

Meridian

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

Wire and Harness Analyzer

Fully Integrated Testing up to 1024 points

PRELIMINARY

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 specifications, visit
www.quadtech.com

For more information about special purchase, rent & lease options, call

1-800-253-1230
Fax 1-978-461-4295
Intl. 1-978-461-2100

Model Numbers:

Model	Voltage (AC)	Voltage (DC)	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	Comments
0Ω - 100KΩ	± (2.5% + 20 m Ω)	
0Ω - 100KΩ	± (2.5% + 100 m Ω)	> 256 test points

101K Ω - 10MΩ ±7%

10.1 MΩ - 25 MΩ ±15%

25.1 MΩ - 50 MΩ ±30%

4-Wire Measurements

Range	Accuracy	Comments
0Ω - 400Ω	± (2.5% + 10 m Ω) ± (2.5% + 50 m Ω)	> 256 test points
400Ω - 50 MΩ	Same as 2-Wire	400Ω the measurement default to 2-Wires

Capacitance Measurement

Range	Accuracy	Comments
50pF - 1uF	± (5% + 10pF) ± (5% + 10pF)	With tare > 256 test points
1μF - 10mF	± 10%	With or without tare

Fixed High Current Source Resistance Measurement

4-Wire Resistance Measurement

Range	Accuracy	Comments
0Ω-2.0Ω	±(2% + 2mΩ) ±(2.5% + 2mΩ)	1A, 4-wire measurement > 256 test points

AC Hipot Generator

Settings and Detections

Feature	Range	Accuracy	Resolution
Output Voltage	50V-1067V	±(10%+5V)	1V
Output Frequency	50Hz/60Hz	±5%	N/A
Dwell Time	0.4-600 sec	±(2%+250ms)	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

0.1mA - 8mA ±(10%+5μA) 5μA

Insulation Resistance (IR) Measurement

Range	Accuracy	Comments
125kΩ-10MΩ	±20%	@ 1000V
93kΩ-7.5MΩ	±20%	@ 750V
62kΩ-5MΩ	±20%	@ 500V
25kΩ-2MΩ	±20%	@ 200V
12kΩ-1MΩ	±20%	@ 100V

Programmable High Current Source (HCS) Measurement

2-Wire Measurements

Range	Accuracy
0Ω-2.0Ω	±(5%+100mΩ)

4-Wire Measurements

Range	Accuracy
0Ω-2.0Ω	±(2.5%+2mΩ)

Functional Test (Voltage and Current)

Feature	Range	Accuracy	Resolution
Programmed Voltage	2V-28V	±2.5%	0.1V
Programmed Current	1mA-1000mA	±2.5%	1mA

4-Wire Voltage Drop Measurement

Range	Accuracy
0V-2.0V	±(2.5% + 2mV)

DC Hipot Generator

Settings and Detections

Feature	Range	Accuracy	Resolution
Output Voltage	50V-1500V	±(1%+2V)	1V
Dwell Time	0.05-600 sec	±(2%+20ms)	50ms
Arc Detection	Automatic	N/A	N/A

Leakage Current Measurement

Range	Accuracy	Resolution
1μA-2.5mA	±(5%+0.5μA)	0.1μA

Insulation Resistance (IR) Measurements

Range	Accuracy	Comments
1GΩ-1.5GΩ	±5%	@ 1500V
500MΩ-1GΩ	±5%	@ 1000V
200MkΩ-500MΩ	±5%	@ 500V
100MΩ-200MΩ	±5%	@ 200V
50kΩ-100MΩ	±5%	@ 100V

Ordering Information

Includes:		Tools for periodic verification of system calibration
XXXXX	AC Power Cable(s)	
XXXXX	Instruction Manual	1A/28VDC programmable high-current source
XXXXX	Ground Probe	8 I/O
	Calibration Certificate traceable to NIST	Simplex and Kelvin test adapters
Optional Accessories:		Other Accessories: TBD
	Full range of product adapters	
	Custom adapter kits	
	Expansion boxes in 128-point increments, with cable lengths of 3' and 6'	

For more detailed specifications, visit www.quadtech.com
 For more information about special purchase, rent & lease options, call
1-800-253-1230 • Fax 1-978-461-4295 • Intl. 1-978-461-2100

5 Clock Tower Place, 210 East, Maynard MA 01754

