

C9 EC (EASY CONNECT) INCLINOMETER CASING

Datasheet C9



Description

EC (Easy Connect) Casing is used in boreholes, embedded in fill material, cast into concrete or attached to structures.

EC Casing is faster and easier to install than coupled inclinometer casing, requiring no rivets, tape or glue; simply push together and the joint is made.

The casing can be extended or joined at any point along its length.

EC Casing is manufactured using ABS extrusion techniques, resulting in an accurate groove profile with precise keyways formed at 90° into the internal surface. This allows for the accurate orientation of inclinometer probes or In-Place Inclinometer Sensors (IPIs).

EC Casing has been extensively tested to ensure that the machined joint is strong and resists the ingress of water and grout.

Features

- **Push fit, faster and easier to install than standard inclinometer casing**
- **Reliable joints; a machined slot ensures consistent keyway alignment**
- **Watertight; an 'O' ring on each seal prevents ingress of water or grout**
- **Deep, tight groove profile ensures accurate data**
- **Joints tested against pull apart, collapse and twist forces**
- **Manufactured from virgin ABS**

Benefits

- **Requires no rivets, tape or glue**
- **Savings in installation time significantly reduces labour cost and drill rig standby charges.**



Comprehensive information about this product and our full range is available at www.soil.co.uk
If you would like to speak with someone directly please call +44 (0)1825 765044 or email sales@soil.co.uk

Operation

EC Inclinometer Casing can be installed in boreholes, embedded into fill material, cast it into concrete or attached to structures. The casing moves with the ground, material or structure and provides inclination over an extended period of time.

Inclinometer systems are used to measure lateral movement in the ground or in a structure. They are useful for determining the depth, direction, magnitude, and also rate of movement.

They can be used to ascertain the stability of retaining walls by measuring bending and rotation and can also reveal ground movement that could affect adjacent buildings. Inclinometer systems can also be used to detect movement in the downstream and upstream side of dams and define shear zones in the foundations of concrete faced dams.

Measurements of recorded movement are used to check that the deflections are within the design assumptions and continued monitoring can establish any long-term effects after works have finished.

Applications

Inclinometer systems are used to measure lateral movement in the ground or in a structure and are useful for determining the depth, direction, magnitude, and also rate of movement.

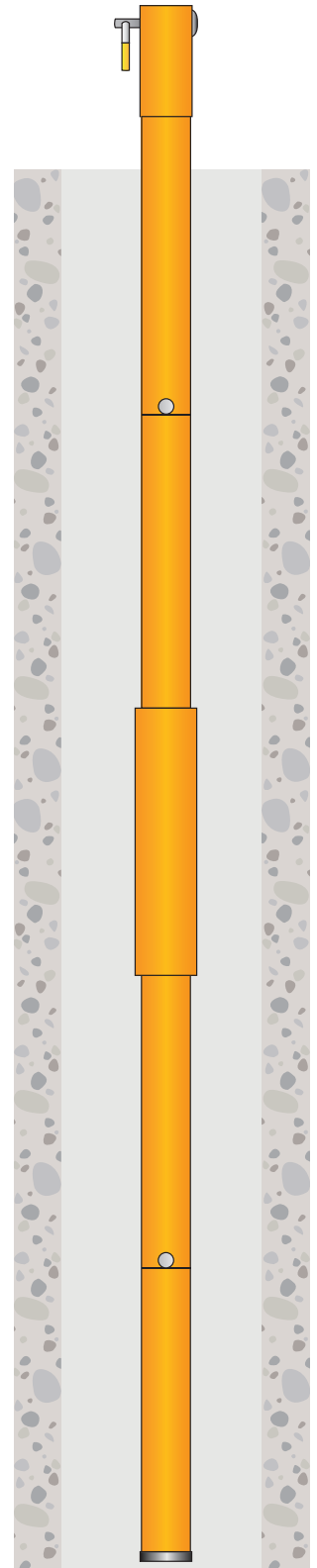
Typical applications include:

- Detecting slope failures and landslides
- Determining shear and slip zones
- Monitoring diaphragm or sheet pile walls
- Monitoring bending in piles
- Verifying design assumptions and finite element analysis
- Long-term monitoring purposes
- Monitoring the performance of struts and ground anchors
- Monitoring dams
- Detecting and recording ground movement due to tunnelling operations
- Monitoring retaining walls

Associated products

For details on:	Catalogue code:
Digital Inclinometer System	C17
'In-Site' Software	C13
Inclinometer Test Probe	C10
In-Place Inclinometers	C12

View our full product range on www.soil.co.uk



THE TECHNICAL RATING FOR THIS PRODUCT:

INTERMEDIATE



As the correct installation of any monitoring sensor or system is vital to maximise performance and accuracy, Soil Instruments makes the following recommendations, for the skill level of the installation contractor.

ADDITIONAL SUPPORT

We offer installation and monitoring services to support this system. For more information please email : sales@soil.co.uk or call : **+44 (0) 1825 765044**

ADVANCED



The installer is trained and experienced in the installation of this type of instrument or systems, and is ideally a specialist Instrumentation and Monitoring contractor.

INTERMEDIATE



The installer already has previous experience and/or training in the installation of this instrument or system.

BASIC



As a minimum the installer has read and fully comprehends the manual, and if possible has observed these instruments or systems being installed by others.

Specifications

Casing Specifications

Material	ABS (Acrylonitrile Butadiene Styrene)
Groove spiral	< 0.5° / 3m
Collapse rating	1960kPa
Bend rating	252N
Maximum temperature	80°C
Tensile strength	585kgF
Torque	25Nm

Dimensions

Effective length	3m
Length	3.06m
Outside diameter	70mm
Inside diameter	59mm

Weights

Casing	3.8kg
End cap	360g
Top cap	48g
Lockable top cap	718g

Ordering Information

Easy Connect Inclinometer Casing

For 70mm outer diameter

C9-1.1	EC casing, 3metre length, 70mm outer diameter
C9-4.4	EC casing, 2metre length, 70mm outer diameter
C9-4.3	EC casing, 1metre length, 70mm outer diameter
C9-1.2.1	Repair coupling; 245mm in length, 80mm outer diameter, includes rivets
C9-1.3	Bottom cap
C9-1.4	Top cap
C9-1.5	Lockable top cap assembly. Includes; 150mm length ABS tube, rivets, cap, bar and padlock

Inclinometer Head Works

C9-3.6	Security Cover. Includes 100mm diameter, 500mm length steel tube, cap, bar and padlock
C9-3.7	Lockable heavy duty stopcock cover
C9-5.5	Top cap

Installation Equipment

C9-3.13	EC Casing tool kit. Includes; 2No clamps to aid connection of 70mm OD EC casing during installation
C9-1.11	Borehole anchor. Includes; 70mm EC bottom cap, anchor and 'O' ring
C9-1.9	Grout valve
C9-1.10	Grout valve coupling 1" BSP female thread

Manuals

MAN-171	Bentonite Cement 'Grout Mix' Guide
MAN-176	70Mm Easy Connect Quick Install Guide Included In Each Box Of Ec Casing



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