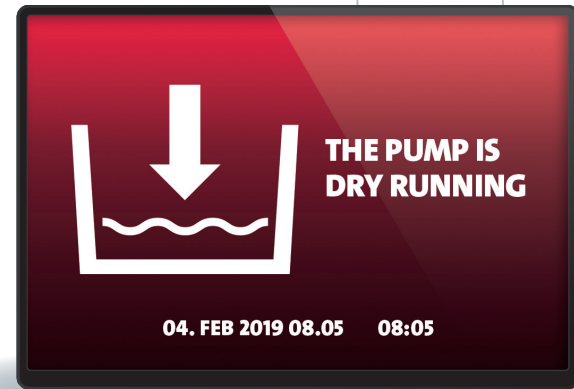
Touching the screen resets the alarm. The alarm is still listed in the event log.

If there are several alarms, the next alarm is indicated and can be reset by touching the screen.

Warnings

Warnings are not indicated on the screen.

They only appear in the event log.



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