

DIGITAL MICRO-OHM METER



DMO 100D

The compact, robust, direct reading Eltel Digital Micro-Ohm Meter-Model DMO-100D is specially designed with built-in 100A DC regulated current source for measuring low resistance of contacts, busbars, breakers, SF-6 switchgear, switches, fuses, railbonds etc.

The measurement can be made at different DC currents up to 100A using a ratiometric circuit. The voltage drop across the unknown resistance is read directly on a 4½ digit LCD display as milli-ohms or micro-ohms. A true four terminal measurement is used which eliminates need for cable calibration, ensuring high accuracy.

The instrument is line powered and employ a current regulating circuit. This stabilises the test current against line voltage fluctuations and

variation of resistance in the test loop. As they are line voltage operated, the need for battery packs is eliminated.

A selector switch is provided either to display the test current or resistance being measured.

The Model DMO-100D provides a continuous 100 amp test current using up-to-date Switch Mode Technology to provide current regulation on four ranges against line variations or sample resistance changes. The Test Set also provides five resistance ranges for maximum resolution & versatility. A large 4½ digit LCD displays either the measured resistance directly in milli-ohms or micro ohms or the current flowing through specimen.

FEATURES

- Built-in 100-A DC Continuously rated.
- · SMPS based regulated source.
- · Digital display of resistance and DC current.
- Large 4½ digit display for high resolution.
- Suitable for operation in Live Switchyard Conditions.
- · Direct, high accuracy resistance reading.
- · True four terminal measurement.
- Current "ON" warning indicator.
- · Light weight and portable.

APPLICATIONS

For fast, reliable & accurate measurement of low resistance on:

- Switch contacts
- Joints
- SF-6 Switchgears
- Fuses
- Bus bars
- Breaker contacts
- Splices
- Railbonds

SPECIFICATIONS

MODEL DMO-100D

Resistance Ranges: 5 ranges: 19.999 μ ohms, 199.99 μ ohms, 1999.9 μ ohms and 19.999 milli-ohms, 199.99 milli-ohms.

Test Current	Multiplier Setting			
I0A	199.99mΩ	$19.999 m\Omega$	1999.9μΩ	199.99μΩ
20A	$19.999 m\Omega$	1999.9μΩ	199.99μΩ	
50A	$19.999 m\Omega$	1999.9μΩ	199.99μΩ	
100A	$19.999 m\Omega$	1999.9μΩ	$199.99 \mu \Omega$	$19.999\mu\Omega$

Measuring Current : 10, 20, 50 & 100A DC continuous

on all ranges

Resolution : $0.001 \mu\Omega$, in 0-19,999 $\mu\Omega$ range

0.01 $\mu\Omega$, in 0-199.99 $\mu\Omega$ range 0.1 $\mu\Omega$, in 0-1999.9 $\mu\Omega$ range 1 $\mu\Omega$, in 0-19.999 milli range 10 $\mu\Omega$, in 0-199.99 milli range $\pm 0.3\%$ of reading, $\pm 0.2\%$ of the F.S

in all ranges except in $20\mu\Omega$ ranges

±1% of reading, ±0.2% of the

F.S in 20μΩ range

Open Circuit

Accuracy

Measuring Voltage : 3V DC

Input : $230V \pm 10\%$, 50Hz

OR 110V ±10%, 60Hz, <700VA

Dimensions: 450mm x 230mm x 200mm (LxWxH)

Operating

Temperature: 0 – 50°C; Ambient to 90% RH

Weight : Approximately 15 kgs

DISPLAY, INDICATORS & SWITCHES

- 4½ LCD display to display the measured Resistance/Current flowing through test specimen.
- Warning Indicator to caution operator of current flow in test specimen.
- Resistance Range Selector Switch to select appropriate range;
- Power "ON" Switch with indicator.
- Test Current Control Switch.
- Resistance Range Selector Switch.
- Selector Switch to display either measured resistance or the DC current output.
- Two independent Current and Potential Terminals.
- Grd Terminal

The Digital Micro - Ohm Meters are supplied with AC line power cord, instruction manual and transport case.

STANDARD ACCESSORIES

A set of 5 or 10 or 15 meter cable with 2 potential and 2 current leads with hand spikes and batteruy clips. Battery clips supplied are with 45mm opening for current leads and with 25mm opening for Potential leads.



CABLES WITH BATTERY CLIPS AND HAND SPIKES





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