

#### Overview

DP8000 series high-voltage wire/cable harness tester reaches up to 6kV maximum voltage. DP8000 test system support four-wire test, 24V/2A high current conduction test, DCR test, LCR test (optional), insulation test, AC/DC withstand voltage test. DP8000 wire/cable harness tester is usually used in rail transit connectors, cables and connectors in the nuclear energy field, and high-voltage electrical connectors in the aerospace and aviation fields, electric vehicle charging guns and charging seats, and PDUs (power distribution units) with high-voltage test requirements.



#### Features

- Precise four-wire test measurement (equipped with contact verification of temperature compensation foolproof four wire fixture)
- 4 basic test modes (OS/DCR/IR/HIPOT/LCR/)
- Automatic point finding, built-in multimeter can be used in any port.
- System self-testing, used for fault diagnosis.
- A multifunctional IO board to achieve one-stop test in charging guns/PDUs
- 4-wire conduction test, minimum resolution 10  $\mu\Omega$
- Insulation test up to 100G $\Omega$  (nuclear grade)
- Voltage withstand test with 8-level arc detection function
- LCR test frequency 50Hz~10kHz (optional)
- Maximum 6kV DC/5kV AC withstand voltage test
- Built in programmable 0~24V/2A DC low voltage source
- Optional 100A high current channel test module
- IO port with multi-channel electromagnetic valve drive capability

#### Software & interfaces

- User access management: administrators/programmers/operators three-level permissions
- 500 different projects management
- Self-learning test points to locate the connection relationship between points
- Support self-learning or manually divided test network segment
- Report print and edit, support printing in PDF and WORD formats
- Allow to configurate test network segment and parameters. Users can configure parameters for OS, insulation test, etc
- PTC/NTC temperature conversion
- 16-bit IO port input and output
- Local database and docking with MES
- Optional bar code scan, print, and raster devices

## Application

- Automotive high-voltage wire harness testing
- High voltage connector testing
- Automotive mainline board testing
- Automotive power distribution unit (PDU) testing
- AC/DC charging gun testing
- AC/DC charging station testing
- Rail transit cable testing
- Military and nuclear cable testing



Electric vehicles charging gun holder test



High-voltage connectors



Electric vehicle PDU

## Specification

<b>Low voltage test</b>	
<b>Short circuit and open circuit test (O/S)</b>	
Test voltage	DC 0~24V
Test current	50mA~2A programmable step 10mA
OS test	0.5mΩ~10Ω (±2%); 10Ω~1kΩ (±2%); Programmable step 1mΩ
<b>High current conduction test</b>	
Test range	10μΩ~1000.00mΩ(±1%)
Test method	4-wire test
Test time	Hold time: 0-60s, Programmable step 100ms
<b>Component resistance test</b>	
Test range	0.1Ω~20MΩ(≤100kΩ, ±1%; >100kΩ, 5%)
Test method	4-wire test
<b>LCR test (optional)</b>	
Inductance	10nH~100H(±2%)
Capacitance	100pF-100mF (±2%)
<b>ESD test (optional)</b>	
Diode	Forward voltage: 24V max; Reverse voltage: 1000V max
Zener diode	Forward voltage: 24V max; Reverse voltage: 1000V max
LED	Forward conduction voltage: 24V max
<b>Air tightness test (optional)</b>	
Positive pressure leakage detection	Pressure range: 0~100kPa, leakage pressure test accuracy: 0.2%, leakage resolution: 1Pa
Positive and negative pressure leakage detection	Pressure range : -80kPa~100kPa, leakage pressure test accuracy: 0.2%, leakage resolution: 1Pa
<b>Relay/electromagnetic lock test (optional)</b>	
Contact resistance/insulation test	(omitted)
Switching function test	Open-circuit/short-circuit test

8000 wire/cable tester (Hi-pot test)		
Hi-pot breakdown test	DC	AC(50Hz/60Hz)
3kV card (8000 type)	0~4kV, step: 10V	0~3kV, step: 10V
5kV card (8000 type)	0~6kV, step: 10V	0~5kV, step: 10V
Threshold/short-circuit (leakage) current	0.1-5mA, step:10 $\mu$ A	max 10mA
Rise time	0s-65s, step: 0.1s	0s-65s, step: 0.1s
Hold time	0s-65s, step: 0.1s	0s-65s, step: 0.1s
Fall time	0s	0s-65s, step: 0.2s

Insulation test	
Test voltage	DC 10~1000V
Step voltage	10V
Test current	max. 2mA
Insulation test range	500k $\Omega$ ~50G $\Omega$ ( $\pm$ 2%)
	50M $\Omega$ ~500G $\Omega$ ( $\pm$ 5%)
	500M $\Omega$ ~10G $\Omega$ ( $\pm$ 10%)

## Appearance

Dp8000 has cabinet type and horizontal type. 4kV model per card has 32 test points and 6kV model per card has 16 test points. The number of points can be expanded.

