

Meridian Wire and Harness Analyzer

Fully Integrated Testing up to 1024 points

USES:

- High & Low Voltage Testing of Cables, Wires, and Harnesses
- Testing of Aerospace, Transit, Power Cables and Connectors
- Testing of Medical Cables, Electrodes and Other Multi-Connection
- Electrical Devices

FEATURES:

- 128 to 1024 Pin Count Versions
- HV Test to 1067VAC, 1500VDC
- 2-&4-Wire Resistance Measurements
- Embedded Windows XP Operating System
- Oversized, Color Touch Screen Programming
- Built-In 'START' and 'STOP' buttons
- LV Test Stimulus: 50uA or 5mA
- Capacitance Test: 50pF - 10mF
- Customer Component Tests: Flying Leads, Twisted Pair, Harness
- Pass/Fail Testing
- Automatic Arc Detection
- Auto-Learn Component Recognition

Introduction

The Meridian is a versatile wire and harness analyzer, and its applications are not limited to just cables. It can be used for testing wires, cables, and harnesses for opens, shorts, miswires and for testing components within a cable or fixture assembly. The Meridian can test up to 1500VDC and 1067VAC and perform opens and shorts detection tests up to 500 wires per second, making testing cables, connectors, harnesses and panels easier than ever before.

Description

Low Voltage Tests: For low resistance measurements, a 2-wire and 4-wire configuration is possible with resolution down to 1mOhm in the 4-wire mode. Make 2-wire measurements up to 50 MOhm, and 4-wire measurement up to 400Ohm

High Voltage Tests: For AC hipot testing, output voltages to 1067V are possible and for DC hipot output voltages to 1500V. Insulation resistance measurement can be made to 1.5GOhm at test voltages to 1500V DC.

Component Testing: The Meridian is able to test cable assemblies comprised of multiple components such as resistors, capacitors, diodes, and switches. The Net List for components is learned automatically and can also be edited through advanced net list editor.

Programming: Pre-programmed component tests for Flying Leads, Twisted Pair and Harness assemblies. Group Continuity Test for fast and easy verification.

Interfaces: Standard interfaces on the Meridian include Printer, Monitor, Keyboard, Mouse, 6 standard USB ports, and Ethernet (Network).

Reports Generated: Meridian will automatically generate reports for each product tested which can then be displayed, printed out or saved. The reports can also be exported and saved to PDF and HTML format. Report allows products to be serialized and can be formatted by the user.

System Applications: The Meridian can be used as a stand-alone system or easily integrated into a larger automated system using its digital input and outputs (up to 11).

Password Protection: Enabling Password Protection restricts access to specific features preventing unauthorized users from modifying test programs and system parameters. It also records operator information in test details.



For more detailed information on specifications, pricing and special purchase, rent and lease options, contact us at:

www.quadtech.com

800-253-1230

Meridian Wire and Harness Analyzer

Model Numbers:

Model	Voltage (A/C)	Voltage (D/C)	High Current
LV1	-	-	-
HV1	-	1000	1A Fixed
HV2	-	1500	1A Fixed
HV3	1067	-	1A Fixed
HV4	1067	1500	1A Fixed
HV5	1067	1000	1A Fixed

Measurement Specifications:

MSR Resistance Measurements

2-Wire Measurements		
Range	Accuracy	Resolution
0.1Ω - 1Ω	±(5% + 50 mΩ)	1mΩ op 3 digits
1Ω - 100KΩ	±1%	3 digits
101KΩ - 10MΩ	±7%	3 digits
10.1 MΩ - 25 MΩ	±15%	3 digits
25.1 MΩ - 50 MΩ	±30%	3 digits
4-Wire Measurements		
Range	Accuracy	Comments
50mΩ - 400Ω	±(2.5% + 20 mΩ)	
400Ω - 50 MΩ	±(3.5% + 30 mΩ)	> 128 test points 400Ω the measurement default to 2-Wires
Capacitance Measurement		
Range	Accuracy	Comments
50pF - 1nF	±(4% + 5pF)	With tare
1nF - 1mF	±(2% + 50pF)	
1mF - 10mF	±5%	With or without tare

Fixed High Current Source Resistance Measurement

4-Wire Resistance Measurement		
Range	Accuracy	Resolution
1mΩ-2.0Ω	±(2.5% + 1mΩ)	1mΩ

Common Features

Display	6" x 4.5" Colored Touch Screen
Front Panel Lockout	Log in w/ Username and Password
Indication	Pass, Fail, and High voltage lights, audible sound; on-screen diagnose
Standard Interface	15 pin D E M remote I/O (3 each), printer, USB (6), Ethernet, PS2 mouse and keyboard, audio output
Optional Interface	37 pin D E F remote I/O (8 each)
Dimensions	(L x W x H) 21x10.75x6.87in (533x273x174mm)
Weight	33 lbs (15kg) Net without expansion box
Environmental	Operating
Power	100 - 250V AC 50-60Hz

Ordering Information

Meridian Wire and Harness Analyzer Accessories		Optional Accessories	
Standard Accessories		Cont.	
150913	Instruction Manual	Meridian Cal-Ver	Calibration Verification Tool
4200-0300	AC Power Cable	TA-TARE	Resistance Tare testing adapter
HRZ-GP	Ground Probe	HRZ-KP	Kelkin Probe
N/A	Calibration Cert. Traceable to NIST	C03	Expansion Box Cable, 3'
Optional Accessories		C06	Expansion Box Cable, 6'
N/A	Calibration Data	N/A	More than 100 standard adapters
Meridian HV-Exp	High voltage expansion box	N/A	Custom adapter kits
Meridian LV-Exp	Low voltage expansion box	Meridian A-I/O	Additional I/O interface
HV-HCS	High Current Source 1A/28VDC Option	EPO	Emergency Power Off Switch
Meridian STD	Meridian Stand	EP1	EPO Switch with 1 Palm Switch
TA-SIMP	Simplex Test Adapter	EP2	EPO Switch with 2 Palm Switches
TA-KELV	Kelkin Test Adapter	G44	Barcode Scanner

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AC Hipot Generator

Settings and Detections			
Feature	Range	Accuracy	Resolution
Output Voltage	50V-1067V	±(6%+1V)	1V
Output Frequency	50Hz/60Hz	±3%	N/A
Dwell Time	0.4-600 sec	±(20%+80ms)	20ms @ 50Hz, 16.66ms @ 60Hz
Arc Detection	Automatic	10µS pulse width	N/A
Neutralization Mode	On/Off	N/A	N/A
Leakage Current Measurement			
Range	Accuracy	Resolution	
150µA - 5mA	±(12%+5µA)	1µA	

DC Hipot Generator

Settings and Detections			
Feature	Range	Accuracy	Resolution
Output Voltage	50V-1500V	±(4%+1V)	1V
Dwell Time	0.05-600 sec	±(10%+20ms)	50ms
Arc Detection	Automatic	10µS pulse width	N/A
Leakage Current Measurement			
Range	Accuracy	Resolution	
0.1mA-2.25mA	±(4%+0.1mA)	4 digits	
Insulation Resistance (IR) Measurements			
Range	Accuracy	Resolution	
10MΩ-1.5GΩ	±5%	3 digits	

Programmable High Current Source (HCS) Measurement

2-Wire Measurements			
Range	Accuracy		
0.1Ω-1.0Ω	±(2.5%+10mΩ)		
4-Wire Measurements			
Range	Accuracy		
10mΩ-16Ω	±(5%+2mΩ)		
Functional Test (Voltage and Current)			
Feature	Range	Accuracy	Resolution
Programmed Voltage	1V-28V	±2.5%±0.1V	0.1V
Programmed Current	1mA-1000mA	±2.5%±1mA	1mA