



The Tester for
High Voltage Components
of the E-mobility

W 484 SHV W 484 SHV PLUS

Automotive

Railway/Transportation

Aerospace/Avionics

Industrial and
Mechanical Engineering

 **WEETECH**

W 484 SHV
W 484 SHV PLUS

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	
	· DC Voltage	48 to 5.100 Vdc
	· AC Voltage	48 to 3.600 Vac
	· Current	to 3.8 mA, to 2.7 mArms
	· 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	
	· 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
	· 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)	
	· 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	Output connector DIN 41612 C ERNI
		5.100 Vdc/3.600 Vac	Output connector Harting Han 46 EE
W 484 PLUS	· 64-pin output connector conforming to DIN 41612, type C		
Module TM 260-64 for LED-, Power-, Connector detection- and detection points	· Single point matrix, switching elements are transistors		
	· Test point cards with 64 points		
	The functionality of test points is programmable in CEETIS:		
	· 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	· 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	· 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	· Compact 19 inch enclosure
W 484 SHV	· 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	· Compact 19 inch enclosure
W 484 SHV PLUS	· 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	· 100 to 240 Vac, 1-phase, 50 to 60 Hz, max. 800 VA

W 484 SHV
W 484 SHV PLUS



W 484-2 SHV Plus