



# V4 Electrical Safety Analyzer

AC & DC Hipot plus Insulation Resistance and Ground Bond



## Everything You Need in a 4-in-1 Safety Tester for an Exceptionally Low Price

**Only Vitrek** – world leaders in electrical safety test automation – could build a feature rich, full function 4-in-1 electrical safety tester with performance this high and a price this low. The new Vitrek V4 combines AC Hipot to 5KV, DC Hipot to 6KV, insulation resistance to 10 gig-ohms and high current ground bond measurement up to 40 amps – all in one compact, automated instrument.

### The performance of the V4 is uncompromising.

The V4 delivers fast, consistent, reliable results – test after test. And it does all this from a single test connection with the touch of a button or with available QuickTest software – the stroke of a keyboard. The V4'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 V4'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 V4 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 V4 is loaded with all the features you need to get the job done right - powerful features, including programmable ramp and dwell times, automatic calibration, SFI™ safety fault interrupt, 160 position user memory, selectable arc detection, scanner control port, bi-directional RS-232 and available GPIB interface. When you put it all together there is no comparison. The V4 is the new undisputed champion of electrical safety testers.

## Vitretek V4 Advantages

- Tests to UL, CSA, IEC & TUV specifications
- 4 EST functions in 1 compact, feature-rich instrument
- Up to 5KVAC 40mA
- Up to 6KVDC 10mA
- Multi-mode IR 50-1000V up to 10,000MO
- Ground Bond up to 40Amps
- Leakage current measurement down to 10µA
- Fully programmable RS-232 & HV scanner control port, optional GPIB interface
- Selectable arc detection
- Safety Fault Interrupt (SFI)™ circuit
- CE mark certified
- 10 position test sequence memory
- 3 year extended warranty



## V4 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	1-50MO 5% 51-200MO 10% 201-1999MO 20%
500, 1000 VDC	1-500MO 5% 501-2000MO 10% 2001-9999MO 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 40 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 each with up to 6 steps per test sequence  
**Front Panel Lockout:** Prevents database edit while in lockout mode  
**Arc Detect:** 10 level trip select  
**Remote Interfaces:** Fully interactive RS232, - PLC interface, scanner control port – all standard talk/listen GPIB interface - option GP-V4  
**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  
**Dimension:** 17.6”L x 13”W x 5.9”H, 446(L) x 330(W) x 149(H)mm  
**Weight:** 33lbs (15kg) net, 40 lbs (18 kg) ship  
**Accessories:** NIST cal cert, TL-2050 & 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 provided, traceable to NIST  
**Compliance:** CE mark certified to EN61010 and EMC directives EN50081-1 & EN50082-2  
**Warranty:** 3-Year extended warranty with annual factory calibration, 1 year parts and labor standard

### QuickTest™ Software

**Option QT-V4:** 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

**V4** Four-in-1 Electrical Safety Tester  
**GP-V4** GPIB Interface Option  
**QT-V4** Bundled Quicktest Software with Serial Cable  
**TL-115-4** Hipot/GB Outlet Test Adaptor  
**TL-1050** High Volt Probe Lead Set  
**TL-2050** High Volt Alligator Lead Set  
**TL-IEC4** IEC Socket Lead Set  
**K-2** High Current, 4-wire, 2 Clip Kelvin Lead Set  
**K-4** High Current, 4-wire, 4 Clip Kelvin Lead Set  
**RPO-4** Rear Panel Output Terminals  
**RM-4** Rack Mount Kit

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Specifications subject to change without notice.