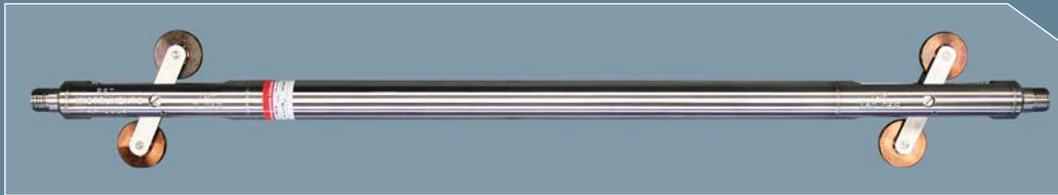




# Horizontal MEMS Inclinometer System

**MEMS**  
TILT & INCLINATION  
SERIES

The Digital Horizontal MEMS Inclinometer System measures settlement or heave under embankments, dams, roadways, storage tanks, and landfills.

Essentially being a horizontal version of the RST Digital MEMS Inclinometer System, settlement profile surveys are conducted by running the probe in an inclinometer casing installed horizontally rather than vertically. Wireless communication between the inclinometer control cable and the Ultra-Rugged Field PC ensures ease of use and reliability. A Horizontal In-place MEMS Inclinometer is also available, contact RST for details.

## general specifications

| ITEM                 | DESCRIPTION   |
|----------------------|---|
| Sensor Type          | Uniaxial, MEMS (Micro-Electro-Mechanical Systems) Accelerometer |
| Memory               | >1,000,000 readings   |
| Measurement Range    | ±30° from Horizontal  |
| Repeatability        | ±0.002°   |
| Casing Size Required | 70 mm (2.75") or 85 mm (3.34")                                  |
| Materials            | Stainless Steel   |
| Readout              | Ultra-Rugged Field PC   |

## metric system: specifications

| ITEM                               | DESCRIPTION         |
|------------------------------------|---------------------|
| Data Resolution                    | 0.005 mm per 500 mm |
| Repeatability                      | ±0.002°             |
| System Accuracy                    | ±2 mm per 25 m      |
| Wheel Base                         | 500 mm              |
| Probe Diameter                     | 25.4 mm             |
| Probe Length including lifting eye | 708 mm              |
| Temperature Rating                 | -40 to 70°C         |
| Weight                             | 1.091 kg            |

## imperial system: specifications

| ITEM                               | DESCRIPTION           |
|------------------------------------|-----------------------|
| Data Resolution                    | 0.00002 ft. per 2 ft. |
| Repeatability                      | ±0.002°               |
| System Accuracy                    | ±0.1 in. per 100 ft.  |
| Wheel Base                         | 24 in.                |
| Probe Diameter                     | 1 in.                 |
| Probe Length including lifting eye | 32.19 in.             |
| Temperature Rating                 | -40 to 180°F          |
| Weight                             | 2.4 lbs.              |

## applications

Monitor settlement of heave under embankments, dams, roadways, storage tanks, and landfills.

Observation of ground movements caused by construction and excavation, such as those involved with tunneling.

## features

Digital precision and efficient data collection with a high-level user interface that has instant USB synchronization with office computers.

Probe may be used with RST's Vertical In-place MEMS Inclinometer System.

Probe maybe purchased with or without a system.

## metric system: ordering info

| ITEM  | PART #     |
|---|------------|
| 30 m Complete System with 0.5 m Probe                                   | IC32003H   |
| 50 m Complete System with 0.5 m Probe                                   | IC32005H   |
| 60 m Complete System with 0.5 m Probe                                   | IC32006H   |
| 75 m Complete System with 0.5 m Probe                                   | IC32075H   |
| 100 m Complete System with 0.5 m Probe                                  | IC32010H   |
| 150 m Complete System with 0.5 m Probe                                  | IC32015H   |
| Digital Horizontal 0.5 m Probe  | IC32205H   |
| Inclanalysis™<br>Digital Inclinometer Analysis Software<br>with USB Key | IC35600    |
| Pull Cable  | IC7300     |
| Pull Cable Reel   | WL046617   |
| Cable Return Pipe   | EP050410   |
| Return Pipe Coupling  | EPFI429005 |

## imperial system: ordering info

| ITEM  | PART #     |
|---|------------|
| 100 ft. Complete System with 2 ft. Probe                                | IC32110H   |
| 150 ft. Complete System with 2 ft. Probe                                | IC32115H   |
| 200 ft. Complete System with 2 ft. Probe                                | IC32120H   |
| 250 ft. Complete System with 2 ft. Probe                                | IC32125H   |
| 300 ft. Complete System with 2 ft. Probe                                | IC32130H   |
| 500 ft. Complete System with 2 ft. Probe                                | IC32150H   |
| Digital Horizontal 2 ft. Inclinometer Probe                             | IC32202H   |
| Inclanalysis™<br>Digital Inclinometer Analysis Software<br>with USB Key | IC35600    |
| Pull Cable  | IC7300     |
| Pull Cable Reel   | WL046617   |
| Cable Return Pipe   | EP050410   |
| Return Pipe Coupling  | EPFI429005 |

## additional equipment

| ITEM   | PART #    |
|--|-----------|
| 3.34 in./85 mm Snap Seal Inclinometer Casing Dead-end Pulley   | ICA0063-1 |
| 3.34 in./85 mm Glue & Snap Inclinometer Casing Dead-end Pulley | ICA0063-2 |
| 2.75 in./70 mm Snap Seal Inclinometer Casing Dead-end Pulley   | ICA0064-1 |
| 2.75 in./70 mm Glue & Snap Inclinometer Casing Dead-end Pulley | ICA0064-2 |

## ordering options

Longer probe lengths are available, please contact a member of our sales team at RST Instruments Ltd. to discuss your requirements.