Digital Inclinometer - PROFIL-H

Horizontal Inclinometer

EASY TO HANDLE
COMPATIBILITY WITH COMMON SIZES OF CASING
HIGH-RESOLUTION TOUCH SCREEN INTERFACE

The PROFIL-H is used to monitor profiles of settlement or heave for storage tanks, embankments, landfills and dams.

Description

The system includes a digital horizontal probe, lightweight control cable, Blue- tooth reel, pull cable and the Profil Reader app. The standard system includes a detachable probe.

The Profil's major advantages are its sensor technology and mobile computing which bring simplicity to survey operations.

To start a survey, tap an inclinometer borehole from the list displayed by the Reader. Alternatively, simply scan the QR code that is fixed to the casing.

The inclinometer probe is inserted in the horizontal casing with one set of grooves aligned to vertical. Use a dead-end pulley and cable-return pipe if the far end of the casing is not accessible.

When the survey in one direction is completed, reverse the probe end -for-end and draw it through the casing a second time. Tilt measurements from the reversed probe eliminate any error due to sensor bias and generate checksums for validating the survey.

When the survey is complete, plot checksums, profiles, and changes to validate the readings before you leave the site.

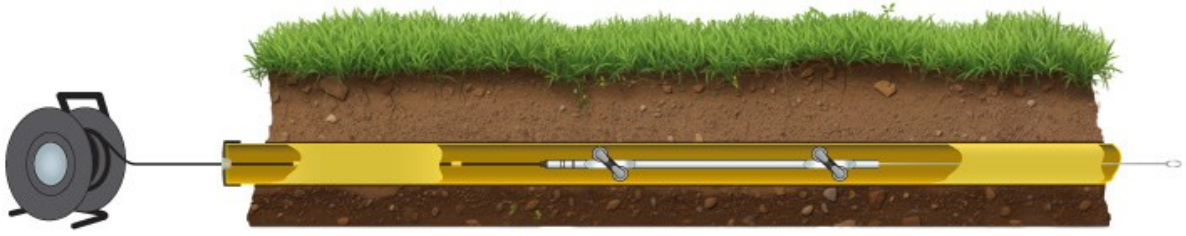
Afterwards, send surveys to the office via the Internet, using email with automatic file attachments or Dropbox for full synchronization. If the Internet is not available, use a USB cable for data transfers.

Key Features

- **Easy to carry:** detachable the detachable probe has its own carrying case. The reel has a handle.
- **Complete profiles of differential settlements:** compared to measuring discrete settlement cells.
- **Simple operation:** there are no liquid reservoirs or pressure sources to adjust and maintain.
- **Felxibility:** reel from vertical Profil system can be used with the horizontal probe.
- **Reader App:** simple to use, hands-free recording. Uses QR codes, displays field plots.
- **Autonomy:** the reel has 40 hours of operation on one charge.
- **Digipro2 Software:** for deeper data analysis.

Applications

- Settlement and heave under storage tanks.
- Settlement under embankments, dams and landfills.



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Specifications

Probe	Metric	English
Tilt Sensor	MEMS	MEMS
Wheelbase	500 mm	24"
Range	±30°	±30°
Resolution	0.005 mm	0.0002"
Repeatability	±0.052 mm/m	±0.000624"/ft
Temp	-20 to +70°C	-4 to +158°F
Material	Stainless Steel	Stainless Steel

Profil Pad Reader Application

Inclinometers and Surveys: Number of inclinometers and surveys are limited only by device memory. Reading intervals are 0.5m or 2ft.

Survey Screen: Large, readable characters. Shows active depth, depth last recorded, readings in mm, inches, or sine units, checksums, and progress bar. Record button prompts user to wait, tap or pull. Other features include easy depth changes and automatic bookmarks.

Plots and Data: Plots checksums, profiles, change-from-initial, and change-from-last in high resolution. Displays data table for inspection and survey-time corrections.

Send: Sends inclinometer data to PC as email attachments or syncs via Dropbox. If internet is not available, data files are transferred via USB cable and Windows file manager.

Download the Profil Reader App from the Roctest website in the Resources page.

Profil Manager Software

Download Profil Manager in the Resources section of Roctest's website. **https://roctest.com/en/downloads/software/**

Android Reader (Standard or Rugged)

Please contact us for a list of certified Android based tablet.

Control Cable

Graduations: Metric control cables have 0.5m graduations with numeric depth labels every meter. English control cables have 2 foot graduations with depth labels every 4 feet. Graduatinos are measured from top wheels of probe.

Standard Lengths:
Metric: 30—50—75—100—200 m
English: 100—150—200—300 ft

Construction: The four conductor cable has a Kevlar strain member and polyurethane jacket.

Pull Cable

One pull cable for each casing installation. If using a dead-end pulley, length of pull cable should be at least twice the length of the casing.

A carabiner and saddle clamp are included with the probe. There are installed on the pull

Construction: 1/8" stranded stainless steel cable.

Dead-End Pulley

Dead-end pulley is required when far end of the casing is not accessible. Rated for casing up to 60 m (200') long.

Cable-return pipe is used with dead-end pulley. 1/2" schedule 40 PVC pipe is supplied in 3 m lengths.

Ordering information

Please specify:

- Control cable Length
- Pull cable Length
- Optional Android reader
- Optional dead-end pulley with cable-return pipe
- Optional Digipro2 software