

MODEL 6650



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

APPLICATIONS

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

- Embankments
- Slopes
- Rock cuts
- Foundations and excavation walls
- Piles
- Cofferdams



Model 6650-70MM-TS Telescoping Section.



Model 6501-6-2 Lockable Protective Enclosure.

OPERATING PRINCIPLE

GEOKON Model 6650 Inclinerometer 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 Inclinerometer 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.



6650-70MM-TC Top Cap.



6650-70MM-BC Bottom Cap.



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



6650-70MM-GA Grout Adapter.

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.

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

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-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.

6650-70MM-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.
6501-6-2: Protective Enclosure, lockable metal housing to protect against vandalism and physical damage.

6650-70MM-TS TELESCOPING SECTION SPECIFICATIONS

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