

MultiSmart™

>> Multi-shot surveying



MultiSmart™

A complete downhole surveying package for multi-shot surveying of dip and direction angles to track the path of the drill hole.

Tool Control: The MultiSmart™ is set up and controlled from the StoreIT™ data pad, a PC or a pocket PC hand unit. The clock in the SensIT™ is synchronised with the clock of the PC and seven parameters are recorded at each measuring station.

Survey Methods: The MultiSmart™ can be used to track the path of the hole during a bit change or after completion of the drillhole. In wireline core drilling you replace the inner barrel with SensIT™ installed in the running gear, hanging below the bit. Or you may run the MultiSmart™ on rods in open hole or on a releasable wireline into a drill string whose lowest rods (minimum 4.5m) are of non-magnetic material. Survey as you pull the rods, taking a "shot" each time the drill crew break out a joint. A recording takes only 10 seconds so the crew will never have to wait whilst a "shot" is taken.

Data Transfer and Display: After the probe is retrieved at the surface, the multi-shot measured data is transferred from the SensIT™ unit to a PC through the TransIT™ using the integral fast radio link. After the full set of readings are transferred, the data can be further processed in the MeasureIT™ software and also tabulated, plotted and exported with DisplayIT.

Actual >

Planned >

Key features

- > Both single-shot and multi-shot operation
- > Measures in all directions
- > Rugged construction, no moving parts
- > Fits standard running gear from 36 mm O.D.
- > Fully remote operation with no cables
- > Controlled from the StoreIT™ data pad, a laptop PC or a pocket PC running SmartPad™
- > Transfers data from StoreIT™ or directly from SensIT to a laptop or pocket PC using TransIT™
- > Easy to operate
- > Built in replaceable battery packs for several months of operation



SensIT™

The sealed probe contains the battery pack, control and synchronising electronics, the internal radio link antenna, three orthogonally mounted accelerometers, three orthogonally mounted magnetometers, and a temperature sensor. Accelerometers and magnetometers measure along the long axis of the probe and at right angles to this axis (left and right, and up and down).

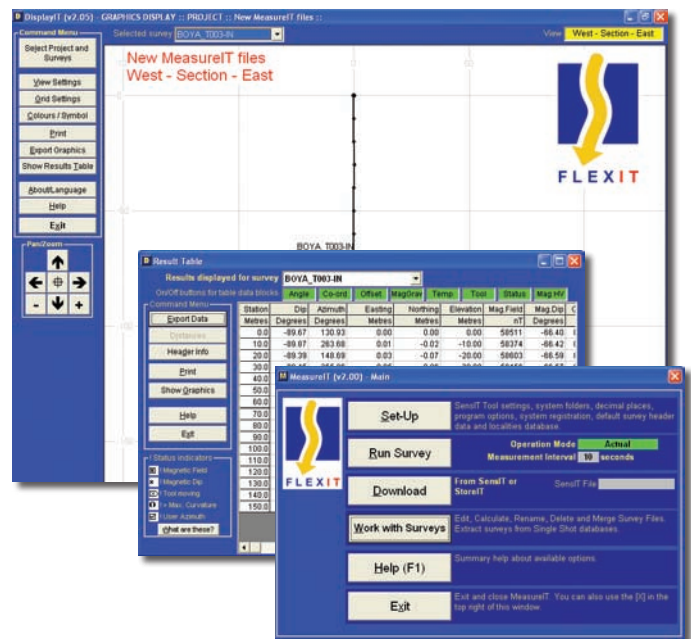
The probe has a T-joint at top-end for notching into running gear top sub assembly and a red LED at bottom end showing if the probe is powered and/or measuring. A built in memory has more than adequate capacity to store 5,000 readings.

The SensIT™ probe, installed in the running gear, controlled with the StoreIT™, a PC or pocket PC hand unit are all you need to measure these seven parameters.

- > Dip angle (inclination) 0 to $\pm 90^\circ$ (Acc: $\pm 0.2^\circ$)
- > Direction (azimuth) 0 to 360° (Acc: $\pm 0.3^\circ$)
- > Magnetic Field Strength 50 to 100 000nT
- > Magnetic Dip Angle 0 to $\pm 90^\circ$
- > Gravity Roll Angle 0 to 360°
- > Magnetic Toolface Angle 0 to 360°
- > Temperature $^\circ\text{C}$ or $^\circ\text{F}$ (-20°C to $+70^\circ\text{C}$)

TransIT:

- Dimensions > 99 x 64 x 24 mm
- Weight > 0.20 Kg
- Operating temperature > 0°C to $+70^\circ\text{C}$
- Digital interface > 433MHz Radio + RS232 (optionally with USB)
- Power source > Lithium battery pack
- Operating time > 5-10 years, depending upon use



MultiSmart Specifications



StoreIT:

- Dimensions > 122 x 76 x 20mm
- Weight > 0.15 kg
- Operating temperature > 0°C to $+70^\circ\text{C}$
- Digital interface > 433MHz Radio
- Power source > Lithium battery pack
- Operating time > 5-10 years depending upon use

SensIT:

- Dimensions > O.D 31,7mm, L 750mm
- Weight > 2 kg
- Operating temperature > -20°C to $+70^\circ\text{C}$
- Digital interface > 433MHz Radio
- Power source > Alkaline replaceable battery packs
- Operating time > to 6 months, depending upon use

Optional Accessories:



- > DDE - Downhole Depth Encoder (above left)
- > Wireline Winches (above right)
- > SmartPad (left)

>> More Information

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