



### ORDERING INFO

EXAMPLE: IC32000<sup>(1)</sup>-V<sup>(2)</sup>-P0.5M<sup>(3)</sup>-R30M<sup>(4)</sup>-NH<sup>(5)</sup>


<b>(1) INCLINOMETER SYSTEM MODEL NUMBER</b>		IC32000	
<b>(2) ORIENTATION</b>	V: Vertical	H: Horizontal	
<b>(3) PROBE SIZE</b>	0.5 m	2 ft	
<b>(4) CABLE SIZE (REEL)</b>			
<b>METRIC</b>		<b>IMPERIAL</b>	
R30M: 30m	R150M: 150m	R100FT: 100'	R400FT: 400'
R50M: 50m	R200M: 200m	R200FT: 200'	R500FT: 500'
R75M: 75m	R250M: 250m	R300FT: 300'	R600FT: 600'
R100M: 100m	R300M: 300m	800, 1000 ft and longer systems available	
NR: No Reel			
<b>(5) HANDHELD DEVICE</b>	NH: No Handheld device *Handheld included as standard and also can be purchased separately		

### OPTIONAL SYSTEM ACCESSORIES

IC35805	Dummy probe 0.5 m wheelbase - METRIC
IC35802	Dummy probe 2 ft wheelbase - IMPERIAL
IC32705	Digital MEMS Inclinerometer Spiral Sensor (See separate brochure)
IC35600	RST Inclinalysis™ - Digital Inclinerometer Analysis Software
ICF0742-C	Protective Plastic Carrying Case - For Inclinerometer Probe only
Horizontal MEMS Inclinerometer (probe available in Metric and Imperial units view separate brochure or contact sales at RST Instruments)	

### INCLUDED SYSTEM COMPONENTS

MEMS Digital Inclinerometer probe with protective case	Cable Reel Carrying Case
Cable Reel with Wireless Communication System	Handheld Rugged Android Device with Pre-installed App
Silicone spray for probe/cable connectors	70 & 85 mm cable grips

	PRODUCT CATEGORY: INCLINOMETERS
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# DIGITAL MEMS INCLINOMETER SYSTEM

For measuring lateral deformation in earth and retaining structures using inclinometer casing, the Digital MEMS Inclinerometer System from RST Instruments was the first, and is still the best, Digital MEMS Inclinerometer System available.

Since 2003, RST's Inclinerometer systems have the shortest overall length available for a given base length compared to competitive inclinometers. RST's Digital MEMS Inclinerometer can traverse a smaller radius bend than all other inclinometers available in the industry. A local microcontroller in the probe manages data collection, applies precision digital calibration, and provides a fast settling time which results in very efficient data collection.

### APPLICATIONS

Measuring lateral deformation in earth and retaining structures

### FEATURES

Industry leading connector between probe and cable.

Inclinerometer reel can be charged without removing the battery and offers up to 30 hours of continuous use from a full charge.

Compact reel system with 50 m cable weighs a very manageable 4.7 kg and can be easily held with one hand. A padded carrying case is included.

Most robust cable on the market with a breaking strength of 1.8 kN (400 lbs.) Also, our new non-slip, swaged cable marks are unmatched in grip strength.

Digital Inclinerometer App compatible with Android-enabled devices.

### BENEFITS

<b>Increase Safety</b>	<b>High Accuracy</b>
<b>Increase Productivity</b>	<b>High Reliability</b>

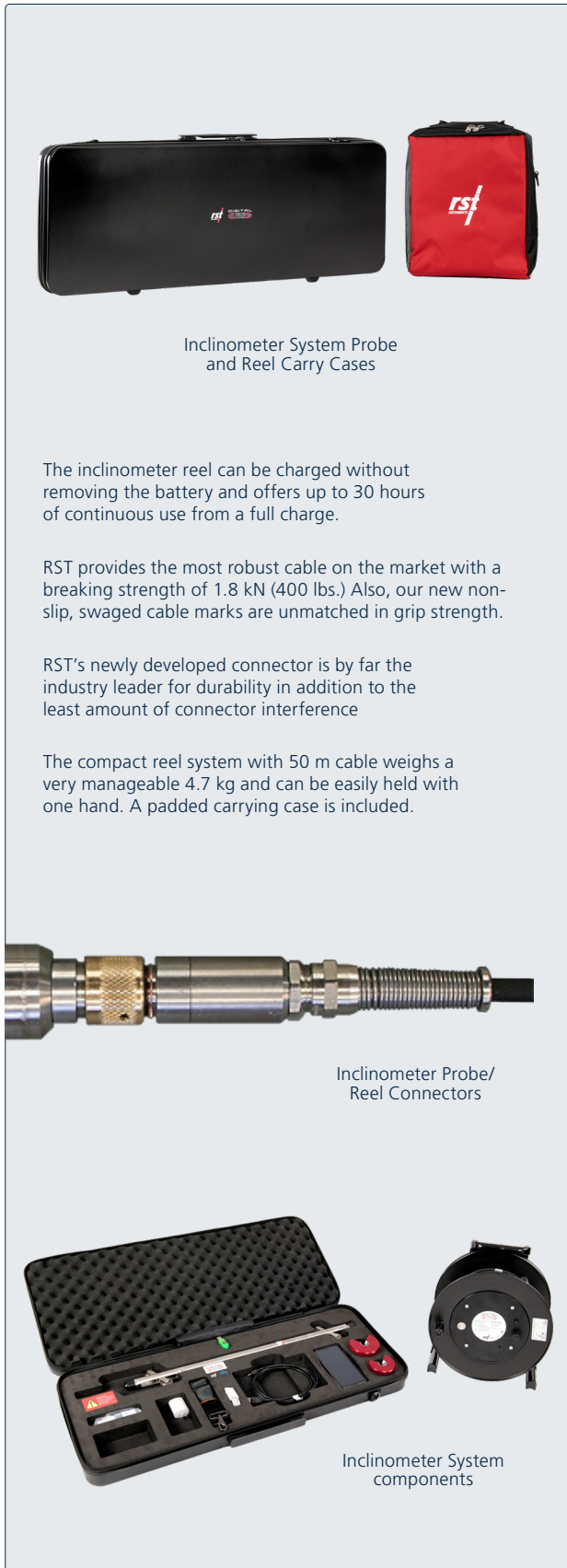
### SPECIFICATIONS

INCLINOMETER	METRIC SYSTEM	IMPERIAL SYSTEM
Wheelbase	0.5 m	2 ft
Probe diameter	25.4 mm	1.00 in
Probe length (including connector)	719 mm	32.6 in
Probe weight	1.06 kg	2.33 lbs
Probe material	Stainless steel	Stainless steel
Full-scale range (other ranges available)	±30 degrees	±30 degrees
Data resolution	0.005 mm per 500 mm	0.00002 ft per 2 ft
Memory	> 1,000,000 readings	> 1,000,000 readings
Repeatability	±0.002°	±0.002°
System repeatability	±2 mm per 25 m	±0.1 in. per 100 ft
Axis alignment	Digitally nulled	Digitally nulled
Temperature rating	-40 to +70°C	-40 to +158°F
Sensor Type	MEMS Accelerometer, Biaxial	

# DIGITAL MEMS INCLINOMETER SYSTEM



PRODUCT CATEGORY:  
INCLINOMETERS



Inclinometer System Probe and Reel Carry Cases

The inclinometer reel can be charged without removing the battery and offers up to 30 hours of continuous use from a full charge.

RST provides the most robust cable on the market with a breaking strength of 1.8 kN (400 lbs.) Also, our new non-slip, swaged cable marks are unmatched in grip strength.

RST's newly developed connector is by far the industry leader for durability in addition to the least amount of connector interference

The compact reel system with 50 m cable weighs a very manageable 4.7 kg and can be easily held with one hand. A padded carrying case is included.

Inclinometer Probe/ Reel Connectors

Inclinometer System components

## DIGITAL INCLINOMETER MOBILE APPLICATION

RST Instruments' digital inclinometer mobile application (available at no cost from RST's website and Google Play store) takes displacement readings from RST digital vertical inclinometer probes wirelessly. Powerful in-app data analysis tools allow you to visualise your readings on the fly, at the borehole.

The inclinometer data can then be exported via email or saved to your device in csv. or .rpp format for instant compatibility with Inclinalysis™, Slope Indicator's Digipro software, as well as GTilt and GTilt Plus. The application also displays information about the status of connected reels and probes to quickly locate hardware problems. The ability to organize your instruments by site and search for specific boreholes by name means that the information you need is always easy to find. Each borehole and site can be associated with unique contact information for operations that involve multiple stakeholders.

A rugged device is typically supplied as standard with the system, however can be supplied without upon request.

### > MANAGE MULTISITE OPERATIONS DATA

Group the display of readings by site and individual borehole for easy access to the information you need. Create, delete, or modify entries as site conditions change.

### > INSTANTLY SUMMARIZE DATA

In-app graphs and readings histories provide summaries so you can see what the collected data means for your operations. Visually compare multiple readings on the same screen

### > READ FROM MOBILE DEVICES

Collect data in the field with your own existing Bluetooth-enabled Android mobile device.

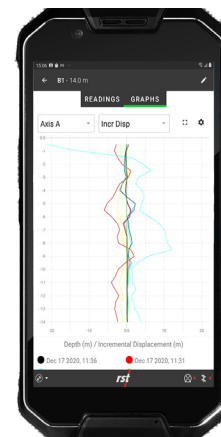
### > TAKE ADVANTAGE OF THE FLEXIBILITY OF THE MOBILE ENVIRONMENT

Readings taken in the RST application can be saved locally and exported to the RST Inclinalysis™ software.

### > WIRELESS DATA COLLECTION

Wireless Bluetooth technology allows you to collect data without the need for a physical connection between the inclinometer and the readout instrument. By removing the physical connection between the inclinometer control cable and the readout instrument there is no concern with fragile connectors, cable related failure and related reliability problems which means more reliable readings and fewer points of failure.

Depth (m)	Face A+	Face A-
0.5	2.8815	-2.9114
1.0	3.1217	-3.1434
1.5	1.8894	-1.8876
2.0	0.6715	-0.6893
2.5	-1.7807	1.6715
3.0	-0.6534	0.5653
3.5	0.6144	-0.7441
4.0	0.8404	-0.8776
4.5	3.7438	-3.8053
5.0	7.6677	-7.7078
5.5	7.4564	-7.5254
6.0	4.0473	-4.1238
6.5	3.0120	-3.0103
7.0	2.1881	-2.2721
7.5	3.2214	-3.3133
8.0	3.3859	-3.4127
8.5	-0.5744	0.4493



# ANALYSIS SOFTWARE

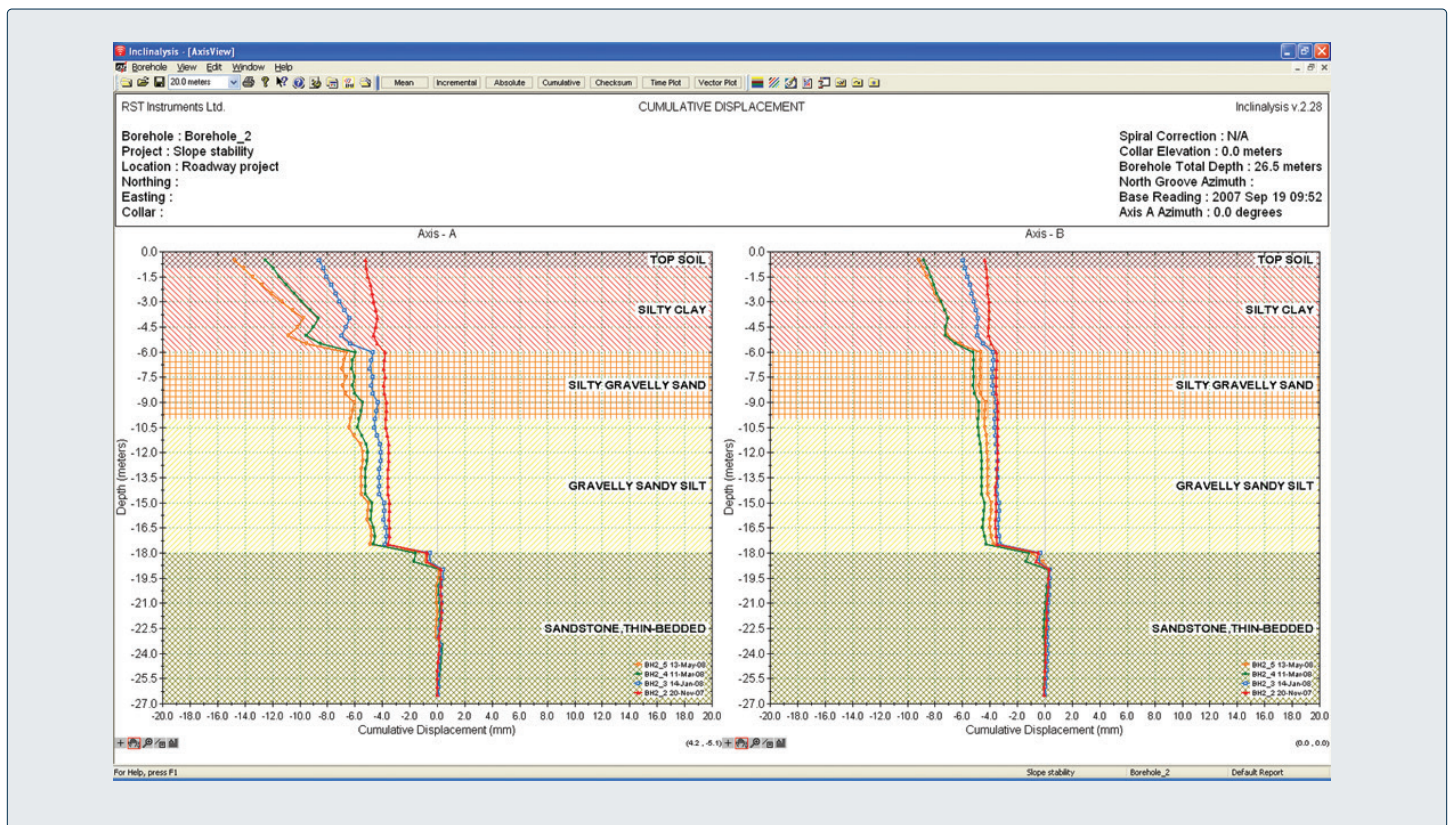
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# INCLINALYSIS



The RST Digital MEMS Inclinometer System and Inclinalysis™ Software offer a powerful combination for quick and efficient reduction of large volumes of inclinometer data. Data can be analyzed and presented quickly in a variety of formats.

RST Inclinalysis™ Software is powerful, yet easy to use. Plotting, manipulating data and printing are all only a few clicks away. Menu and plot functions are designed to be intuitive making the program very easy to learn. Designed to complement the Digital MEMS Inclinometer System, data is organized in a standard file structure which makes importing data seamless between Inclinalysis™ and the RST Digital Inclinometer App.



## > PLOT

Plot data at the click of a button. View several plots simultaneously across the screen. Ability to save multiple reports for a single borehole.

## > INTUITIVE

Menu and plot functions are designed to be intuitive and easy to learn. Cascade windows to display multiple plots and tabular data on the same screen.

## > CUSTOMIZE

Create custom plot titles and change graph properties. Change reading units instantly to millimeters, metres, inches or feet. Specify top or bottom data reference. Correct for bias-shift.

## > ASSESS

Create vector plots displaying change in magnitude and direction, and time plots to assess the rate of movement at a particular depth or in a specific movement zone. Instant visual data validation by plotting checksum data.

## > IMPORT

Import inclinometer data in a variety of formats from different manufacturers including spiral data.

## > COMPARE

Display data in tabular format and compare directly to plots. Take direct measurements off any plot.