

# Digital Inclinometer for Geotechnical and Structural Monitoring

This digital inclinometer is designed for precise measurement of inclination or tilt. It is used in structural monitoring and geotechnical engineering to measure inclination angles relative to gravity.



## ADDITIONAL IMAGES



## Overview

### High-Precision Geotechnical Monitoring

This digital full-space inclinometer is designed for precise inclination and orientation measurements in demanding engineering environments. Ideal for boreholes in hydrology, oil, coal, and geological sectors, it provides accurate data on depth, tool face, dip, and azimuth angles. The system utilizes advanced digital signal processing and long-distance transmission techniques to ensure reliable performance across diverse drilling applications.

## Measurement Capabilities

### Key Measurement Metrics

|                                 |                                     |   |
|---------------------------------|-------------------------------------|---|
| <b>0.1 °</b><br>Dip Angle Error | <b>2 °</b><br>Tool Face Angle Error | <b>15 MPa</b><br>Max Pressure Tolerance |
|---------------------------------|-------------------------------------|---|

### Azimuth Angle Accuracy

| Dip Angle Range          | Error Tolerance |
|--------------------------|-----------------|
| 1° to 3° or 177° to 179° | ±3.0°           |
| 3° to 177°               | ±1.5°           |

|                           |        |
|---------------------------|--------|
| Maximum Measurement Depth | 1200 m |
|---------------------------|--------|

## Hardware Specifications

|                  |  |
|------------------|--|
| Probe Dimensions | 140 x 1600mm   |
| Probe Weight     | 7 kg   |
| Power Supply     | AC 220V ±10%, 50 Hz  |
| Data Interface   | DSHS232 Serial Port, Digital Signal Processing, Long Distance Transmission |

## Environmental Ratings

### Controlling Case Operating Environment

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

### Inclinometer Probe Operating Environment

- Temperature: 0°C to 75°C
- Max Pressure: 15 MPa