



The Compact Entry  
into the High Voltage Test

**W 444**

Automotive

Railway/Transportation

Aerospace/Avionics

Electrical and Mechanical  
Engineering

**WEETECH**

The **W 444** enables high-end test features at a value price for the test of safety-related cable harnesses in the aerospace, transportation and automotive industries. As a result of the clever combination of powerful measurement technology, constant current sources up to 3 A and high voltage sources up to 2,250 Vdc/1,500 Vac, the W 444 can be used without any restriction for high voltage test stations according to EN 50191.

## ■ Generators and Measuring Units

<b>Continuity, Short and Component Test</b>	<b>LV-GEN</b>	<ul style="list-style-type: none"> <li>· Current 0,5 mA to 3 A</li> <li>· Current ranges 10 mA, 100 mA, 1 A, 3 A</li> <li>· Voltage 0 to 40 V</li> <li>· Output rating 120 W</li> <li>· Connection/Resistor 1 Ohm up to 10 MOhms 3 mOhms to 100 Ohms (Four Terminal Measurement) Consideration of the power limits of resistive components</li> <li>· Capacitance 20 nF to 10,000 µF</li> <li>· Components Diodes, Zener diodes, LEDs, Varistors</li> <li>· LV isolation Typically up to 100 MOhms</li> <li>· Voltage measurement 0 to ± 500 V, frequency DC to 1 kHz</li> </ul>
	<b>Insulation, Hi-Pot- and DC ARC Test</b>	<b>HV-DC</b> <ul style="list-style-type: none"> <li>· DC Voltage 40 to 2.250 Vdc</li> <li>· Current Touch safe generator, up to 1 mA</li> <li>· Ramps 500 V/s, 20 V/ms, 200 V/ms, 2.000 V/ms</li> <li>· Measurement Typically up to 10 GOhms, up to 500 MOhms ±1 %</li> <li>· ARC detection with unique voltage and slew rate recognition</li> </ul>
<b>Hi-Pot and AC ARC Test</b>	<b>HV-AC (optional)</b> <ul style="list-style-type: none"> <li>· AC Voltage 40 to 1.500 Vac</li> <li>· Real current Touch safe generator, up to 0.5 mA<sub>rms</sub></li> <li>· Imaginary current Touch safe generator, up to 3,2 mA<sub>rms</sub></li> <li>· Ramps 500 V/s, 20 V/ms, 2.000 V/ms</li> <li>· ARC detection with unique voltage and slew rate recognition</li> </ul>	
<b>Attenuation and Polarity Test</b>	<b>GEN 1 MHz (optional)</b> <ul style="list-style-type: none"> <li>· Frequency 10 to 1.000 kHz</li> <li>· Waveform Sine</li> <li>· Attenuation measurement 0 bis 40 dB</li> <li>· Accuracy in the range of 10 to 1,000 kHz</li> <li>· Transmission level 500 mVp at 50 Ohms/77 Ohms 3.97 dBm at 50 Ohms 2.10 dBm at 77 Ohms</li> <li>· Polarity check in phase/dephased</li> </ul>	
<b>Component, Twisted-Pair and Shield Test</b>	<b>RLC Meter (optional)</b> <ul style="list-style-type: none"> <li>· Frequency DC to 100 kHz</li> <li>· Capacitance 10 pF to 10,000 µF</li> <li>· Inductance 1 µH to 1 H</li> <li>· Checks pair inversion and shield integrity</li> <li>· RLC Measurement Functions</li> </ul>	

## ■ Functional Test

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- Supply of the UUT with programmable voltages up to 60 Vdc/25 Vac
- Emulation of the switching processes
- Reproduction of the functional environment, e.g. by electronic loads, frequencies etc.
- Functional test of push buttons and switches
- Import of characteristic curves of external devices and display/interpretation by CEETIS software
- Integrated, programmable voltage/current source with up to 40 Vdc/3 A (GEN 40-3) or LAN and IEEE 488/GPIB controlled power supplies with higher performance

**Software** · Software · CEETIS smart or CEETIS as option for functional test

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## ■ Switching Matrix

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**Modules for Wiring Test** · Versions for voltages up to 2,250 Vdc/1,500 Vac  
· Various output connectors available

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**Modules for Functional Test** · Combination modules equipped with test point and power cards for voltages up to 60 Vdc/25 Vac, currents up to 3 A  
· Power modules for voltages up to 60 Vdc/25 Vac, current up to 3 A  
· Separate high-current module for current up to 25 A, voltages up to 25 Vdc/25 Vac

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## ■ Safety

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- Non-hazardous output voltage of the high voltage generators due to certified current limitation to 1 mA<sub>dc</sub>, 3 mA<sub>rms</sub> (according to EN 50191 max. 12 mA<sub>dc</sub>, 3 mA<sub>rms</sub>)

## ■ Further Details

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**Interfaces** · Ethernet interface for control computer  
· Control interface (optional) to trigger external devices, e.g. feeders and fixtures  
· Software-controlled integration of external devices via LAN, IEEE 488/GPIB, RS 232, PC-Bus, CAN-Bus, CANOPEN-Bus, K-Line  
· Integration into customer specific ERP-Systems  
· Remote control with handheld-PC (W-LAN) or via LAN

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**Dimensions** · Portable 19 inch enclosure  
· W 444-2: 5 U with max. 256 test points, W x D x H (mm): 450 x 550 x 235  
· W 444-3: 9 U with max. 1,280 test points, W x D x H (mm): 450 x 550 x 410

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**Power Supply** · 100 to 230 Vac/50 to 60 Hz, max. 800 VA

**W 444**