

Product Datasheet - Technical Specifications



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CableEye® TECHNICAL SPECIFICATIONS



	Low Voltage			Low and High Voltage	
	M2Z Item 814	M3Z Item 826	M4 Item 824	HVX Item 829	HVX-21 Item 829A
Control Module Test Points	128	128 + 24		128 + 24 for LV tests 128 for HV tests	
Max Test Points	128	2560 + 24		1024	512
Test Time (128 Test Points) ² Continuity Only With Resistance Test	0.20s N/A	0.15s 0.40s	0.15s 0.40s	Depends on voltage, ramp rate, test algorithm From 0.20 / 0.15s From 0.25 / 0.40s	
Resistance Thresholds	46 kΩ, Fixed	0.1 Ω to 5 MΩ	0.02 Ω to 6 MΩ	0.1 / 0.02 Ω to 1 GΩ	0.1 / 0.02 Ω to 5 GΩ
Resistance Accuracy: From 10Ω to 100Ω		±0.2 Ω	±0.15 Ω	±0.2 Ω / ±0.15 Ω	
From 100Ω to 1MΩ		1 %	1 %	1 %, 5 % from 1 MΩ to 100 MΩ	
Full range		Lesser accuracy over full range.		Lesser accuracy above 100 MΩ	
Resistance Range		0.1 Ω to 5 MΩ	0.02 Ω to 6 MΩ	0.1 / 0.02 Ω to 5 / 6 MΩ	
4-Wire Kelvin			20 mΩ ± 20 mΩ, From 20 mΩ to 15 Ω Test Current: 3.3 mA	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 ²	33 Scans/s	18 Scans/s - 128 TPs 47 Scans/s - 64 TPs		18 Scans/s - 128 TPs 47 Scans/s - 64 TPs	
Diode Measurement	Orientation Only	Orientation, Forward Voltage and Reverse Breakdown <10V		Orientation, Forward Voltage and Reverse Breakdown >10V	
Test Voltage	5V	10V	Adjustable: 1.7V, 2.5V, 3.3V, 5V, 10V	10 - 1500Vdc or 10 - 1000Vac _{rms} in Increments of 1V	10 - 2100Vdc or 10 - 1200Vac _{rms} in Increments of 1V
Test Voltage Accuracy				DC: ± 2%, ±1.5V AC: ±4%, ±2Vrms	
Max. Test Current	0.3 mA	3.3 mA			
Capacitance Range ²		50 pF - 100 μF			
Capacitance Accuracy ²		±5 %			
Capacitance Meas. Rate ²		20 Measurements/Sec at 100 nF or less			
Twisted Pair Measurement ²		Yes, 6 ft Minimum Length			
Meas. Cable Length ²		Minimum Length 6 ft, ±3 ft			
Meas. Distance to Break ²		Minimum Distance to Break 6 ft, ±3 ft			
Dwell Time Range		1 μs to 100 ms		LV: 1 μs to 100 ms HV: 30 ms - 300 s	
Insulation Resistance Measurement		5 MΩ at 10V	6 MΩ at 10V	2 MΩ - 1 GΩ at 1500Vdc 2 MΩ (min) at 1000Vac Current Sensitivity: 1 μA	2 MΩ - 5 GΩ at 2100Vdc 2 MΩ (min) at 1200Vac Current Sensitivity: 0.2 μA
Digital I/Os	Inputs Only	Pairs of Test Points used as Inputs, 50+ Relay Outputs with optional Relay Boards (Item 765) ■			
Calibration	Not Required	Recommended Yearly			
Test Point Connectors	64-pin dual-row headers, 0.1" (2.54 mm) centers. Two per 128-point module				
Remote Control Socket	No	Yes, MiniDIN8 Connector for use with e.g. Footswitch, External Control Panel			
Probe Socket	Yes. Probe included.	Yes. Probe included with tester. Accessory port also usable with minihook cables.			
Power Requirement	9Vdc at 300 mA (max) 3W, from wall module	18Vdc at 500 mA (max), 9W		100 - 250Vac, 50-60Hz 130W (max) for 128 TPs; 175W (max) for 512 TPs IEC-standard universal C14 chassis plug	
Weight Control Module, Expansion Module	2.48lb (1.12kg)	2.50lb (1.13kg) 1.58lb (3.48kg)	2.37lb (1.07kg) 1.58lb (3.48kg)	13.33lb (6.05kg) 7.26lb (3.30kg)	13.74lb (6.23kg) 7.26lb (3.30kg)
Computer Requirements	Any Windows-capable machine running Windows 7 or later. Compatible with touchscreen and laptop PCs.				
USB Interface	USB 1.1, Fast			USB 1.1, Fast, Two Ports	
Environmental Specs	Environmental, EMC, and Safety Specifications: camiresearch.com/environmental-specs.pdf				
Product Support	2-Yr Product Support Subscription (Software Hardware Tech Support Warranty). Renewable yearly: camiresearch.com/advantage				

Values in blue text for HVX Advanced Measurement Option Installed (Item 833)

² Some values are dependent on the number of Expansion Modules. Contact us for details.

³ Options not included. ⁴ Plus 8.8lb for 512 TPs

TEST AND MEASUREMENT MATRIX

	LV			HV
	M2Z	M3Z	M4	HVX Series
Continuity				
Opens, Shorts, Miswires	●	●	●	●
Intermittent Faults	●	●	●	●
Complex Networks, Backplanes		●	●	●
Resistance				
Connection, Non-Connection Quality		●	●	●
Resistance (2-Wire)		●	●	●
Continuous Resistance Scan		●	●	●
Fixture Resistance Nulling		●	●	●
Resistance (4-Wire Kelvin)			●	■
High Current Resistance				■
Capacitance				
Wire Length, Cable Length			●	■
Length to Break			●	■
Twist Pairing			●	■
Single Channel Safety Test				
Chassis, Panels, Transformers, etc.				●
Insulation Quality				
Dielectric Strength, Withstand Voltage				●
Insulation Resistance		●	●	●
Presence of Contaminants				●
In-Line Components				
Resistors		●	●	●
Diodes		●	●	●
Orientation	●	●	●	●
Forward Voltage		●	●	●
LEDs		●	●	●
Orientation	●	●	●	●
Color Detection		●	●	●
Zener Diodes		●	●	●
Orientation	●	●	●	●
Forward Voltage		●	●	●
Reverse Breakdown Voltage <10V		●	●	●
Reverse Breakdown Voltage >10V				●
Capacitors			●	■

Key: ● Standard Feature
■ Optional Feature



Low Voltage Models



High Voltage Models