

CableEye® HVX System for High Voltage Cable and Harness Testing

Fast • Accurate • Automation Ready • Superb Graphics & Documentation

Expandable 128 Test Point, Continuity & Hipot Test Systems

Item 829 HVX 1500 Vdc, 1000 Vac, 1 GΩ

Item 829A HVX-21 2100 Vdc, 1200 Vac, 5 GΩ

Options

- Item 828, 128-point Expansion Module (attaches to base of HVX)
- Item 828A, 128-point Expansion Module (attaches to base of HVX-21)
- Item 832, 4-Wire Kelvin Resistance Measurement, 1 mΩ at 1 A
- Item 833, Capacitance Measurement
- Item 829X, Remote Control Connector for Deadman Switch

Containing both low voltage and high voltage subsystems, the automation-ready HVX permits expanded testing for insulation resistance, dielectric breakdown, & Zener diode breakdown voltage, and can be upgraded for capacitance and/or 4-Wire measurement. After checking for opens, shorts, miswires, and resistance limits, the system applies a user-selectable voltage to each connection group in the cable - from 10 V to the maximum dc/ac voltage. Ramp Up, Ramp Down, Dwell Time (Test Time), Trip Current, and Trip Delay (Soak Time) are adjustable. Leakage Current detected during the high voltage test phase provides a measure of insulation quality. Insulation resistance up to 1 GΩ or 5 GΩ may be recorded. Any leakage current exceeding a preset limit reveals the presence of moisture, flux, or other contamination on exposed contacts.

Low voltage resistance thresholds can be set for contact resistance down to 0.1 Ω, and for isolation up to 5 MΩ. Measure embedded resistors from 100 Ω to 1 MΩ with 1% accuracy, and lesser accuracy from 0.1 Ω to 5 MΩ. LV measurement takes less than 0.5 s.

Robust hardware includes: A TEST pushbutton with READY, PASS, and FAIL indicators for one-button operation; Signal remote control and test probe sockets; External Terminals for basic insulation testing on chassis and individual components; Industry-standard 64-pin dual-row latch headers for easy interface to external test fixtures of your own design for custom applications; USB Communication; and a rugged, 1/16"-thick aluminum case with scratch-proof Lexan surface for long life in an industrial environment.

A simple, in-built scripting capability permits full production-testing automation from test through reports and labelling. Program optional external relay boards to switch diverter gates, lock & release latches, and more. Program Ready, Pass & Fail signals to operate tower lights, LEDs, audible tones, label printers etc. Use optional API & LabView interfaces for integration with other equipment.

HVX series testers allow users to meet industry-standard A620 guidelines. Archival-quality reports show user-selected test parameters such as test voltage, leakage current, and insulation resistance for each wire group, and denote PASS or FAIL.

Control Module Price Includes: An expandable 128-point tester; screw terminal board set (CB29, Item 759) or your choice of another board set of equivalent value; CD with software and documentation (Getting Started Guide, Application Guide, Manual); one-year warranty inclusive of free tech support and software upgrades. **READY TO USE**

Select Add-On Options

Hardware: 4-Wire Measurement, Capacitance Measurement, HV Remote Control, Expansion Modules

Software: AutoBuild™, PinMap™, Connector Designer™, Custom Reporting, Win32/.NET API with LabView™ interface

Accessories: Foot Pedal, Relay Control Board (for external digital control), Pelican Carrying Case

**1 Yr Renewable Warranty
Free Tech Support!**

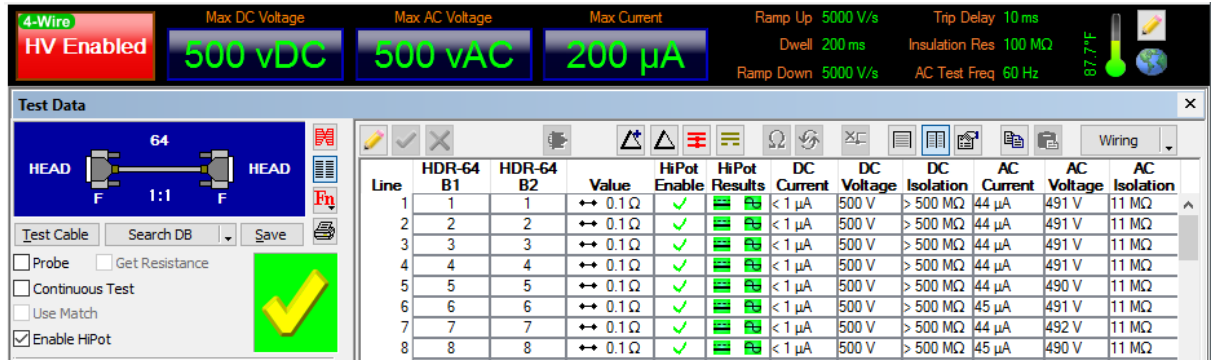
**Test to A620
Guidelines!**



HVX with CB29s, 128 Test Points, Expandable



External Terminals for Component Testing

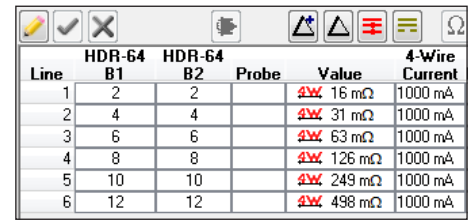


Test Result Screen

HVX-SERIES TECHNICAL SPECIFICATIONS

Low and High Voltage	
HVX	HVX-21
Main Unit Test Points	152 for LV tests, 128 for HV tests
Max Test Points	1024 / 512
Test Time (128 Test Points)	Depends on voltage, ramp rate, test algorithm selected
Continuity Only	From 0.20 / 0.15 s
With Resistance Test	From 0.25 / 0.40 s
Resistance Thresholds	0.1 / 0.02 Ω to 1 GΩ / 0.1 / 0.02 Ω to 5 GΩ
Resistance Accuracy	2% from 10 Ω to 100 Ω 1% from 100 Ω to 1 MΩ 5% 1 MΩ to 100 MΩ Lesser accuracy above 100 MΩ
Resistance Range	0.1 / 0.02 Ω to 5 / 8 MΩ
4-Wire Kelvin	1 mΩ ± 1 mΩ, From 1 mΩ to 15 Ω Test Current 100 mA to 1 A Optional Feature (Item 832)
Intermittent Connection Scan Rate	26 / 18 Scans/s - 128 TPs 90 / 47 Scans/s - 64 TPs
Diode Measurement	Orientation, Forward Voltage and Reverse Breakdown >10V
Test Voltage	10 - 1500 Vdc or 10 - 1000 Vac _{rms} in Increments of 1 V / 10 - 2100 Vdc or 10 - 1200 Vac _{rms} in Increments of 1 V
Test Voltage Accuracy	DC: ± 2%, ± 1.5 V AC: ± 4%, ± 2 V _{rms}
Max. Test Current	3.3 mA
Capacitance Range	100 pF - 100 µF
Capacitance Accuracy	± 5%
Capacitance Meas. Rate	20 Measurements/Sec at 100 nF or less
Twisted Pair Measurement	Yes, 6' Minimum Length
Meas. Cable Length	Minimum Length 6 ft, ± 3 ft
Meas. Distance to Break	Minimum Distance to Break 6 ft, ± 3 ft
Dwell Time Range	LV: 1 µs to 100 ms HV: 30 ms - 300 s
Insulation Resistance Measurement	5 / 8 MΩ at 10V / 2 MΩ - 1 GΩ at 1500 Vdc / 2 MΩ (min) at 1000 Vac / Current Sensitivity: 1 µA / 5 / 8 MΩ at 10V / 2 MΩ - 5 GΩ at 2100 Vdc / 2 MΩ (min) at 1000 Vac / Current Sensitivity: 0.2 µA
Digital I/Os	Pairs of Test Points used as Inputs, 50+ Relay Outputs with Optional Relay Boards (Item 765)
Calibration	Recommended Yearly
Test Point Connectors	64-pin dual-row headers, 0.1" (2.54 mm) centers. Two per 128-point module
Remote Control Socket	Yes, MiniDIN8 Connector for use with e.g. Footswitch, External Control Panel
Probe Socket	Yes. Probe included with tester. Accessory port also usable with minihook cables.

Values in blue text with Capacitance Measurement Option (Item 833)



4-Wire Test Result Screen



External Terminals Control Screen

Power Requirement	100 - 250 Vac, 50-60 Hz 130 W (max) for 128 TPs; 175 W (max) for 512 TPs IEC-standard universal C14 chassis plug
Weight	21 lbs (9.5 kg)
Computer Requirements	Any Windows-capable machine running Windows XP-SP3 or later. Compatible with touchscreen and laptop PCs.
USB Interface	USB 1.1, Fast, Two Ports
Environmental Specs	Environmental, EMC, and Safety Specifications: camiresearch.com/environmental-specs.pdf
Warranty	One year, parts and labor, with free tech support and free software upgrades. Renewable yearly.