# Inclination Sensor Monitor

## Start-up guide

## DESCRIPTION

The software "Inclination Sensor Monitor" was designed to display tilt angle information of single- and dual axis tilt sensors. The present start-up guide is intended to give an easy access to the software.
The USB cable of the on hand sensor is equipped with an UART to RS232 converter chip to establish a quick connection to a computer.
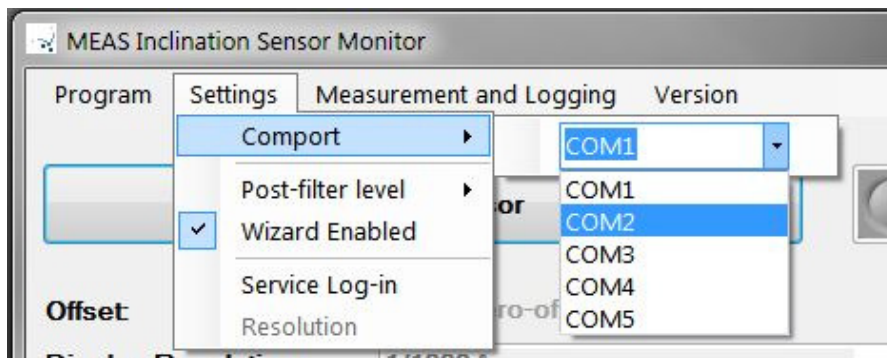
The software driver needed for the converter can be installed during the installation process. If the installation is not finished successfully, the driver can be manually installed using "CDM20802_Setup.exe".
The file is located in the "FTDI driver" folder of the installation directory.
If the driver is installed properly and the sensor gets connected to the computer for the first time, Windows selects the next unassigned comport and assigns the sensor to it.

## FIRST STEPS

When the software is executed it probes all comports for a connected sensor. If more than one sensor is connected to the computer the one with the smallest comport number is selected by default. Other sensors can be selected by changing the comport option in the "Settings" menu:



**Picture 1 Comport selection**

With a click to the "Connect sensor" button a connection via the selected comport is established.



**Picture 2 Connect sensor button**

After clicking "Connect sensor" the user can decide to run a configuration wizard, which helps to set sensor filter level, display resolution and post filter level.
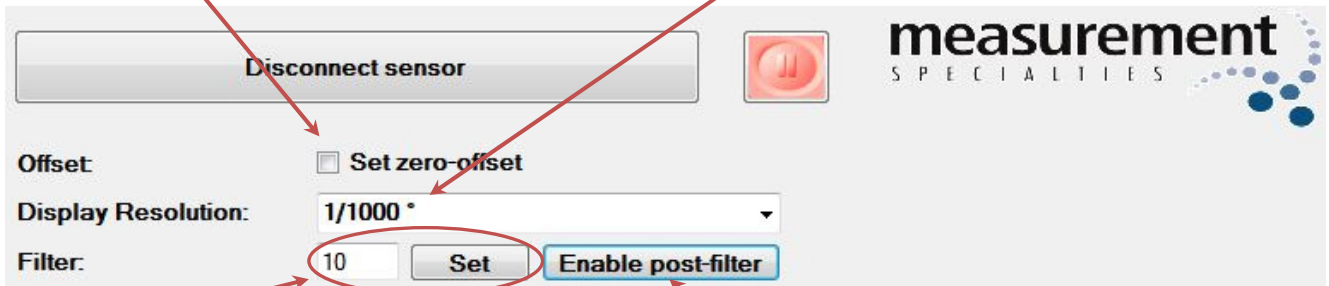
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These parameters and the zero offset can also be modified during runtime. They are displayed at the overview panel:

Zero offset, to eliminate mounting variances
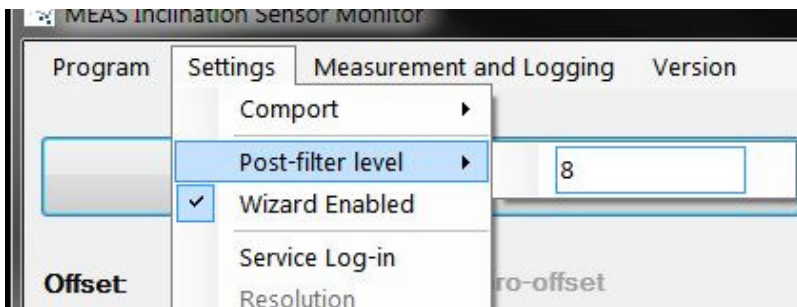
Display resolution



Internal filter level (stored permanently in sensor), 1-15 reasonable range, 7 default

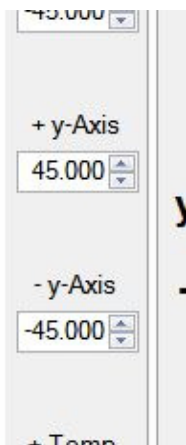External software filter level (post filter of PC software)

**Picture 3 Parameter setting**

The filter level of the software filter can be changed in the "Settings" menu:



**Picture 4 Software filter setting**

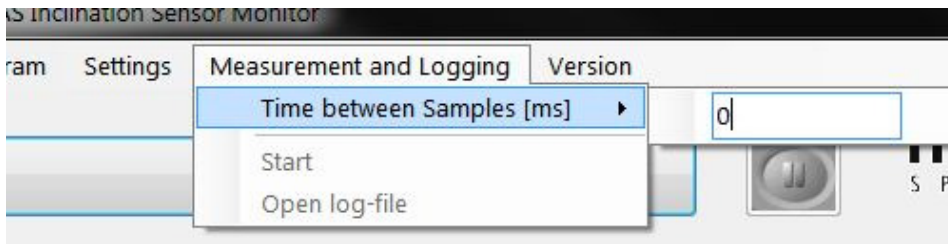During run time the y-axis values of the graphical display can be adjusted using the adjoining up-down counters.



Picture 5 Axis adjustment by up-down counters

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Before the sensor is connected or when the measurement is paused the interval during two measurements can be set via the menu bar:



**Picture 6 Refresh rate setting**

The refresh rate is limited by the sensor communication speed and the used computer. If new values cannot be sampled as fast as set, the time by which the set refresh rate is exceeded will be displayed in the status bar at the bottom of the screen. If the time between samples is set to "0" samples are made as fast as possible without displaying the refresh rate deviation.



**Picture 7 Exceeded refresh rate displayed in status bar**

From the menu item "Measurement and Logging" also a logging of the displayed sensor values can be started and if started stopped. The log file can be opened either by clicking the "Open log-file" option or the by clicking the link in the status bar at the bottom of the screen.



**Picture 8 Link to log-file directory in status bar**