## **Vertical Inclinometer**

Type NMGD



The NMGD is used to measure stability control of skid-endangered slopes, constructions, retaining dams and also embankments. It is also to measure deformation measurements at excavation walls, besides tunnel tubes as well as in bore piles and in Borehole measurements and verticality proof of diaphragm walls. The analog measuring values of the sensors are digitally converted, calculated and balanced in the probe by controller. Incorrect transfers are immediately recognized and definitely identified. With the probe, the guide tube is passed through step by step from the bottom to the top. In each measuring step the probe is recording the inclination angle between vertical and probe position in two measuring levels (A- resp. A- and B-axes). The output at the readout unit is either done as sine of the inclination angle. For a higher measuring accuracy and to avoid measuring errors, an additional turnover measurement should be carried out with probe turned by 180°.

Technical data	
Length/ diameter:	0.5 / Ø 32 mm
Weight:	2.4 kg
Measuring range:	±30°, max. ±60°
Linearity:	±0.02 % f.s.
Temperature range:	-5 up to +60 °C
Guide tube:	max. Ø 75 mm,
	min. 40 mm
Resolution:	0.1 mm up to max. 30 $^{\circ}$
	opt. 0,01 mm up to 10 $^{\circ}$
Hysteresis:	0.001 % f.s.
Zero point deviation:	±0.005 % f.s./°C

## Accessories

Inclinometer elongations in 0.5 m or 1.5 m, inclinometer dummy probes, cable reels in different types and lengths, readout units NMA and HMG or by notebook with NDI Interface, Leading rods, evaluation software, transport cases and transport bags.

## **Specifics**

- Approved and robust mechanics
- Precise und exchangeable roll guides
- Easy maintenance system
- Measuring cable with stabilization core
- Installed controller/AD-converter with 16-Bit resolution ± 32.000
- Digital data transfer without disturbances via serial interface RS485
- Reliable measured data transfer for 1,000 m
- Real-value measuring data by correction and calculation of raw values in the controller
- Measured values registration with each PC-Laptop, notebook a. s. o.
- Simple calibration of the probe

## Measuring and evaluation possibilities

Inclination measurements can be carried on different ways:

- via digital cable reel NMK-D, data transfer by Bluetooth to the GLM-Mobile handheld, Data migration via USB stick or GPRS to the PC
- via NDI-connection box, GLNP software as online measurement with several probes:
- Digital probes (e.g. AB-probe, H-probe a. s. o.), sliding deformeter, borehole modular
- probes (with the modules: basis, basis-EX-operation, XY-precursor, compass, caliber, 4-point-caliber, 4-point-temperature, video1)
- via NMA 9 measuring device without PC on site and then input of data in the GLNP program
- Input of manual values possible

