

QG40N configurator

Preliminary Specification v0.3 20131217



Scope:

The QG40N configurator is a tool to reconfigure calibrated QG40N sensors with a standard PC. The tool is reading the current sensor settings, shows all relevant settings and offers the possibility to reconfigure the device while keeping the calibration data.

Setup:

The configurator pack consists of an interface box with USB-cable and a software-package on CD-ROM.

The QG40N sensor can be connected to the interface box by wires or M12. The box itself is connected to a standard PC by USB. The software supports Windows XP, Vista, 7 and 8. If your sensor has a different connection you need a conversion cable.

Specifications

- Suitable for QG40N series: inclination, acceleration & tilt switches with analog voltage, current, NPN or PNP outputs
- PC interface: USB1.1 or higher
- Read configuration from sensor
- Adapt relevant settings in sensor
- Save configuration to sensor and PC-file
- Centering the sensor
- Auto detect sensor presence, supply voltage and type code
- Batch sensor configuring possible (sequential)
- Real time visual feedback of sensor output ('live monitoring')
- No external supply-voltage required

Configure parameters for inclination / acceleration:

- Measuring range (*) for 1, 2 or 3-axis individual(resolution 1° / 0.1g)
- Static low pass filter (**) enable/disable (9 different values)
- Output filter (***) (Hz)
- Inverse output enable/disable for 1, 2 or 3-axis individual

Configure parameters for tilt switches:

- Warning & Alarm set point (****) for 1, 2-axis or internal buzzer (resolution 0.1°)
- Warning & Alarm hysteresis for 1, 2-axis or internal buzzer
- Warning & Alarm on delay for 1, 2-axis or internal buzzer (resolution 15ms)
- Warning & Alarm off delay for 1, 2-axis or internal buzzer (resolution 15ms)
- Static low pass filter (**) enable/disable (enable: 9 different filter values)
- Output filter (***) (Hz)

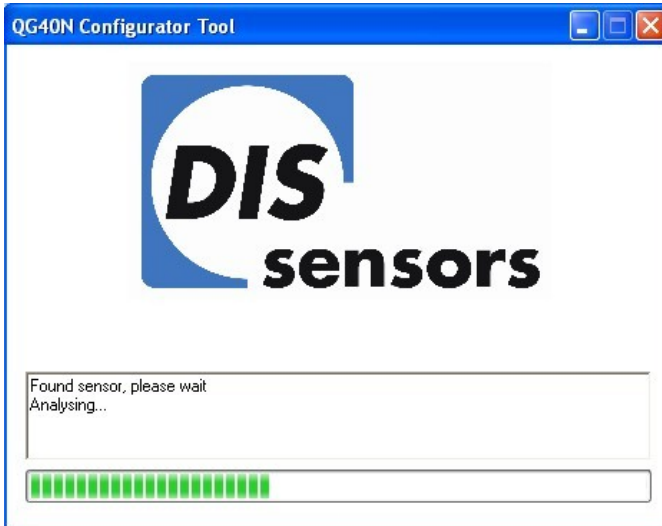
(*) Only smaller measuring ranges than the original factory configuration can be configured because of calibration data.

(**) For reducing noise in (almost) static situations. Switches off automatically when the sensor detects a non static situation.

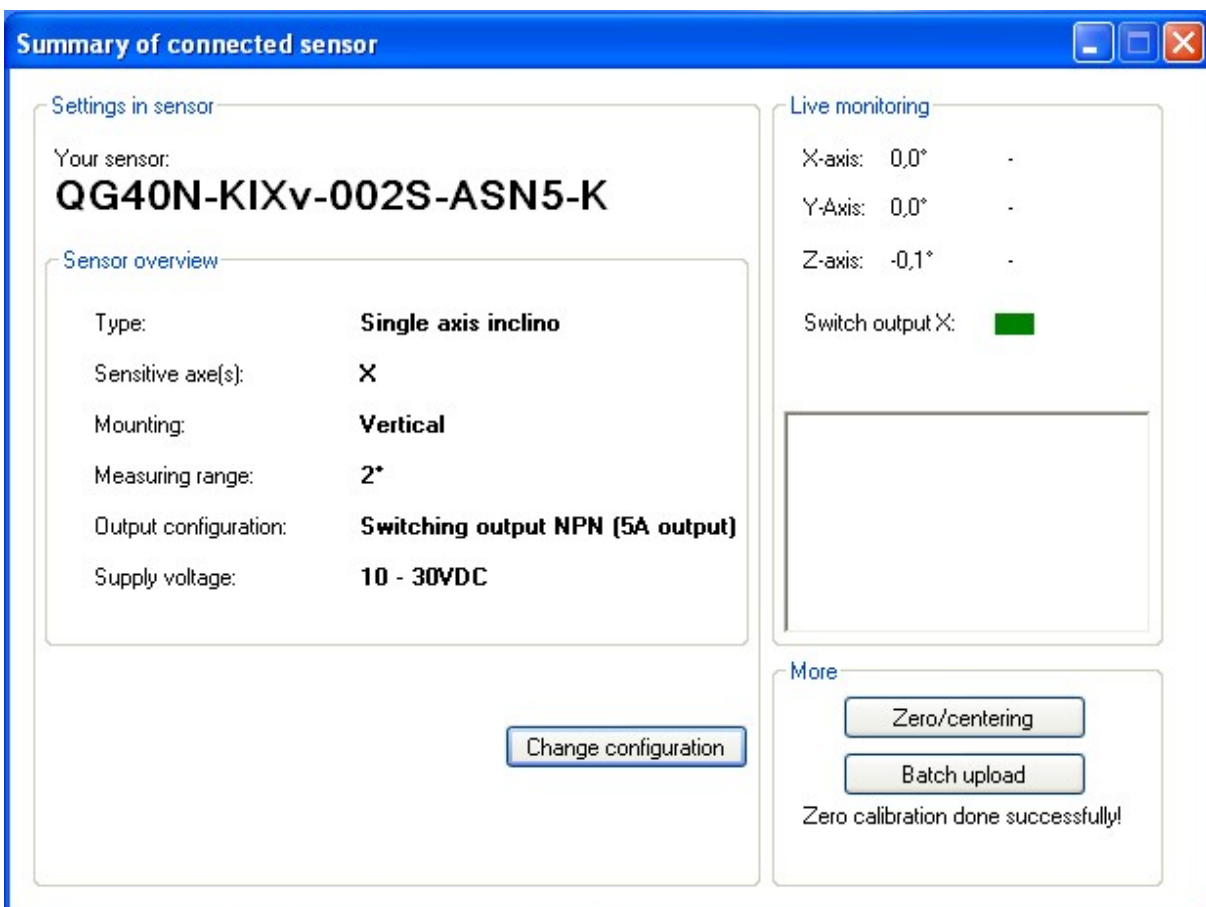
(***) Low pass for inclination and high pass for acceleration. The -3dB frequency of the 1st order filter can be set in Hz.

(****) Warning gives intermittent output switching. Alarm gives continuous output switching

Impression of windows (under construction)



Auto detect sensor, read type and configuration



Summary window

Edit sensor configuration | Tilt

Switch 1

Warning

Enable Disable

Alarm

Set point (*):

Hysteresis (*):

Off delay time (ms):

On delay time (ms):

Buzzer

Warning

Enable Disable

Set point (*):

Hysteresis (*):

Off delay time (ms):

On delay time (ms):

Alarm

Set point (*):

Hysteresis (*):

Off delay time (ms):

On delay time (ms):

When cursor is in text box:
Hit <Enter> to confirm value, or <ESC> to cancel

Restore all settings
Advanced [hide]
Save to batch file
Save to sensor
Cancel

Input filter

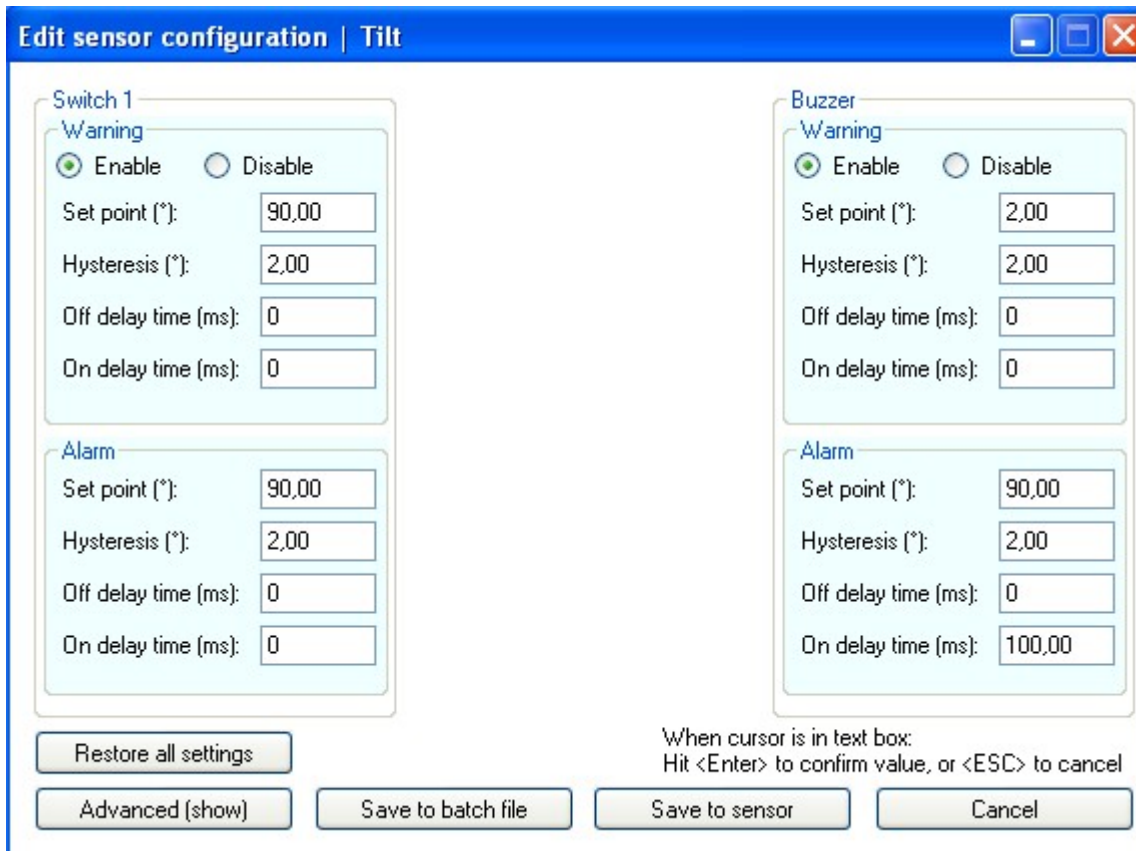
Enable Disable

Filter

Enable Disable

Filter averages:

Configuring a Tilt sensor with 1 switching output and internal buzzer (advanced window shown)



When cursor is in text box:
Hit <Enter> to confirm value, or <ESC> to cancel

Configuring a Tilt sensor with 1 switching output and internal buzzer
(advanced window hide)