

**TECHNOLOGY
PRODUCTS**



MIKO 9A



SKB EP

DIAGNOSTIC INSTRUMENTS
FOR HIGH-VOLTAGE EQUIPMENT

Miko 9A



- Measures DC resistance from $1\ \mu\Omega$ to $30\ \text{k}\Omega$.
- Specialized modes for 10 object configurations.
- Heat Run Test for continuous transformer diagnostics.
- Simultaneous measurement of two transformer windings.
- Dynamic Resistance Measurement (DRM) for OLTC in-place checks.

The instrument is designed to measure the DC resistance in inductive and non-inductive circuits in the range of $1\ \mu\Omega$ - $30\ \text{k}\Omega$, as well as to generate oscillograms of a switching contactor in the high-speed OLTC; it also provides for demagnetization and "Heat Run Test".

MIKO-9A features specialized measurement modes for different configurations of 10 objects, taking into account their specific features. This functionality enables the user to organize the results of measurements, and to improve workflow with the saved information. Depending on the type of object, user can select special measurement modes. For a resistive object, the modes are completely similar to MIKO-8M(A), and for an inductive object, in addition to the two modes MANUAL and AUTO 1ph, user can select AUTO 3ph.

Special mode AUTO 3ph allows simultaneous connection to three phases of the transformer and measurement with automatic switching between phases. This mode reduces the amount of reconnecting to/from the object under test.

The device features an additional mode of transformer diagnostics, the "Heat Run Test", which is performed by continuous measurement and periodic result saving of the transformer winding resistance (recalculated to temperature) during the cooling process of the winding, and dependence of the winding temperature on time can be represented in a tabular or graphical form.



The instrument is capable of simultaneous resistance measurement across 2 windings, which guarantees fast and accurate DC resistance measurement of power transformers with delta connected secondary windings, when conventional methods do not guarantee reliable results. The instrument takes into account the distribution of magnetic flows in the circuit and indicates onto which phases you should connect the instrument to speed up the measurement process. Furthermore, simultaneous measurement of two windings reduces the total number of measurements from 6 to 3.

OLTC in-place check mode allows the user to assess the state of the switching OLTC equipment with current limiting resistors without removing contactor tank cover (DRM – Dynamic Resistance Measurement method). The demagnetization process is compulsory before open-circuit test, short-circuit loss measurement, transformation ratio measurement, etc., so the innovative MIKO-9A has this functionality, and the graph of current behaviour is displayed on the instrument in real-time.

MIKO-9A, similar to MIKO-8M(A), has a number of automatic calculation functions for resistance measurement results.



General Features

- **Measurement range:** $1\ \mu\Omega$ - 30 k Ω
- **Resolution:** 0.1 $\mu\Omega$
- **Accuracy:** $\pm(0.1\% + 0.5\ \mu\Omega)$
- **Test current output:** 0.0005 - 10 A
- **Test current range in DRM mode:** 0.1 - 10 A
- **Measurement display resolution:** 5 digits
- **Power supply (built-in battery):** Lithium-ion battery
- **Battery charging time:** 3 h
- **Battery runtime (in continuous operation):** 8 h
- **Built-in memory:** to 1000 measurements
- **PC connection:** USB, Bluetooth
- **Display:** TFT color graphic touch, 800 x 480 pixels
- **Power consumption:** 120 W
- **Output:** 60 W
- **Power supply (mains voltage):** ~ 90-253 V, 47-63 Hz = 127-354 V
- **Dimensions:** 270 x 250 x 130 mm
- **Instrument weight:** 4.0 kg
- **Environmental protection:** IP 67 (device cover closed) IP 40 (device cover open)
- **Operating temperature range:** from -20°C to +55°C
- **Warranty period:** 3 years
- **Calibration period:** 3 years
- **Interface and user manual language:** English



Standard Complete Set :

- Accompanying documents
- Main instrument MIKO-9A
- Mains cable
- Ground cable
- Zero resistance standard to check accuracy of instrument
- Shunt 75 ShSM M3, 75-0.5 to test the instrument's operability
- Fuses VP2B-1V-2A (2 pcs)
- Attachment devices set kit bag

When Placing The Order, You Should Choose At Least One Test Cable Or Cable Set From Optional Complete Set Of The Instrument

- 10A Kelvin Clamp test cable 1 x 8.5 m (jaw up to 80 mm). Set of 2 pcs.
- 10A Kelvin C-clamp test cable 1 x 8.5 m (jaw up to 103 mm). Set of 2 pcs.
- 10A Kelvin test cable 1 x 3 m with two probes and four crocodile clips (jaw up to 25 mm). Separate current and potential wires terminated with "banana" plugs.
- 10A Kelvin Clamp test cable 1 x 4 m (jaw up to 25 mm).

*** Optional accessories on request**



Over 35 Years of Industry Experience



At Technology Products, we are a premier manufacturer and supplier of cutting-edge Electrical Testing, Measuring, and Safety Equipment, with capabilities up to 800 KV. Our expertise extends beyond equipment design and manufacturing to offering solutions for Electrical Safety and Testing—from concept to commissioning. Trust us to deliver precision, safety, and innovation in every project.





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