Overview

Instrument

Test tips for voltage testing
1 Voltage indicator (LED red)
2 On/Off key, change sensitivity
3 Measuring point illumination key
4 Battery compartment cap
5 Handle
6 Measuring point illumination (LED white)

Explanation of icons

Caution! Warning about a danger spot, refer to instruction manual.
Caution! Dangerous voltage, risk of electric shock.
Continuous double or reinforced insulation in accordance with Category II DIN EN 61410

Technical data

Specifications valid at 23 °C ± 5 °C, < 80 % relative humidity:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage indicator</td>
<td>Red LED and buzzer</td>
</tr>
<tr>
<td>Sensitivities</td>
<td>50 to 1000 V (standard setting) 12 to 50 V (high sensitivity, also displays voltages of 50 to 1000 V)</td>
</tr>
<tr>
<td>Frequency range</td>
<td>40 Hz to 400 Hz</td>
</tr>
<tr>
<td>Temperature range</td>
<td>Operation: -10 to 50 °C Storage: -15 to 60 °C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>80 %</td>
</tr>
<tr>
<td>Height</td>
<td>&lt; 2000 m</td>
</tr>
<tr>
<td>Batteries</td>
<td>2x 1.5 V IEC LR03 (AAA)</td>
</tr>
<tr>
<td>Power consumption</td>
<td>Approx. 80 mA</td>
</tr>
<tr>
<td>Dimensions (Width x Height x Depth)</td>
<td>Approx. 150 x 25 x 23 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 55 g</td>
</tr>
<tr>
<td>Standards</td>
<td>EN 61140-1.1, EN 61140-2.1</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 67 (IEC 60529)</td>
</tr>
<tr>
<td>WEEE Directive</td>
<td>EU (2012/19/EU)</td>
</tr>
<tr>
<td>Conformity mark, verifies compliance with the valid EU Directives: EME Directive 2014/30/EU with the standard EN 61243-3-1. Low-Voltage Directive 2014/35/EU with the standard EN 61010-1</td>
<td></td>
</tr>
<tr>
<td>Warranty</td>
<td>Duration: 2 years</td>
</tr>
</tbody>
</table>

Service and maintenance

Changing the battery
When the red LED is permanently on with no audio signal, the batteries need to be changed.

Carrying out a test
Preparing the voltage test
Prior to every test, please ensure that the instrument is in perfect condition:

- For example, keep an eye out for a broken housing or leaking batteries.
- Check that the instrument is functioning properly (for example at a known voltage source) before and after every test.
- If the safety of the user cannot be guaranteed, switch off the instrument and secure it to prevent unintentional usage.

Carrying out a voltage test
When carrying out the test, please note:

- The signal during the voltage test does not provide any information about the type or level of the voltage being applied.
- The location of the earth conductor in the test object may affect the readings.
- The instrument has a complex digital filter for eliminating interference due to high-frequency electrical fields (for example from computers or fluorescent tube starters). Nevertheless, incorrect readings may occur in the vicinity of such sources of interference.
- Move the instrument slowly along the test object, for example a cable.
- The instrument detects an AC voltage in the range 12 - 50 V; the red LED flashes and the buzzer emits a signal.
- When the instrument detects an AC voltage in the range 50 V - 1000 V, the red LED is permanently on and the buzzer emits a signal.

Protection from hazardous voltages
- When the instrument detects voltages in excess of 50 V or DC or 50 V (25 V) rms AC. These values are the limit for contact voltages in accordance with DIN VDE (values in brackets apply to restricted areas, for example agricultural sectors).
- The instrument may only be touched at the designated grip areas, the display elements must not be covered.
- The instrument must be in perfect condition:

- Check that the instrument is functioning properly (for example at a known voltage source) before and after every test.
- For example, keep an eye out for a broken housing or leaking batteries.
- Prevent any danger or damage due to any potential leaking of the batteries.
- If the instrument is not in use for a significant period of time: remove the batteries in order to prevent any danger or damage due to potential leaking of the batteries.
- Never use any harsh cleaning agents or solvents to clean the instrument! After being cleaned, the instrument must not be used until it has completely dried.

The instrument complies with the WEEE Directive (2012/19/EU) with the standard EN 61243-3-1. Low-Voltage Directive 2014/35/EU with the standard EN 61010-1, Environments: when operating and using the instrument safely. Before using the instrument, read the instruction manual carefully and comply with all aspects of it. Keep this document to hand so that you can refer to it when necessary. Forward this documentation to any subsequent users of the instrument. If the manual is not followed, or if you fail to observe the warnings and instructions, there is a risk of fatal injury to the user and damage to the instrument.

Intended use

The instrument may only be used under the conditions and for the purpose for which it was designed:

- Testing the voltage at insulated cables (non-contact, with no direct galvanic contact) in the 12 to 1000 V range.
- Checking cable breakage.
- Phase testing at sockets.
- The instrument may only be used within the specified measuring ranges and in low-voltage installations of up to 1000 V (measuring range category CAT IV 1000).
- The instrument must not be used for the following:

- Verifying that no voltages are present: only use two-pole voltage testers in accordance with EN 61243-3 to verify that no voltages are present.
- In potentially explosive environments: the instrument is not explosion-proof!

When it rains: risk of electric shock!