



## 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

### FEATURES

- ♦ USB powered
- ♦ Digital signal processing includes
  - filter
  - temperature compensation
- ♦ 14 bit resolution
- ♦ 100 Hz refresh rate
- ♦ -40 °C to 85 °C temperature range
- ♦ Accuracy typically
  - 0.5° | -40 °C to 85 °C
  - 0.15° | 25 °C

### APPLICATIONS

- ♦ Platform leveling
- ♦ Tilt monitoring
- ♦ Tilt alarm

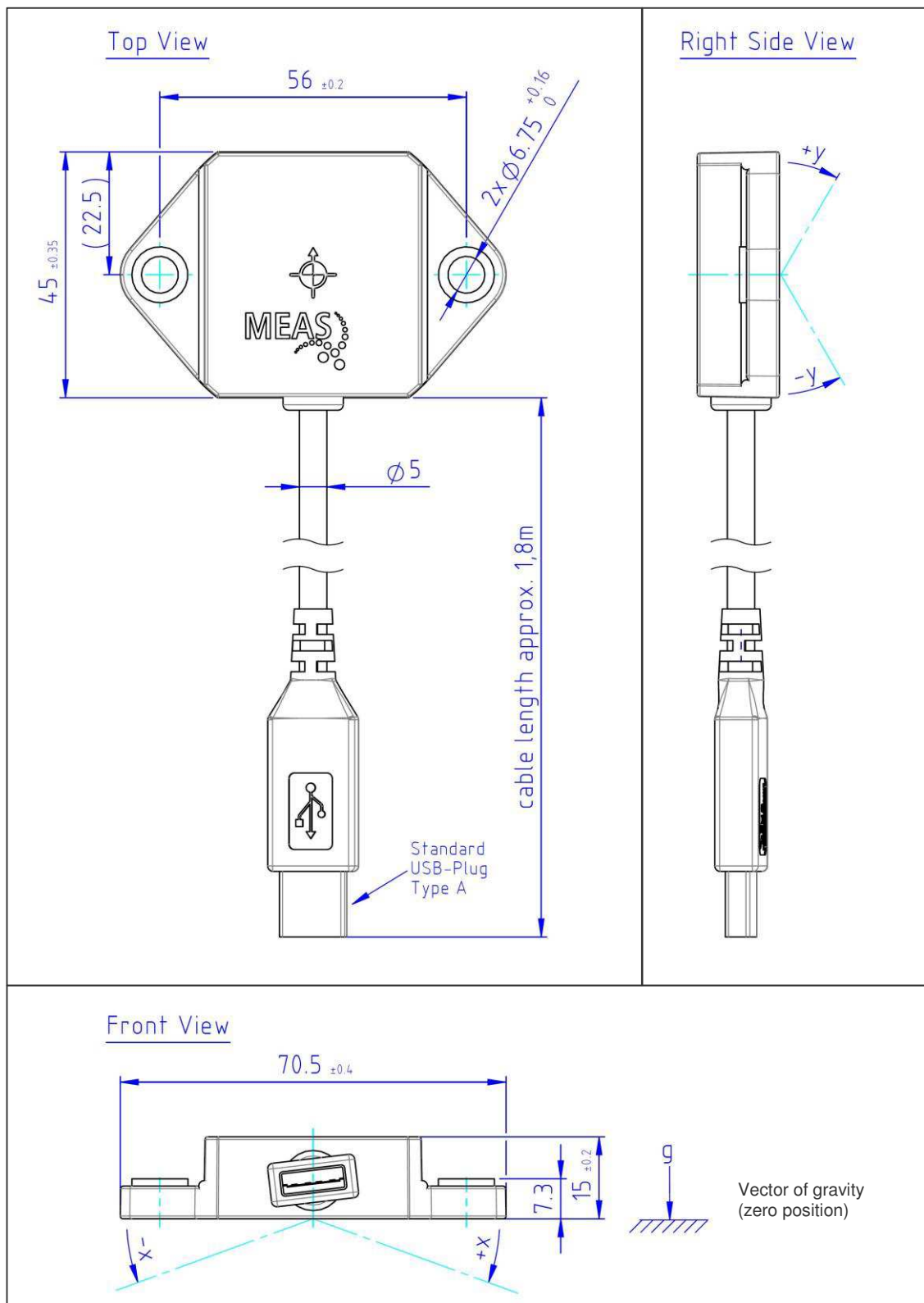
The **DOG2 MEMS-Series USB inclinometer** dual axis is well suited for test and measurement purposes.

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]



## PARAMETERS

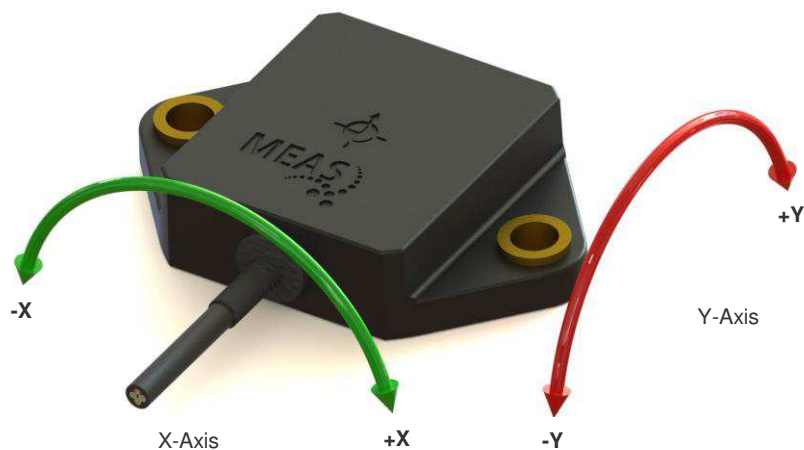
Parameter	Value	Comment
Range	$\pm 90^\circ$	Dual axis sensor
Accuracy, typ.	$0.5^\circ$	$T = -40^\circ\text{C}$ to $85^\circ\text{C}$
Accuracy, typ.	$0.15^\circ$	$T = 25^\circ\text{C}$
Resolution	14 bit	
Refresh rate	100 Hz	Internal processing
Startup time	<1 s	Valid output signal
Supply/excitation 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 $\varnothing 5$ mm	
Operation temperature range	$-40^\circ\text{C}$ to $85^\circ\text{C}$	
Storage temperature range	$-40^\circ\text{C}$ to $85^\circ\text{C}$	
Weight, typ.	115 g	Including cable & connector
Dimensions	70.5 mm x 45 mm x 15 mm	W x D x 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	NAME	DESCRIPTION
G-NSDOG2-021	90DOG2 MEMS SERIES USB	Dual axis inclinometer, floor mount, range $\pm 90^\circ$ , USB device incl. software

#### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Phone: 800-522-6752  
Email: [customercare.hmpt@te.com](mailto:customercare.hmpt@te.com)

#### EUROPE

MEAS Deutschland GmbH (Europe)  
a TE Connectivity Company  
Phone: 800-440-5100  
Email: [customercare.tlse@te.com](mailto:customercare.tlse@te.com)

#### ASIA

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Phone: 0400-820-6015  
Email: [customercare.shzn@te.com](mailto:customercare.shzn@te.com)

#### TE.com/sensorsolutions

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