

○ Electric Logging Probe (ELOG)

The Elog is the classic water-well combination probe combining shallow, medium and deep penetrating resistivity measurements with self-potential (SP).

Principle of Measurement:

A low-frequency bi-directional electric current from a source electrode on the probe returns through the formation to the cable armour above an insulated bridle. Potentials due to this current flow are measured on various sense electrodes on the probe with respect to a voltage reference 'fish' normally located at the surface. These measurements are converted to apparent formation resistivities within the probe and digitally transmitted to the surface.

○ probe specification

> Features

Digital down-hole measurement avoids errors due to cable effects

Constant-power down-hole current source give 4 decades of measurement without manual range switching

> Measurements

16" Normal resistivity
64" Normal resistivity
Single-point resistance
Self-potential SP
Natural-gamma
Temperature
Optional 8" and 32" Normal resistivity

> Applications

Water

Determination of water quality
Indication of permeable zones and porosity
Minerals/Engineering
Bed-boundary positions
Strata correlation between boreholes

> Operating Conditions

Borehole type: open-hole, water-filled

> Specifications

Diameter: 44mm
Length: 2.70m or 2.94m (with 8" and 32" option)
Weight: 9.8kg
Temperature: 0-70°C (extended ranges available)
Max. pressure: 20MPa
Resistivity range: 1 to 2,000 ohm-m

> Sales Information

Probes:	
I002072	Electric logging probe with natural gamma and temperature
I002111	- including 8" and 32" normal resistivity
I002721	Elog/Glog test box (Mk2)
I015464	Gamma test blanket

