Portable Digital Microhmmeter Model DO7e



The DO7e is a very rugged yet compact and portable digital microhmmeter for the measurement of low resistance. Using a rechargeable sealed lead acid battery with built-in charger, the DO7e is capable of measuring with a current of 10Amps on the lowest range.

The DO7e has been designed with the latest solid state and microprocessor techniques to ensure the very best in measurement, reliability and features. Automatic range selection, forward and reverse current measurements with auto average and a remote start socket are all included as well as an energy saving power down mode.

Typical Applications

Rotating Machines	Earth Bonding
Switch contacts	Small transformer windings
Electrical connectors	Heating Elements
Crimped Joints	Quality of wrapped joints
PCB Track	Quality of solder joints
Cable Joints	Cable lengths

- ✓ True 4 terminal measurement eliminates lead resistance errors
- √ 10 amp measuring current
- ✓ Rechargeable batteries with built-in charger
- \checkmark Measuring range 6mΩ...600Ω
- Resolution 1.0 $\mu\Omega$ on 6m Ω range
- ✓ Auto and manual range selection
- ✓ Auto Power off for longer battery life
- ✓ Remote start socket
- ✓ All solid state design

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Hampton Road Croydon CR9 2RU United Kingdom



DO7e

Technical Specification

The DO7e incorporates many advanced features, including protection up to 415Vrms at the measuring terminals, digital calibration and long scale length 6000 count. The DO7e is built into a rugged carrying case with rechargeable batteries giving real portability.

Six measuring ranges from 600 W to 6mW and the long scale length, 6000 count, will ensure high measurement resolution. Resistance down to 1mW can be measured. The use of a high capacity sealed lead acid battery enables a measuring current of 10A on lowest measuring range.

The battery charger is built in and the auto switch off circuits ensures the maximum battery life, with over 2000 measurements at 10A from a single charge.

Forward and reverse current measurements are available as well as the automatic average of the two readings, this ensures maximum accuracy and eliminates errors due thermal emf. The measuring ranges may be manually selected or the DO7e can be set to select the correct range automatically.

Range	Resitn.	Typical Current	Uncertainty 0°C ±5°C, 1 year	Temperature Coefficient /°C
600Ω	100mΩ	1mA	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +30ppm FS
60Ω	10mΩ	10mA	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +30ppm FS
6Ω	1ΜΩ	100mA	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +30ppm FS
600mΩ	100μΩ	1A	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +30ppm FS
60mΩ	10mW	1A	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +30ppm FS
6MW	1mW	10A	±(0.25%Rdg. + 0.05% FS)	40ppm Rdg +250ppm FS

Measurement

Four terminal Kelvin/Thomson principle eliminates errors due to lead resistance

Display

0.8" LED 6000 count with automatic decimal point and polarity indication

Ranges

6 ranges, with manual or automatic range selection. LED indication

Average

Automatic average and display of measurement with forward and reverse current.

Calibration

Digital Pass code protected

Protection

415Vrms maximum at the measuring terminals will blow internal protection fuse

Battery

Sealed lead acid battery with built-in charger. Greater than 1000 measurement s on lowest (10A range) and 20 hours on other ranges from a fully charged battery

Terminals

Binding posts accept 4mm spade tags, 6mm bare wires and 4mm banana plugs (4mm safety sockets)

Working Temperature

 $0...40^{\circ}\text{C}$ rel. humidity 80% max. non condensing

Storage Temperature

-20...+50°C

Mains Supply

115/230 Volts +10%-10% 47...63Hz 20VA

Safety

EN61010-1 EMC - EN61236

Dimensions

343 x 327 x 152mm (W H D)

Mass

6 kg approx.

Accessories

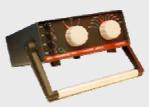
Supplied complete with mains cord, measuring leads with Kelvin clips, operating handbook and calibration certificate



Additional Lead sets

LS03 large Kelvin clips 3 metre leads **LS04** Large Kelvin clips 3 and 15 metre **HS01** Duplex Handspikes 2.5 meters **HS02** Duplex handspikes 3 and 15 metres

For other combinations please ask



MTS2 Calibration Standard

A switch standard with all values required to calibrate the DO7e

CROPICO

Hampton Road Croydon CR9 2RU United Kingdom

tel. +44 (0) 20 8684 4025 Fax. +44 (0) 20 8684 4094 Email. info@cropico.com Website. Www.cropico.com

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