rst INSTRUMENTS

digital INCLINOMETER*

* Patent Pending

unleash the power of wireless COMMUNICATION and Digital Technology

unleash the power of wireless
COMMUNICATION and Digital Technology

digital INCLINOMETER*

by RST Instruments

* Patent Pending

Customer feedback has made it clear . . .

Current inclinometer technology is overdue for an update: heavy awkward control cables; bulky dedicated readout; broken wheel springs; binding or sloppy wheels and carriages; leaky probe connectors; and long delays waiting for readings to stabilize.

The RST IC35000 Digital Inclinometer represents a breakthrough in inclinometer system technology, providing unprecedented accuracy, efficiency, and ease of use. The system is comprised of a Digital Inclinometer, Cable system, Reel with battery power, and a Windows Pocket PC™ that functions as a readout, analysis, and data storage device.

Specifications

Inclinometer	IC35000	IC35100
Wheelbase	0.5 m	24 inches
Probe diameter	25.4 mm	1.00 inch
Probe length including connector	710 mm	28.0 inches
Probe weight	1.4 kg	3.0 lbs.
Probe material	Stainless steel	Stainless steel
Full-scale range (calibrated ±30)	38 degrees*	38 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	±0.003°	±0.003°
Displacement Error	±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
Cable		
Cable diameter	5.5 mm	0.225 inches
Cable weight	1.4 kg/30m	3 lbs./100 ft
Cable tensile strength	3340 N	750 lbs.
Cable jacket	Polyurethane	Polyurethane
Cable stretch suspended in 30 m dry borehole	4 mm	0.16 inches
Cable Reels		
Up to 100 m cable reel diameter	300 mm	12 inches
101 to 225 m cable reel diameter	380 mm	15 inches
+225 m cable reel diameter	460 mm	18 inches
Reel weight with 75 m (246') cable	5 kg	11 lbs.

* ±55 available

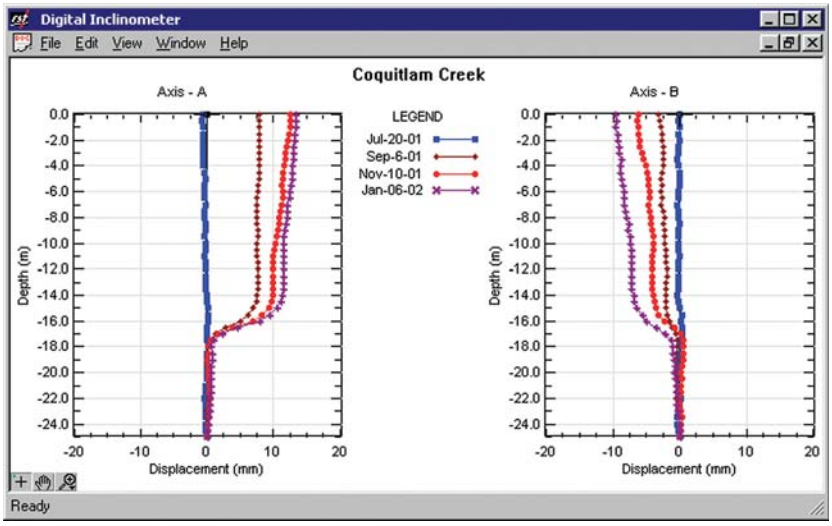
Wireless communication between the inclinometer control cable and the Pocket PC™ ensures ease of use and reliability, by removing two weaknesses inherent in conventional analogue inclinometer systems. By removing the physical connection between the inclinometer control cable and the readout instrument there is no concern with fragile connectors, cable related failure and related reliability problems. The Achilles heel of inclinometer control cable reels is the slip ring required to maintain electrical contact as the reel revolves. As the RST system is wireless from the control cable to the readout, a slip ring is not required, and there are no electrical continuity problems.

Pocket PC™

Splash proof	IPx II
Operating temp.	-10 to 50°C (20 -122°F)
Compact Flash™	64 MB
Battery life	15 hours

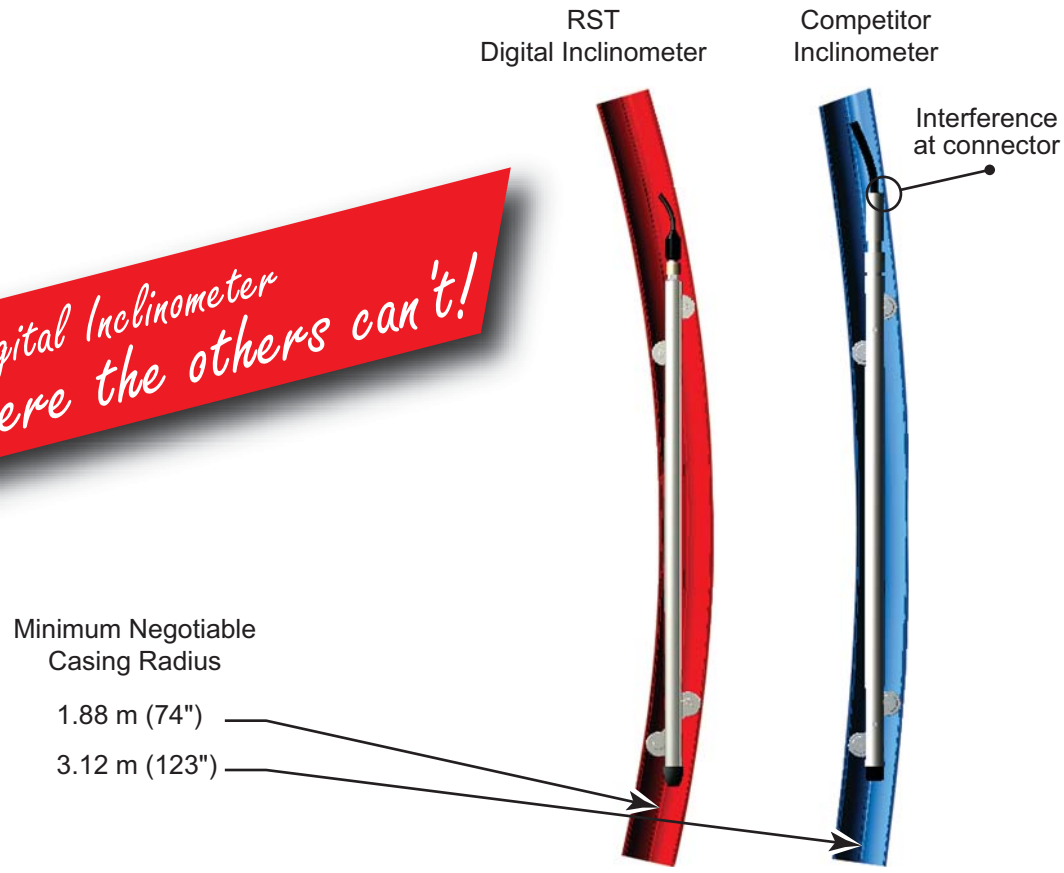
Key innovations include . . .

- Internal 24-bit A/D converter and digital data return for superb resolution, noise immunity and overall system accuracy.
- A local microcontroller in the probe manages the data collection, applies precision digital calibration, and provides the fastest settling time of any inclinometer available, resulting in very efficient data collection. The microcontroller also permits calibration "through the wire" with no manual adjustments.
- A thin, strong, lightweight digital probe cable with Kevlar® strength member, means that even very long inclinometer cables fit on a small reel. It's lightweight, and has the lowest stretch of any inclinometer cable available. The aluminum sleeved measure marks are precision swaged to the cable and are not subject to tearing when handling. The urethane jacket is highly abrasion resistant, and maintains its flexibility at low temperatures.
- The sensor connector is compact, tough and achieves a superb seal under adverse conditions. Because the signal is digital, even a wet connection won't compromise your data.
- The inclinometer probe has the smallest package available for a given wheel spacing, with the best ability to track deformed casings. The connectors, wheels, and wheel carriages are the most precise and durable in the industry.
- A Windows Pocket PC™ functions as the data collector, providing high-level user interface, industry-leading memory, Flash™ data security, "at-the-borehole" data analysis and comparison to previous data sets, and instant USB or optical synchronization with office computers. Highly integrated Windows™ data processing software facilitates data collection, management, and processing.



INCLINOMETER*
by RST Instruments
* Patent Pending

The RST Digital Inclinometer Goes where the others can't!



0.5 m wheelbase probes shown in 70 mm OD (2.75") casing.

Ordering Information*

SYSTEMS:

IC35003	30 m complete system with 0.5 m probe
IC35005	50 m complete system with 0.5 m probe
IC35075	75 m complete system with 0.5 m probe
IC35010	100 m complete system with 0.5 m probe
IC35019	Custom (m) complete system with 0.5 m probe
IC35110	100 ft complete system with 2 ft probe
IC35115	150 ft complete system with 2 ft probe
IC35130	300 ft complete system with 2 ft probe
IC35199	Custom (ft) complete system with 2 ft probe
IC35805	Dummy Probe 0.5 m wheelbase
IC35802	Dummy Probe 2 ft wheelbase
IC35715	Spiral Probe 1.5 m wheelbase
IC35705	Spiral Probe 4 ft wheelbase
IC35600	RST analysis software (optional)

* The following accessories are included with the order of a Digital Inclinometer System:

- Data collection & transfer software
- Rugged readout case
- Inclinometer probe with case
- Spare battery
- Pocket PC™ docking station
- Reel with case
- 12V automobile adapter
- 110/220V battery chargers

GEOTECHNICAL • MINING • ENVIRONMENTAL

200-2050 Hartley Avenue

Coquitlam, BC

Canada V3K 6W5

Tel: 604-540-1100

Fax: 604-540-1005

Toll Free (North America)**: 1-800-665-5599**

info@rstinstruments.com

www.rstinstruments.com

WLB0001J