ENGLISH

User Manual Contactless Voltage Tester TIS 958

Content

References marked on tester or in instruction manual:

- Warning of a potential danger, comply with instruction manual.
- Reference. Please pay utmost attention.
- Caution! Dangerous voltage. Danger of electrical shock.
- Continuous double or reinforced insulation complies with category II DIN EN 61140.
- CE Conformity symbol, the instrument complies with the valid directives. It complies with the EMV Directive (2014/30/EU), Standard EN 61326-1 is fulfilled.
- Tester complies with the standard (2012/19/EU) WEEE.
- Position of magnetic field sensor.
- The instruction manual contains information and references, necessary for safe operation and maintenance of the tester. Prior to using the tester (commissioning/assembly) the user is kindly requested to thoroughly read the instruction manual and comply with it in all sections.
- Failure to read the tester manual or to comply with the warnings and references contained herein can result in serious bodily injury or tester damage.

  The respective accident prevention regulations established by the professional associations are to be strictly enforced at all times.

1. Introduction / Product Package

The contactless voltage tester TIS 958 is developed for voltage testing at insulated wires, cables and testing rotary field. No direct contact to the device under test (DUT) is required.

The contactless tester TIS 958 is characterized by the following features:

- Designed to meet international safety standards EN 61010-1
- Measurement Category (CAT) IV / 1000 V
- Contactless voltage testing between 20 V and 1000 V (2 sensitities)
- Check for cable breaks
- Phase detection on sockets
- Voltage test through red LED, vibration motor and buzzer
- On-indication
- Self test during product start
- Empty battery indication
- Auto power off
- Torch light
- IP65 (IEC 60529)
- Rotary field test

After unpacking, check that the instrument is undamaged. The product package comprises:

1 pc Tester TIS 958
2 pcs batteries 1.5 V, IEC LR03
1 pc operating instructions

2. Safety Measures

- The testers have been constructed and tested in accordance with the safety regulations for voltage testers and have left the factory in a safe and perfect condition.
- The operating instructions contain information and References required for safe operation and use of the tester. Before using the tester, read the operating instructions carefully and follow them in all respects.

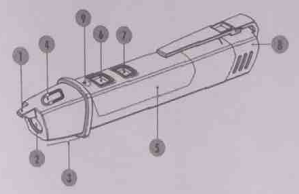
3. Danger of electric shock and other dangers

- Verification of live-circuit shouldn't be dependent on testing with a contactless tester but only on the voltage test with a 2 pole voltage tester according to EN 61243-3.
- The signal during voltage test has no information on type and strength of voltage
- To avoid an electric shock, observe the precautions when working with voltages exceeding 120 V (60 V) DC or 50 V (25 V) eff AC. In accordance with DIN VDE these values represent the threshold contact voltages (values in brackets refer to limited ranges, e.g. in agricultural areas).
- The tester must not be used with the battery compartment open
- Before using the tester, ensure that the device is in perfect working order. Look out e.g. for broken housing or leaking batteries.
- Hold the tester and accessories by the designated grip areas only.
- The tester may be used only within the specified measurement ranges and in low-voltage installations up to 1000 V.
- The tester may be used only in the measuring circuit category it has been designed for.
- Before and after use, always check that the tester is in perfect working order (e.g. on a known voltage source).
- The tester must no longer be used if one or more functions fail or if no functionality is indicated.
- It is not permitted to use the tester during rain or precipitation.
- A perfect display is guaranteed only within a temperature range of 0° to +40° C at relative air humidity less than 80 %.
- If the safety of the user cannot be guaranteed, the tester must be switched off and secured against unintentional use.
- Safety is no longer guaranteed e.g. in the following cases:
  - obvious damage
  - broken housing, cracks in housing
  - if the tester can no longer perform the required measurements/ tests
  - stored for too long in unfavorable conditions
  - damaged during transport
  - leaking batteries
- The tester complies with all EMC regulations. Nevertheless it can happen in rare cases that electric devices are disturbed by the electrical field of the tester or the tester is disturbed by electrical devices.
- Never use the tester in explosive environment
- Tester must be operated by trained users only
- Operational safety is no longer guaranteed if the tester is modified or altered.
- The tester may be opened by an authorized service technician only.

4. Intended Use

The tester may be used only under the conditions and for the purposes for which it was designed. Therefore, observe in particular the safety instructions, the technical data including environmental conditions.

5. Tester Information



1. Test tip for voltage test
2. Torch light
3. Display area for voltage test
4. Display area for rotary field test
5. Grip area
6. ON/OFF button
7. Torch light button
8. Battery door
9. Rotary field indication

6. Preparation of testing

- Switch on the tester by pressing long the ON/OFF button.
- Buzzer, red LED and vibration motor switch on shortly as self test
- By default, the 50...1000 V testing range is activated. Press the ON/OFF button short time for switching to the 20...50 V range. The tester shows in the 20...50 V range also voltages between 50 V and 1000 V. If a voltage source above 50 V is present close to a 20 V voltage source, the tester will detect the stronger source.
- A blinking red LED is on to show readiness
- The tester is switched off by pressing ON/OFF long time
- The tester has auto power off after approx. 3 minutes

7. Conducting Tests

7.1 Voltage testing

- Move the device slowly along the DUT, e.g. a cable.
- In the 20...50 V mode, if the tester detects an alternating voltage the LED flashes and the buzzer sounds.
- In the 50...1000 V mode, if the tester detects an alternating voltage the LED is solid on and the buzzer sounds.
- The position of the earth conductor in DUT can influence the testing.

7.2 Magnetic field testing

- Bring the area of the tester that is marked with the magnetic symbol near a magnet. The yellow LED is on if a magnetic field is detected.

7.3 Torch Light

- By pressing the torch light button, the torch light switches on.

7.4 Rotary field test (RF)

Entering the rotary field test mode: Press and hold the on/off and torch buttons together for approximately 3 seconds.

Auto power-off: After 3 minutes of inactivity.

Disable the rotary field test mode: a short press of both the on/off and torch buttons together.

Rotary field test:

1. Enter the rotary field mode
2. Make sure that the yellow light is on without vibration
3. Touch a first conductor under test until the vibration is on
4. Move the device away from the first conductor under test, until the vibration is off
5. Touch a second conductor under test until vibration with RF direction indication is on
6. Wait until yellow light is on without vibration before starting a next test (point 2).

Rotary Field Indications:

red light: left rotary field (L1-L3, L2-L1 or L3-L2)

green light: right rotary field (L1-L2, L2-L3 or L3-L1)

blue light: the same phase (L1-L1, L2-L2 or L3-L3)

yellow light: ready

beep tone with red light under the test cap: error due to a too long time between touching the two conductors under test. Start the test from beginning (point 2).

- RF test is optimized for CEE plugs
- Wiring can influence rotary field indication

8. Exchange of batteries

The red LED without buzzer indicates low battery.

- Open the battery door by pressing on the square recess
- Pull out the Battery door and replace the batteries. Insert new batteries according to the symbol.
- Re-assemble battery door.
- Confirm that the battery door case is properly locked prior to measurements.
- Attention! Do not throw used batteries into the household refuse but dispose of them at special refuse collecting points. The applicable provisions regarding return, recycling and disposal of used batteries and accumulators must be observed.

9. Technical data

Display:	bright LED red
Buzzer:	yes
Vibration:	yes
Voltage ranges:	20...1000 V AC (2 ranges)
Frequency range:	40...400 Hz
Frequency range (RF):	50/60 Hz
Duty cycle:	continuous
Safety as per:	EN 61010-1
Battery:	2 x 1.5 V LR03 (AAA)
Temperature range:	0°...40° C, <80 % relative humidity
Current consumption:	approx. 80 mA
Dimensions:	approx. 155 x 25 x 23 mm
Weight:	approx. 55 g

10. Cleaning and storage

- Tester does not need any special maintenance if used according to user manual.
- Remove tester away from all test points before cleaning.
- Use a lightly damp cloth with neutral detergent for cleaning the tester. Do not use abrasives or solvents.
- Do not expose the tester to direct sun light, high temperature and humidity or dewfall.
- Remove batteries when the instrument will not be in use for a long period.

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