Illustrative Image.

MO2KR

Features

- Resolution: 0.01 mΩ
- Maximum reading: 2000 Ω
- Alphanumeric display
- 4½-digit reading
- Test current up to 1 A
- Thermal printer
- Kelvin method (4-terminal)
- USB interface
- Software for PC analysis
- Rechargeable LFP battery

Description

The TENTECH MO2KR digital milliohmmeter is a portable instrument designed to measure very low contact resistances of circuit breakers and switches, busbars, transformer and motor windings, etc., with high accuracy. It provides test currents from 1 mA up to 1 A. The instrument uses the 4-terminal method (Kelvin method) to eliminate measurement errors caused by test leads and their contact resistances.

Measurement accuracy is ensured by a state-of-the-art signal amplification system, which is offset-free and highly stable over time. The test current is adjustable by the operator in all ranges and its value is displayed both analogically (bar graph) and digitally. This feature makes it easier to measure resistances with significant inductive components, as it allows the user to monitor the current ramp-up until stabilization. The open-circuit output voltage can reach up to 10 V, depending on the selected test current, which significantly reduces the stabilization time when testing inductive loads (especially large transformer windings). The measurement circuit is protected against voltage spikes generated by such inductances.

This instrument is robust, lightweight, and easily portable by one person. It delivers excellent performance both in the laboratory and in fieldwork.

LFP Rechargeable battery

Expected lifetime : 2000 charge / discharge cycles (average).

Low self-discharge : When the equipment is not in use, battery charge decreases with time at a much lower rate than other battery technologies.

Safety : In contrast to other lithium battery technologies commonly used, LFP batteries are thermally and chemically stable, significantly improving battery safety.

Remote control by App

Increased safety and comfort : Set up, start and stop tests in an even safer and more comfortable way

Automatic reports : Generate test reports directly on the App

Smartphone / tablet features : Incorporate smartphone features into your reports (photo, GPS coordinates and test location map)

Modbus® Protocol

This equipment implements the Modbus® open protocol. All the setup, real-time control, measurement monitoring, as well as test data retrieval, can be performed using commercial software such as LabVIEW® and PLC, or through dedicated, self-developed software. In this way, the entire measurement and analysis process can be automated according to the needs of the application. Complete documentation with accessible and controllable parameters is provided, as well as clarification of usage questions through technical support.

Technical specifications

MO 2KR

ELECTRICAL	
Test current	1 mA - 10 mA - 100 mA - 1 A Each current can be adjusted between 0 % and 100 % of its nominal value
Resistance ranges	0 - 2 Ω @ 1 A 0 - 20 Ω @ 100 mA 0 - 200 Ω @ 10 mA 0 - 2000 Ω @ 1 mA For each nominal current, the ranges are automatically selected to optimize the reading
Resolution	0.01 mΩ @ 1 A
Basic accuracy	± 0.2 % of reading ± 2 digits
Test voltage	Up to 10 Vdc (open circuit) @ 1 A
Test current accuracy	± 3 %
FEATURES	
Measurement modes	Manual, production line and automatic
Measurement principle	Kelvin method (4-terminal)
Advanced features	Direct digital reading of measured resistance values on the alphanumeric display, with up to 4½ digits. Measurements are obtained quickly and with high accuracy.
Filter function	Minimizes interference in resistance measurements
Built-in printer	It has a thermal printer that allows printing the measured values
Internal memory	Memory for up to 4,095 measured values (up to 1,365 tests with one measurement each)
COMMUNICATION	
Protocol	Modbus
USB	For configuration, control and download the stored values
Bluetooth	For configuration, control and download the stored values
SOFTWARE	
Desktop (PC/Notebook)	TLogger software: for remote control, allowing to configure, run tests and generate reports
App (Smartphone/ Tablet)	TENTECH Remote Control app: for remote control, allowing to configure, run tests and generate reports

STANDARDS	
Safety class	IEC 61010-1
ENVIRONMENTAL	
IP rating	IP65 (with closed lid)
Operating temperature	14 °F to 122 °F (-10 °C to 50 °C)
Storage temperature	-13 °F to 158 °F (-25 °C to 70 °C)
Humidity range	95% RH (non condensing)
POWER SUPPLY	
Rechargeable battery	LFP, 12 V - 3 A
Battery charger	AC adapter 12 V - 2 A
MECHANICAL (OF THE INSTRUMENT)	
Weight	Approx. 6.6 lb (3 kg)
Dimensions	10.79" x 9.84" x 4.88" (274 x 250 x 124 mm)

Accessories

- 2 combined test leads (current and potential)
- Grounding cable
- AC adapter
- USB cable
- Quick reference guide
- User manual (download)
- TLogger software (download)
- Tentech Remote Control app (download)
- Carrying case

TLogger

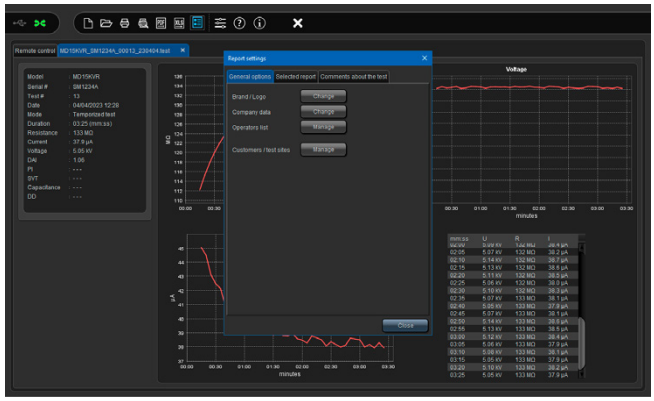
Software for remote control and reporting

TLogger communicates with the equipment through a USB connection. Set the parameters, start / stop a test, save the data and generate reports.

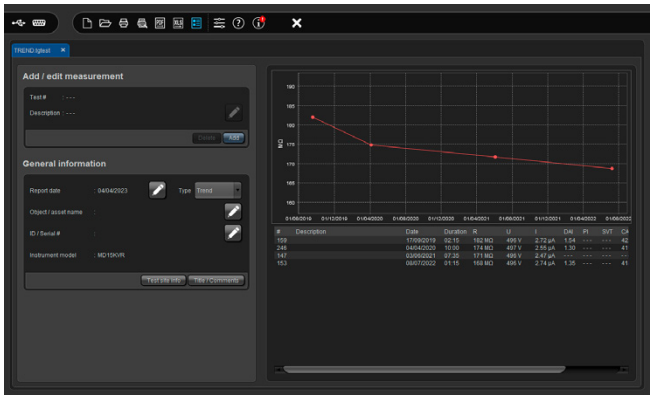
Insulation tester screen sample

Available for download at: www.tentech.com/tlogger

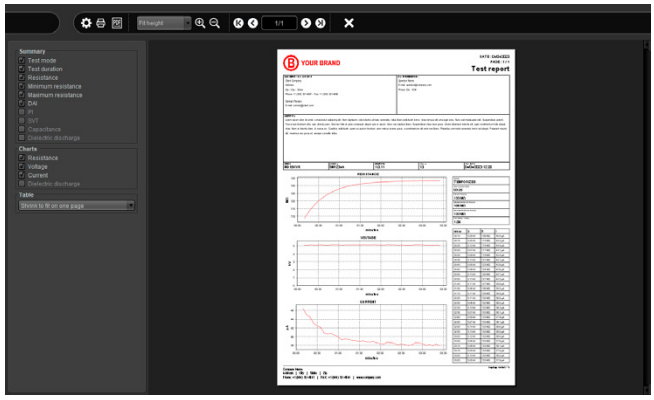
Test settings



Report settings



Trend analysis (insulation testers and micro-ohmmeters)



Report generation

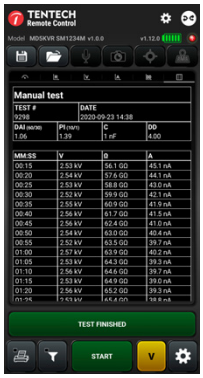
Smartphone App

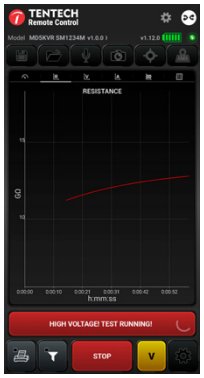
TENTECH
REMOTE CONTROL

Remote control by App

TENTECH equipment that has Bluetooth® interface can be controlled remotely via an Android™ smartphone / tablet running the TENTECH Remote Control application. Set the parameters, start / stop a test, save the data and generate reports.

- Real-time measurement
- Test details
- Test Start / Stop





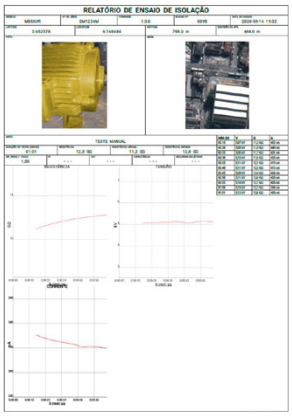
Increased safety

TENTECH Remote Control communicates with the equipment through a Bluetooth® connection, allowing remote control of the tests, further increasing user safety in tests with potential risks.

Smartphone features and automatic reporting

Record voice annotation for each measurement, generate automatic test reports directly on the App. Incorporate smartphone / tablet features into the report (photo, GPS coordinates and test location map).

- Voice annotation
- Pictures
- GPS coordinates
- Map



Using the remote control does not require Internet connection (the Internet is only necessary if you want to see a map of the test site or send reports by email).

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TENTECH

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Global presence

TENTECH instruments are made in the USA and used in over 40 countries worldwide.

Test & Measurement equipment

- Earth ground testers
- Hipots
- Insulating glove tester
- Insulation testers
- Kilovoltmeters
- Micro-ohmmeters

TENTECH CORPORATION
7330 NW 66th ST
Miami, FL 33166
USA

For more information
Phone : +1 305 938 0389
E-mail : sales@tentech.com
Site : www.tentech.com