

E2-Series Inclinometer



- Dual axis inclinometer
- Measurement range $\pm 5^\circ$ $\pm 10^\circ$ $\pm 15^\circ$ and $\pm 45^\circ$
- Analogue voltage output signal
- OEM module

DESCRIPTION

The **E2- series** is a biaxial inclination sensor as a pcb module for OEM use with measurement range $\pm 5^\circ$, $\pm 10^\circ$, $\pm 15^\circ$ and $\pm 45^\circ$. 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

E2-Series Inclinometer

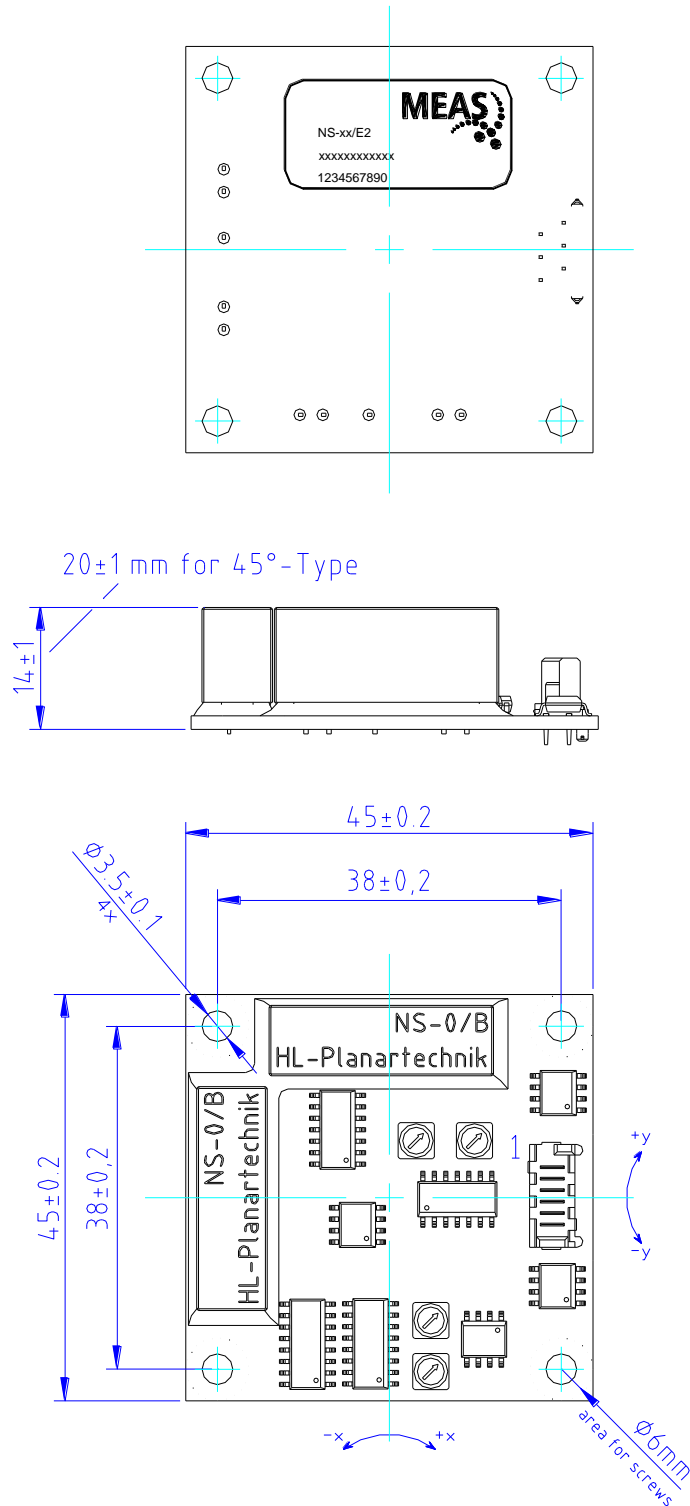
PERFORMANCE SPECIFICATIONS

| | 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°C, | 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 | °C |
| Storage temperature range | | -40 | | +85 | °C |
| 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 circuitry wiring, see pinning schema
 (5) Dimensions 45 x 45 x 20 mm , valid for the NS-45/E2

E2-Series Inclinometer

DIMENSIONS [MM]

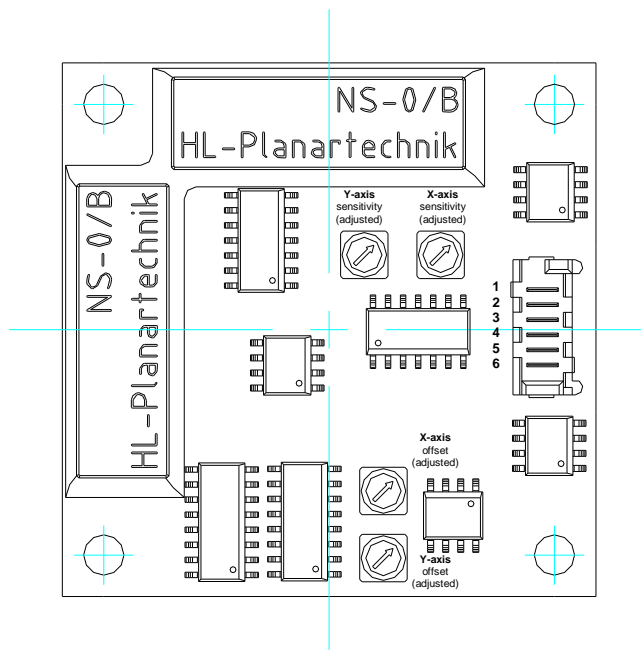


E2-Series Inclinometer

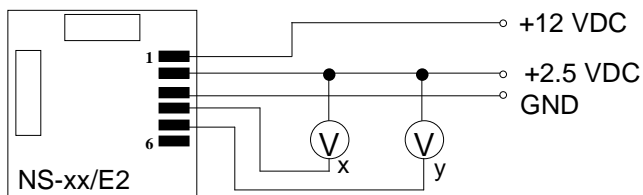
PINNING

| 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. | - |

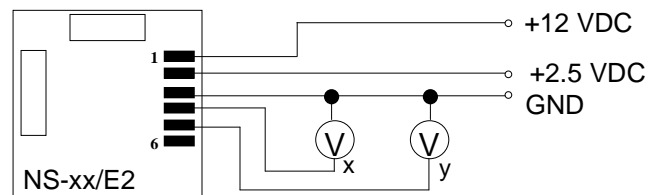
- (1) If output signal will be used of +/-2 V (unit: 5°,15°) alternatively +/-2.2 V (unit: 10°,45°)
 (2) If output signal will be used of 0.5...4.5 V (unit: 5°,15°) alternatively 0.3...4.7 V (unit: 10°,45°)



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



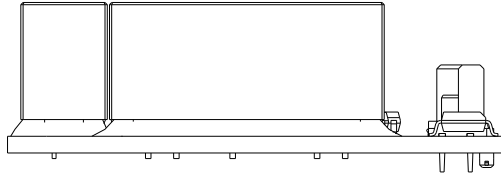
Pinning Vout x,y in reference to GND



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

E2-Series Inclinometer

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, Vcc: +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 |

联系方式



深圳市亿为测控电子有限公司
Shenzhen Bill-Well Measurement & Control Electronics Co., Ltd.

广东省深圳市南山区创业路怡海广场东座2407 邮编：518000

电话：+86 755 2641 9890 传真：+86 755 2641 9680

电子邮箱：sales@bill-well.com