



The formations surrounding the borehole are subjected to an alternating square-wave voltage applied via the upper and lower injection electrodes. Following each injection cycle, the resulting potential difference over a section of the formations is analysed as it decays with time. The form of this decay curve is related to the chargeability of the formations.

A high chargeability indicates that induced electrochemical potentials are able to develop within the formations as a result of ion transfer between pore fluids and semi-conductive metallic mineral grains present within the rocks.

The **IP38** probe is particularly suitable for mining exploration in the context of a disseminated sulphide mineralisation. In the hydrogeological domain, it can also provide qualitative information about the permeability of potential aquifer horizons.

A formation resistance value (SPR) is also calculated.

As an option, the probe can be supplied with a natural gamma detector to provide additional lithological information or for horizon correlation purposes.

Specifications

- ✓ Diameter: 38 mm
- ✓ Length: 2790 mm
- ✓ Weight: 7 kg
- ✓ Max. operating temperature: 70°C
- ✓ Max. operating pressure: 200 bar

Data / sensor parameters

- ✓ Chargeability: Injection during 100 ms
sensing from 120 to 200 ms
- ✓ SPR measurement range: 0 to 10000 Ω

Accessories / options

- ✓ Natural gamma detector: ø25 x 50mm NaI(Tl) crystal

Borehole conditions

- ✓ Fluid-filled, open borehole