



User Manual

AX-T901N Voltage Tester





1. Safety

1.1. International Safety Symbols

	Warning of a potential danger, comply with instruction manual.
	Caution! Dangerous voltage. Danger of electrical shock.
	Double insulation

1.2. Safety Notes

- Reference. Please use utmost attention.
- Do not exceed the maximum allowable input range of any function
- Insulated personnel body protective equipment up to 400V.

1.3. Warnings

- In order to avoid electrical shock, the valid safety and VDE regulations regarding excessive contact voltages must receive utmost attention, when working with voltages exceeding 120V (60V) DC or 50V (25V) rms AC. The values in brackets are valid for limited ranges (as for example medicine and agriculture).
- Prior to measurement ensure that the test leads and the test instrument are in perfect condition.
- When using this instrument only the handles of the probes may be touched - do not touch the probe tips.
- This instrument may only be used within the ranges specified and within low voltage systems up to 400V.
- Prior to usage ensure perfect instrument function (e.g. on known voltage source).
- The voltage testers may no longer be used if one or several functions fail or if no functionality is indicated.
- Do not use this instrument under damp conditions.
- Perfect display is only guaranteed within a temperature range of -10°C up to +55°C, at relative humidity <85%.
- If the operator's safety cannot be guaranteed, the instrument must be removed from service and protected against use.

The safety can no longer be insured if the instrument:

- Shows obvious damage.
- does not carry out the desired measurements.
- has been stored for too long under unfavorable conditions.
- has been subjected to mechanical stress during transport.

All relevant statutory regulations must be adhered to when using this instrument.

Appropriate Usage

The instrument may only be used under those conditions and for those purposes for which it was conceived. For this reason, in particular the safety references, the technical data including environmental conditions and the usage in dry environments must be followed. When modifying or changing the instrument, the operational safety is no longer ensured. The instrument may only be opened by an authorized service technician, e.g. for fuse replacement.





2. Specifications

LED voltage range	12, 24, 36, 50, 120, 230, 400V AC/DC
LED resolution	± 12, 24, 36, 50, 120, 230, 400V AC/DC
Tolerances	-30% to 0% of reading
Voltage detection	automatic
Polarity detection	full range
Range detection	automatic
Response time	<0.1s LED
ACV Frequency range	50/60Hz
Internal basic load	approx. 10W at 400V
Peak current	1 s <0.2A/ls (5s) <3.5mA
Operation time	ED =30s
Recovery time	10 min
Low impedance test	
Voltage range	12 400 AC/DC
Low impedance	<25kΩ
Operation time	5s<230V AC/DC 3s< 400 V AC/DC
Oversupply protection	400 V AC/DC < 5s
Temperature range	-10°C up to +55°C
Humidity	max.85% relative humidity
Oversupply class	CATIII-400V

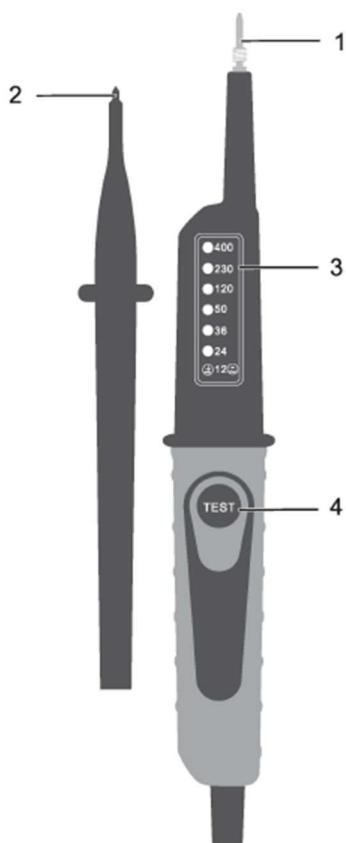
3. Voltage Tester Description:

1-Instrument test probe + (L1)

2-Handle test probe - (L2)

3-LEDs for voltage display

4-RCD test button





4. Explanations of Symbols

The voltage tester shows the following symbol

+	DC voltage positive potential (DC)
-	DC voltage negative potential (DC)
~	AC voltage symbols

5. Operation

5.1. Voltage Test

- Connect both test probes with power source.
- As from a voltage of >6V the voltage tester switches on automatically.
- The voltage is displayed via LEDs.
- For AC voltages the "+" and "-" LEDs are illuminated
- For negative voltages "-" LEDs are illuminated
- The instruments are equipped with an LED row comprising: ±12, 24, 36, 50, 120, 230, 400 AC/DC. For DC voltage, the polarity of the voltage displayed refers to the instrument test probe (+).
- Due to technical reasons the instrument cannot effectuate an automatic switch- on for voltages with in the range of approx. 0V to -/+ 6V.

5.2. Low impedance Test

The following voltage steps (AC or DC) can be indicated: ±12, 24, 36, 50, 120, 230, 400 AC/DC. The duration of the test with a lower internal resistance of the device (load test) depends on the value of the voltage to be measured. To prevent excessive warming of the voltage tester, it is equipped with a thermal protection.

5.3. RCD Test

- Rated current: 30mA.
- Operating Voltage: 220V AC.

5.4. Maintenance

When using voltage testers in compliance with the instruction manual, no particular maintenance is required. If functional errors occur during normal operating, our service department will check your instrument without delay.

5.5. Cleaning

Prior to cleaning, remove voltage test from all measurement circuits. If the instruments are dirty after daily usage, it is advisable clean them by using a damp cloth and a mild household detergent. Never use acid detergents or solvents for cleaning.

After cleaning, do not use the voltage tester for a period of approx. 5 hours.

