

INS-5005KV

5 kV - DIGITAL INSULATION TESTER

The INS-5005KV measure insulation resistances up to 5 TΩ, automatically measure both the Polarization Index and Dielectric Absorption Index, thus significantly simplifying testing of transformers.

OVERVIEW

The INS-5005KV is a smart, 5 kV insulation tester and analyzer. Besides the conventional measurement of insulation resistances up to 5 TΩ, its advanced features allow to automatically measure both the Polarization Index and Dielectric Absorption Index, thus significantly simplifying testing of transformers.

This insulation tester is a portable, rechargeable battery-powered equipment. Test voltage may be chosen from 500 V to 5 kV in 100 V increments. Due to its measurement principle (actual voltage and current readings) the accuracy of resistance measurement is not affected by any test voltage error. Nevertheless, the High-Voltage generator is electronically stabilized with a better than 2% accuracy in open-circuit condition and for any normal operation battery voltage.

The built-in chronometer automatically counts the elapsed time since the start of measurement. 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 4000 measured values may be stored, to be transferred afterward to a computer running the TINSLEY SOFTWARE program. This advanced 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.

Some other advanced features are useful to run the most sophisticated insulation analysis. Step Voltage Test, configurable Pass-Fail and timed measurements are automatically performed. The measurement parameters are stored in the non-volatile memory for an easy configuration.

In order to guarantee the operator safety, the cabinet is made of a high breakdown strength plastic. High security output terminals are placed in the furthest and most protected area of the equipment. A light indicator shows high-voltage presence and is switched-off when the capacities (both internal and external) are discharged up to reaching a safe value.

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PRECISION INSTRUMENTS



KEY FEATURES

- ⇒ 5 kV Insulation analyzer
- ⇒ Auto-range
- ⇒ Guard terminal
- ⇒ Automated tests:
 - Absorption Index
 - Polarization Index
- ⇒ Real time clock
- ⇒ Internal memory for 4,000 measured values
- ⇒ USB Interface
- ⇒ Programmable pass-fail
- ⇒ Built-in printer

CONTACT US

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TEST VOLTAGES

500 V, 1000 V, 2500 V, 5000 V directly, one button selectable.
500 V to 5 kV in 100 V increments.
DC, negative.

MAXIMUM RESISTANCE READING

5 TΩ @ 5 kV.

SHORT CIRCUIT CURRENT

1.5 ± 0.5 mA.

TEST VOLTAGES ACCURACY

± 3% of nominal test voltages on R ≥ 10 GΩ.

EQUIPMENT BASIC ACCURACY

± 5% of reading ± 3 digits.
(1 MΩ to 500 GΩ at any test voltage).

ADVANCED FEATURES

Automated Polarization Index calculation.
Automated Dielectric Absorption Ratio calculation.
Programmable Pass-Fail test.
Programmable Timer.

BUILT-IN PRINTER

Prints elapsed time, actual voltage and resistance measured each 15 seconds.

BUILT-IN MEMORY

Stores up to 4000 measured values.

INTERFACE

USB.

BUILT-IN CHRONOMETER

Shows elapsed time in mm:ss format. Count starts automatically for each measurement.

REAL TIME CLOCK AND CALENDAR

Allows a reliable identification for each test.

ENVIRONMENTAL PROTECTION

IP54 with closed lid.

SAFETY CLASS

Meets the requirements of IEC 61010-1.

E.M.C.

In accordance with IEC 61326-1.

ELECTROSTATIC IMMUNITY

In accordance with IEC 61000-4-2.

ELECTROMAGNETIC IRRADIATION IMMUNITY

In accordance with IEC 61000-4-3.

POWER SUPPLY

Internal rechargeable battery (LiFePO4 12 V - 3000 mAh) or AC Adapter.

BATTERY CHARGER

12 V - 2.0 A (AC Adapter)

OPERATING TEMPERATURE RANGE

-5°C to 50°C.

STORAGE TEMPERATURE RANGE

-25°C to 65°C.

HUMIDITY RANGE

95% RH (non condensing).

WEIGHT

Approx. 2.7 kg.

DIMENSIONS

274 x 250 x 124 mm.

INCLUDED ACCESSORIES

2 Measuring test leads 1.8 meters
1 GUARD test lead 1.8 meters
1 AC Adapter
1 USB cable
1 Tinsley Software
1 User guide
1 Carrying bag