

Advanced Resistivity Meter for VES and Borehole Logging

McOHM EL3i



<Abstract>

The McOHM EL3i is an advanced portable resistivity meter that can be applied to both surface electrical resistivity survey and borehole logging (Resistivity, Temperature & Caliper).

It can be utilized with 4-electrode arrays for the surface electrical resistivity surveys. Also, it can be used as an earth ground tester by 3-electrode measurements.

A color 10.1 inch LCD tablet, a powerful transmitter (maximum 400 V, 120 mA), and a high-performance potential measurement parts are all stored in one compact case, giving this instrument superior operability and portability.

<Feature>

- Available for both Electrical resistivity survey and Borehole logging.
- Equipped with a color 10.1 inch LCD tablet.
- Easy data copy through USB port
- Powerful transmitter (maximum 400 V, 120 mA), Preamplifier with high input resistance of up to 10 M Ω , 24 bit A/D converter & High-performance receiver (1 μ V resolution).
- Up to 1000 mA is possible when used with a Power Booster.
- Data format is CSV which can be edited easily on PC.

< Specification >

■ Resistivity Survey

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|-------------------------------------|---|
| Maximum Transmitting Voltage | : 400 V (800 V p-p) [Logging: 60 V (120 Vp-p)] |
| Cycle Time | : 2, 3, and 4 seconds |
| Transmitting Current | : 1, 2, 20, 60, and 120 mA (Constant Current) 250, 500, 750, and 1,000 mA (400 Vp-p) are possible with Power Booster |
| Potential Measuring Range | : ±5 V |
| Resolution | : 1 μV (24 bit Delta Sigma A/D Converter) |
| Applicable Allocation of Electrodes | : Schlumberger, Wenner, and Dipole-Dipole |

■ Borehole Logging

- Normal Resistivity Logging

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|----------------------|--|
| Applied probe | : Normal Probe (Model-3174) |
| Measurement items | : Normal Resistivity (Electrode spacing: 25, 50, and 100 cm) and SP |
| Measuring Range | : Resistivity 0 to 20 KΩm and SP ±2 V |
| Transmitting Current | : 1, 2, 20, and 60 mA (Constant Current) |
| Conducting Cycle | : 20 Hz |

- Temperature Logging

| | |
|-------------------|----------------------------------|
| Applied Probe | : Temperature Probe (Model-3571) |
| Measurement Range | : 0 to +70 °C |

- Caliper logging

| | |
|-----------------|---------------------------------|
| Applied Probe | : Caliper Probe (Model-3973) |
| Measuring Range | : 50 to 100 mm (Option: 300 mm) |

■ System

| | |
|-------------------------|---|
| OS | : Windows 10 Pro, 64 bit |
| Display | : 10.1", IPS Liquid-Crystal (1,920 x 1,200 pixel) with touch screen |
| Internal Storage Device | : SSD 128 GB |
| Interface | : USB 2.0 × 1 port |
| Operating Voltage | : 12 V DC (10.8 to 13.2 V: External battery) |
| Operating Temperature | : -5 to +45 °C |
| Dimensions | : 420 (W) x 175 (H) x 335 (D) mm |
| Weight | : 9 kg |

Please note specifications are subject to change without notice for the improvement.



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