



V7X Series - Hipot Testers

With color touch LCD & high speed DSP technology, the compact & rugged V7X sets the standard for price/performance ratio. Made in the USA to meet tough UL, CSA, TUV and IEC Hipot requirements - the V7X provides unbeatable speed, accuracy, user safety and reliability.



Electrical Safety Testing will Never be the Same

Choose from six low cost models offering AC & DC Hipot to 5KV, leakage current measurement to 100 nano-amps, Insulation Resistance to 450GΩ and Ground Bond to 30 amps. Combine all that with USB, RS232 and Digital I/O interfaces, plus a 2 year warranty.

The V7X is simply unbeatable

Vitretek V7X Series Performance Specifications

AC Hipot

Output Voltage	10 to 5000V 50 or 60 Hz Accuracy : 1.4% of setting +0.1% Full Scale, No load to full load Resolution : 1V at all levels Max load current : 20mArms
Leakage Current	Min/Max Limits during dwell of none, or up to 20mArms Accuracy : 1.5% of reading +5uA Resolution : 1uA

DC Hipot

Output Voltage	20 to 5000V test voltage Accuracy : 1.4% of setting+0.1% Full Scale, No load to full load Resolution : 1V at all levels Max load current : 10mA
Leakage Current	Accuracy : 1.5%+1uA Resolution : 0.1uA

IR - Insulation Resistance

Test Voltage	20 to 5000VDC Accuracy : 5%+5V No load to full load Resolution : 1V at all levels Max Charge Current: 5mA automatic Max Capacitive Load: 2uF
Resistance	Max IR: 450Gigohm (90M Ω per volt) Min IR: 150K Ω 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	Stop on Time: Determination on final reading Stop on Pass: Test terminates with PASS for any reading within limits Stop on Fail: Test terminates with FAIL for any reading outside limits Stop on Steady: Test terminates with PASS for any reading within limits which is

Low Resistance

Resistance	Range: 0ohm to 60Kohm Accuracy : 1.4 %+0.02 Ω (<10 Ω), 3%+1ohm (<1K Ω), 10 % above 1K Ω Resolution : Down to 0.001 Ω Min/Max Limits : Defined for each step, each may be set to none
Test Method	2 terminal measurement , 10.5mA max, 4.15V max
Resistance Offset	Test leads/fixture measurement offset may be universally applied

Ground Bond

Test Current	1 to 30Arms (42A pk), 50/60Hz
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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 150us
 HV Safety : within 1ms
 User Stop or Interlock opened : within 2ms
 Resistance/Current Limit : within 100ms

Test Functions

	V70	V71	V73	V74	V79
AC Hipot	●	●	●	●	
DC Hipot		●	●	●	
IR			●	●	
Ground Bond				●	●
Low Resistance	●	●	●	●	●

Breakdown For Hipot tests, automatically checks for sudden uncontrolled increases of load current throughout test, no min/max leakage required
 Arc Detect For Hipot tests, settable to none or adjustable level between 1 and 30mApk, 5MHz bandwidth
 Pause Step A timed pause of defined length between 0.1s and 999.9s.
 Hold Step A user continued hold step with a 2 line message to be displayed to the user while the step is executing.
 Switch Step Provides control of up to 4 Vitrek 964 switch units, each SWITCH step allows complete control over the states of all switches
 Test Memory Up to 999 total test steps may be defined in up to 60 different sequences

General Specifications

DSP Measurement 40,000 samples per second for output control and parameter measurement
 Display 4.3" 480 x 272 Color touch LCD user interface
 Interfaces USB 2.0, RS232 & Contact closure digital I/O with safety interlock
 Warranty 2 year parts and labor

Accessories	Alligator test leads for hipot & continuity units (TL-209), 4-wire alligator test leads for GB units (K-2R), operator's manual CD, QT Pro V utility software and evaluation version test automation software & power cord
Calibration	2 year accuracy specifications and recommended calibration interval, ANSI/NCSL Z540 NIST Traceable cal cert with data standard
Safety	CE mark certified to EN61010
Power	115/230VAC \pm 10% internally selectable, 50-60Hz, 200VA max
Dimensions	5.25" (133mm) H x 9.5" (240mm) W x 11" (280mm) D
Weight	12 lbs, 5.5kg net (V70-73), 16 lbs, 7.3kg net (V74 & V79)
Country of Origin	Made in the USA

Ordering Information

Item	Description	Price
V70	AC Hipot Tester	
V71	AC/DC Hipot Tester	
V73	AC/DC/IR Hipot Tester	
V74	AC/DC/IR/GB Hipot Tester	
V79	Ground Bond Tester	
QTV Pro 7	QuickTest Software	
TL-209	Additional HV/Continuity Test Lead set	
K-2R	Additional Ground Bond Lead Set	
HVL-7	High Voltage Warning Light	

Vitrek Corporation

12169 Kirkham Rd, Poway, CA 92064, 858.689.2755 www.vitrek.com

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