

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
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Inclinometer Probe Dimensions & Weight

40 mm Diameter	1600 mm Length	7 kg Weight
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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