

## RoHS

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## FEATURES

- USB powered
- Digital signal processing includes - filter
- temperature compensation
- 14 bit resolution
- 100 Hz refresh rate
- $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ temperature range
- Accuracy typically
- $0.5^{\circ} \mid-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ - $0.15^{\circ} \mid 25^{\circ} \mathrm{C}$

APPLICATIONS

- Platform leveling
- Tilt monitoring
- Tilt alarm


## DOG2 MEMS SERIES USB INCLINOMETER

## SPECIFICATIONS

- Dual axis inclinometer
* Measurement range $\pm 90^{\circ}$
* High resolution
- Good accuracy
- Fast response time
- Easy to use software

The DOG2 MEMS-Series USB inclinometer dual axis is well suited for test and measurement purposes.

A fast response time, good accuracy and high resolution are its key features. It uses a digital signal processing including temperature compensation to optimize performance.

The user configurable filter allows to find a good compromise between response time and a stable output in noisy environments, e.g. if vibrations are an issue.

Easy to use software for Microsoft Windows is included. Also the sensor can be accessed using a virtual COM port for easy integration.

## Dimensions [mm]

Top View

## PARAMETERS

| Parameter | Value | Comment |
| :---: | :---: | :---: |
| Range | $\pm 90^{\circ}$ | Dual axis sensor |
| Accuracy, typ. | $0.5^{\circ}$ | $\mathrm{T}=-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |
| Accuracy, typ. | $0.15^{\circ}$ | $\mathrm{T}=25^{\circ} \mathrm{C}$ |
| Resolution | 14 bit |  |
| Refresh rate | 100 Hz | Internal processing |
| Startup time | $<1$ s | Valid output signal |
| Supply/excitation voltage | 5 V | Powered via USB |
| Output | X- \& Y-angles | Via USB virtual COM port on Host PC |
| Connector | Standard USB Plug Type A |  |
| Cable | Length of cable approx. 1.8 m outer diameter $\varnothing 5 \mathrm{~mm}$ |  |
| Operation temperature range | $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |  |
| Storage temperature range | $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |  |
| Weight, typ. | 115 g | Including cable \& connector |
| Dimensions | $70.5 \mathrm{~mm} \times 45 \mathrm{~mm} \times 15 \mathrm{~mm}$ | W $\times$ D $\times \mathrm{H}$ |

## COMMENTS

A software for an easy use of the sensor is supplied with the hardware. It includes a setup wizard for quick and simple sensor configuration (PC with OS Microsoft Windows XP® or later is required).
This software is also provided via web download, please visit our company website to check for updates.

## FUNCTION VIEW



This DOG2-series USB inclinometer is designed for floor mount application.

## ORDERING INFORMATION

## PART NUMBER

G-NSDOG2-021

## NAME

90DOG2 MEMS SERIES USB

## DESCRIPTION

Dual axis inclinometer, floor mount, range $\pm 90^{\circ}$, USB device incl. software

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