

EM38

Designed to be particularly useful for agricultural surveys measuring soil salinity, the EM38 can cover large areas quickly without ground electrodes. Based on the same patented induction principle as the EM31, the EM38 provides depths of exploration of 1.5 metres and 0.75 metres in the vertical and horizontal dipole modes respectively.



Very lightweight and only one metre long, the EM38 provides rapid surveys with excellent lateral resolution. Measurement is normally made by placing this instrument on the ground and recording the meter reading. Digital meters are located on the top and side of the EM38 for the horizontal and vertical dipole measurements. Continuous or station by station measurements can also be taken from a standing position using the optional carrying handle with trigger and cable for connection to the DL720 data logger. In this mode of operation 3000 data points can easily be obtained in one hour. Real-Time logging is also available as an option with the EM38.

The EM38 has proven very useful in many geotechnical applications, such as archaeology, where use can also be made of the inphase component giving a measurement of soil magnetic susceptibility.

Specifications

MEASURED QUANTITIES	1: Apparent conductivity in millisiemens per metre (mS/m) 2: In-phase ratio of the secondary to primary magnetic field in parts per thousand (ppt)
PRIMARY FIELD SOURCE	Self-contained dipole transmitter
SENSOR	Self-contained dipole receiver
INTERCOIL SPACING	1 metre
OPERATING FREQUENCY	14.6 kHz
POWER SUPPLY	9 V transistor radio battery (e.g. Mallory MN1604)
MEASURING RANGES	Conductivity: 100, 1000 mS/m In-phase: ± 29 ppt
MEASUREMENT RESOLUTION	0.1% of full scale
MEASUREMENT ACCURACY	$\pm 5\%$ at 30 mS/m
NOISE LEVELS	Conductivity: 0.5 mS/m; In-phase: 0.02 ppt
BATTERY LIFE	30 hours continuous for MN1604
DIMENSIONS	Instrument: 103 x 12 x 12.5 cm Shipping Case: 117 x 19 x 13 cm
WEIGHTS	Instrument: 2.5 kg Shipping: 10 kg

Exclusively Sold and Serviced in Australia by:

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