



**MICROTEST**  
We Make T&M Easier and Better

# 9804

## High Voltage wire harness Test System

- Use to measure  
high-tension cable  
wiring harness  
connector components

- which applied to

aerospace  
railway  
satellite  
solar power  
wind power

shipbuilding  
semi-conductor  
electronic vehicle  
communication  
heavy-duty machine industries



Airplane



Freighter



Electric Car

## One -Step Test Solution

MICROTEST 9804 high-voltage cable test system integrates the low-voltage and high-voltage test stations of the high-voltage wiring harness into a one-stop test.



WEBSITE



VIDEO

# About 9804

## Features

- | *128/256 test channels*
- | *PC control and data saving*
- | *Support RS-232 and Remote*
- | *AC hi-pot maximum 3500V*
- | *DC hi-pot maximum 5000V*
- | *4-wire conductance measurement (1mΩ~52Ω)*
- | *Insulation resistance maximum 12000MΩ*
- | *Support automatic learning loop function*
- | *One-stop test solution integration hi-pot and low voltage test*



## Specifications

### 9804 HV Wiring Harness Test System

Test Items
Conductance Test
Open / Short Test
AC Hipot Leakage Current
DC Hipot Leakage Current
Insulation Resistance
Resistance Test
Capacitance Test
Diode Test
Test Channel
128 / 256

### Applications

- High-voltage wire harness
- High voltage connector
- High voltage cable
- Charging socket

A diagram of an electric vehicle (EV) with a green leaf icon on its side, connected to a charging cable and socket. The text "EV Test" is written next to the car.

High Voltage module test function

Safety test	
AC Hipot Voltage	10V~3500V, 50/60Hz
AC Leakage Current	0.001-31mA ±3%
DC Hipot Voltage	10V~5000V
DC Leakage Current	0.001-11mA ±3%
Insulation Voltage	10V~1000Vdc
Insulation Resistance	1MΩ~12GΩ 100-500V, 1-1000MΩ (±5%) 500-1000V, 2-12000MΩ (±5%)
Voltage resolution	1V
Voltage accuracy	±(3% of setting+5V)
Arcing Detection	AC 1-20 / DC 1-10
AC Ramp Time	0.1-10s
DC Ramp Time	0.1-10s
Test Duration	0.1-999s

General

Power Supply	Voltage 100V-240V
	Frequency 50-60Hz
Environment	Temperature : 10°C ~ 40°C Humidity : RH75%
Dimension (W*H*D)	600×705×1200mm
Output signal	Pass / Fail
Interface	RS-232 / Remote

Low voltage module test function

Conductance	1mΩ-52Ω Accuracy ±(2%+8mΩ)
Intermittence Conductance	1mΩ-52Ω
Open / Short Test	2kΩ-100kΩ
Intermittence O/S	2kΩ-100kΩ
Quick Intermittence open circuit	2kΩ-100kΩ
Support automatic learning loop function	●

Resistance Test			
Range	Level signal	Current signal	Accuracy
50mΩ-20MΩ	0.5-3V	10mA	±2%
Capacitance Test			
Range	Level signal	Level signal	Accuracy
10pF-3μF	AUTO Gear (Optional) 48Hz 480Hz 4.8kHz 48kHz	0.3V-1.2V	±5%
Diode Test			
0-6.8V Accuracy ±25%			

One-Step Test Solution





# HV Wiring Harness Test System

# 9804

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| Use to measure

- high-tension cable
- wiring harness
- connector components

Conductance	1mΩ-52Ω
AC Hipot	10V~3500V
DC Hipot	10V~5000V
Insulation Resistance	1MΩ~12GΩ



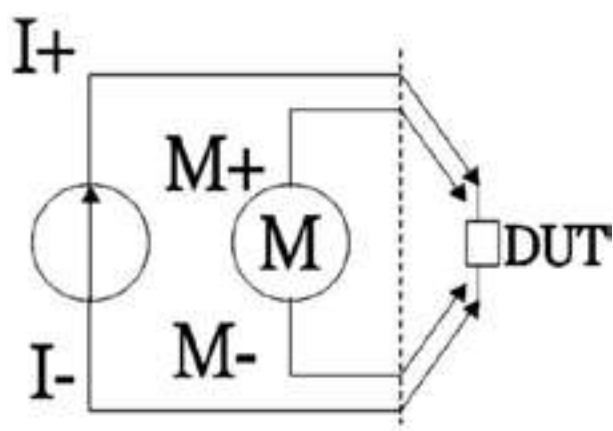
HV Wiring Harness

# Why do you need the 9804 ?



The components of each electrical system of electric vehicles are connected by wire harnesses, which are equivalent to the large arteries of electric vehicles. Among them, the high-voltage wiring harness in the high-voltage electrical system has a withstand voltage of more than 600V. The high voltage and large current of electric vehicles will generate electromagnetic field interferes with the wireless communication equipment in the car, and the shielding performance of the high-voltage wiring harness is very high, so as to avoid the high temperature under the high-voltage electrical system causing poor insulation of the connector, which affects the safety and reliability of the vehicle. MICROTTEST 9804 high-voltage cable test system integrates the low-voltage and high-voltage test stations of the high-voltage wiring harness into a one-stop test, provides 128 multi-channel measurement unctions, uses four-wire technology to achieve a precise low-resistance 1mΩ conduction test,and the AC withstand voltage test is up to 3500V. The DC withstand voltage test is up to 5000V, and the insulation detection range is up to 12000MΩ, which can check the safety electrical quality of the high-voltage wiring harness of electric vehicles.

## 4-Wire Test for Low resistance 1mΩ



Connect to DUT directly to prevent any deviation.  
For measuring low resistance DUT, we recommend to choose 4-wire tester.

## Open / Short Test

- Make sure the contact of wire work properly.
- Inspect if the loop contact is correct.
- Inspect if the crimp terminal has the problem with resistance.
- Inspect if the contact has indirect short/open problem.

## Frequently asked questions about the Cable's Production Line.



- |               |                    |
|---------------|--------------------|
| Short         | Insulation         |
| Instant Short | Voltage Resistance |
| Conduction    |                    |

## Hi-Pot Test and DC Insulation

- Some high precision product for automobile and military can't accept any arc under high voltage.
- Put a stabile high voltage on cable to make sure the quality of the cable/Connector.
- The result will judge by the rate of insulation resistance.
- Insulation resistance defect may cause DUT be penetrated or leakage current under high voltage.



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