



# TEMPERATURE AND ELECTRICAL CONDUCTIVITY TOOL

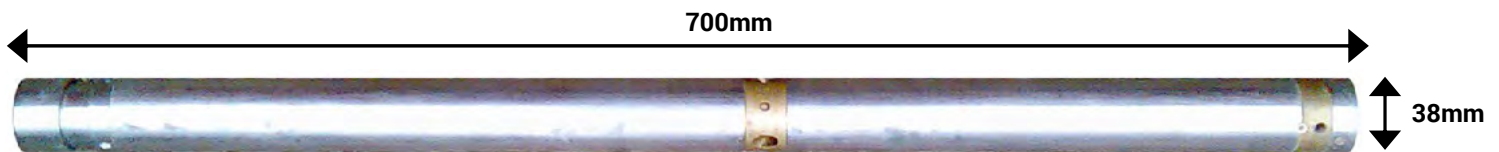
There is a natural geothermal gradient of increasing temperature (T) with depth. This gradient varies with the thermal conductivity of the geological formation and is modified by water flowing in, out or vertically through the borehole.

The electrical conductivity (EC) of water is related to its salinity and dissolved solids and is therefore a measure of the quality of the borehole water. Changes in the log profile indicate inflows or outflows of differing quality waters.

Using data from the temperature log, the electrical conductivity is corrected to 25 °C (EC25).

Differential logs are produced and may be used as an interpretative aid to detect gradient changes.

The boreholes should have been developed and the fluid allowed to approach equilibrium with the groundwater system before logging is carried out.



## Specifications

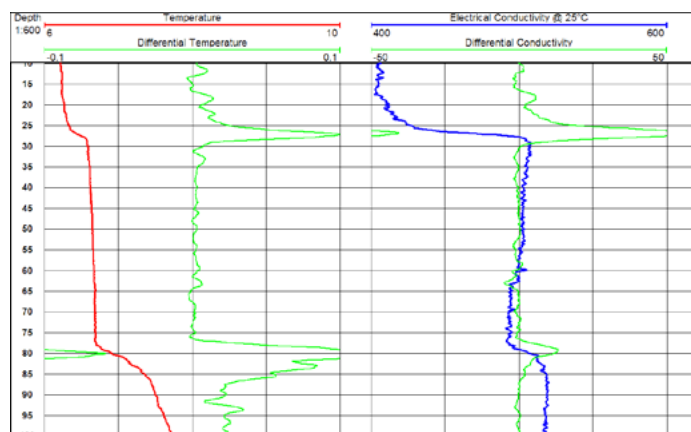
Size:	700m x 38mm
Weight:	3.5kg
Temperature range:	2° - 8°C
Conductivity range:	5-50000µS/cm
Max. temperature:	80°C
Max. pressure:	20MPa

## Borehole Conditions

Minimum diameter 50mm  
Fluid filled  
Unlined, or lined

## Logging Conditions

2 - 9m/min



Example Temperature and Electrical Conductivity Log showing points of fissure flow