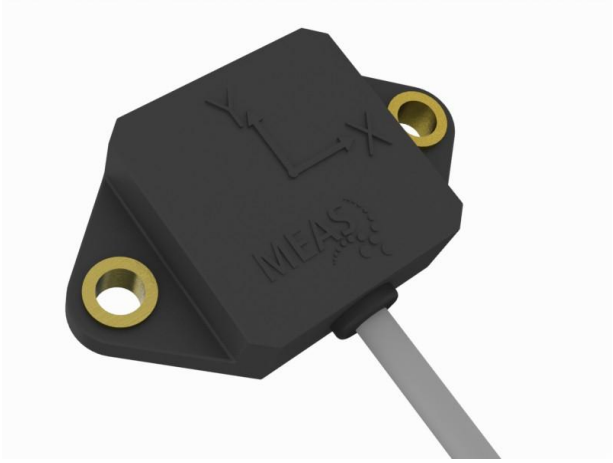
NS-90/DOG2-XUZ-I-SHI

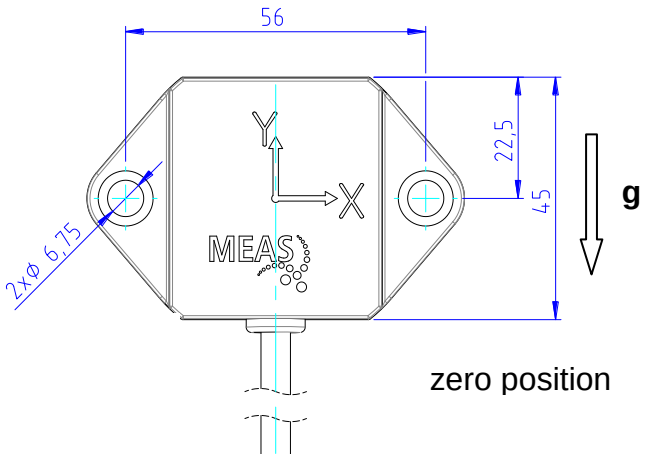
Range ±90°
Easy to use voltage output
Supply voltage 10-30V
High resolution



The Dual Axis Inclinometer

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 to use the sensor in many noisy environments (e.g. vibrations).

dimensions



FEATURES

- 10-30V supply voltage (24V nominal)
- Digital signal processing includes
  - filter (e.g. vibration damping)
  - temperature compensation
- 12 bit resolution
- up to 100Hz refresh rate
- -40°C to +85°C temperature range
- Accuracy typically
  - 1.5° (-40°C to +85°C)
  - 0.5° at +25°C
- Wall mount option

APPLICATIONS

- Platform leveling
- Truck and off-road vehicle cabin or tool leveling
- Crane boom leveling
- Tilt alarm, e.g. digger
- Antenna leveling
- Inclination dependent engine control
- Solar panel elevation control

MEAS Deutschland GmbH phone: +49-(0)231-9740-0 Email: info.de@meas-spec.com

NS-90/DOG2-XUZ-I-SHI

PARAMETERS

Parameter	Value	Comment
Range	+/-90°	pitch & roll (wall mount option)
Accuracy, typ.	1.5°	T=-40°C ~ +85°C
Accuracy, typ.	0.5°	T=+25°C
Resolution	12 bit	
Refresh rate	50~100 Hz	
Startup time	<1s	valid output angles
Supply/excitation voltage	10 ~ 30V	
Supply current	~15mA	
Output	0.5 ~ 4.5V	-90° ~ +90°
Connector	none	pigtail
Cable	4 wire 0.25mm^2, outer diameter 6.5mm	
Operation temperature range	-40°C ~ +85°C	
Storage temperature range	-40°C ~ +85°C	
Weight	<50g	
Dimensions	70.5 x 45 x 15 mm	W x D x H

USER INTERFACE

wire (color code)	**Function**	**Description**
white	V_{CC}	+10 ~ 30V supply input
yellow	GND	GND
brown	Output X	0.5 ~ 4.5V, X axis output
green	Output Y	0.5 ~ 4.5V, Y axis output

COMMENTS

The inclinometer includes a powerful digital signal processing that offers various filter algorithms and allows customer specific adaptions. It is possible to adjust the sensor to different environments to yield 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. In contrast to uncoated (casted) aluminum, PA6.6 is resistant to atmospheric attack. It is compatible with oil, grease and fuel also. Therefore it is frequently used for engine and vehicle applications.

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NS-90/DOG2-XUZ-I-SHI

ordering info

PART NUMBERING	UNIT	SHORT DESCRIPTION
PROT-G-NSDOG2-012	NS-90/DOG2-XUZ-I-SHI	Dual axis, range +/- 90°, Vcc +10 …30VDC, output voltage +0.5…+4.5V, wall mount option, pigtail 45cm

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