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RESEARCH

RM744 Precision Resistivity Meter




General

The RM744+ resistivity meter allows the user to measure the resistivity of mud or slurries. The benefits of using the RM744 are:

- the sample is free from contamination
- temperature measurement to ensure stability
- removable top of the measuring cell allowing easier cleaning and avoidance of corrosion

These benefits ensure the accuracy of the reading is not compromised. The RM744 also provides a laboratory quality measurement for use in the field.

System Description



The RM744 consists of two main parts, the meter and the mud cell. These items are packaged in a rugged box. When in operation, the meter and mud cell can be taken to the point of measurement or the cell can be disconnected and the sample taken and returned to the meter to take the reading. The RM744 has 10 hrs run time between battery changes and there is a battery test indicator incorporated into the unit for checking charge levels.

The Mud Cell

The RM744 mud cell is designed to make cleaning easy, which allows for keeping the mud sample clear from contamination, improving the accuracy and reliability of the reading. The cell has a channel that can be washed under running water or can be wiped down. The 4-electrode measurement system used on the mud cell compensates for any corrosion or oxidation that has occurred on the electrode face. Two electrode systems, by design, cannot perform this operation.

Working Specification

Measurements

- | | |
|-----------------------------------|---|
| • Temperature range | 0 to 100 deg C |
| • Temperature resolution | 0.01 deg C/0.01 deg F |
| • Temperature accuracy over range | 0.5 deg C |
| • Typical accuracy at 25 deg C | 0.3 deg C |
| • Resistance range | 0.0001 to 19.9999 ohm metres |
| • Resistance resolution | 0.001 ohm metre |
| • Overall accuracy | 1% or 0.004 ohm metres whichever is the greater |
| • Calibration stability | 0.4% per year |
| • Environmental temperature | 0 to 50 deg C (mud/solution temperature may be 100 deg C) |



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Power

- Charger input voltage 100 - 250 VHAC
- Charger input frequency 47 - 63 Hz
- Charger output 18 VDC @ 0.84 A max
- Operation from full charge 10 hours max

Dimensions

- Main enclosure 240 x 185 x 110 mm
- Weight 2.0 kg

Certifications, Standards and Approvals

Intertek-CAPCIS offers an unmatched level of commitment to 3rd party certification of the Hanson products.

Products are built to the IPC610 international standard for printed circuit board manufacture as part of an ISO 9001:2000 quality control system. In addition to this Intertek-CAPCIS is subject to 3rd party product manufacture audits by an international certification body operating under the International Electrotechnical Commission code.

The RM744 has been checked for compliance to the following standards

Electrical Safety:

LVD (73/23/EEC): BS EN 61010-1 2001 BS EN 60950-1 2002

EMC / Emissions:

EMC Directive (89/336/EEC):

BS EN 12895:2000 [VEHICLES]	BS EN 55012-2002 [VEHICLES]
BS EN 61000-4-4	BS EN 61000-4-4 FTB
BS EN 61000-4-5	BS EN 61000-6-2
BS EN 61000-6-3	BS EN 61000-6-4

For more information, Pricing and to discuss your requirements please contact Intertek CAPCIS.

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