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MODEL: GT5306A

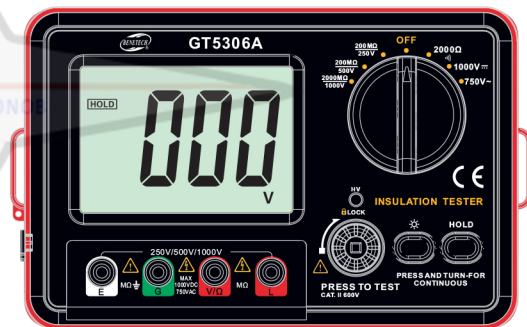
INSULATION RESISTANCE TESTER Instruction Manual

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Standard: Q/GMY 027—2020
Version: 5306A-EN-02

The meaning of the symbols related to this instrument:

ACV	Alternating Current (AC) Voltage
	Grounding
	The instrument has double insulation or reinforced insulation

Application standard of this instrument:

IEC 61010-1 CATIII 600V

CATI 2500V

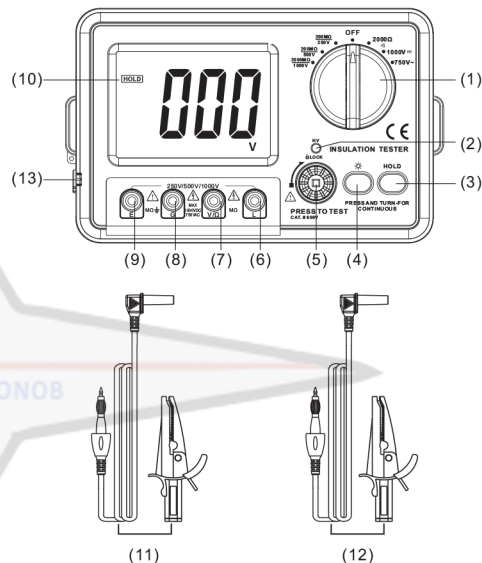
Introduction


This instrument applies DC voltage converter with low loss, high variation ratio, and inductive energy storage, which can convert 9V voltage to 250V/1000V DC voltage; it applies digital electric bridge to measure insulation resistance; it has functional characteristics of portability, wide measuring range, backlight display, and data holding; it can measure electric supply as well. When using straps, the operator can operate the instrument with both hands. The instrument has a fashionable appearance and stable performance. It is suitable for measuring electrical machinery, cable, electromechanical equipment, telecom equipment, electric power facilities and other insulation resistance.


Features

1. Insulation Resistance Measurement
2. Alternating Current (AC) Measurement
3. Direct Current (DC) Measurement
4. Small Resistance Measurement
5. Measured Data Holding
6. Low Battery Indication
7. Large LCD digital display
8. External Direct Current (DC) power supply DC9V 1.5A
9. Over-limit Alarm
10. Red Alarm Light, Buzzer Alarm
11. High Voltage Alarm

Description of parts




- (1) Power switch/function switch: power ON/OFF the instrument and selects functions. To save power, please turn the switch to "OFF" when it isn't in use.
- (2) High voltage indicator (LED)
- (3) HOLD button: hold the current reading. Press this button, the current reading will be held on the screen and the [HOLD] symbol will appear on the screen. Press this button again to cancel this function.
- (4)  button: Turn on/off backlight.

- (5) TEST button
 (6) L: connected to the jack of the tested circuit's ground end.
 (7) Input positive end of input voltage test, resistance below 2k Ω , and continuity test (V/ Ω).
 (8) G: jack of the protection end; when the tested object is required to add a protection ring to eliminate the leakage effect, the electrode wire of the protection ring should be connected to the jack of "G" end; input negative end of voltage, resistance and continuity test (G).
 (9) E: jack connect to the measured object
 (10) LCD display screen
 (11) Black test wire with crocodile clip
 (12) Red test wire with crocodile clip
 (13) DC 9V power adapter socket(): connect external power supply so as to supply power to the internal circuit.

Specifications

1. Technical specifications

Technical specifications	Technical Index
Display	3.5 digit LCD, maximum reading "1999"
Over-limit Indication	When the upper limit is exceeded, only the top digit will display "1"
Sampling Rate	About 3 times/second
Allowable Altitude	<2000 meters
Additional temperature coefficient	0.15 \times specified accuracy/ $^{\circ}$ C (<18 $^{\circ}$ C or >28 $^{\circ}$ C)
Operating Environment	For indoor use, pollution degree 2
Operation Environment	-15 $^{\circ}$ C~55 $^{\circ}$ C . relative humidity <75%RH
Storage Environment	-40 $^{\circ}$ C~60 $^{\circ}$ C . relative humidity <90%RH
Overload Protection	100mA/60V resettable fuse
Low Battery Indication	the symbol "  " appears on the screen
Power Supply	6* 1.5V"AA" batteries or external DC 9V power supply

Current Consumption	No-load power consumption <300mW when testing
Size	176*110*77mm
Weight	580g (including battery)

2. Product Parameters

- (1) Accuracy: \pm (a%+least significant digit)
 (2) Environment temperature to ensure accuracy: 23 \pm 5 $^{\circ}$ C
 (3) Relative humidity: <75%
 (4) Calibration guarantee period: 1 year since the manufacture date
 (5) Voltage input impedance: 1M Ω
 (6) AC voltage frequency response: 50~200Hz

Basic Function	Measuring Range	Basic Accuracy
Output Voltage	250V/500V/1000V	\pm 10%
Test Current	250V(R=250k Ω)1mA 500V(R=500k Ω)1mA 1000V(R=1M Ω)1mA	\pm 10%
Insulation Resistance	250V:1M Ω ~200M Ω 500V:1M Ω ~200M Ω 1000V:10M Ω ~2000M Ω	\pm (4% \pm 2)
Short-circuit Current	<1.8mA	
Median Resistance	250V/500V:100M Ω 1000V:1000M Ω	
Resistance, Continuity Test	0 Ω ~2K Ω , <50V buzzer will make a sound, Test Current: 1mA	\pm (0.8% \pm 6)
DC Voltage Measurement	0V~1000V	\pm (0.5% \pm 6)
AC Voltage Measurement	0V~750V	\pm (1% \pm 6)
Jack Position	Insulation Resistance: E and L Voltage, Resistance: V/ Ω and G	

Further explanation: Median resistance—the lower limit of resistance measurement to ensure that the voltage at both ends of the measurement is not less than 90% of the nominal value of the test voltage.