INCLINOMETER CASING

GEOKON®

MODEL 6650

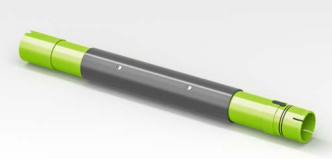


Model 6650-70MM-5 Inclinometer Casing (1.5 m length) and its various components.

APPLICATIONS

Model 6650 Inclinometer Casing is used with all commercially available inclinometer probes to monitor the stability of:

- Embankments
- Slopes
- Rock cuts
- Foundations and excavation walls
- Piles
- Coffer dams



Model 6650-70MM-TS Telescoping Section.



Model 6650-ENCL Lockable Protective Enclosure.

OPERATING PRINCIPLE

GEOKON Model 6650 Inclinometer Casing is engineered for compatibility with a wide range of commercially available inclinometers, ensuring accurate monitoring of the stability of embankments, slopes, rock cuts, foundation and excavation walls, piles, and other structures.

Integrated o-rings seal the casing from groundwater or grout. The casing has grooves spaced at 90° intervals, which guide the wheels of the inclinometer to maintain a consistent orientation as it traverses the casing. This design makes the casing ideal for installation in boreholes, piles, concrete, or attachment to other structures.

When used in conjunction with an inclinometer probe, inclinometer casing allows the user to accurately measure changes in the angle of a borehole's tilt, which can be used to determine the stability of the body or structure in which it is installed. The casing can also be used with in-place inclinometers, which are particularly well suited for real-time automatic monitoring.

ADVANTAGES AND LIMITATIONS

GEOKON Model 6650 Inclinometer Casing is manufactured from 100% virgin ABS resin using precision CNC technology. ABS is an ideal material due to its superior stability, corrosion resistance, and durability, even in cold weather environments.

The casing features high-precision grooves, which are broached for maximum straightness to ensure inclinometers maintain their orientation while traveling up and down the borehole.

The dual o-ring design enables rapid and straightforward assembly to save time and money on-site.

SYSTEM COMPONENTS

Telescoping sections are available for use in applications where settlement or heave is expected. These specially designed sections can extend or collapse as needed (up to 165 mm) to allow axial movement of the casing and minimize distortion due to compression or tension.

In areas where tampering or vandalism are a concern, the protective enclosure is recommended. This enclosure is constructed from galvanized steel with a lockable hinged cover that can be grouted over the top of the casing.



6650-70MM-TC Top Cap.



6650-70MM-BC Bottom Cap.



6650-70MM-ANC Bottom Anchor, shown fully deployed.



6650-70MM-GC Grout Cap.

TECHNICAL SPECIFICATION

Materials	**Casing:** 100% Virgin ABS **Top Cap:** LDPE **Bottom Cap:** 100% Virgin ABS **Bottom Anchor:** 100% Virgin ABS and Galvanized Steel **Grout Cap:** 100% Virgin ABS and Galvanized Steel
Casing OD	70 mm (2.75")
Casing ID	59 mm (2.32")
Casing Length	1.5 or 3 m (5 or 10')
Coupling OD	70 mm (2.75")
Collapsing Pressure	1.5 MPa (217 psi)
Connection Tensile Strength	450 kg (1,000 lb)
Temperature Range	–20 °C to +80 °C
Groove Spiral	< 0.1° per 3 m (10')
Weight	1.1 kg/m (0.75 lbs/ft.)

Tensile modulus = 340,000 psi approximately (per ASTM D638) | Poisson's ratio = 0.35 approximately

6650-70MM-TS TELESCOPING SECTION SPECIFICATIONS

Material	100% Virgin ABS
Casing OD	73 mm (2.87")
Compressed Length (assembled)	497 mm (19.5")
Extended Length (assembled)	662 mm (26")
Range	165 mm (6.5")

ORDERING INFORMATION

6650-70MM-5: Inclinometer Casing, 70 mm, 1.5 m length.
6650-70MM-10: Inclinometer Casing, 70 mm, 3 m length.
6650-70MM-ADP: Coupling Adapter
6650-70MM-ANC: Bottom Anchor, secures casing in place to counteract buoyancy.
6650-70MM-BC: Bottom Cap, plain cap that seals the bottom of the casing column.
6650-ENCL: Protective Enclosure, lockable metal housing to protect against vandalism and physical damage.
6650-70MM-GA: Grout Anchor. Combination grout cap and deployable anchor.
6650-70MM-GC: Grout Cap, bottom cap with hydraulic grouting adapter.
6650-70MM-TC: Top Cap, protects against rain and wildlife incursion.
6650-70MM-TS: Telescoping Section, allows 165 mm travel in compression or tension.
07-062G: Galvanized Aircraft Cable, 1.6 mm [0.062"] ø
6650-70MM-RT: Reconnect Alignment Tool

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GEOKON
48 Spencer Street
Lebanon, NH 03766 • USA

www.geokon.com
e: teamsales@geokon.com
p: +1 · 603 · 448 · 1562

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