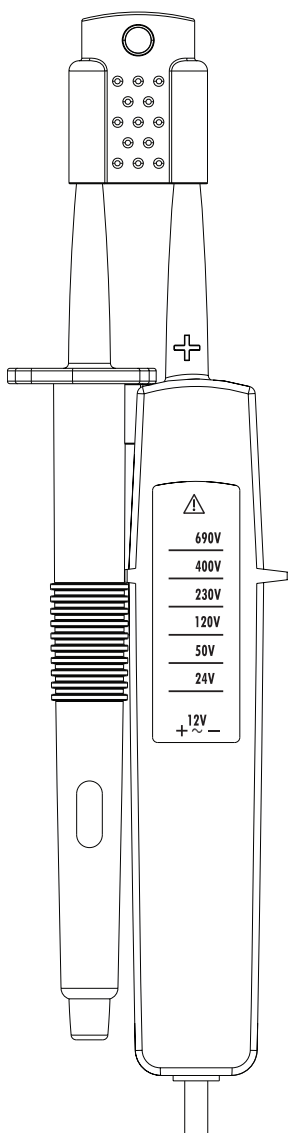




Voltage Tester

TIS 819 Manual

GB Manual





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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.

 Conformity symbol, the instrument complies with the valid directives.

 Tester complies with the standard (2012/19/EU) WEEE.

 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

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Introduction / Product package

1. Introduction / Product package

The voltage testers are voltage testers for universal applications. The voltage testers are constructed in accordance with the latest safety standards and guarantee safe and reliable measurements and testings.

The voltage testers represent a valuable support for all testing and measurement in handicraft and industrial applications.

The voltage tester are characterised by the following features:

- DC and AC Voltage Tests up to 690 V Phase-Phase
- Automatic AC/DC detection
- Bright LED indication
- Ergonomical and robust housing
- Probe-tip protection
- Without batteries
- Measurement Category CAT III / 690V
- Constructed and produced in compliance with DIN EN 61243-3, DIN VDE 0682, part 401, IEC 61010

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

- 1 pc. Voltage Tester
- 1 pc. Instruction Manual


1.1 Transport and storage

Please keep the original packaging for later transport, e.g. for calibration. Any transport damage due to faulty packaging will be excluded from warranty claims.

Instruments must be stored in dry and closed areas. In the case of an instrument being transported in extreme temperatures, a recovery time of minimum 2 hours is required prior to instrument operation.

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.

Safety advices

- Depending on the internal impedance of the voltage tester there will be a different capability of indicating the presence or absence of operating voltage in case of the presence of interference voltage.
- A voltage tester of relatively low internal impedance, compared to the reference value of 100 k Ω , will not indicate all interference voltages having an original voltage value above the ELV level. When in contact with the parts to be tested, the voltage tester may discharge temporarily the interference voltage to a level below the ELV, but it will be back to the original value when the voltage tester is removed.





Product package

- When the indication "voltage present" does not appear, it is highly recommended installing earthing equipment before work.
- A voltage tester of relatively high internal impedance, compared to the reference value of 100 k Ω , may not permit to clearly indicate the absence of operating voltage in case of presence of interference voltage.
- When the indication "voltage present" appears on a part that is expected to be disconnected of the installation, it is highly recommended confirming by another means (e.g. use of an adequate voltage tester, visual check of the disconnecting point of the electric circuit, etc.) that there is no operating voltage on the part to be tested and to conclude that the voltage indicated by the voltage tester is an interference voltage.
- A voltage tester declaring two values of internal impedance has passed a performance test of managing interference voltages and is (within technical limits) able to distinguish operating voltage from interference voltage and has a means to directly or indirectly indicate which type of voltage is present.



3. Danger of electric shock and other dangers

- ⚠ 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 test lead and device are in perfect working order. Look out e.g. for broken cables or leaking batteries.
- ⚠ Hold the tester and accessories by the designated grip areas only, the display elements must not be covered. Never touch the test probes.
- ⚠ The tester may be used only within the specified measurement ranges and in low-voltage installations up to 690 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 -15°C to +55°C at an relative air humidity less than 85%.
- ⚠ If the safety of the user cannot be guaranteed, the tester must be switched off and secured against unintentional use.

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Intended use / Tester information

⚠ 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.

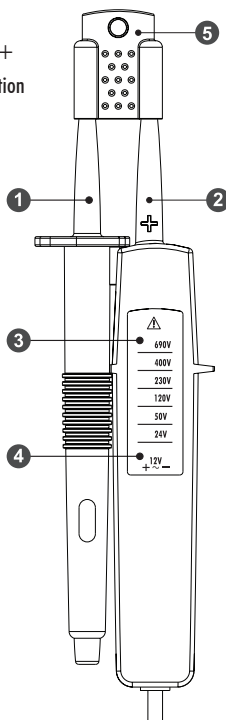
⚠ The tester may be opened by an authorized service technician only.

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. Handle Test Probe –
2. Instrument Test Probe +
3. LEDs for voltage indication
4. Polarity Indication
5. Probe-Tip protection





Maintenance / Cleaning

6.0 Carrying out measurements

6.1 Preparation and safety

- ⚠ For any tests the safety references have to be respected as mentioned in section 2.0. Prior to any usage, a functional test has to be carried out.
- ⚠ Test leads and test probes may only be touched at handle surfaces provided. Absolutely avoid the direct contact of the test probes.

Function test / Self test

- Test the voltage tester on a known source.
- ⚠ Voltage testers may no longer be used if one or several functions fails or if no functional reliability can be detected.

6.2 Voltage test

- Connect both test probes with UUT.
- As from a voltage of $>12V$ the voltage tester switches on automatically.
- 👉 The voltage is displayed via LEDs (3).
- 👉 For AC voltages the + and the – LED are illuminated (4).
- 👉 For DC voltages the + or the – LED are illuminated (4).
- 👉 The instrument is equipped with an LED row comprising: 12, 24, 50, 120, 230, 400 and 690V.
- 👉 For DC voltage, the polarity of the voltage displayed refers to the instrument test probe (+).

7.0 Maintenance

When using the instrument in compliance with the instruction manual, no special maintenance is required. Should operational problems occur

during daily use, our consulting service will be at your disposal, free of charge.

If functional errors occur after expiration of warranty, our after sales service will repair your instrument without delay.

8.0 Cleaning

If the instrument is dirty after daily usage, it is advised to clean it by using a humid cloth and a mild household detergent. Prior to cleaning, ensure that instrument is disconnected from external voltage supply and any other instruments connected. Never use acid detergents or dissolvants for cleaning. After cleaning, do not use the voltage tester for a period of approx. 2h.

9.0

Voltage
LED-r
Tolerance
AC/DC
detect
Range
Response
Frequency
Internal
Test C

Durability
Recovery
Auto-
Overv
Temp
Humidity
Height
Measure
Pollution
Protection
Safety

Weight
Time





Technical data

9.0 Technical data

spect- ge, a	Voltage Range	12...690V AC/DC
	LED-resolution	+/- 12, 24, 50, 120, 230, 400, 690V
	Tolerance	acc. EN 61243
	AC/DC voltage	
han- ontact	detection	automatically
	Range detection	automatically
	Response Time	<0,1s
	Frequency Range	DC, 0...65 Hz
veral in be	Internal Load	approx. 2,1 W/690 V
	Test Current	< 3,5 mA (400V AC L-PE) < 5,0 mA (690V DC)
	Duration Time	DT = 30s
	Recovery Time	4 min
es on	Auto-Power-On	> 12V AC/DC
	Overvoltage Protection	690 V AC/DC
	Temperature Range	-15°C...55°C
	Humidity	max. 85% rel. H.
nated	Height above sea level	up to 2000 m
	Measurement Cat.	CAT III / 690 V
	Pollution Degree	2
	Protection Degree	IP 64
d (4). row layed	Safety acc.	DIN EN 61243-3, DIN VDE 0682 part 401, EN 61010, IEC 61010
	Weight	approx. 115 g
	Dimension	approx. 210 x 55 x 21 mm



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Test Instruments Solutions

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