



AVL DiTEST HV Safety 2000

The **AVL DiTEST HV Safety 2000** is a measuring device specifically developed for work on high-voltage vehicles. It is used, to perform a wide range of safety-relevant measurements during service, maintenance, and repair operations. Its key applications include verifying the **absence of voltage**, measuring **insulation resistance**, and performing **equipotential bonding** measurements in accordance with the requirements of UNECE R100. This allows you to reliably confirm the electrical safety

of the vehicle before work begins and to document the proper re-activation of the high-voltage system after repairs have been completed. Additional measuring functions, such as voltage, resistance, capacitance, and diode measurements, support efficient fault localization and repair processes. Thanks to its all-in-one concept, the HV Safety combines several individual devices in a single, compact solution.

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COMPREHENSIVE MEASURING FUNCTIONS

The HV Safety also enables insulation resistance measurements on live high-voltage systems and supports the verification of the vehicle's internal insulation monitoring system. This allows you to perform measurements inside the HV battery easily, reliably, and efficiently.

SAFE WORKING

A particular focus is placed on workplace safety. Permanently connected measuring leads, integrated self-tests, voltage warning indicators, and guided measurement sequences help prevent operating errors and reduce risks when working on high-voltage systems. Users are guided safely through the entire measurement process and receive clear feedback on the vehicle's status at all times.

COMPLETE DOCUMENTATION

All measurement results are automatically recorded and documented in a comprehensive test report. This complete documentation ensures full traceability of the work performed and supports the fulfillment of quality assurance and documentation requirements. Optionally, the HV Safety can be integrated into customer-specific guided test procedures, including individualized test specifications, work instructions, and visual guidance.



For equipotential bonding measurements, the use of Kelvin equipment (4-wire measurement technology) is recommended to ensure accurate, reliable, and reproducible measurement results.
A Kelvin set consisting of Kelvin test probes and Kelvin clamps is available separately as an accessory.

TECHNICAL SPECIFICATION

Voltage measurement	
Voltage range	max. 1000 V DC
Potential equalization measurement	
Test current	200 mA (according to UNECE R100) up to 1 A
Insulation resistance measurement	
On inactive and active high-voltage systems	according to UNECE R100, ISO 17409, SAE J1766
Measuring range and test voltage	up to 500 MΩ with test voltages up to 1000 V DC
Additional measuring ranges	
Resistance measurement	up to 10 MΩ (resolution down to 100 mΩ)
Capacitance measurement	up to 3 mF (resolution down to 1 nF)
Diode measurement	Measuring current 1 mA, measuring voltage max. 5 V
General device specifications	
Housing dimensions (W x L x H)	95 x 220 x 45 mm
Weight	0.5 kg
Protection class	IP44
Interface	USB 2.0 Type A
Ambient conditions	
Operation	0 to 40 °C
Transport and storage	-20 to 55 °C

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 Headquarters: AVL DiTEST GmbH
 Alte Poststraße 156, 8020 Graz, AUSTRIA, AVLDiTESTSales@avl.com
 German branch: AVL DiTEST GmbH
 Schwadermühlstraße 4, 90556 Cadolzburg, Germany, Tel. +49 9103 7131-540, fuesales@avl.com
www.avlditest.com

