

SPECTRO3-MSM-DIG-Scope: Changes due to software update from V1.3 to V1.4

This manual summarises the changes that were made with the software update from **SPECTRO3-MSM-DIG V1.3 to V1.4**.

A software update from V1.3 to V1.4 can be performed quite easily.

All you need is the FirmwareLoader V1.1 and the firmware files for V1.4.

The FirmwareLoader V1.1 can be found on the software CD/DVD that is provided with the sensor or can be downloaded from our homepage.

The firmware files are available from your sensor supplier.

The respective procedure is exactly described in the "[Manual FirmwareLoader V1_1](#)" file.

Change 1:



The screenshot shows a control panel with four main sections: 'GAIN' with a dropdown menu set to 'AMP8', 'INTEGRAL 1' with three input fields containing '1', '2', and '1', 'AVERAGE' with a dropdown menu set to '8', and 'LED MODE' with a dropdown menu set to 'DC'.

Parameter **INTEGRAL 2** has been added.

INTEGRAL 1:

This function field is used to set the number of scan values (measurement values) over which the raw signal measured at the receiver is summed up. This integral function allows the reliable detection even of extremely weak signals. A higher **INTEGRAL 1** value increases the noise of the raw signals of the receiver unit, and simultaneously decreases the maximum achievable switching frequency of the sensor.

INTEGRAL 1 only is available with **CALIB=OFF** or **XYZ OFFSET**.

INTEGRAL 2:

This function field is used to set the number of scan values (measurement values) over which the raw signal measured **and averaged** at the receiver is summed up. This integral function allows the reliable detection even of extremely weak signals. A higher **INTEGRAL 2** preset value increases the noise of the raw signals of the receiver unit, and simultaneously decreases the maximum achievable switching frequency of the sensor.

INTEGRAL 2 only is available with **CALIB=OFF** or **XYZ OFFSET**.

In addition, **AVERAGE** must be higher than 1, so that a summation is possible at all.

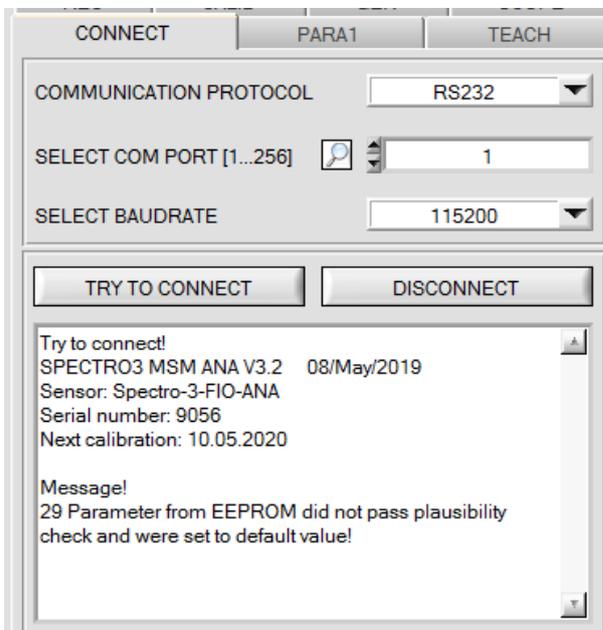
Change 2:



The newly added LED SAT indicates if one of the channels is in saturation. In this case, it lights up red.



Change 3:



In the status window of the CONNECT tab, **Next calibration** indicates when the sensor has to be sent in for calibration.