

VITREK



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Vitretek V7X Series

No other Hipot can touch 'em

Vitrek V7X Series

At Vitrek, improving hipot tester performance is more than a goal—it is our passion. Every V7X Series tester is designed to deliver exceptional speed, accuracy, safety and reliability while remaining easy to use and cost-effective. Drawing on decades of innovation in electrical safety testing, the V7X redefines what engineers and manufacturers should expect from a modern hipot tester.

The Hipot Experience has been Redefined

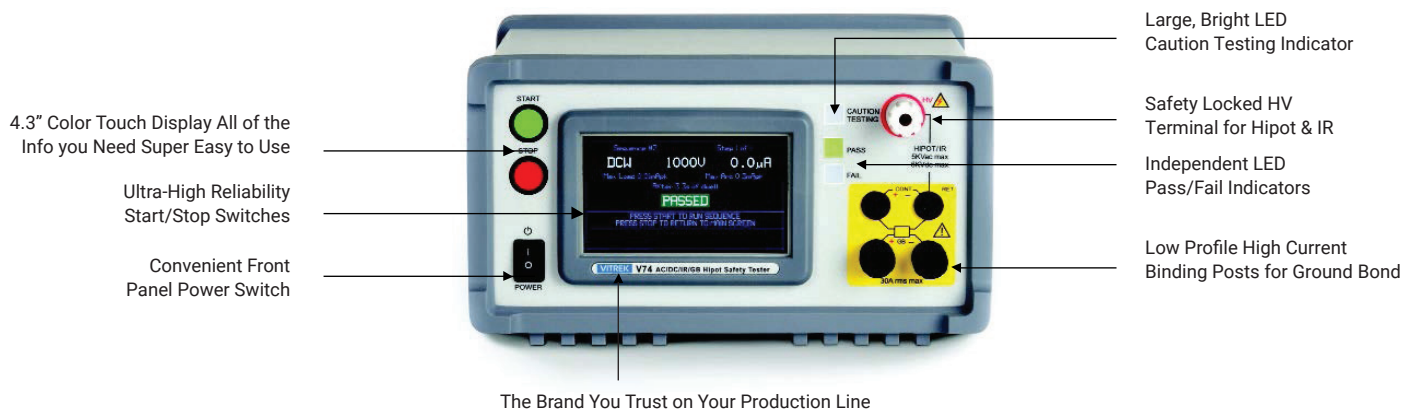
Our goal for the V7X series has been to achieve the unheard of. To provide state-of-the-art performance in a powerful yet compact multi-function hipot tester and do it at an entry level price. From our easy-to-use Touch user interface, to its ultra-reliability, high efficiency, fan free design—the V7X 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), 100μΩ 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, 450GΩ 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
- 150μS Safety Shutdown
- Ramped Discharge Capability
- Selectable ARC Detection 1-30mA
- Meets UL, CSA, IEC Safety Tester Requirements
- CE Safety Mark Certified to EN61010
- Two Year Parts and Labor Warranty



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 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/MaxLimits: Definedforeachstep, maxmay 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 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.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 150us

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

Ordering Information

Model	Description	AC Hipot	DC Hipot	IR	Ground Bond	Low Resistance	HV Switching
V70	AC Hipot Tester	✓	-	-	-	-	-
V71	AC/DC Hipot Tester	✓	✓	-	-	-	-
V73	AC/DC/IR Hipot Tester	✓	✓	✓	-	-	-
V74	Electrical Safety Tester	✓	✓	✓	✓	✓	-
V76	Multi-Channel Safety Tester	✓	✓	✓	-	✓	16 Ch Built-in
V77	AC/DC/IR + Low Resistance Tester	✓	✓	✓	-	✓	-
V79	Ground Bond & Low Resistance Tester	-	-	-	✓	✓	-

V7X SERIES: COMPLETE SAFETY TESTS. AUTOMATICALLY.

One tester. Six safety tests. Protect your product. Protect your customers. Protect your reputation.

DEVICES UNDER TEST

- Power Cords**
Line cords, extension cords
- Medical Devices**
Patient safety critical equipment
- Appliances**
Household & commercial products
- Industrial Equipment**
Controls, tools, assemblies
- Transformers & Power Supplies**
Windings, isolation verification
- EV Charging Equipment**
High voltage safety testing

V7X SERIES

Multi-Function Safety Tester



6 SAFETY TESTS IN ONE INSTRUMENT

AC HIPOT

 Detects breakdown in insulation under AC voltage stress

DC HIPOT

 Detects breakdown in insulation under DC voltage stress

IR (INSULATION RESISTANCE)

 Measures insulation resistance up to 450 GΩ

GROUND BOND

 Verifies protective earth connections (1-30A RMS)

CONTINUITY

 Checks low resistance connections (.001Ω to 60KΩ)

BUILT-IN SCANNING

 Test up to 8 points (V76) or expand to 256 points

RESULTS & OUTPUT

- PASS / FAIL**
Clear indication with LED & screen
- MEASURED DATA**
Voltage, Current, Resistance, Leakage, Time, etc.
- DATA STORAGE**
Test memory, data logging & historical records
- REPORTING**
Export data via USB, Serial, or Digital I/O
- COMPLIANCE**
Meets UL, CSA, IEC & EN Standards

WHY CHOOSE V7X SERIES?

PROTECT YOUR PRODUCT
 Ensure electrical safety and reliability

PROTECT YOUR CUSTOMERS
 Prevent shocks, fires and failures

PROTECT YOUR REPUTATION
 Deliver quality your customers trust

INCREASE PRODUCTIVITY
 Fast tests, automatic sequencing & scanning

LOW COST OF OWNERSHIP
 Reliable, efficient, 2-year calibration interval

MADE IN USA
 Engineered and built in San Diego, CA

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Vitretek.com

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BUILT FOR PERFORMANCE. BUILT FOR SAFETY. BUILT FOR YOU.

Which product is right for you?
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