



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





DOG1 MEMS SERIES VOLTAGE INCLINOMETER

SPECIFICATIONS

- Single axis inclinometer
- Measurement range $\pm 180^\circ$
- Voltage output

FEATURES

- 8-30 VDC supply voltage
- Up to ± 90 degree tolerance on 2nd axis
- Digital signal processing includes
 - filter (e.g. vibration damping)
 - temperature compensation
- 12 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

- Mobile and stationary cranes
- Lift platforms
- Building control
- Weighing systems
- Truck chassis levelling
- Vehicle applications
- Road construction machines

The **DOG1 MEMS-Series inclinometer** single axis is mainly developed with focus on platform leveling, dynamic engine management, tip-over protection and tilt alarm.

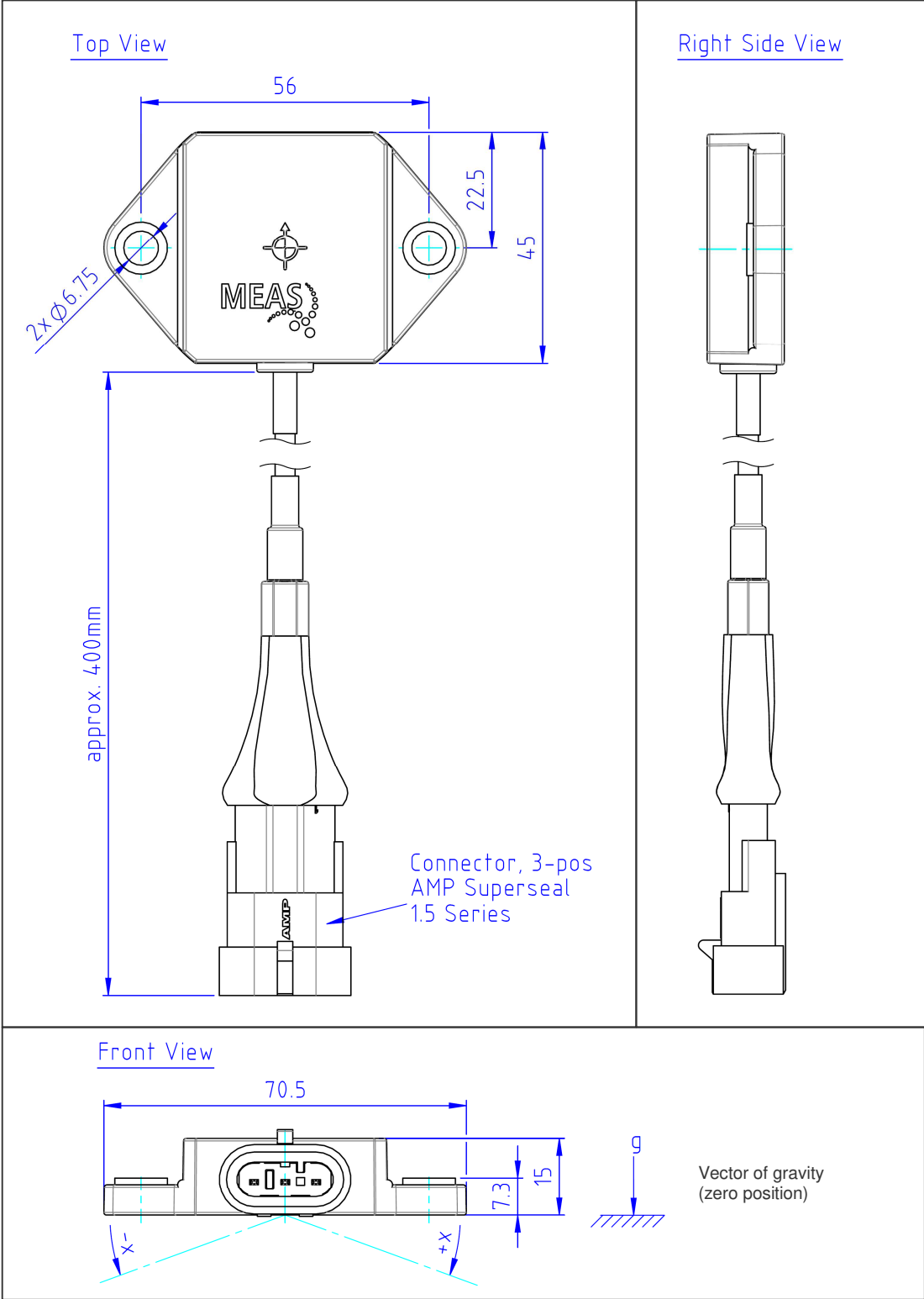
A fast response time and good accuracy makes this device the ideal choice for mobile leveling applications. It features digital signal processing including temperature compensation.

The integrated filter improves performance and allows using the sensor in many noisy environments (e.g. vibrations).

The inclinometer includes a powerful digital signal processing that offers various filter algorithms and allows customer specific OEM solutions. It is possible to adjust the sensor to different environments yielding an optimized performance. Customization can also be made in terms of angular range and connectivity, i.e. cable and connector.

The PA6.6 housing is very compact in size and has compression limiter bushings for safe installation of the sensor. It is compatible with oil, grease and fuel also. Therefore it is frequently used for engine and vehicle applications.

Dimensions [mm]



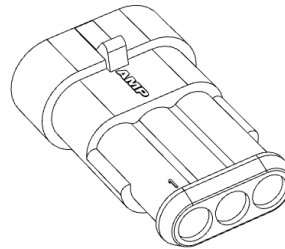
DOG1 MEMS SERIES VOLTAGE INCLINOMETER

PARAMETERS

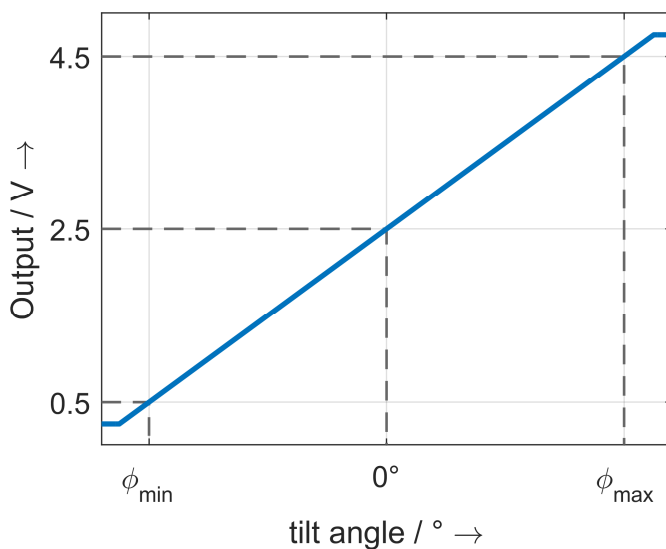
Parameter	Value	Comment
Range	±180°	Single axis sensor; other axis has to be kept in a ±90° range
Accuracy, typ.	0.6°	T= -40 °C to +85 °C
Accuracy, typ.	0.2°	T= 25 °C
Resolution	12 bit	
Refresh rate, intern	100 Hz	
Startup time	<1 s	Valid output signal
Supply/excitation voltage	8 to 30 V	Direct current (DC) stabilized
Supply current, typ.	15 mA	No load
Output	0.5 to 4.5 V	-180° to 180°, x-direction only
Connector	AMP Superseal 1.5-Series, 3-pos. cap housing TE Connectivity part-no. 282105-1	Requires 3-pos. plug housing AMP Superseal 1.5-Series at connecting harness, TE Connectivity part-no. 282087-1
Cable	3 wire 0.25 mm ² , outer diameter Ø3.9mm	PUR, length incl. connector 400 mm, full temperature range, flexible
Operation temperature range	-40 °C to +85 °C	
Storage temperature range	-40 °C to +85 °C	
Weight, typ.	60 g	
Dimensions	70.5 mm x 45 mm x 15 mm	W x D x H

CONNECTOR PINNING

Pin	Function	Description
1	V _{CC}	8 to 30 V supply input (+)
2	GND	GND
3	Output	0.5 to 4.5 V, X axis output



TRANSFER CHARACTERISTIC

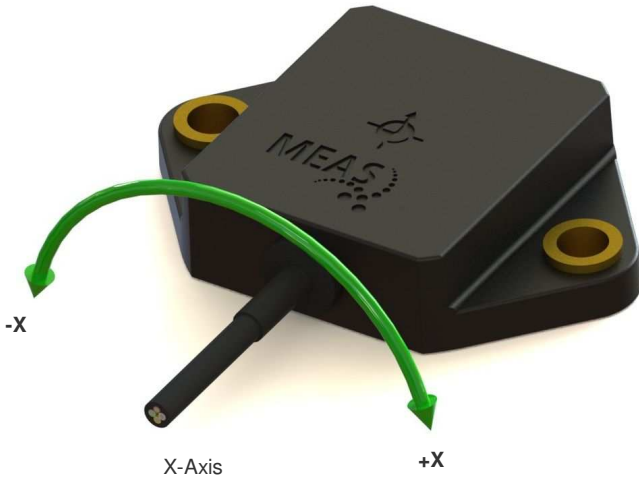


Part-No.	ϕ_{\min}	ϕ_{\max}
G-NSDOG-006	-180°	180°

Linear transfer characteristic between ϕ_{\min} and ϕ_{\max}

DOG1 MEMS SERIES VOLTAGE INCLINOMETER

FUNCTION VIEW



This DOG1 MEMS series voltage inclinometer is designed for floor mount application.

COMMENTS

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

ORDERING INFORMATION

PART NUMBER	NAME	DESCRIPTION
G-NSDOG1-006	180DOG1 MEMS SERIES VOLTAGE	Single axis inclinometer, floor mount, range $\pm 180^\circ$; supply 8 to 30 VDC, output voltage 0.5 to 4.5 V

NORTH AMERICA

TE Connectivity Sensors, Inc.
1000 Lucas Way
Hampton, VA 23666
United States
Phone: +1-800-745-8008
Fax: +1-757-766-4297
Email: customercare.hmpt@te.com
Web: www.te.com

EUROPE

TE Connectivity Sensors
Germany GmbH
Hauert 13
D-44227 Dortmund
Germany
Phone: +49-(0)231-9740-0
Fax: +49-(0)231-9740-200
Email: customercare.dtm@te.com
Web: www.te.com

ASIA

TE Connectivity Sensors China Ltd.
No. 26, Langshan Road
High-tech Park (North)
Nanshan District, Shenzhen 518057
China
Phone: +86-755-33305088
Fax: +86-755-33305099
Email: customercare.shzn@te.com

www.te.com

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.

© 2017 TE Connectivity Ltd. family of companies All Rights Reserved.