

# V5 Scanning Electrical Safety Analyzer

AC & DC Hipot, Insulation Resistance, Ground Bond & 8 Channel Scanner



## Everything You Need in a Multi-point Safety Analyzer for an Exceptionally Low Price

**The V5 Sets the Standard for Versatility and Value.** Only Vitrek, world leaders in electrical safety test automation, could build a feature rich, full function 5-in-1 electrical safety tester with performance this high and a price this low. The new Vitrek V5 combines AC Hipot to 5KV, DC Hipot to 6KV, insulation resistance to 10 gig-ohms and high current ground bond measurement up to 42 Amps and a built-in 8 channel HV Scanner. And all this comes in one systems ready, low profile, rugged, rack mount package – complete with rear terminal outputs.

**Uncompromising Performance.** The outstanding capability of the V5 delivers fast, consistent, reliable results – test after test. And with its built-in multi-channel scanner, the V5 can automatically route high voltages to up to 8 test points so you can get more testing done with less human interaction. The end result is safer, faster, more flexible testing with the touch of a button or with available QuickTest™ software – with the stroke of a keyboard.

The V5's crystal clear LCD user interface is remarkably easy to use, yet provides an abundance of information. Test results for a sequence of up to 16 tests can be viewed on a single screen. The V5's Multi-mode IR™ capability lets you choose the operating format for insulation resistance testing - and with outputs available from 50 to 1000V you're sure to find the test voltage you need.

### The V5 Suits Your Needs.

Whether you need a workhorse for everyday production line testing or an analytical unit for product safety engineering, you'll find that the multi-function V5 is loaded with all the powerful features you need to get the job done right including programmable ramp and dwell times, automatic calibration, 160 position user memory, selectable arc detection, bi-directional RS232 and available GPIB interface. When you put it all together there is no comparison. The V5 is the new undisputed champion of electrical safety testers.

## Vitrek V5 Advantages

- Built-in 8 Channel Scanner
- Tests AC, DC Hipot, IR & Ground Bond to UL, CSA, IEC & TUV Specs
- Up to 5KVAC 40mA
- Up to 6KVDC 10mA
- Multi-mode IR 50-1000V up to 10,000MΩ
- Ground Bond up to 42Amps
- Leakage current resolution down to 10μA
- Fully programmable RS232 optional GPIB interface
- Selectable arc detection
- Available Safety Fault Interrupt (SFI)™ circuit
- CE mark certified EN61010
- 10 position test sequence memory
- 3 year extended warranty



WORLD LEADERS IN COMPLIANCE AUTOMATION <sup>SM</sup>

## V5 Performance Specifications

### AC Hipot

**Voltage Range:** 100 to 5000 VAC RMS  
**Voltage Setting Resolution:** 5V/step  
**Voltage Regulation:** 1% of reading + 5V  
**Voltage Accuracy:** 1% of reading + 10V  
**Voltage Monitoring:** At Output Terminals  
**Output Current:** 30mA to 40mA 180S max, 0 to 30mA continuous. Below 500V 10mA max  
**Min/Max Current Limits:** 0.1 to 40mA  
**Current Accuracy:** 1% of reading + 50µA

### DC Hipot

**Voltage Range:** 100 to 6000 VDC  
**Voltage Setting:** Resolution: 5V/step  
**Voltage Regulation:** 1% of reading + 5V  
**Voltage Accuracy:** 1% of reading + 10V  
**Voltage Monitoring:** At Output Terminals  
**Max Output Current:** 10mA continuous, below 500VDC 2mA continuous  
**Min/Max Current Limits:** 0.01 to 10mA  
**Current Accuracy:** 1% of reading + 50µA

### Insulation Resistance

**DC Output Voltage:** 50, 100, 500 or 1000V

**Resistance Range:** 1 to 9999MΩ

**Resistance Accuracy:** (% of reading)

50, 100 VDC	1-50MΩ 5% 51-200MΩ 10% 201-1999MΩ 20%
500, 1000 VDC	1-500MΩ 5% 501-2000MΩ 10% 2001-9999MΩ 20%

**Multi-Mode IR™:** Select 1 of 3 modes - test passes on good reading, test fails on bad reading, pass/fail determined at end of test time.

### Ground Bond / Continuity

**Test Current:** 3A to 42 amps RMS  
**Terminal Configuration:** 4 wire Kelvin  
**Resistance Range:** 0 to 600mΩ  
**Resistance Resolution:** 100µΩ  
**Resistance Accuracy:** 1% reading ±3mΩ  
**Compliance Voltage:** 8 volts at terminals  
**Current Resolution:** 0.01A  
**Voltage Resolution:** 0.01V

### General

**Test Database:** 10 test sequences, up to 16 steps per test sequence  
**Front Panel Lockout:** Prevents database edit while in lockout mode  
**Arc Detect:** 10 level trip select  
**Remote Interfaces:**  
RS232 - Fully interactive  
PLC - Inputs: Start, Reset  
Outputs: Testing, Pass, Fail  
GPIB - Option GP-V5



*With its built-in HV Scanner, the V5 can automatically conduct both Hipot and IR tests on up to 8 different points. Rear panel terminals provide convenient access for Ground Bond testing, while PLC, RS232 and available GPIB interface connectors allow for easy systems integration.*

**Timer Accuracy:** 0.25% ± 50mS  
**Power Source:** AC100V, 120V, 220V, 230V (±10% 50/60Hz), 350W max  
**Operating Environment:** Indoor use, altitude up to 6500ft (2000m). installation category II. Pollution Degree 2  
**Operating Temperature:** 0°C to 40°C, 80% RH  
**Storage Temperature:** -10°C to 70°C, 70% RH  
**Enclosure:** 3U x 19" Rack Mount Package with front mount handles and rear outputs  
**Dimension:** 17"W x 17"D x 5.25"H, 432mm x 432mm x 133mm  
**Weight:** 39lbs (18kg) net, 45 lbs (20 kg) ship  
**Accessories:** NIST cal cert, TL-20-60 & K-2 test leads, instruction manual and power cord  
**Accuracy:** Stated specifications apply for 1 year at 23 °C ±5 °C  
**Calibration:** ANSI/NCSL Z540 Certificate of calibration with data traceable to NIST  
**Compliance:** CE mark certified to EN61010 and EMC directives EN50081-1 & EN50082-2  
**Warranty:** 3-Year extended warranty with registration and annual factory calibration, 1 year parts and labor standard

### QuickTest™ Software

**Option QT-V5:** Bundled test automation software and PC serial interface cable. Easy to load graphical test sequence development and operating environment. Provides time/date, operator, test parameters, test results and readings. Results may be viewed, printed out or exported to a database program

### Ordering Information

Prices are in US Dollars and reflect North American pricing. For International pricing please contact sales at Vitrek

V5 Scanning Electrical Safety Analyzer	\$4990
GP-V5 GPIB Interface Option	495
TL-115-5 Hipot/GB Outlet Test Adaptor	195
TL-10-60 High Volt Probe Lead Set	95
TL-20-60 High Volt Alligator Lead Set	85
TL-IEC5 IEC Socket Lead Set	115
K-2 High Current, 4-wire, 2 Clip Kelvin Lead Set	185
K-4 High Current, 4-wire, 4 Clip Kelvin Lead Set	195
SFI-2 Safety Fault Interrupt Option	100
MHL-4U Mating HV Lead 4 ft, unterminated	45
MHL-4A Mating HV Lead with Alligator Clip	50

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