



PRODUCTS

Conductivity Meters

EM31-MK2

EM34-3

EM38

Metal Detectors

Time Domain Systems

VLF Systems

Borehole Probes

Data Acquisition

Software

Third Party Software

Downloads

Catalogue

EM34-3 | EM34-3XL

EM34-3

The EM34-3 is a simple-to-operate, cost-effective instrument for the geologist and hydrogeologist alike; applications have been particularly successful for the mapping of deeper groundwater contaminant plumes and for the exploration of potable groundwater resources.

Using the same inductive method as the EM31-MK2, the EM34-3 uses three intercoil spacings - 10, 20 and 40 m - to provide variable depths of exploration down to 60 metres. With three intercoil spacings and two dipole modes (horizontal as shown, and vertical) at each spacing, vertical soundings can be obtained. In the vertical dipole (horizontal coplanar) mode, the EM34-3 is very sensitive to vertical geologic anomalies and, as a consequence, is widely used for groundwater exploration in fractured and faulted bedrock.

The EM34-3 includes connectors for an analog signal output, as well as an input which can be used with a rechargeable battery option. Digital signal output, required for data collection with the DL600/DAS70 system, is available as an option for all models of the EM34-3.

EM34-3XL

In regions of particularly high cultural and/or atmospheric noise, the EM34-3XL - including increased transmitter power and a larger transmitter coil - improves the signal-to-noise ratio by a factor of 10 at the 40 m spacing, and by a factor of 4 at the 10 and 20 m spacings.



Specifications

MEASURED QUANTITIES

Apparent conductivity in millisiemens per metre (mS/m)

PRIMARY FIELD SOURCE

Self-contained dipole transmitter

SENSOR

Self-contained dipole receiver

REFERENCE CABLE

Lightweight, 2 wire shielded cable

INTERCOIL SPACINGS & OPERATING FREQUENCY

10 m at 6.4 kHz
20 m at 1.6 kHz
40 m at 0.4 kHz

POWER SUPPLY

Transmitter: 8 disposable or rechargeable "D" cells
Receiver: 8 disposable or rechargeable "C" cells

CONDUCTIVITY RANGES

Conductivity: 10, 100, 1k mS/m

MEASUREMENT RESOLUTION

+/- 0.1% of full scale

MEASUREMENT ACCURACY

+/- 5% at 20 mS/m

NOISE LEVELS

Conductivity: 0.2 mS/m (can be greater in regions of high power line interference)

DIMENSIONS

Rx Console: 19x13.5x26 cm
Tx Console: 15.5x8x26 cm
Rx & Tx Coil: 63 cm diameter
EM34-3XL Tx Coil: 100 cm
Case: 27.5x75x75 cm

WEIGHTS

Instrument: 20.5 kg; XL: 26.5 kg

Shipping: 43 kg; XL: 51 kg

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