VITREK 95X Series Industrial Strength Hipot Testers



More speed, more power, better resolution, more functionality. What more could you want in an electrical safety tester?

Vitrek 95X Series

For more than 25 years Vitrek has been driven by an obsession to build a better hipot tester. Increased user safety, faster test times, higher output voltages and more functionality have been our driving force. The 95X series is the result of this pursuit—offering power, speed, accuracy and resolution that leave the others far behind.

For Demanding Hipot Tests – Demand the Vitrek 95X

Speed and power go hand in hand, the 6.5KVDC models offer 50mA of source current for DC Hipot—providing the power you need to rapidly charge and discharge challenging DUTs. Models are also available with DC hipot up to 11KV and 15KV. Most of the 95X series also offer 50mA of sourcing



The TL-UP2 Test Adaptor allows for easy Hipot and Ground Bound connection to virtually any device with a power cord. The TL-UP2 routes high voltage to both the line and neutral pins of the power socket and connects the earth pin of the socket to the return of the tester. A separate test lead can be connected to the DUT chassis for continuity or Ground Bond testing to the earth pin of the DUT power cord. Available in Hipot/Continuity or Hipot/ Ground Bond versions.



for AC hipot, but for heavier AC loads the 95X can be configured to source up to 100mA or even as much as 200mA. For higher AC hipot voltages the 95X can generate up to 10KV internally and all models are available with an external 30KVAC hipot option.

When it comes to making critical leakage current measurements, the 95X delivers rock-solid resolution down to 100 pico-amps. This high resolution provides built-in insulation resistance measurement (IR) up to a Tera-ohm, add a 4-wire milli-ohmmeter with autoranging up to 100K ohm and an available 40 amp Ground Bond function—and you are beginning to understand the versatility of the Vitrek 95X Series.

Need To Hipot Multiple Test Points?

The 95X has the ability to directly control up to four 64 channel HV scanners, right out of the box. That is up to 256 test points and using a PC with Vitrek's QuickTest Pro software you can expand the count up to 640 test points. The HV Switching System of choice is the Vitrek 964i which can hold eight 8 channel switching cards — available in 7, 10 and 15 KV ratings. The 964i also has switching cards to handle routing up to 40 amp ground bond currents.

95X Series Hipot Tester

95X Series Output Comparison Chart

Capabilities	951i	952i	953i	954i	955i	957i	959i
AC Hipot	20V-6KV	20V-6KV	20V-6KV	20V-6KV	50V-10KV	20V-6KV	_
(Max Std Current)	50mA	50mA	50mA	50mA	30mA	50mA	_
(500VA Option)	100mA	_	100mA	_	_	100mA	_
(2KV Max Option)	200mA	_	200mA	_	_	200mA	_
(30KVAC Ext. opt)	10mA	10mA	10mA	10mA	10mA	10mA	—
DC Hipot / IR	30V-6.5KV	30V-6.5KV	50V-11KV	50V-11KV	50V-11KV	75-15KV	_
(Max Current)	50mA	50mA	30mA	30mA	30mA	10mA	_
(MAX IR)	2T	2T	4T	4T	4T	6T	—
40A Ground Bond	_	Yes	_	Yes	_	_	Yes
4 Wire Ohmmeter 100μΩ to 149KΩ	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Features and Benefits

- Highest Level of Operator Safety features include: GFI High speed shut down for earth ground leakage faults, SFI™ Safety Fault Interlock – High speed shut down for interruption of safety interlock, TLSS™ Test Lead Safety Sense – Clamps DUT chassis near ground by continuously verifying proper connection of test leads prior to and during HV testing
- **High Power Output** means better drive capability and increased test throughout. With up to 50mA of sourcing current for DC hipot the 95X Series gets heavy duty jobs done fast—available 100mA & 200mA AC drive tackles even the toughest sourcing requirements
- Wide Range of built-in Voltage Capabilities – Choose from 6.5KVDC, 11KVDC or 15KVDC and 6KVAC, 10KVAC or up to 30KV RMS AC with external option
- The Fastest Hipot Testers available

 High output power combined with Dual Coldfire[®] microprocessors and Dual DSPs to provide Ramp rates up to 50KV/second, dwell times as low as 20mS and overall test times as fast as 3mS in optional Flash mode
- Expansive Test Sequence Memory holds up to 100 tests with up to 100 steps per test. Tests can be selected via front panel, Ethernet, RS232, Digital I/O or with optional GPIB
- Ground Bond Test Capability available in three models with output currents from 100mA to 40Amps RMS and test times from 20mS to 1000 seconds or longer

- 4-Wire Milli-Ohmmeter Function provides fast, accurate 5 digit resistance measurements with resolution down to 100µΩ and range up to 100K ohms
- Built-in Phase Angle Measurement allows the measurement and display of both resistive (in-phase) leakage current and reactive (out-of-phase) leakage current caused by capacitive coupling
- Multi-Dwell Functionality permits dwells at different voltage levels without having to return to zero between test steps dramatically simplifying advanced analysis of dielectric properties
- Ramp High/Dwell Low Current Limits — permits the user to set separate limits for the ramp and dwell providing faster ramp times and lower leakage test limits
- Ethernet, RS232, Digital I/O, USB Printer & Scanner Control — All Standard Interfaces — Provides the highest level of test automation. GPIB optional
- High Voltage Scanner Control up to 256 point switching capability with available 964i HV Scanners. Route voltages up to 15KV and currents up to 40A for multi-point hipot and ground bond tests
- Dual Dimensional / Test Specific / Broadband Arc Detection. Where lesser testers allow you to set a single, global, amplitude only arc limit—the technologically advanced 95X Series utilizes time & amplitude based arc limits and uniquely applies them to each desired test

- Pico-Amp Leakage Measurement insures that even the lowest leakage current levels are accurately detected and tera-ohm range IR readings are stable and precise
- Test Specific Fixture & Cable Compensation — Automatically calibrate out offset errors caused by lead resistance, fixture capacitance and leakage
- Multi-Mode IR Insulation Resistance values up to one Tera-ohm can be obtained with precision in your choice of 3 IR test modes — end on time, end on pass or end on fail
- Continuously Variable IR Test Voltage Unlike most IR testers which limit you to three or four discrete test voltages, the 950i Series allows you to select the test voltage you need. Starting as low as 20V all the way to 6.5KV, 11KV or 15KVDC
- Capacitance Test Modes For AC & DC hipot and IR provide tightly controlled charge and discharge profiles for superior results on critical solar panel tests and other highly capacitive loads
- Light Weight Switching Power Supply Design — Better reliability, easier on your back. Compare the 8.2 kg 95X to whatever you've been using
- 400Hz AC Voltage Withstand Testing provides aviation frequency specific test results for a more effective analysis of dielectric properties on avionic components
- Safety Tested per EN 61010-1. EMC compliant to EN 61326-1

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