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Find the *Vitrek 944i* at our website: ***Click HERE***

Test Equipment Depot
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99 Washington Street
Melrose, MA 02176
Fax 781-665-0780
TestEquipmentDepot.com

944i AC & DC Hipot Plus

Insulation resistance and earth continuity all in one GPIB automated tester



The Benchmark in Dielectric Analyzer Performance, Safety and Value

The 944i is One Unit that does the Work of a Multitude of Test Instruments
Consider the speed, power and flexibility of the Vitrek 944i. It combines AC dielectric strength testing (AC Hipot), insulation resistance DC dielectric strength testing and earth continuity measurement all in one feature-rich automated instrument. This compact dielectric analyzer lets you measure four electrical safety test parameters from a single test connection-all with the touch of a button.

The Vitrek 944i delivers top performance and versatility for manufacturing test, product safety engineering, component evaluation, as well as research and development applications. You'll find that the multi-function 944i is loaded with features that even the larger more expensive dedicated testers don't offer. Powerful features including automatic calibration, built-in diagnostics, internal "watchdog" safety monitor, user memory for up to 40 test routines, arc detection and available interface package with IEEE-488.2, RS-232 and direct test results printout capability.

The Intelligent Choice for Operator Safety
At Vitrek, operator safety is not just a concern, it is a relentless commitment. So we engineered the 944i with an internal "watchdog" safety monitor which automatically shuts down the output in the event of an inadvertent disconnect.

For added peace of mind the on-board diagnostics of the 944i execute a complete check of all safety systems every time you power up.

World Class Technology Means Reliability You Can Depend On
The Vitrek 944i provides increased performance and reliability when compared to discrete testers. Extensive use of ASIC, PAL and built-in test technologies make possible this high level of functionality with far fewer components than existing instruments.

Demand That The Vitrek 944i Label is on Your Dielectric Analyzer
Vitrek minimizes overall test time and maximizes system reliability by combining four dielectric test functions in one unit. It would hardly seem possible that a slow dielectric tester could back up an entire production line. Yet with today's imposing 100% dielectric inspection requirements, the antiquated manual hipot tester is often the manufacturing bottleneck.

944i Advantages

- Tests to UL, CSA, IEC & TUV Specifications
- Up to 5KVAC with 35mA
- 5KVDC standard, 7KVDC & 10KVDC optional
- Insulation resistance to 500GΩ
- Continuity down to .001Ω
- Real, apparent & total current sense modes
- Leakage current measurement down to 1nA
- IF-4 interface option includes GPIB, RS-232, printer port & HV scanner control port
- Selectable arc detection
- "Ramp Hi-Dwell Low" current limits
- Safety Fault Interrupt (SFI)SM circuit
- CE mark certified
- Password protected 40 position test sequence

VITREK

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The Vitrek 944i Provides the Fastest, Most Accurate and Reliable Test Results Available

We've harnessed the power of the microprocessor to make this dynamic instrument simple and easy to operate for a surprisingly modest price.. Specifically, the extensive use of menu prompting walks you through the test set-up. Built-in user memory allows you to store, recall and edit up to 40 different test programs. All test parameters are fully user selectable – no hidden switches or pots to hamper operation.

The result is a clean, streamlined panel design that demands noticeably less effort to operate – and the unrivaled power to execute customized test routines at the touch of a button.

With its full 35mA sourcing capability, the Vitrek 944i possesses the horsepower required to drive today's capacitively filtered circuits - loads which the 10mA to 25mA units just can't handle. Yet, what sets the 944i apart from the rest is its ability to discriminate between in-phase and out-of-phase leakage currents.

At Vitrek, we manufacture human engineered automated test instruments. But that's not where our commitment stops. We back you up with a worldwide network of Vitrek support centers. And we provide support by phone or e-mail for any need or question that may arise.

This all adds up to one point - you'll enjoy doing business with Vitrek. Our service technicians, application engineers and customer satisfaction people just wouldn't have it any other way.

Vitrek 944i Performance Specifications

AC Dielectric Mode

AC Voltage Output

Tolerance is equal to the square root of the output voltage.

Output Examples	Formula	Accuracy
100 VAC	Sqrt(100)	± 10.0 VAC
5000 VAC	Sqrt(5000)	± 70.7 VAC

Output Frequency: 50Hz to 100Hz with 1Hz resolution.
Output Waveform: Digitally synthesized, low distortion sinewave.

AC Current Sensing (AC Leakage)

Range	Resolution	Accuracy
13.00µA	10nA	0.5% of reading + 1µA
1.300mA	1µA	0.5% of reading + 30µA
40.00mA	10µA	0.5% of reading + 500µA

Current Sensing: Resistive current (in-phase), reactive current (out of phase), or total current
Current sourcing limits: 35mA (20mA below 500 Volts)

DC Dielectric Mode

DC Voltage Output

Tolerance is equal to the square root of the output voltage times 0.75

Output Examples	Formula	Accuracy
100 VDC	Sqrt(100) * 0.75	± 7.5 VAC
5000 VDC	Sqrt(5000) * 0.75	± 53.0 VAC

Output above 5000 VDC requires option DC-7 or option DC-10

DC Current Sensing (DC Leakage)

Range	Resolution	Accuracy
1.800µA	1nA	0.4% of reading + 8nA
18.00µA	10nA	0.3% of reading + 50nA
1.8 00mA	1µA	0.3% of reading + 15µA
40.00mA	10µA	0.3% of reading + 100µA

Reading Rate: 3000 per second. Display updated 3 times per second.
Current sourcing limits: 35mA (20mA below 500 Volts)

Insulation Resistance Mode

Range: 100K to 500GΩ (5K VDC 10nA)
Accuracy: Combined uncertainty at current and voltage measurements.

Low Resistance Mode (Earth Continuity)

Full Scale: 8.5Ω maximum including lead resistance
Resolution: 1mΩ
Test Current: 50mA
Lead Compensation: Automatic offset circuit "nulls" out two wire lead resistance.
Accuracy: 0.3% of reading + 30mΩ

General

Arc Detection: User selectable 3 to 30 microseconds.
Display: 40 Character alphanumeric LCD
High Voltage Indicator: Lightning bolt illuminated by independent output voltage monitor.
Voltage Resolution: 1 volt AC or DC
Slew Rate: 10 Volts/second to 1999 volts/second, user selectable.
Limits: Test automatically aborts when digitally stored minimum or maximum limit is exceeded.
Remote Interface Option IF-4 includes GPIB, RS232, Printer Port & VICL – Vitrek auxiliary unit control loop.
Accuracy: Stated specifications are bipolar and apply for one year within ± 5 °C from calibration temperature.
Calibration: Traceable to NIST, ANSI/NCSL Z540 certificate with data.
Operating Temperature: 0°C to 50°C
Humidity: 90% RH, 0°C to 40°C
Power: 115/230 VAC ± 10%, 350 VA Max
Dimensions: 89mmH x 432mmH x 457mmD (3.5"H x 17"W x 18"D)
Weight: 14Kg (34 lb.) Net / 18kg (40 lb.) shipping
Warranty: Extended 3 year warranty with registration and annual factory calibration (calibration fee applies). 1 year warranty standard.
Accessories: TL-20 lead set, power cord, manual, certificate of calibration.

Ordering Information

Vitrek 944i Dielectric Analyzer
IF-4 Remote interface package
Includes IEEE-488, RS232-C, Parallel & VICL ports
SIJ-1 Safety Interlock Jack
TL-115A Test leads with 115 VAC outlet
TL-10 Test leads with high voltage probe
TL-20 Alligator test lead set
TL-IEC IEC power socket test lead
RM-1 Rack Mount kit
GP-1 1 Meter IEEE-488/GPIB Cable
GP-2 2 Meter IEEE-488/GPIB Cable
RS-1 6' RS-232 Cable
QT-1 QuickTest Software
QT-2 Bundled QuickTest Software with PC GPIB card & cable
DC-7 Boosts max DC output to 7KV
DC-10 Boosts max DC output to 10KV
OM-944 Additional Operator's manual

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