

by probe rotation so no correction are required.

Specifications: Borehole PEM Z Component Probe

- ferrite core
- built-in preamplifier
- dimensions: length - 1.6m; dia - 3.02cm (3.15cm for high pressure tested probes)
- internal rechargeable ni-cad battery supply
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths 2800m

Borehole PEM XY Component Probe

The XY probe measures two orthogonal components of the EM field perpendicular to the axis of the hole. Correction for probe rotation can be achieved by two methods. The standard approach is to use the measurement of the primary field from the "PP" channel, apply a "cleaning" algorithm to remove most of the secondary field contamination, and compare this to theoretical values. The amount of probe rotation is then calculated, and the correction can be made. The second method involves the use of an optional orientation device for the X-Y probe that uses dipmeters to calculate the probe rotation.

Specifications: Borehole PEM XY Component Probe

- ferrite core
- built-in preamplifier
- dimensions: length - 2.01m; dia - 3.02cm
- internal rechargeable ni-cad battery supply
- selection of X or Y coils by means of a switch box on surface or automatic switching with Digital receiver
- replaceable heat shrink tubing for abrasion protection
- pressure tested for depths to 2800m

Orientation Device

The orientation device is an optional attachment for the XY probe which measures the rotation of the probe using two dipmeters.

Specifications: Orientation Device

- 2 axis tilt sensors
- sensitivity +/- 0.1 deg.
- operating range -89.5 to -10 deg.
- dimensions: length - 0.94m; dia - 28.5cm

Borehole Equipment

To lower the probe down a drill hole requires a cable and spool, winch assembly frame and cable counter. Borehole surveys also require equipment to "dummy probe" the hole before doing the survey.

Specifications: Borehole Cable

- two conductor shielded cable
- kevlar strengthened
- currently 1500m but will shortly have capability of surveying to depths of 3000m.

Specifications: Slip Ring

- attaches to side of borehole cable spool providing a connection to the receiver while allowing the spool to turn.
- VLF filter
- pure silver contacts

Specifications: Borehole Counter

- attaches to the drill hole casing
- calibrated in meters

Specifications: Dummy Probe and Cable

- solid steel or steel pipe
- same dimensions as borehole probe
- shear pin connection to dummy cable