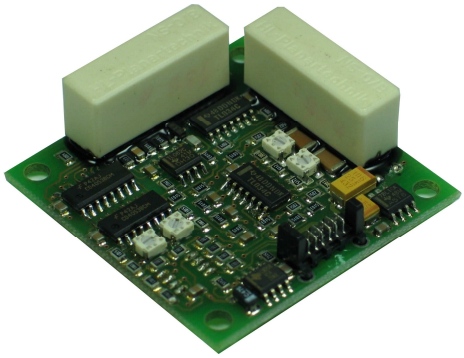


E2-SERIES INCLINOMETER

SPECIFICATIONS

- **Dual axis inclinometer**
- **Measurement range +/-5°, +/-10°, +/- 15° or +/- 45°**
- **Analogue voltage output signal**
- **OEM module**

The E2- series is a biaxial inclination sensor as a pcb module for OEM use with measurement range +/-5°,+/-10°,+/- 15° or +/-45°. It consist of two basic inclination sensor cells based on a conductance measurement principle and their complete electronic biasing and readout, which is carefully designed in order to minimize drift and temperature effects.

FEATURES

- High resolution
- Analogue voltage output signal
- Easy for mounting
- PCB level
- Fast response time
- Low drift sensitivity
- Low noise level

APPLICATIONS

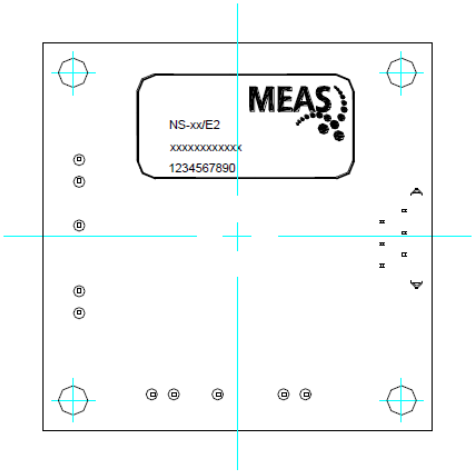
- Road construction machines
- Vehicle applications
- Building control
- Mobile and stationary cranes
- Hydraulic leveling
- Platform leveling
- Drilling machines

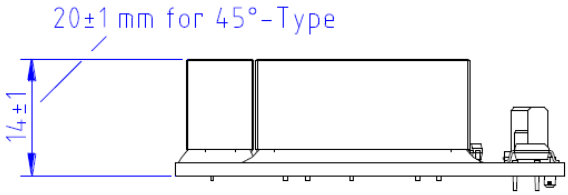
PERFORMANCE SPECIFICATIONS

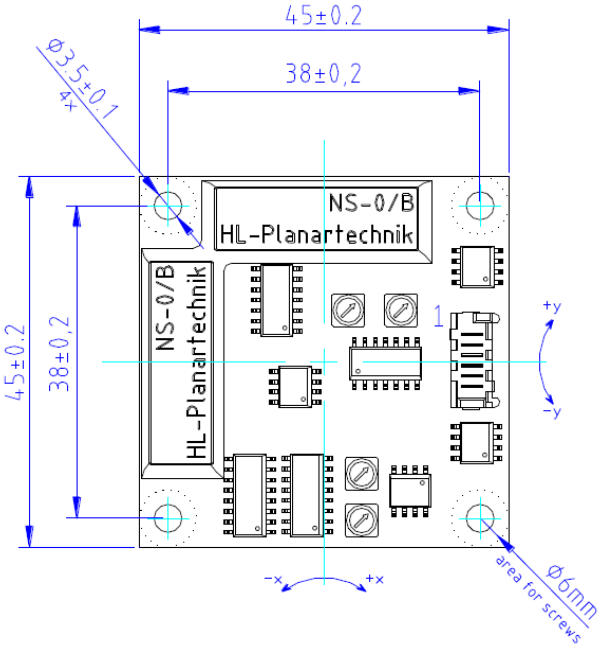
	Conditions	Min	Type	Max	Unit
Measurement range (1)		-5 ,-10, -15, -45		+5, +10, +15, +45	°
Resolution (2)		0.001		0.01	°
Accuracy (3)	Ta = 0°...70℃,		0.08 , 0.11 , 0.15 , 0.9		°
Non-linearity			1.5		%[FS]
Cross sensitivity			0.15		%[FS]
Voltage output signal(4)	5°,15° unit	-2		+2	V
Voltage output signal(4)	5°,15° unit	0.5		4.5	V
Voltage output signal(4)	10°,45° unit	-2.2		+2.2	V
Voltage output signal(4)	10°, 45° unit	0.3		4.7	V
Current consumption			9		mA
Power supply		+12		+24	VDC
Operation temperature range		0		+70	℃
Storage temperature range		-40		+85	℃
Weight			20		g
Dimensions (5)	W x D x H		45 x 45 x 14(20)		mm

(1) Measurement ranges +/-5°,+/-10°,+/-15°,+/-45° available
(2),(3) Depend on measurement range
(4) Depending on the ciruitry wiring, see pinning schema
(5) Dimensions 45 x 45 x 20 mm , valid for the NS-45/E2

DIMENSIONS [MM]



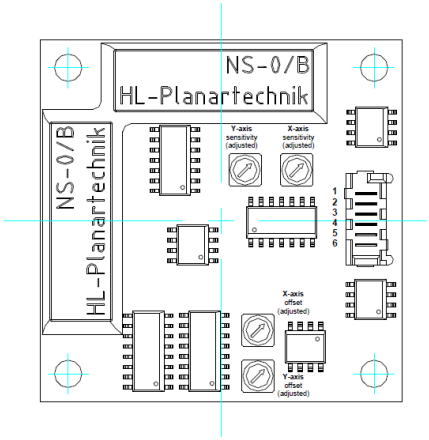




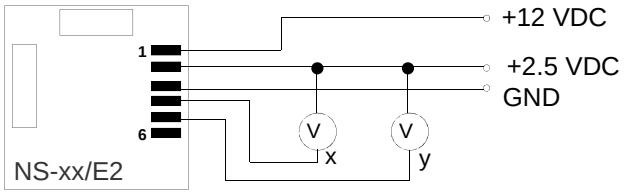
PINNING

Pin	Name	Description	Type
1	Vcc	Positive power supply +12…+24VDC	Supply, Input
2	Vref	Reference potential +2.5VDC, S-GND(1)	Supply, Input
3	GND	Ground, negative supply voltage(2)	Supply, Input
4	Out X	Output voltage signal X axis	Output
5	Out Y	Output voltage signal Y axis	Output
6	n.c.	n.c.	-

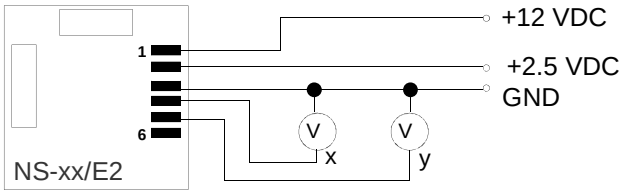
(1) If output signal will be used of +/-2 V (unit: 5°,15°) alternatively +/-2.2 V (unit: 10°,45°)
(2) If output signal will be used of 0.5…4.5 V (unit: 5°,15°) alternatively 0.3…4.7 V (unit: 10°,45°)



Pinning Vout x,y in reference to Vref.: +2.5VDC

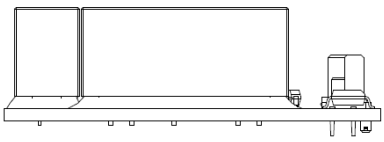


Pinning Vout x,y in reference to GND



All connecting configurations need the Vref: +2.5 VDC power supply signal.

MOUNTING



This kind of unit is for horizontal mounting suitable only.

ORDERING INFORMATION

PART NUMBERING	UNIT	SHORT DESCRIPTION
G-NSE2-003	NS- 5/E2	dual axis, +/- 5° angle, Vc c: +12...24VDC, output V
G-NSE2-004	NS-10/E2	dual axis, +/-10° angle, Vcc : +12...24VDC, output V
G-NSE2-010	NS-15/E2	dual axis, +/-15° angle, Vcc : +12...24VDC, output V
G-NSE2-020	NS-45/E2	dual axis, +/-45° angle, Vcc : +12...24VDC, output V
G-NSMIS-014	Connector, cable	6- pin Molex-Connector with 20cm ribbon cable