

The Tester for
High Voltage Components
of the E-mobility

W 484 SHV
W 484 SHV PLUS



Automotive

Transportation

Aerospace

Factory Automation



Designed to test high voltage cable harnesses and components for electric and hybrid vehicles, the low-cost **W 484 SHV** meets exceptional customer Specifications that exceed the requirements of the LV 123 industrial standard.

The high voltage generator supplies voltages up to 5.100 Vdc/3.600 Vac and is current limited to a maximum of 3.8 mA. Therefore, the **W 484 SHV** is considered harmless in accordance with DIN EN 50191. Resistance measurements in the μOhm -range, insulation tests in the GOhm-range as well as a highly developed ARC detection, differentiated according to ARC and dIdt detector, enable a flexible application also in other areas.

The **W 484 SHV PLUS** also provides cost-optimized functionalities for test benches and adaptation modules such as LED, detection or power points, which cover almost all requirements of different bench manufacturers.

■ Generators and Measuring Units

Insulation, Hi-Pot, DC and AC ARC Test	HVG 5100	
	<ul style="list-style-type: none"> • DC Voltage 48 to 5.100 Vdc • AC Voltage 48 to 3.600 Vac • Current to 3,8 mA, to 2,7 mA_{eff} • Ramp Programmable from 120 V/ms to 1.000 V/ms • Measurement Typically up to 10 GOhm, up to 500 MOhm \pm 2 % 	
Highly sensitive ARC detection with step detector (voltage drop), slew detector (slew rate) and programmable dIdt detector		
Continuity, Short and Component Test	UIF 48	
	<ul style="list-style-type: none"> • Current 0,5 mA to 1 A • Current ranges 10 mA, 1 A • Voltage 0,5 V to 48 V • Output rating 30 W • Connection/Resistor 1 Ohm to 25 kOhm 1 mOhm to 100 Ohm (Four Terminal Measurement) 500 μOhm to 1 mOhm (Four Terminal Measurement) • Capacitance from 1 μF to 10 mF \pm (5 % + 100 nF) • Twisted-Pair- and Shield Test from 10 pF to 10 nF Checks pair inversion and shield integrity • Components Diodes, Zener Diodes, LEDs, Varistors • LV isolation Typically up to 40 MOhm • Voltage measurement 0 to \pm 500 V, frequency DC to 1 kHz 	
Component Test	RLC Meter (optional)	
	<ul style="list-style-type: none"> • Frequency DC to 50 kHz • Capacitance 100 pF to 10 mF • Inductance 1 μH to 1 H • RLC Measurement Functions [Z] Impedance, θ Phase angle, R Resistance (serial or parallel), C Capacitance (serial or parallel), L Inductance (serial or parallel), D Dissipation factor, Q Quality factor 	

Typical values, valid at the front panel of the tester without adaptation at 25° C and a relative humidity less than 60 %

■ Functional Test

- Functional test of push buttons and switches
- Measurement of time-dependent current/voltage curves
- Import of characteristic curves of external devices and display/interpretation in CEETIS
- Supply of the UUT with external voltages (U1) up to 50 Vdc
- Emulation of the switching processes

■ Switching Matrix

Modules for Wiring Test TPM 8	Version for Voltages up to	1.000 Vdc/750 Vac 5.100 Vdc/3.600 Vac	Output connector DIN 41612 C ERNI Output connector Harting Han 46 EE
W 484 PLUS Module TM 260-64 for LED-, Power-, Connector detection and detection points	<ul style="list-style-type: none">• 64-pin output connector conforming to DIN 41612, type C• Single point matrix, switching elements are transistors• Test point cards with 64 points <p>The functionality of test points is programmable in CEETIS:</p> <ul style="list-style-type: none">• LED points to activate LEDs simultaneously with associated test points, e.g. on an assembly board• Power points to switch external voltages (U1) to 50 Vdc, currents to 150 mA, e.g. for functional tests of relays• Connector detection points to check the presence of all connectors before the electrical test• Detection points to check the non-electrical components such as secondary locks at a connector or clips at the harness• Maximum switchable current 150 mA		
Modules for Functional Test	<ul style="list-style-type: none">• Power modules to switch external voltages (U1) to 50 Vdc, currents to 150 mA (TM 260-64) / to 3A (TPM 8-A/G)		

■ Safety

- Integrated HV-SAFETY in HVG 5100 for safe disconnection of the connected generators via EMERGENCY STOP, SAFETY, or HV-ENABLE
- Monitoring of the supplied energy against the limit value according to DIN EN 50191

■ Further Details

Interfaces	<ul style="list-style-type: none">• Ethernet interface with opto-decoupling of the control PC• Remote Control interface to trigger external devices, e.g. feeders and fixtures• Software controlled integration of external devices via LAN, IEEE 488/GPIB, RS 232, CAN-Bus, CANOPEN-Bus, K-Line• Connection to customer specific ERP-Systems
Dimensions W 484 SHV	<ul style="list-style-type: none">• Compact 19 inch enclosure• W 484 SHV-1 with max. 192 test points Dimensions W x D x H (mm): 450 x 650 x 450, with retractable handles• W 484 SHV-2 with max. 384 test points Dimensions W x D x H (mm): 450 x 650 x 620, with retractable handles
Dimensions W 484 SHV PLUS	<ul style="list-style-type: none">• Compact 19 inch enclosure• W 484 SHV-1 PLUS with max. 192 HV-, 768 LV-test points Dimensions W x D x H (mm): 450 x 650 x 510, with retractable handles• W 484 SHV-2 Plus with max. 384 HV-, 768 LV-test points Dimensions W x D x H (mm): 450 x 650 x 700, with retractable handles
Power Supply	<ul style="list-style-type: none">• 100 to 240 Vac, 1-phase, 50 to 60 Hz, max. 800 VA

W 484 SHV
W 484 SHV
PLUS

WEETECH



W 484-2 SHV Plus

Wired for Success: Testing Innovations.