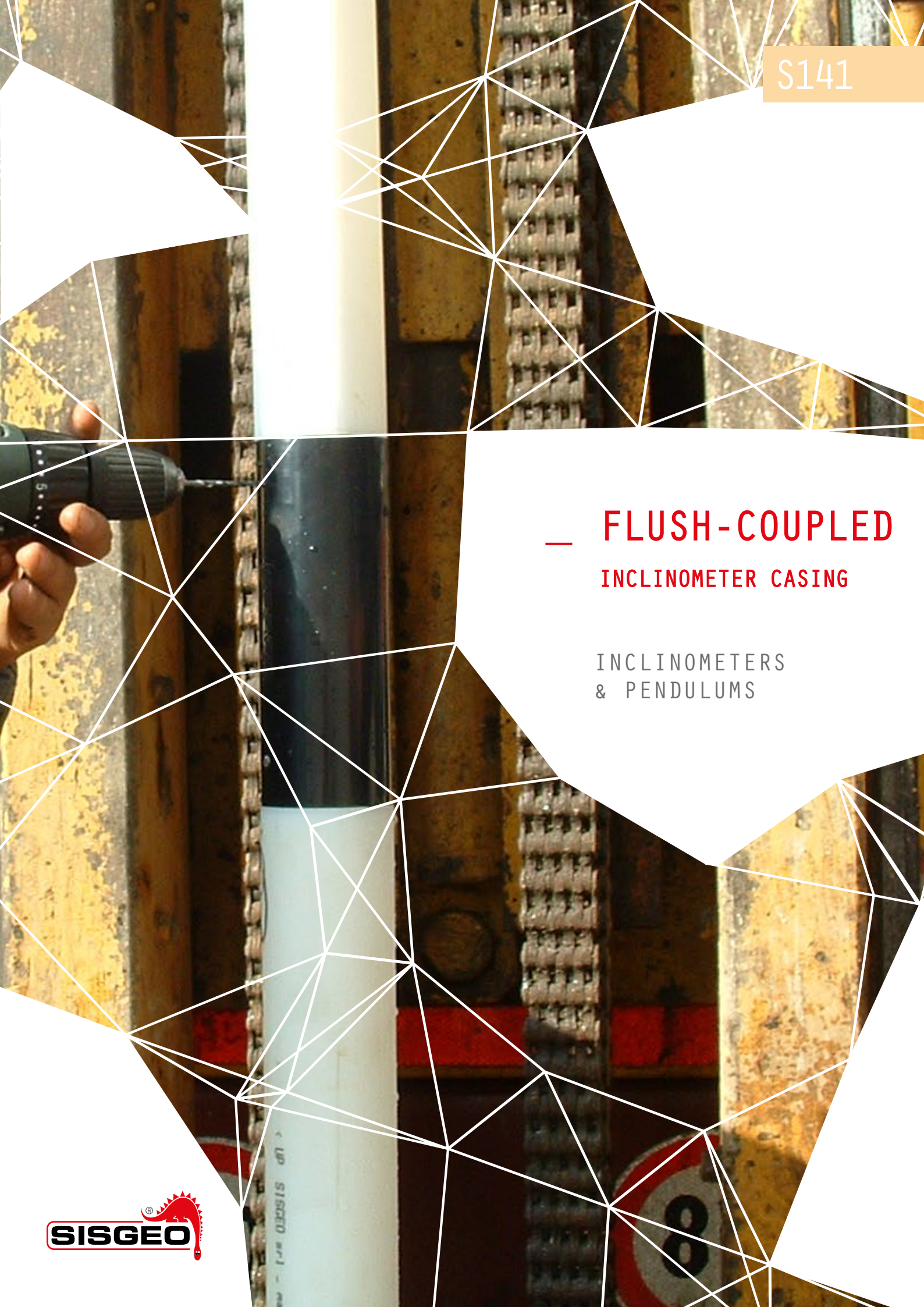
S141



FLUSH-COUPLED

INCLINOMETER CASING

INCLINOMETERS
& PENDULUMS

SISGEO®

S141_EN_19_06/2016

FLUSH-COUPLED

INCLINOMETER CASING

The Flush-Coupled inclinometer casing is a grooved tube machined at the end to have a self-aligning and flush junction.

During manufacturing particular attention is paid to minimise the spiral of the casing grooves and to machine the aligning key for casing junction with self-aligning couplings.

Casing sections are assembled by means of couplings glued together, riveted and sealed with special tape.

APPLICATIONS

- Landslides
- Diaphragms and retaining walls
- Earth and rockfill dams
- Embankments
- Deep excavations
- Tunneling
- LNG and oil tanks

FEATURES

- Flush joint
- Negligible twisting (spiral)
- Suitable for T-Rex and DEX extenso-inclinometer columns
- Inert to the aggressive waters (acid waters, brackish or marine waters, etc...)
- Suitable for all inclinometer systems in the market

CE *Meet the essential requirements of the EMC Directive 2004/108/EC*

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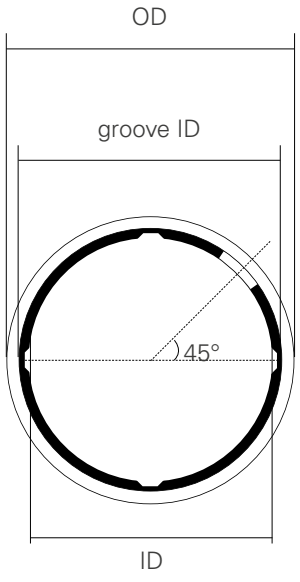
TECHNICAL SPECIFICATIONS

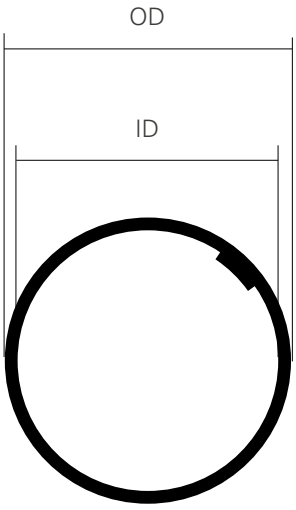
INCLINOMETER CASING	MODEL 0S141107000
Outer diameter (OD)	70 mm (2.75”)
Inner diameter (ID)	59 mm (2.32”)
Groove inner diameter	61.5 mm (2.42”)
Thickness	5.5 mm (0.2”)
Casing length	3 meter
Weight	1.2 kg / m
Material	ABS plastic
Spiral (1)	< 0.6° / 3 meter
Collapse test (2)	15 bar
Temperature (max 1 hour)	+80°C (176 °F)
Load test (3)	> 300 Kg

SELF-ALIGNING COUPLING	MODEL 0S141MF7000
Outer diameter (OD)	70 mm (2.75”)
Inner diameter (ID)	61.5 mm (2.42”)
Length	200 mm (7.87”)
Weight	0.25 kg

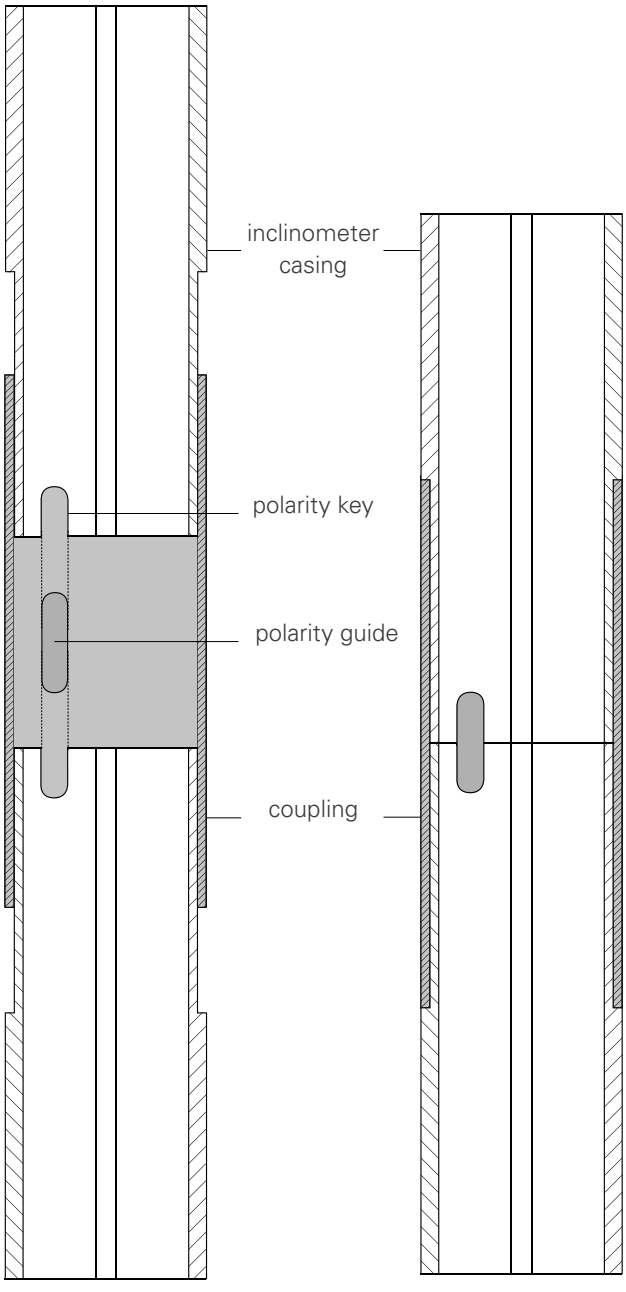
(1) During manufacturing particular attention is paid to minimise the spiral of the casing grooves and to machine the aligning key for casing junction with selfaligning couplings.
(2) Test was performed in a water pressure chamber with empty casing sealed at the two ends.
(3) Pulling test is made suspending a weight at the casing-coupling joints.



CASING SECTION



SELF-ALIGNING COUPLING



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ACCESSORIES AND SPARE PARTS

LOCKABLE TOP CAP
0S100CH1000

Lockable protective cap with survey pin permits topographical surveying in order to define and check the borehole coordinates. It also provides temporary fixing for 0S1CSU10000 pulley and cable stop during manual inclinometer measurements.

PULLEY ASSEMBLY
0S1CSU10000

Needed during inclinometer surveying, it consists of a pulley, cable stop and a number of adaptors to suit different casing diameters.

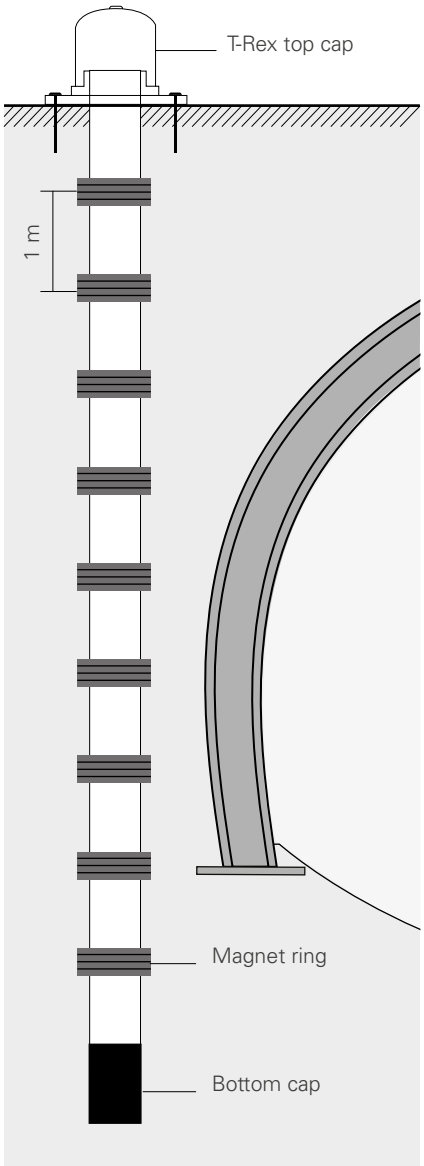
BOTTOM CAP
0S141TS7000

Simple bottom cap for Flush casings, made of ABS. Suitable for inclinometer column or extenso-inclinometer column.

CASING ASSEMBLY KIT
0S1ABKIT200

Suitable for 100 m of ABS casings, it includes rivets, adhesive tape, self-amalgamating tape and drill bits.

EXTENSO-INCLINOMETER



S141 ABS casings are suitable to realise an extenso-inclinometer tube for high-precision measurements in borehole.
Measuring targets are special magnet rings which are externally attached to ABS casing every meter.
Measurements are taken meter by meter inserting into the casing the T-REX mobile extensometer and the inclinometer probe for obtaining a detailed cumulative and accurate 3-D borehole profile.
Automatic 3-D borehole monitoring is allowed using DEX-S in-place extenso-inclinometer probes; DEX-S shall be connected to OMNIAlog datalogger for data storage, remote management and alerting.

MAGNET REFERENCE RING
OREXORING93

Simple measuring reference ring for T-Rex incremental extensometer and DEX in-place extensometers.
OD: 93 mm
ID: 71 mm
Material: PVC with permanent magnet

SPIDER REFERENCE RING
OREX0AF7093

Spider measuring reference ring for T-Rex incremental extensometer and DEX in-place extensometers.
OD: 93 mm
ID: 71 mm
Max spring span: 300 mm
Material: PVC with permanent magnet

T-REX TOP CAP
OREXOTS2350

Lockable top cap ready with fixing plate for T-REX positioning system.

MAGNET RING JIG
OREXODIMA00

Setting rod for positioning the rings 1 m apart.

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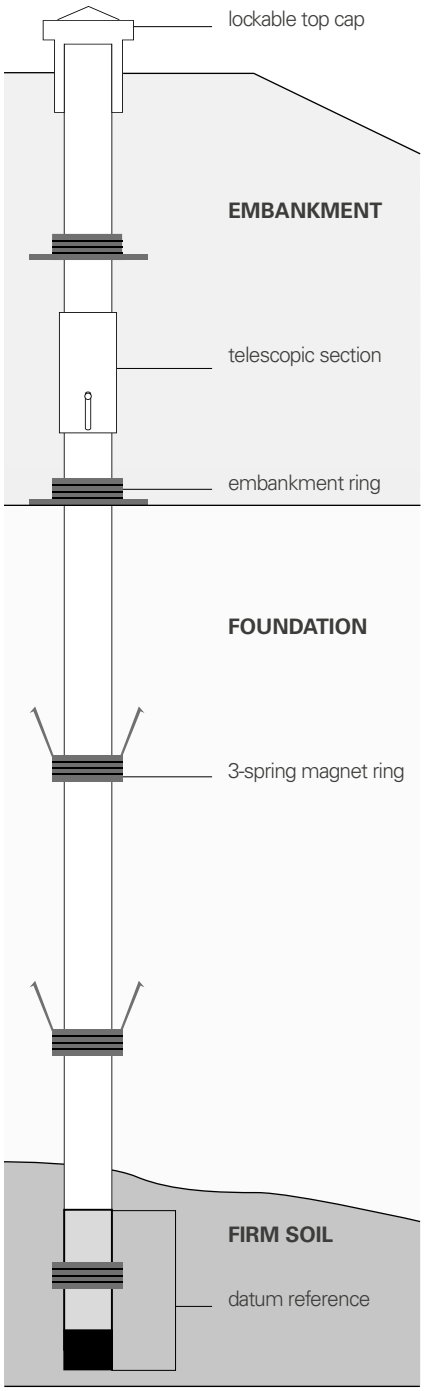
INCLINO-SETTLEMENT COLUMN



Inclino-settlement column is a cost-effective solution when inclinometer and settlement measurement are requested.
They are composed by ABS inclinometer casing with a number of magnet rings; telescopic sections are provided for columns where big settlements are expected with consequent damage of the casings.
Spider magnet rings are usually installed in borehole; embankment magnet rings with circular plate are available for installation during embankment construction.
Measurements are perfomed with removable inclinometer system and C121 portable settlement probe.
A typical application of inclino-settlement column is in embankment or earth-fill dam to control settlement in foundation and embankment body during constuction.

3-SPRING MAGNET RING OS131AF6000

BRS magnet ring with 3 nylon springs for borehole installation.
Ring ID 71 mm
Ring OD 95 mm
Max. spring span 300 mm

6-SPRING MAGNET RING OS131AF6000

BRS magnet ring with 6 nylon springs for borehole installation.
Ring ID 71 mm
Ring OD 95 mm
Max. spring span 300 mm

EMBANKMENT RING OS131AR6000

BRS magnet ring with circular settlement plate for embankment installation.
Ring ID 71 mm
Ring OD 95 mm
Plate OD 300 mm

MAGNET RING OS131AM6000

BRS simple magnet ring for borehole installation.
Ring ID 71 mm
Ring OD 95 mm

3M TELESCOPIC SECTION OS141ST0000

Telescopic section available with 75 mm or 150 mm gap (movement range).
Total length 3 meters.

1.5 M TELESCOPIC SECT OS141ST0015

Telescopic section available with 75 mm or 150 mm gap (movement range).
Total length 1.5 meters.

DATUM REFERENCE OS141DR7000

It provides bottom datum point in borehole for inclino-settlement column.

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TECHNICAL ASSISTANCE

SISGEO offers customers e-mail and phone assistance to ensure proper use of instruments and readout and to maximize performance of the system.

For more information, email us: *assistance@sisgeo.com*