

# Profound IS – Geotechnical Monitoring System

## BAT<sup>®</sup>-sensor 2<sup>nd</sup> generation

Groundwater Monitoring and Testing System



### ISB.0020\* - BAT<sup>®</sup>-sensor

The BAT<sup>®</sup>-sensor in combination with the BAT<sup>®</sup>-filter tip measures accurately and against low costs the pore pressure in the ground.

This unique, re-usable sensor is equipped with a 24-bit AD converter, microprocessor, clock, network controller and memory chip. Without difficult conversion factors, this Intelligent Sensor immediately measures in engineering units. After finishing the pore pressure measurement you can easily retrieve the sensor and use it again at another project.

The BAT<sup>®</sup>-sensor has also been equipped with a temperature gauge, which measures the temperature at the end of the sensor.

In combination with the battery holder the sensor can be used as stand-alone sensor or inter-connected with other sensors in a fully digital network.

With an extra accessory it is possible to measure the permeability of the soil or to take liquid and gas samples.

### Technical specifications

Pressure range	0...5 bar (absolute)
Burst pressure	16 bar
Pressure hysteresis (0→Pmax →0)	≤ 0.1%
Linearity error	≤ 0.15 % (tested)
Operating temperature	-20 °C to 80 °C
Temperature accuracy	± 0.5 °C
Electrostatic discharge	2500 V
Memory	≈ 6,500 measurements
Power consumption	≤ 30 mA with 15 V (operating)
Protection	IP 68
Material	Stainless steel 316
Weight sensor	224 gram
Dimensions sensor	Ø 22 mm, length 170 mm
Dimensions sensor incl. transducer assembly	Ø 22 mm, max. length 248 mm
Weight set	988 gram
Dimensions of weight set	Ø 23 mm, length 415 mm
Standard cable length	10 m or 20 m
Extra	Standpipe sensor protection cap

### Accessories

ISB.00010 BAT <sup>®</sup> -filter tip Mk III	POM with porous HDPE filter
ISB.00020 BAT <sup>®</sup> -filter tip Mk III STS (stainless steel)	Stainless steel SS2343 with porous HDPE filter.
ISB.00025 BAT <sup>®</sup> -filter tip MkIII Vadose	POM with fine porous ceramic filter
Battery holder	1 D-size Alkaline battery (operating time ≈ 4 months) 1 D-size Lithium battery (operating time ≈ 8 months)
Preparation set	Single-ended needle (blue), syringe
ISB.00080 Permeability kit and sample kit	
ISB.00330 IS-field unit (programming, read-out unit incl. internal air pressure sensor)	



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