

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# DOG2 MEMS SERIES USB INCLINOMETER

# **SPECIFICATIONS**

- · Dual axis inclinometer
- Measurement range ±90°
- High resolution
- Good accuracy
- Fast response time
- Easy to use software

#### **FEATURES**

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

# **APPLICATIONS**

- Platform leveling
- Tilt monitoring
- Tilt alarm

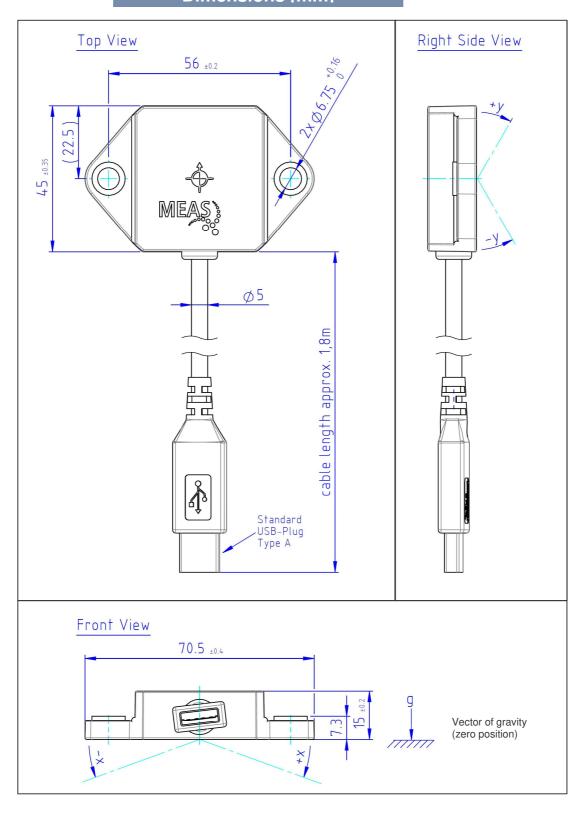
The **DOG2 MEMS-Series USB inclinometer** dual axis is well suited for test and measurement purposes.

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**

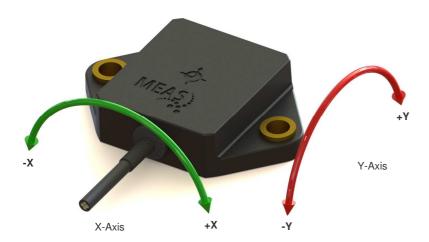
Parameter	Value	Comment
Range	±90°	Dual axis sensor
Accuracy, typ.	0.5°	T= -40 ℃ to 85 ℃
Accuracy, typ.	0.15°	T= 25 ℃
Resolution	14 bit	
Refresh rate	100 Hz	Internal processing
Startup time	<1 s	Valid output signal
Supply/excitation voltage	5 V	Powered via USB
Output	X- & Y-angles	Via USB virtual COM port on Host PC
Connector	Standard USB Plug Type A	
Cable	Length of cable approx. 1.8 m outer diameter Ø5 mm	
Operation temperature range	-40 ℃ to 85 ℃	
Storage temperature range	-40 ℃ to 85 ℃	
Weight, typ.	115 g	Including cable & connector
Dimensions	70.5 mm x 45 mm x 15 mm	WxDxH

# **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 XPB 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 ±90°,

USB device incl. software

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