

Horizontal Borehole Digital Inclinometer

This digital inclinometer is designed for measuring inclination and tilt in horizontal boreholes. It uses a high-resolution digital sensor and comes with a probe, cable, data acquisition unit, and software for data processing.



Overview

Precision Horizontal Borehole Monitoring

The Horizontal Borehole Digital Inclinometer is a high-precision instrument engineered for accurate slope determination in horizontal boreholes. Utilizing advanced digital signal processing and high-performance sensors, this system offers superior repeatability and reliability for critical geological and construction applications. It supports comprehensive data analysis, including real-time recording, plane and sectional diagrams, and space trace visualization, making it an essential tool for mining, hydrology, and railway engineering projects.

Measurement Capabilities

Measurement Accuracy

Parameter	Range	Error Tolerance
Dip Angle	-60° to 60°	±0.1°
Azimuth Angle	0° to 360°	±1.5°
Tool Face Angle	0° to 360°	±2.0°

Maximum Measurement Depth

1200 m

Measurement Mode

Fixed point measurement with customizable depth intervals and point quantity

Technical Specifications

Power Supply

AC220V ±10%, 50 Hz

Data Connectivity

RS232 Serial Port, Coded Long-Distance Transmission

Physical Dimensions

Controlling Case Dimensions & Weight

385 mm

Length

300 mm

Width

240 mm

Height

8 kg

Weight

Inclinometer Probe Dimensions & Weight

40 mm

Diameter

1600 mm

Length

7 kg

Weight

Environmental Requirements

Controlling Case Operating Environment

- Temperature: -10°C to 50°C
- Relative Humidity: d85%

Inclinometer Probe Operating Environment

- Temperature: 0°C to 55°C
- Pressure Endurance: d15 MPa

Applications

Typical Applications

Geology Engineering • Construction • Mining • Hydrology • Railway Engineering