

VITREK

Vitrek V7X Series – No other Hipot can touch 'em

Vitrek V7X Series

For nearly 25 years, an obsession has driven us to keep improving how hipot testers perform—speed, accuracy, user safety and reliability have been our driving force. Building a better hipot tester is in our DNA—it drove us to successfully engineer the first 4-in-1 safety tester back in 1990 and it has driven us to redefine performance in low cost hipot testers today.

The Hipot Experience has been Redefined

Our goal for the V7X series has been to achieve the unheard of. To provide state-of-the-art performance in a powerful yet compact multi-function hipot tester—and do it at an entry level price. From our easy-to-use Touch user interface, to its ultra-reliability, high efficiency, fan free design—the V7X provides unrivaled performance. Have we met our goal? You be the judge—compare the V7X to our made in China competitors and see how well American engineering stands up. We build Vitrek Hipot Testers. What's on your production line?

Test 8 DUTs at a Time with the V76

For multi-channel hipot testing—choose the V76 with 24 channels of built-in high voltage switching. With the versatile V76, you can test hipot or IR for any combination of up to eight test points and you can measure low resistance (from .001 ohm to 60K ohms) on up to eight conductors. All automatically with a single touch and all from a single compact tester. For requirements exceeding eight points, the V7X can control up to four Vitrek 964i 64 channel HV Switching Systems—providing up to 256 channels of Hipot test capability. Simple, fast, automatic multi-point hipot—make the switch to the Vitrek V7X. You will be glad you did.

Features and Benefits

- 4.3" Color Touch Display—Easy To Use Intuitive User Interface
- 6 Functions to Choose From—AC/DC Hipot, IR, Ground Bond, Continuity and Built-in Switching
- Made in the USA—Designed and Built in San Diego CA
- Compact, Lightweight, Rugged, Fan

Free, Fast (100mS min test time) and Accurate

- 5KV AC/DC Hipot, 20mA max source current
- Ground Bond 1-30A RMS (42 A peak), 100 $\mu\Omega$ Resolution
- 100 nano-Amp Leakage Current Resolution
- Low Cost of Ownership—Two Year Calibration Interval
- USB 2.0, Serial/RS232, Digital I/O Interfaces are Standard
- Continuously Variable Insulation Resistance 20-5000V, 450G Ω Max
- Multi Mode IR with Steady/Rising Pass Mode
- Test Memory Stores up to 999 Steps and 60 Test Sequences
- Internal Self Test Fully Exercises Output and Verifies Current Accuracy
- Pre-Programmed Daily Verification Test With Optional PVD Test Load
- 150 μ S Safety Shutdown
- Ramped Discharge Capability
- Selectable ARC Detection 1-20mA
- Meets UL, CSA, IEC Safety Tester Requirements
- CE Safety Mark Certified to EN61010
- Two Year Parts and Labor Warranty

4.3" Color Touch Display All of the Info you Need—Super Easy to Use

Ultra-High Reliability Start/Stop Switches

Convenient Front Panel Power Switch



Large, Bright LED Caution Testing Indicator

Safety Locked HV Terminal for Hipot & IR

Independent LED Pass/Fail Indicators

Low Profile High Current Binding Posts for Ground Bond

The Brand You Trust on Your Production Line

Vitrek V7X Series Performance Specifications

AC Hipot

Output Voltage

10 to 5000V RMS, 50/60 Hz (2500V max on V76)

Accuracy : 1% of setting +5V, No load to full load

Resolution : 1V at all levels
Max load current : 20mA Arms

Leakage Current

Accuracy : 1% of reading +5uA
Resolution : 1uA

DC Hipot

Output Voltage

20 to 5000V (2750V max on V76)

Accuracy : 1% of setting+ 5V, No load to full load

Resolution : 1V at all levels
Max load current : 10mA

Leakage Current

Accuracy : 1% of reading +1uA
Resolution : 0.1uA

IR - Insulation Resistance

Test Voltage

20 to 5000VDC (2750V max on V76)

Accuracy : 2.5% of setting +5V, No load to full load

Resolution : 1V at all levels
Max Charge Current: 5mA automatic
Max Capacitive Load: 2uF

Resistance

Max IR: 450Gigohm (90MΩ per volt)
Min IR: 150KΩ

Accuracy : 2% (rdg <5% of max IR), 5% (< 15% of max IR), 10% (< 30% of max IR), 20% (above 30% of max IR)

Max Resolution : 0.1% of value
Min/Max Limits : Defined for each step, max may be set to none

Test Completion

End on Time: Determination on final reading
End on Pass: Test ends with PASS for any reading within limits
End on Fail: Test ends with FAIL for any reading outside limits

Test Functions

	V70	V71	V73	V74	V76	V79
AC Hipot	•	•	•	•	•	
DC Hipot		•	•	•	•	
IR			•	•	•	
Ground Bond				•		•
Low Resistance	•	•	•	•	•	•
16 Ch HV Scanner					•	

End on Steady: Test ends with PASS for a steady/ rising reading within limits

Low Resistance

Resistance

Range: 0ohm to 60Kohm
Accuracy : 1.5 %+0.015Ω (<13Ω), 3%+1ohm (<1KΩ), 5%(< 13KΩ)

Resolution : Down to 0.001Ω
Min test time: 60 ms

Test Method

2 terminal measurement, 10.5mA/ 4.15V max

Resistance Offset

Test leads/fixture measurement offset may be universally applied

Ground Bond

Test Current

1 to 30Arms (42A peak), 50/60Hz

Accuracy : 2.5%+10mA

Resolution : settable to 0.01A at all levels

Compliance : > 4.5Vrms (6V pk) for all currents

Method

4 terminal measurement

Resistance

Max Resistance: Up to compliance V limit at defined test current (4.5ohms max)

Min/Max Limits : Defined for each step, min may be set to none

Accuracy : 2.5%+3mΩ (<2A), 2mΩ (<6.5A), 1mΩ (otherwise)

Resolution : 0.1mΩ (>6.5A), 1mΩ (otherwise)

Resistance Offset

Test leads/fixture measurement offset may be universally applied.

Test Timing

Ramp Time

For AC/DC Hipot: 0 to 99.9sec (0.1sec resolution, 0.05sec accuracy)

Test/Dwell Time

0.1 to 9999sec or user end (0.1sec resolution, 0.15sec accuracy)

Ramp Down

May be set to 0sec or same as Ramp time, automatically skipped if no failure and next step is same AC/DC or IR test type.

Shutdown

Breakdown : within 150ms

HV Safety : within 1ms

User Stop or Interlock opened : within 2ms

Resistance/Current Limit : within 100ms

Breakdown

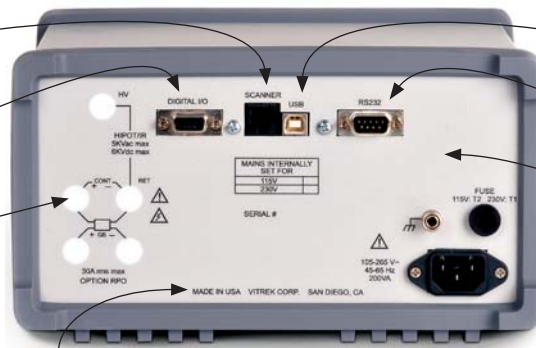
For Hipot tests, automatically checks for sudden uncontrolled increases of load current throughout test, no min/max leakage required.

For complete specifications visit us online at www.vitrek.com.

Controls up to 4 HV Scanners (N/A on V75 with built-in HV Switching)

Digital I/O with Safety Interlock

Optional Rear Panel Terminals or on V75 16 terminals for Hipot/IR & Continuity



USB 2.0 High Speed Universal Serial Port

RS232 Serial Port with Selectable baud rate up to 115Kbaud

Ultra-Quiet, Ultra-Reliable, High Efficiency Fan Free Design

Rugged V7X with Heavy Duty Silicone Bumper

Advanced Design, Built-in Quality - Made in the USA