



Hoyt Analog Leakage Meters

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506 EL AC Analog Leakage Meters



CE

The 506 EL is a special purpose AC Testing Diagram milliammeters designed to measure hazardous leakage currents from electrical appliances and other power-line operated equipment.



AL-24-3

Accessories

Instruction manual
Test leads
Batteries

Features

- Optional for pivot or taut band movement.
- Compact and lightweight; easy to use and store.
- Mirror scale: for easier viewing & reading.
- Built-in stand makes reading and measuring easy.
- 200 μ A full scale value.
- Fuse-protected.
- Low battery indication.

Applications

- Motor operated appliances:
washing machines, electrical pumps, lawn mowers, refrigerators, electric drills, electric fans, vending machine.
- Electro-thermal appliances:
toasters, electric stoves, electric curling irons, hair dryers.
- Electronic appliances:
microwave ranges, TV receivers, welding machines
- Light source appliances:
projectors, duplicators, photographic enlargers
- Other appliances:
portable generators, burglar alarms, medical and dental equipment

Specifications

AC Leakage Current

Measuring range	0.3mA-1mA-3mA-10mA-30mA
Accuracy	$\pm 2\%$ of full scale
Input resistance	1.5k Ω

AC Voltage

Measuring range	0-300 / 0-600V
Accuracy	$\pm 2\%$ of full scale
Input resistance	300V 1M Ω 600V 2M Ω

General

Low battery indication	Battery check indicate good battery from 7Vdc to 9Vdc during a load test of 2mA
Dimensions	160(L) \times 100(W) \times 45(D)mm
Weight	Approx. 360g (battery included)
Power source	9V(6F22) \times 1
Safety standard	EN 61010-1 CAT III 600V, EN 61326-1

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- Other appliances: portable generators, burglar alarms, medical and dental equipment

Specifications

AC Leakage Current

Measuring range	0.3mA-1mA-3mA-10mA-30mA
Accuracy	$\pm 2\%$ of full scale
Input resistance	1.5k Ω / 2k Ω

AC Voltage

Measuring range	0-150 / 0-300V
Accuracy	$\pm 2\%$ of full scale
Input resistance	150V 500k Ω 300V 1M Ω

General

Low battery indication	Battery check indicate good battery from 7Vdc to 9Vdc during a load test of 2mA
Dimensions	160(L) \times 100(W) \times 45(D)mm
Weight	Approx. 370g (battery included)
Power source	9V(6F22) \times 1
Safety standard	EN 61010-1 CAT III 600V, EN 61326-1

Accessories

Instruction manual
Test leads
Batteries

Analog Leakage Meters



2108 EL AC/DC Analog Leakage Meter

Features

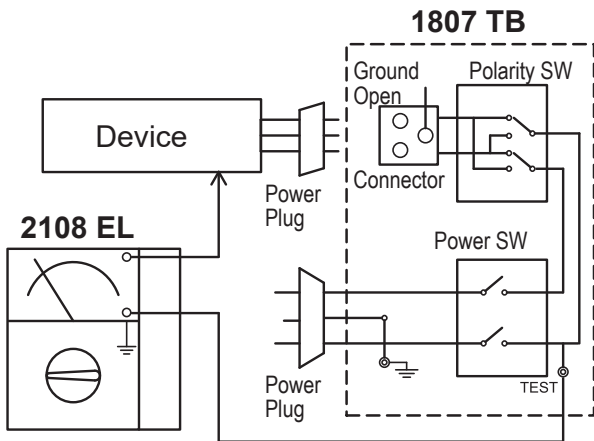
- High quality Taut Band movement.
- Four functions : DC current, AC current, AC+DC current, and ACV measurement.
- Three input resistance ranges: 1k Ω , 1.5k Ω and 2k Ω .
- 200uA full scale value.
- $\pm 2.5\%$ full scale value accuracy.
- Built-in overload protection circuit.
- Robust, compact and easy to carry.

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Specifications

Ranges	DC Current: 0.1-1-10mA AC Current: 0.1-1-10mA AC+DC current: 0.1-1-10mA AC Voltage: 150-300V (50/60Hz) Accuracy: $\pm 2.5\%$ of full scale
Input impedance	Current Ranges: 1k Ω , 1.5k Ω and 2k Ω Voltage Ranges: 150V/500k Ω 300V/1M Ω
Working frequency	20Hz ~5kHz
Overload protection	Withstands 30mA AC for 10 minutes for each current measuring range

Connection Diagram



General

Operating temperature	0°C ~ 40°C
Operating humidity	Max. 80% R.H.
Dimensions	210(L) × 210(W) × 100(D)mm
Weight	Approx. 1395g (battery included)
Power source	1.5V (AA) × 8
Safety standard	EN 61010-1 CAT III 600V EN 61326-1

Accessories

- Instruction manual
- Test leads
- Batteries

Analog Leakage Meters

1807 TB Test box (works with 2108 EL. 506 EL. 507 EL)



Features

- AC Voltage Input/output range: 100~240 Vac
- Frequency: 50~60Hz
- Current: 10A

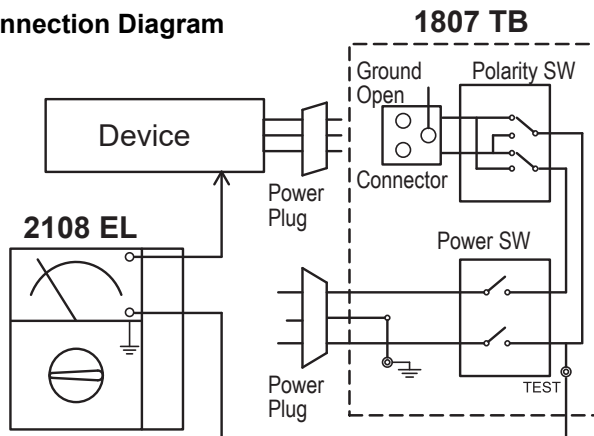
Specifications

Current capacity	10Aac(125V)
Withstand voltage	2210Vac for 1 minute between the electric circuit and the case
ACV Input/Output	100~240V 50/60Hz

General

Dimensions	170(L) x 165(W) x 92(D)mm
Weight	Approx. 820g
Safety standard	EN 61010-1 CAT III 600V

Connection Diagram



Matching the polarity test box

Connect the power cord to the power supply.

Turn the power switch to ON and measure.

If the voltage between the earth and the TEST terminal of this instrument:

- AC 30V or less : the instrument can be used.
- More than AC 30V : use the accessory 3-2 pin adapter and reconnect the power plug opposite.

1. Set the measuring range selector switch to ACV position of Model 2108 EL.
Connect the "GROUND" terminal of Model 2108 EL to the "TEST" terminal of Model 1807 TB, then close switch POWER SW.

2. Connect the "LINE" terminal of Model 2108 EL to either of the "CONNECTOR" of Model 1807 TB, and measure the power voltage to check that the voltage is as rated. (If the polarity is opposite, the meter pointer will be zero; in this case use switch POLARITY SW to change the polarity.)

3. Open switch POWER SW, and connect all the simultaneously accessible exposed conductive surfaces of the to-be-tested appliance together to the "LINE" terminal of Model 2108 EL.

4. Input "DEVICE" power plug of the to-be-tested appliance, and turn on all the appliance's switches.

5. Leakage current is not necessarily only in the AC spectrum, therefore set the measuring range selector switch to AC+DC mA range.

6. Close switch POWER SW of Model 1807 TB, and read the meter of Model 2108 EL. This reading will tell you the approximate value of the leakage current.

7. Referring to the value obtained in number 6. above, set the range of the AC mA to the optimum range, and read the meter of Model 2108 EL.

8. Change switch POLARITY SW of Model 2108 EL, read the meter of Model 2108 EL, and use the greater one of the above meter readings as the leakage current value.

9. Set the measuring range selector switch of Model 2108 EL to the DC mA range, and read the meter of Model 2108 EL.

10. Repeat the measurement conducted in number 8.

11. Start operating the appliance. When the appliance has reached its steady operating status, measure its leakage current. When not using the Model 1807 TB Test Box.