

GLÖTZL Baumeßtechnik

HORIZONTAL INCLINOMETER

Inductive Pick-up

Type: NMGH

Art. No.: 75.03

The inclinometer NMGH is used as measuring probe for the continuous measurement of inclination angles in a horizontal guide tube. These measurements give information about vertical movements in backfills, e.g. retaining dams, embankments or settlements of the underground.

The detector is operating within a guide tube being installed in embankments. By this, settlements of constructions or the movement of layers can be recorded by measurement technique. Thus, the inclinometer is an important instrument for control purposes of the construction stability.



Inductive Pick-up

The sensor is manufactured of rust- and acid-resistant material. For guidance in the tube, it is equipped with two cushion balancers with two wheels each. The probe is provided with an inclination angle transducer.

By inclination of a mass to the earth axis and also by a special torque adjustment system, highest accuracies of the inclination angle can be achieved. The output signal is proportional to the inclination angle to the horizontal axis.

Models

Type NMGH	30/0.5	Standard analog probe	Meas. length	0.5 m	Meas. axis A-A
Type NMGHD	30/0.5	Analog digital probe	Meas. length	0.5 m	Meas. axis A-A
Type NMGH	30/1.0	Standard analog probe	Meas. length	1.0 m	Meas. axis A-A
Type NMGHD	30/1.0	Analog digital probe	Meas. length	1.0 m	Meas. axis A-A

Technical Data

Weight:	2.2 kgs	Meas. length:	500/1000 mm
Linearity:	± 0.02 % f.s.	Total length:	700/1200 mm
Hysteresis:	0.001 % f.s.	Temperature range:	-5 °C up to +60 °C
Zero point drift:	± 0.005 % f.s./°C	Shock resistance:	1000g, 11 ms
Temperature course:	± 0.005 % of meas. value /°C	Calibrat. meas. range:	± 30°
Guide tube-Ø:	max. 70 mm, min. 45 mm	Operating range:	± 60°

Measuring accuracy (resolution) in the horizontal position: 0.1 mm each meas. step

In inclined tubes, the measuring accuracy depends on the inclination angle α of the tube to the horizontal position.

$$\text{Measuring accuracy for inclined tubes: } \frac{1}{\cos \alpha} \times 0.1 \text{ mm/meas. step}$$

Measuring Unit

This unit consists of an inclinometer NMGH, connection cable, readout unit and guide rods.