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 Quick*Test* 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.

Vitrek 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

VITREK

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

Quick*Test*™ 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.