

WATER-QUALITY PROBE

The water-quality probe is based on the industry-standard Ocean Seven 302™ probe manufactured by Itron Srl. It can be configured with different options and includes fluid temperature, conductivity, pH, pressure and dissolved-oxygen measurements as standard and up to two additional sensors selected from the following list: nitrate, redox potential, iodine, copper. The probe enables a rapid, continuous profile to be taken of all the selected parameters throughout the borehole either for direct use or as a guide for subsequent sampling.

PRINCIPLE OF THE MEASUREMENT:

The probe contains up to seven specific sensors to acquire fluid-property measurements from a water-well. Use of the latest robust membrane sensor technology and low-drift electronics eliminates the need for complex field calibrations. Correction of measurements to standard temperature and pressure is carried out automatically on the RG-Micrologger surface system.

FEATURES

Continuous log of fluid properties.
Measurement in-situ reduces sample storage requirements and contamination

MEASUREMENTS

Temperature
Pressure
Fluid conductivity
Oxygen(ppm)
pH
*Redox potential
*Nitrate
*Iodine
*Copper

*Optional measurements

APPLICATIONS

Water
Water-quality measurements
Location of aquifers
Groundwater flows
Contamination studies

OPERATING CONDITIONS

Borehole type: Open/cased, water-filled

SPECIFICATIONS

Diameter: 43mm
Length: 1.80m
Max. temperature: 70°C
Max. pressure: 15MPa
Response time constant:
50ms (temperature
pressure, conductivity).
Others 3s

Pressure measurement:
Range: 0 to 1500dbar
Accuracy: 0.25% full scale

Temperature measurement:
Range: -1 to 49°C
(extended ranges available)
Accuracy: 0.02°C

Conductivity measurement:
Range: 0 to 6.2mS/cm
(extended ranges available)
Accuracy: 2µs/cm

Dissolved-oxygen measurement:
Range: 0 to 50ppm
Accuracy: 0.1ppm

pH measurement: Range: 0 to 14pH
Accuracy: 0.01pH

Redox measurement: Range: -1000 to 1000mV
Accuracy: 10mV

Nitrate measurement: Range: 0 to 100mg/li
Accuracy: 1mg/li

SALES INFORMATION

Probe:

25 052 000	Water-quality probe with conductivity, temperature, pH, pressure, dissolved-oxygen, redox and nitrate sensors (fresh water version)
25 052 100	Water-quality probe with conductivity, temperature, pH, pressure and dissolved-oxygen sensors (saline water version)
25 052 007	Iodine sensor
25 052 008	Copper sensor

