



VALHALLA SCIENTIFIC, INC.
4650A PROGRAMMABLE DIGITAL IGNITER TESTER

SPECIFICATIONS

Accuracy

| MODEL 4650A ACCURACY SPECIFICATIONS | | | | | |
|--|---------------|---------------------------------|-----------------------|-----------------------|---------------------------|
| Rng # | Maximum Input | Maximum ¹ Resolution | Accuracy ² | Accuracy ³ | Test ⁴ Current |
| 1 | 2.49999Ω | 10μΩ | ±0.015% of rng | ±0.1% of range | 5mA |
| 2 | 24.9999Ω | 100μΩ | ±0.015% of rng | ±0.1% of range | 500μA |
| 3 | 249.999Ω | 1mΩ | ±0.015% of rng | ±0.1% of range | 50μA |
| 4 | 2.49999kΩ | 10mΩ | ±0.015% of rng | ±0.1% of range | 5μA |
| 5 | 24.9999kΩ | 100mΩ | ±0.015% of rng | ±0.1% of range | 500nA |
| 6 | 249.999kΩ | 1Ω | ±0.015% of rng | ±0.1% of range | 500nA |
| 7 | 2.49999MΩ | 10Ω | ±0.5% of rng | ±0.2% of range | 50nA |
| 8 | 24.99MΩ | 10kΩ | ±2% of rng | ±0.2% of range | 5nA |

Notes:
 [1] Resolution is user-selectable. The maximum available resolution for each range is shown.
 [2] Valid for inputs above 10% of the maximum input.
 [3] Valid for inputs from 1% to 10% of the maximum input. Inputs less than 1% are not specified.
 [4] Fail-safe current is 7.5mA on all ranges if range 1 is installed, otherwise 750μA all ranges.

Operating Specifications

Compliance Voltage..... Clamped at 50mV±5%(rngs 1-5) or 200mV±5%(rngs 6-8)

True Ohms Mode Pulsed test current available in ranges 1-4 only

CMRR..... > 70dB @ 50-60Hz

NMRR..... > 35dB @ 50-60Hz

Overload Protection..... 100V_{peak} all terminals

Sample Rate.....2 rdg/sec standard mode (1 rdg/sec in True Ω mode or 25M Ω rmg)
Settling Timeapproximately 15 seconds (45 seconds in True Ω mode or 25M Ω rmg)
Settling Indications..... display dims during settling, brightens after settling
4-Wire Lead Rejection: 3ppm per % (% = lead+contact resistance \div unknown resistance x 100)
Interface: IEEE-488 with subsets SH1 AH1 T6 TE0 L4 LE0 SR1 RL1 PP0 DC1 DT1 C0
Display Type..... 20 character vacuum fluorescent
Indicator Lamps..... rectangular red and green light emitting diodes (LED)
Overrange Indication..... display shows "OVERRANGE" or "OPEN CIRCUIT"
Data Entry27 key silicon rubber keyboard, or via the interface
Calibration Enable Switch front-mounted, screwdriver accessible
Input Connectors front and rear low-thermal binding posts

Power Requirements

Power powered from internal sealed lead-acid battery
Battery Endurance up to 4 hours continuous following full charge
Charging Time.....min 10 hours to restore fully discharged battery
Charging Voltageprovided by AC line, 105-130VAC or 210-260VAC, 50-60Hz
Charging Mode..... enabled by front switch or by a logic 0 (short) on rear terminals

Environmental and Physical Specifications

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|----------------------------------|--|
| Dimensions | 4"H X 17"W X 17"D (10cm X 43cm X 43cm) |
| Weights | 25lbs(11.4kg) net; 32lbs(14.5kg) shipping |
| Operating Temperature Range..... | 32°F to 122°F (0°C to 50°C) |
| Storage Temperature Range..... | -4°F to +140°F (-20°C to +60°C) |
| Temperature Coefficient | ±0.002%/°C (from 0°C to 19°C and 30°C to 40°C) |
| Humidity | 70% RH @ 40°C non-condensing |
| Altitude | -1000 ft. to 10,000 ft. |
| Vibration | Per MIL-T-28800C, Type III, Class 5, Style E |
| Safety | Designed to comply with UL1244 and IEC 348 |