

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 gigohms 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 RS232 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 safety test functions in 1 compact, feature-rich instrument
- Up to 5KVAC 40mA
- Up to 6KVDC 10mA
- Multi-mode IR 50-1000V up to 10,000MΩ
- Ground Bond up to 42Amps RMS
- Leakage current measurement down to 10μA
- Fully programmable RS232 & HV scanner control port, optional GPIB interface
- Selectable arc detection
- Safety Fault Interrupt (SFI)™ circuit
- CE mark certified EN61010
- 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: 0.1 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 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
registration and annual factory calibration
(calibration fee applies). 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-10-60 High Volt Probe Lead Set

TL-20-60 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

Represented By:



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Specifications subject to change without notice.