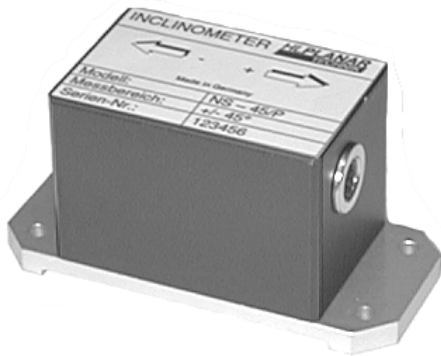


NS-45/P Single Axis Inclinometer



The NS-45/P single-axis inclinometer is a member of a family of high performance, competitively priced, single and dual-axis inclinometers. The heart of every HL Planartechnik inclinometer is a small, state-of-the-art, inclination sensor. The sensor, which is comprised of a molded, ceramic case bonded, via a glass sealing process, to a ceramic substrate. Thin film, platinum electrodes are deposited on the substrate. Then the chamber is partially filled with electrolytic fluid and hermetically sealed.

The molded, ceramic, sensor housing combined with a precise, planar electrode geometry yields excellent performance and consistent part-to-part uniformity.

All P-type inclinometers are microprocessor controlled transducers capable of producing a linearized RS-232 digital or analog voltage output. With their machined, aluminum baseplate and IP 65 housing, they are an ideal choice for a variety of industrial, automotive and aerospace applications.

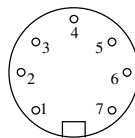
Applications

- Zero point detection
- Aligning and level control
- Angle measurement

Advantages

- Wide range of application
- Low vibration sensitivity
- Higher Precision

Pinout



| | | |
|---|--------|-----------------------------------------------------------|
| 1 | +Ub | Supply Voltage |
| 2 | GND | Ground |
| 3 | Earth | Earth |
| 4 | Output | +/- 1.5V ratio metrically around about GND Analogue Ux |
| 5 | GNDx | Ground for analog voltage signal Ux |
| 6 | Input | RxD |
| 7 | Output | TxD |
| | | digital RS232 |
| | | digital RS232 |

Specifications

| | |
|--------------------------------------|---------------------------------|
| Range: | $\pm 45^\circ$ |
| Precision: | |
| analogue: | $\pm 0.05^\circ$ |
| digital: | $\pm 0.05^\circ$ |
| Resolution: | 0.003° |
| Temperature stability: | |
| Zero point: | $< 2 \cdot 10^{-3} \%K$ |
| Sensitivity: (up to $\pm 30^\circ$) | $< 5 \cdot 10^{-3} \%K$ |
| Analog Output: | $\pm 1.5V$ around GNDx |
| Digital Output: | RS-232 in degrees |
| Transmission rate: | 2400 or 9600 Baud |
| Format: | ASCII |
| Operating temp. Range: | $-25^\circ C \dots +85^\circ C$ |
| Storage temp. Range: | $-40^\circ C \dots +85^\circ C$ |
| Supply voltage: | $+ 7 \dots + 24VDC$ |
| Current consumption: | ca. 35 mA |
| Protection class: | IP 65 |
| Connection: | Connector or Pigtail |

Dimensions (mm)

