



**MOTWANE**

EMPOWERING  
MEASUREMENT



## Micro Ohm Meter **LR2045-S**

### Features :

- ⦿ Back-Emf Protection
- ⦿ Heat Run Test
- ⦿ 4½ digit Large and Clear Display
- ⦿ Accurate & Stable Readings
- ⦿ PC Interfacing with Software
- ⦿ 4 Wire Measurement Method
- ⦿ Highly Rugged Industrial Graded Casing
- ⦿ Sealed Soft Touch Membrane Keypad
- ⦿ One Man Operation

The Motwane LR 2045-S is a 4½ digital micro-ohm-meter, capable of measuring low resistance with 1micro-ohm resolution. It employs the proven 4-wire (4W) measurement where fixed DC current is supplied to DUT and voltage drop across the DUT is measured and displayed as proportional resistance reading. The meter is able to deliver guaranteed stable readings on inductive as well as resistive loads.

## General Specifications:

### Display:

- Large seven segment LED display.
- 4 ½ digit display.
- Max. display in digit 19999.
- Display update rate : 2.5 times / second

### Indications:

- LEDs for range and  $\Omega$  / m $\Omega$  indications.
- LED indication for operation and pulse mode.
- Over range indication: Blinking zero display.
- Under Range Indication : All Display shows zero.(Not blinking)

## Applications :

- Hot & cold winding resistance measurement of motors, generators, alternators and transformers.
- Contact resistance measurement of fuses and miniature circuit breakers.
- Resistance measurement of cables & wires.
- Bond testing of aircraft frames.
- Resistance measurement of resistive component (e.g.: resistors, shunts, etc.)

## Technical Specifications:

Range	Resolution	Accuracy ±(% Rdg. +dgt)	FS rdg.	DC Current applied to DUTMax.	Power dissipation in the sample at mid-scale
20 m $\Omega$	1 $\mu\Omega$	±(0.05+5)	19.999 m $\Omega$	1 A	10 mW
200 m $\Omega$	10 $\mu\Omega$	±(0.05+5)	199.99 m $\Omega$	1 A	100 mW
2000 m $\Omega$	100 $\mu\Omega$	±(0.05+5)	1999.9 m $\Omega$	100 mA	10mW
20 $\Omega$	1 m $\Omega$	±(0.05+5)	19.999 $\Omega$	10 mA	1 mW
200 $\Omega$	10 m $\Omega$	±(0.05+5)	199.99 $\Omega$	1 mA	0.1mW
2000 $\Omega$	100 m $\Omega$	±(0.05+5)	1999.9 $\Omega$	100 $\mu$ A	10 $\mu$ W

Note: Accuracies are valid from 1/10<sup>th</sup> of the range to FS of range & valid at

- Temperature: 25°C ± 3°C at 55%±10%RH.
- Temperature Coefficient : 100ppm/°C.
- Warm up time for stated accuracy -10min.
- Open Circuit Voltage: 15Volt ± 3volt.

### Environmental Specifications:

- Operating Temperature: 0°C - 40°C.
- Storage Temperature: 0°C - 55°C.
- Humidity: Less Than 95% RH Non-Condensing.

### Power Supply:

- 230 VAC ± 10%, 50Hz, Single phase supply.

### Physical Specifications:

- Dimensions (H X W X L): 210 mm X 290 mm X 360 mm
- Net Weight : 5.0kg (Approx)

### Protection:

- Protection against back EMF: 12KV - (1.2/50 $\mu$  sec pulse).
- Instrument protected against mains overload (Fuse 250 mA).
- All ranges are fuse protected. (Input fuse 1A).

## Accessories:

### Standard Accessories:

- Carrying case : 1No.
- 3mtrs long test lead with GP kelvin clip : 1Set (12mm Jaw opening approx.)
- User manual : 1No.
- Calibration certificate : 1No.
- Input protection fuse (1A) : 1No.
- Mains protected fuse (250mA) : 1No.
- Three pin mains cord (1.5mtrs) : 1No.

### Optional Accessories:

- Carrying case : 1No.
- Software CD : 1No.
- USB interfacing cable : 1No.
- 10 mtrs long test leads with heavy duty kelvin clip.(35mm Jaw opening approx.)
- 10 mtrs long test leads with large crocodile clip. (40mm Jaw opening approx.)
- 10 mtrs long test leads with 'C' clamp. (80mm opening approx.)
- Heavy duty bond testing probe assembly. (10mtrs)



# The Motwane Manufacturing Company Pvt. Ltd.



**REGD. OFF. & FACTORY :** Gyan Baug, Motwane Road, Nashik Road-422101

Tel.: +91 - 253 - 2463752 / 53 Fax.: +91 - 253 - 2463197 e-mail: sales@motwane.com Toll Free No.: 18002332222

**MUMBAI :** 223-224, MIDAS, Sahar Plaza, Andheri - Kurla road, J. B. Nagar, Andheri (E), Mumbai – 400059

TEL: +91-22-40155585 / 6 / 7 FAX: +91-22-40155588 e-mail: mumbai@motwane.com

**DELHI :** 2 D, 2nd Floor, Vandana Building, 11, Tolstoy Marg, Cannanught Place, New Delhi - 110 001

Tel.: +91 - 11 - 41522 105 Fax.: +91 - 11 - 41522 106 e-mail: delhi@motwane.com

**BANGALORE :** #8 / 12, 3rd Floor, Honnam Complex, South Cross Road, Basavanagudi, Bangalore - 560 004.

Tel.: +91 - 80 - 26611323 Fax.: +91 - 80 - 26621186. e-mail: bangalore@motwane.com

**KOLKATA OFFICE :** Eden Terrace , 10 , Tarak Datta Road, Near Beck Bagan Methai, Kolkata – 700019.

Tele Fax : +91-33-22832436, FCT Land Line : +91-9007791374. E-mail:Kolkata@motwane.com

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**www.motwane.com** and click  
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