



DOG1 MEMS-SERIES USB INCLINOMETER

SPECIFICATIONS

- Single axis inclinometer
- Measurement range $\pm 180^\circ$
- High resolution
- Good accuracy
- Fast response time
- Easy to use software

FEATURES

- USB powered
- User defined main and 2nd axis
- $\pm 90^\circ$ tolerance on 2nd axis
- Digital signal processing includes
 - filter
 - temperature compensation
- 14 bit resolution
- 100 Hz refresh rate
- -40 °C to 85 °C temperature range
- Accuracy typically
 - 0.6° | -40 °C to 85 °C
 - 0.2° | 25 °C

APPLICATIONS

- Platform leveling
- Tilt monitoring
- Tilt alarm

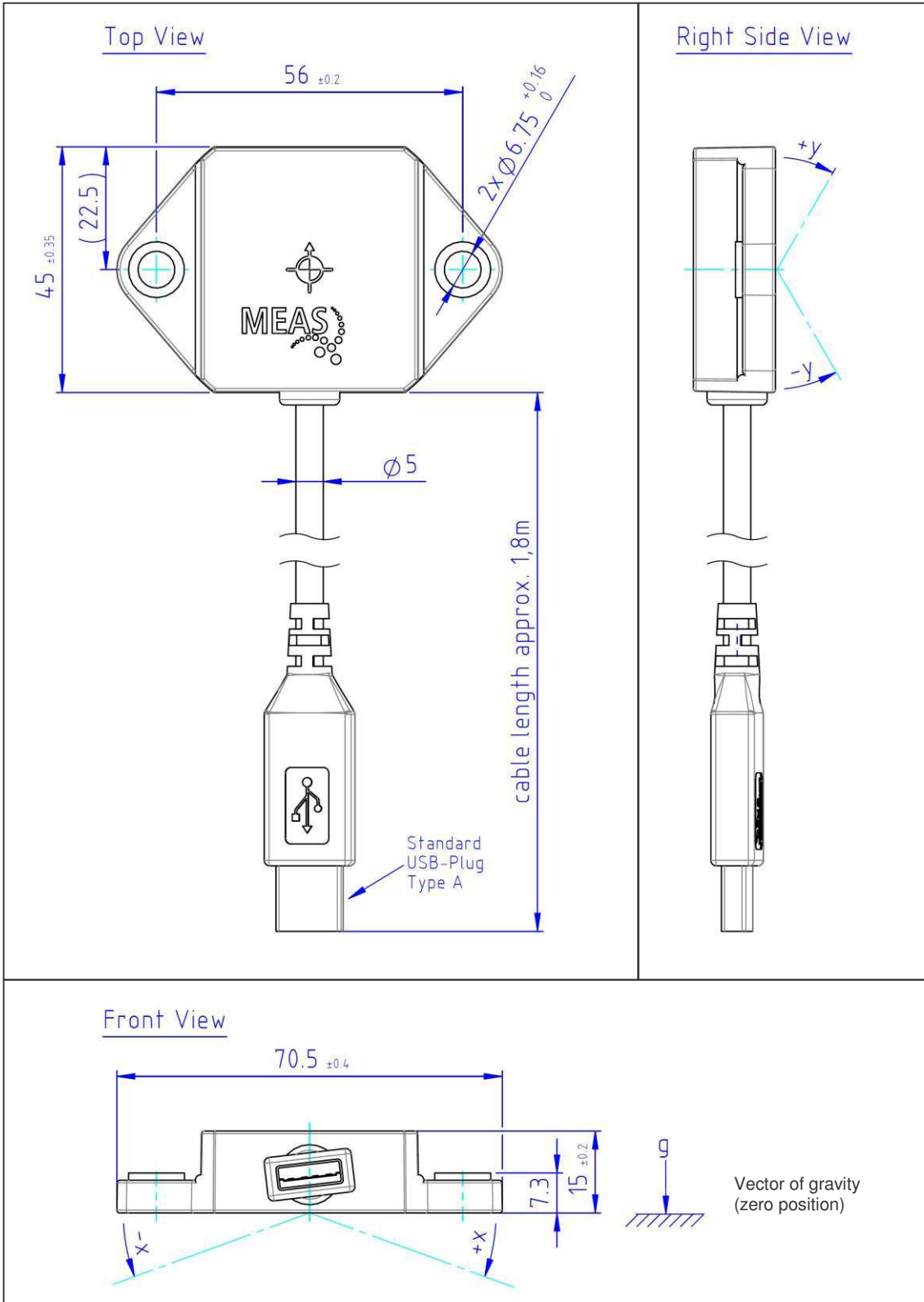
The **DOG1 MEMS-Series USB inclinometer** single axis is well suited for test and measurement purposes.

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	±180°	main axis configurable, X- or Y-axis are possible
Accuracy, typ.	0.6°	T= -40 °C to 85 °C
Accuracy, typ.	0.2°	T= 25 °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- or 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 °C to 85 °C	
Storage temperature range	-40 °C to 85 °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



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

A special feature of the USB version is, that it has a full dual axis output.

The user can define on his own, which of the two sensor axes to use as main and which axis to use as secondary axis.

The main axis gives unique output over ±180° (0..360°) while the other axis has to be kept in a ±90° range.

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
G-NSDOG1-022	Single axis inclinometer, floor mount, range $\pm 180^\circ$, USB device incl. Software

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
1000 Lucas Way
Hampton, VA 23666
United States
Phone: +1-800-745-8008
Fax: +1-757-766-4297
Email: sales@meas-spec.com
Web: www.meas-spec.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Deutschland GmbH
Hauert 13
D-44227 Dortmund
Germany
Phone: +49-(0)231-9740-0
Fax: +49-(0)231-9740-20
Email: info.de@meas-spec.com
Web: www.meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Phone: +86-755-33305088
Fax: +86-755-33305099
Email: info.cn@meas-spec.com
Web: www.meas-spec.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2016 TE Connectivity Ltd. family of companies All Rights Reserved.