

Soil Moisture Probe SMP



The Soil Moisture Probe has been developed to enable in-situ measurements of the soil moisture content, the electrical conductivity, and the temperature. It can also be used as a screening tool for various pollutants.

The complete SMP-system composes of a SMP module containing 4 measuring electrodes. It measures directly the dielectricity (s) and the electrical conductivity (EC) up to ~ 200 mS/m. A fourth parameter, the permittivity (e), is measured indirectly by Campanella et al (1986).

The digital output of the module is transmitted to the surface by means of a RS 232 signal to the second serial port (or USB/COM port simulation) of the CPT computer.

It comes complete with a special 16 pins cable for communication and power supply purposes, a connection box for the supply of power to the SMP-module and also to split the arriving geotechnical and environmental signals.

The module can either be used in combination with one of GeoMil's 15 cm² cones (enabling simultaneous monitoring of the geotechnical stratigraphy) or as a stand alone unit with a dummy tip.

In a combined CPT(U) / SMP set-up, the junction box splits the incoming signals for the CPTU data, processed and A/D converted in the GME 500, as well as SMP data.

The GeoMil logging program CPTest - running on a Windows XP computer - provides real-time data visualization and storage. Further data processing, interpretation and reporting is realized by the analyzing software CPTask, usually applied as office version.

