



## 15kV-os digitális szigetelésvizsgáló



- Méréstartomány: 0... 15 ΤΩ
- Mérőfeszültségek: 500 V, 5 kV, 10 kV, 15 kV, 25V/100V, vagy 500 V lépésekben
- Lépcsőfeszültség teszt, dielektromos kisülés mérése és mérése melkedő jellel
- Automatikus mérés: PI, abszorpciós index, kapacitás és szivágó áram mérés
- AC/DC feszültségmérés
- Autamatikus méréstartomány váltás
- Távvezérlés Android eszközről
- Digitális és pálcikás analóg kijelzés
- Beépített időzítő(90 percig)
- Valós-idejû óra és dátum
- Kapcsolható szûrõ
- Beépített nyomtató
- Max. 16 000 mért érték tárolása
- USB interfész, szoftver a mért értékek kiértékeléséhez
- Tölthető LFP telep

The digital insulation tester model **MD15KVR** is TENTECH's cutting edge insulation analyzer equipment and it is one of the most complete and sophisticated available in the international market. A software allows for further analysis of tests results, including features such as graphical representation and automatic report generation. Its proven technology provides safe, reliable and accurate measurements of insulation resistances up to 15 T $\Omega$ , with 4 preselected test voltages, 500 V - 5 kV - 10 kV - 15 kV. Other test voltages may be selected in steps of 25 V, 100 V or 500 V.

A state-of-the-art microprocessor controls the equipment operation and enables the incorporation of advanced features which make measurements easier: auto-range selection, AC/DC voltmeter, automatic measurement of absorption index, polarization index, leakage current and capacitance, timer enabling programming of test duration, configurable pass-fail test, dielectric discharge, ramp test, step voltage test, built-in printer, real time clock and calendar.

Measured values are transmitted through the USB interface and are printed in the built-in printer as a registration of the performed test. Furthermore, the measured values are stored in a non-volatile internal memory. Up to 16,000 measured values may be stored to be transferred afterward to a computer running the T-Logger program. This software allows a further analysis of the test results, including a graphical representation and automatic report generation. The real time clock and calendar, and the sequential test number, facilitates the identification of each test, and the organization of a predictive maintenance system by trend analysis.

The **MD15KVR** is powered by a rechargeable LFP battery. The cabinet is strong and lightweight, easy to carry, impact-resistant and suitable to be used under severe weather conditions. Thus the megohmmeter supplies very reliable and accurate measurements both in laboratory and out in the field.





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### Műszaki adatok

- Test voltage
  - o 500 V, 5 kV, 10 kV, 15 kV directly, one button selectable. o 500 V to 15 kV in 25 V, 100 V or 500 V steps. DC, negative.
- Maximum resistance reading
- 15 TΩ @ 10 kV up to 15 kV
  - $\circ$  10 TO  $\widetilde{\textcircled{Q}}$  5 kV up to 9.99 kV
  - 5 TΩ @ 1 kV up to 4.99 kV
  - 1 TΩ @ 525 V up to 999 V
  - 500 GΩ @ 500 V.
- DC voltmeter
  - 15 V up to 1,000 Vdc
  - Accuracy: ±(5 % of reading + 3 digits).
- AC voltmeter
  - 15 V up to 1,000 Vrms
  - Accuracy: ±(5 % of reading + 3 digits).
  - Overvoltage category: CAT III 600 V.
- Leakage current measurement
  - 1 nA up to 1,500 µA
  - Accuracy: ±(10 % of reading + 3 digits).
- Capacitance measurement
  - 50 nF up to 10 µF @ 500 V
  - 50 nF up to 5 µF @ 1,000 V

  - 30 nF up to 2 μF @ 2,500 V
    30 nF up to 1 μF @ 5,000 V
  - 30 nF up to 680 nF @ 10,000 V
  - 30 nF up to 680 nF @ 15,000 V
  - Accuracy: ±10 % of reading ± 3 digits.
- Short circuit current: Max. 2 mA.
- Test voltage accuracy: ± 3 % of nominal test voltages on 10 GΩ
- Insulation tester basic accuracy
  - $\circ~\pm 5$  % of reading 1 M\Omega to 1 T\Omega @ 15 kV
  - ±20 % of reading 1 TΩ to 15 TΩ @ 15 kV
  - (for lower test voltages, the upper limit will be reduced proportionally)
  - $\circ~\pm 20$  % of reading ± 5 digits 10 k $\Omega$  to 100 k $\Omega$
- $\circ$  ±10 % of reading ± 5 digits 100 k $\Omega$  to 1 M $\Omega$
- Environmental protection: IP65 (with closed lid).
- Safety Class: In accordance with IEC 61010-1.
- E.M.C.: In accordance with IEC 61326-1.
  - Electromagnetic irradiation immunity: IEC 61000-4-3 szerint
- Electrostatic immunity: In accordance with IEC 61000-4-2.
- Power supply
  - Rechargeable battery (LiFePO4)
  - Expected lifetime: 2,000 charge / discharge cycles (average).
  - Internal rechargeable (LiFePO4 12 V 6,000 mAh). • Battery charger: 12 V - 2 A.
- Operating temperature range: -5... 50°C
- Storage temperature range: -25... 70°C
- Humidity range: 95% UR (non condensing).
- Equipment weight: kb. 6.3 kg
- Dimension: 450 x 360 x 190 mm

#### Included accessories

- 2 Measuring test leads.
- 1 GUARD test lead.
- 1 AC Adapter.
- 1 T-Logger software (CD-ROM)
- 1 User quide
- 1 Protective bag
- 1 USB cable

#### Advanced features

- Ramp test
- Dielectric discharge. •
- utomated polarization index calculation •
- Automated dielectric absorption ratio calculation
- Programmable pass-fail test •
- Step voltage test •
- 16,000 readings memory
- Switchable filter to remove external noise interference. .
- Built-in printer •
- Prints elapsed time, actual voltage and resistance measured each 15 seconds.
- Interface: USB. •
- Built-in chronometer: Shows elapsed time in mm:ss format. Count starts automatically for each measurement.
- T-Logger Software: Friendly, easy to use software. Tests are represented in graphic and tabular views. With automatic report generator, including the operator's commentaries.

#### Remote control by Android device

This instrument has Bluetooth® interface and can be controlled remotely via an Android™ smartphone / tablet running the TENTECH's remote control application.

#### Go to Google Play Store

- Android<sup>™</sup> and Google Play<sup>™</sup> Store are trademarks of Google, Inc.
- Bluetooth® is a registered trademark of Bluetooth SIG, Inc. Worldwide.

#### **Desktop software**

Equipment's internal memory can be accessed by a desktop software that allows to download all memory data. It also can be used to make analysis of the test results and automatic report generation.

#### 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.

