

# **CONTINUITY TESTER LED/ BEEP Type CT5**



**User's manual**



## Description

CT5 continuity tester, is specially designed for technicians and installers. It emits a double beep and light signal proportional to the electrical resistance.

Its main advantage over the use of multimeter is that its measuring range reaches mega ohms (MΩ), which is particularly useful in many applications, such as :

- Diode polarity.
- Capacitors testing.
- Checking, derivation and stamping of cables and electric motors.
- Inductances and transformers.
- Water level and humidity detection.

It has a back clip for easy transport and handling.



## Application field

- Coils
- Electrical panels
- Automobile
- Electronics
- Appliances
- Home
- Industry

## Operation

CT5 emits an acoustic and luminous signal (led) proportional to the magnitude of the measure :

- If the resistance value is very big, it produces a low sound and a slow flash.
- If the resistance value is small, the computer emits a sharp beep and continuous and rapid flashes, getting to stay on.
- The LED can stays on, if the resistance value is very small.

1. LED measurement light

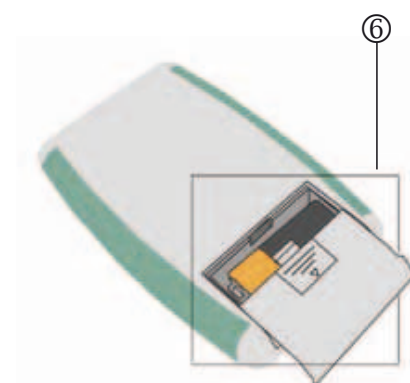
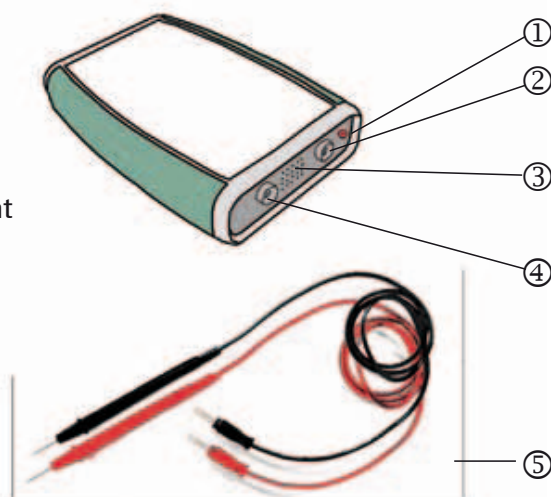
2. ⊖ terminal

3. Speaker

4. ⊕ terminal

5. Probes

6. Battery case





## Safety

CT5 is manufactured and tested according to voltmeter standards. To keep it in use and work in security, read and respect the following instructions.



In order to avoid electrical shock, the valid safety and VDE regulations regarding excessive contact voltages must receive utmost attention when working with voltage exceeding 120V (60V) DC or 50V (25V) AC. The values in brackets are valid for limited ranges (as for example medicine and agriculture).



Prior to measurement ensure that the electrical cord and the test instrument are in perfect condition. And that the batteries are charged.

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 30 V. If the tension is higher, CT5 is protected by replaceable fuse.

CT5 can not be use to measure voltage (neither AC nor DC). If accidentally probes are connected to powered ligne, the fuse blows, and you have to replace it to keep testing.

If the operator's safety cannot be guaranteed, the instrument must be removed from service and protected against use.

Safety can no longer be insured if the instrument :

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

## Technical data

Resistance range	< 10 MΩ (10Hz to 10kHz)
Current between probes	10 mA
Battery	9V, 6F22 (not included)



## Instruction for use

To test the continuity of coils, conductors, contacts... connect the two probes to the item to be measured :

- In the absence of electrical contact between the probes, the device emits no signal.
- In case of electrical contact, it emits a sharp beep.
- A very low sound indicates poor contact due to current leakage or malfunction caused by humidity.

### Diodes Test

Apply the probes to each bit of the diode :

- CT5 emits a sound in only one way : the diode is correct
- CT5 emits a sound in both way or no sound : the diode is defective

### Capacitor test.

Apply the probe on each capacitor's terminal

If the capacitor is in load, CT5 emits an increasingly low sound.

On big size condensator, there is no sound, because the voltage is not high enough to load the capacitor.

### Humidity test

For wells and boreholes, attach one point to earth and the other to a long cable suspended in the well. When the wire end reaches the surface of the water, the tester beeps. The wetter is the surface, the sharper is the sound (walls, floor, wood, grain, etc.)

### Motor test

To check the condition of an electric motor, perform a measurement between each phase and the motor's housing or ground. If the CT5 transmits an acoustic signal one of the phases has a short to ground.

In triphase motors it is possible to perform a measurement between the terminals of each phase. CT5 emits a sound signal based on the number of turns of the coil of each phase. Signals must be identical. A different sound indicates a short in the measured coil.

If there is continuity between one of the phases and the motor housing, there is a short between this phase and the motor housing.

### Transformers test

Connect the CT5 tester to the terminals of an inductor (or coil), it emits an acoustic signal sharper than usually issued by connecting the two probes together. Similarly, placing the probes to the terminals of a transformer, CT5 can emit a signal sharper than usual.

