

SCOPE

CRM 100B Contact Resistance Meter



Now generate 100 Amps without AC supply to measure contact resistance in EHV switchyards...
... directly on CRM 100B

The Product

CRM 100B CONTACT RESISTANCE METER

CRM 100B directly measures micro-ohm values at 100 Amps DC under live switchyard conditions.

CRM 100B is specially designed to reliably measure contact resistance of circuit breakers, isolators, busbar joints, welded joints etc., under the hostile electrostatic noise found in live EHV switchyards upto 765 kV.

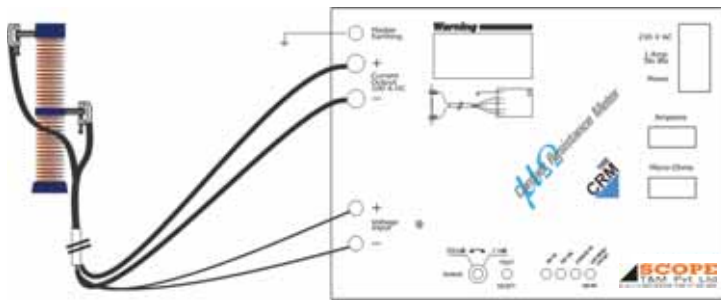
Inbuilt rechargeable battery tremendously enhances utility as AC supply connectivity is not required.

CRM 100B operates on a rechargeable battery as well as Mains supply. It has a built-in constant current source, a precision instrumentation amplifier, digital readout and control logic.

A pulse of 100A DC is passed through the test object and voltage drop is sensed using the classical Kelvin's 4 wire method to measure contact resistance. Both test current and resistance value are displayed on LCD.

Measuring with CRM

- Isolate the test object e.g. a breaker and provide earthing from both sides, close the breaker.
- Connect CRM to breaker as shown in the diagram.
- Remove Earthing from both sides.
- Switch ON the instrument and select the correct range.
- Select operation mode - Mains or Battery.
- Reset the instrument and switch to TEST.
- CRM will display the contact resistance in micro-ohms.



Special Features

- A radically new design makes CRM the lightest available contact resistance meter.
- Battery as well as Mains operated.
- Direct display of micro-ohm value does away with manual calculations.
- Fool-proof connections and repeatability are ensured by SCOPE's specially designed proprietary Ck clamps.
- Supplied with rugged calibrated test lead set suitable for 4 wire measurement.

Specifications

- Ranges : 199.9 $\mu\Omega$ and 1999 $\mu\Omega$
- Resolution : 0.1 $\mu\Omega$ and 1 $\mu\Omega$
- Accuracy : Value $\pm 2\%$ ± 1 digit
- Current : 100 A DC
- Displays : Two, 3½ digit, ½ inch LCD, for current and resistance values
- Power : 230 V AC $\pm 15\%$, 50 Hz $\pm 10\%$, 75 VA
- Battery : Instrument operation on inbuilt rechargeable battery (2 nos. 6V, 4.5AH)
- Dimensions : 435 x 350 x 170 mm
- Weight : 9 kg, instrument
- Environment: 0° to 50° C max, 95 % RH (non-condensing), Live EHV switchyard environment

Ordering Information

Description	Std Qty
Contact Resistance Meter Model CRM 100B complete with standard accessories	1 set
Standard Accessories	
Calibrated Test Cables 15 m long, with Ck clamps of 75 mm opening	1 set
Master Earthing Cable, 7 m long	1 set
Mains Cord, 3 m long	1 no.
Spare Fuses	1 set
Carrying Case for Test Lead Set	1 no.
Instruction Manual	1 no.
Optional Accessories	
Calibrated Test Cables 15 m long, with Ck clamps of 100 or 150 mm opening	1 set
Calibrated Test Cables 20 m long, with Ck clamps of 75 or 100 or 150 mm opening	1 set

Note: Calibration Certificate having traceability to NABL is supplied

Corporate Office
402, Aurus Chamber, Annex - A,
S. S. Amruwar Marg, Worli,
Mumbai 400 013, INDIA
Phone : +91 22 4344 4244
FAX : +91 22 4344 4242
e-mail : marketing@scopetnm.com

Works & After Sales
EL 31/11, 'J' BLOCK,
MIDC Bhosari,
Pune 411 026, INDIA
Phone : +91 20 6733 3999
FAX : +91 20 6733 3930
e-mail : works@scopetnm.com

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SCOPE
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www.scopetnm.com