

INCLINOMETER CASING



INTRODUCTION

DATA DIGGER Inclinometer is a specialized tool used to monitor ground movement or slope displacement in geotechnical engineering. It is a hollow, vertical casing installed into the ground to provide a pathway for an inclinometer probe. The casing is typically made of durable materials like PVC or stainless steel and is designed to maintain its shape under soil pressure. The inclinometer probe is inserted into the casing and measures angular displacement at various depths. This allows for the detection of horizontal movements or tilting in the ground or surrounding structures. Inclinometer casings are commonly used in monitoring landslides, embankments, tunnels, and foundation stability.

FEATURES

- Inclinometer casings are made from materials like PVC or stainless steel, designed to withstand soil pressure and environmental conditions over time.
- The casing is installed vertically into the ground, providing a secure pathway for the inclinometer probe to measure movements at various depths.
- The casing ensures the accurate alignment of the inclinometer probe, allowing precise measurement of horizontal displacement or tilting in the surrounding soil or structures.
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APPLICATION

- Embankment
- Slopes
- Rock Cuts
- Foundation and Excavation
- Piles
- Landfills

OVERVIEW

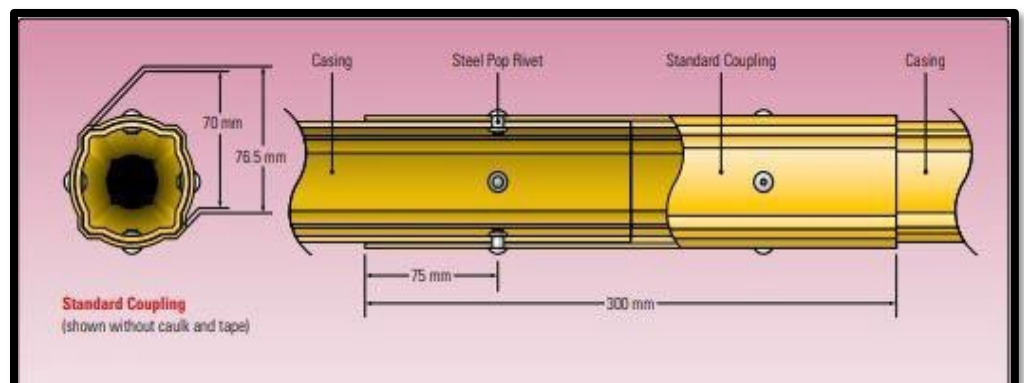
An **inclinometer casing** is a vertical tube installed in the ground to monitor soil movement. It houses an inclinometer probe that measures horizontal displacement at various depths. Made from durable materials like PVC or stainless steel, it ensures accurate data collection. Commonly used for monitoring slopes, tunnels, and foundation stability.

OPERATING PRINCIPLE

The Inclinometer Casing is used in conjunction with all commercially available Inclinometer probes to monitor the stability of embankments, slopes, rock cuts, foundation, and excavation walls, piles etc. The casing section are couples and grouted inside the borehole, or fixed to the surface or piles or sheet piling. The Casing and coupling have grooved spaced at ninety-degree interval, which fits the wheels of the



The Close up shows two sections riveted and taped together with a standard length coupling.



Inclinometer Casing Dimensions and configuration of the standard coupling.

Inclinometer Probe thus, maintaining the orientation of the probe as it traversed up and down the casing. The probe accurately measures the change in the angle of tilt from the vertical, of each portion of the casing. These incremental changes are added together to give a vertical profile of the casing. Changes in the profile become a measure of the stability of the structure.

SYSTEM COMPONENT

Casing and coupling are pop riveted together and the joints are waterproofed using caulk and tape. Steel pop Rivets. (1/8 X 3/16 Inch or 1/8 X 1/4 Inch) are standard. The Bottom Plug, pop riveted and sealed is used to cap the bottom of the casing and the top plug is used to cover the top of the casing.

Installation Kits will include caulking, tape, pop-rivets, a pop-rivet gun will be given along.





TECHINICAL SPECIFICATIONS

INCLINOMETER CASING

Maximum O.D (Nominal)	70 MM Coupling – 76.5mm
Wall Thickness (Nominal)	3mm Coupling – 2mm
Length	Casing 3 Meter Coupling 300mm
Material	ABS Plastic
Temperature Maximum	100°C
Collapsing Pressure	1 MPa (150psi)
Weight	1.1 kg/m

