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Data Sheet

August 13, 2026

KEYSIGHT / AGILENT

Keysight (Agilent) U1461A Insulation Multimeter, OLED Display, 50V to 1kV

Agilent / Keysight U1461A Insulation Multimeter OLED 50 V to 1 kV The Keysight U1461A is a handheld insulation multimeter combining insulation resistance testing with a full-featured 4.5-digit OLED DMM (66,000 counts). Standard insulation test voltages are 50 V, 100 V, 250 V, 500 V, and 1000 V, with adjustable output from 10 V to 1.1 kV in 1 V steps. Measures up to 260 Gohm. Safety rated CAT III 1000 V / CAT IV 600 V and IP67 sealed. Predictive and preventive electrical maintenance; insulation resistance, PI, and DAR testing; commercial avionics and military communications insulation checks with adjustable test voltage; combined DMM troubleshooting (V, I, R, C, temperature) in one tool. The Keysight U1461A is a handheld insulation multimeter combining insulation resistance testing with a full-featured 4.5-digit OLED DMM (66,000 counts). Standard insulation test voltages are 50 V, 100 V, 250 V, 500 V, and 1000 V, with adjustable output from 10 V to 1.1 kV in 1 V steps. Measures up to 260 Gohm. Safety rated CAT III 1000 V / CAT IV 600 V and IP67 sealed. Predictive and preventive electrical maintenance; insulation resistance, PI, and DAR testing; commercial avionics and military communications insulation checks with adjustable test voltage; combined DMM troubleshooting (V, I, R, C, temperature) in one tool.



MODEL

**Keysight / Agilent
U1461A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

U1461A

LISTING

<https://aumictechlabs.com/products/u1461a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Keysight U1461A Insulation Multimeter combines 4.5-digit digital multimeter functionality with comprehensive insulation resistance testing in a single, field-hardened instrument. Built for predictive and preventive maintenance in electrical and industrial environments, it delivers insulation measurements up to 260 G Ω across test voltages from 50 V to 1 kV, while supporting full DMM measurements with an OLED display rated for 66,000 counts. Safety-rated to CAT III 1000 V / CAT IV 600 V, the U1461A features IP67 sealing and 3-meter drop protection for demanding field deployment.

Technical Specifications

Insulation Resistance Testing

Test voltages: 50 V, 100 V, 250 V, 500 V, 1000 V

Adjustable test voltage: 10 V to 1.1 kV in 1 V steps

Measurement range: Up to 260 G Ω

Test modes: Timed, Polarization Index (PI), Dielectric Absorption Ratio (DAR)

Automatic capacitive discharge and live-circuit inhibit

Insulation accuracy (50–250 V): 1.5% $\pm$ 5 digits; (500–1000 V): 1.2% $\pm$ 5 digits

Digital Multimeter Functions

DC voltage: 0.09% $\pm$ 1 digit accuracy

AC voltage (45–65 Hz): 1% $\pm$ 3 digits; true-RMS supported

DC current (600 μ A–440 mA): 0.2% $\pm$ 1 digit

AC current (600 μ A–440 mA): 1% $\pm$ 2 digits

Resistance: 0.5% to 1.5% $\pm$ 2–3 digits depending on range

Capacitance: 1% $\pm$ 2 digits

Frequency: 0.02% $\pm$ 1 digit (99.99 Hz–99.99 kHz)

Temperature measurement: 1% $\pm$ 1 $^{\circ}$ C

Diode test, continuity, and non-contact AC voltage detection (Vsense)

Low-pass filter for variable frequency drive measurements

Power & Display

Four 1.5 V AA batteries

Battery life: 50–80 hours (brightness-dependent)

4.5-digit OLED display, 66,000 counts

Key Features

Earth bond resistance: 0.5% $\pm$ 20 digits (6 Ω range); 0.5% $\pm$ 2 digits (60 Ω –60 k Ω)

Adjustable DC test voltage accuracy: 0.5% $\pm$ 1 digit

Safety-rated design prevents testing on live circuits

IP67 enclosure, 3-meter drop-proof construction

Typical Applications

Predictive maintenance, electrical safety audits, motor winding tests, cable insulation assessment, preventive equipment diagnostics in industrial and commercial facilities.

Compatibility & Integration

Optional U1117A Bluetooth adapter enables wireless testing via PC or iOS/Android devices.

Automatic test report generation via complimentary reporting software in tabulated or graphical formats.

Features & description

From manufacturer datasheet

Features

- OLED 4.5-digit display, 66,000 counts

U1461A Characteristics / Specifications

PARAMETER	VALUE
Model	U1461A
Manufacturer	Keysight / Agilent
Instrument Type	Insulation multimeter
Alias	U1461A; Agilent U1461A; Keysight U1461A
Display	4.5-digit OLED, 66,000 counts
Insulation Test Voltages Standard	50 V, 100 V, 250 V, 500 V, 1000 V
Adjustable Test Voltage Range	10 V to 1.1 kV
Adjustable Voltage Step	1 V
Maximum Insulation Resistance	260 Gohm
Insulation Test Modes	Timed; PI (Polarization Index); DAR (Dielectric Absorption Ratio)
DMM Functions	ACV, DCV, ACmV, DCmV, ACmA, DCmA, ACuA, DCuA, resistance, capacitance, diode, continuity, temperature
Low Pass Filter	Yes
Safety Rating	CAT III 1000 V / CAT IV 600 V
Ingress Protection	IP67
OLED Brightness	Low / Medium / High / Auto-dim (default Auto-90 s)
Wireless Capability	Via optional IR-to-USB / wireless remote accessories
Power	AA alkaline batteries (typically 4x AA)
Included Accessories Class	Test leads, probes, alligator clips, remote switch probe, thermocouple adapter, IR-USB cable Notes Specs from Keysight U1450A/U1460A series datasheet 5991-4290 and U1461A user guide. Confirm firmware, wireless accessory presence, and calibration status on the unit.
Full DMM	ACV/DCV, ACmA/DCmA, ACuA/DCuA, R, C, diode, continuity, temperature

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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PARAMETER	VALUE
Model	U1461A
Manufacturer	Keysight / Agilent
Instrument Type	Insulation multimeter
Specifications	
PARAMETER	VALUE
Alias	U1461A; Agilent U1461A; Keysight U1461A
Display	4.5-digit OLED, 66,000 counts
Insulation Test Voltages Standard	50 V, 100 V, 250 V, 500 V, 1000 V
Specifications	
PARAMETER	VALUE
Adjustable Test Voltage Range	10 V to 1.1 kV
Adjustable Voltage Step	1 V
Maximum Insulation Resistance	260 Gohm
Insulation Test Modes: Timed; PI (Polarization Index); DAR (Dielectric Absorption Ratio)	
Earth-Bond Resistance Test: Supported (timed)	
DMM Functions: ACV, DCV, ACmV, DCmV, ACmA, DCmA, ACuA, DCuA, resistance, capacitance, diode, continuity, temperature	
Low Pass Filter: Yes	
Non-contact AC Detection: Vsense	
Specifications	
PARAMETER	VALUE
Safety Rating	CAT III 1000 V / CAT IV 600 V
Ingress Protection	IP67
OLED Brightness	Low / Medium / High / Auto-dim (default Auto-90 s)
Specifications	

PARAMETER	VALUE
Wireless Capability	Via optional IR-to-USB / wireless remote accessories
Power	AA alkaline batteries (typically 4x AA)
Included Accessories Class	Test leads, probes, alligator clips, remote switch probe, thermocouple adapter, IR-USB cable

Notes

Specs from Keysight U1450A/U1460A series datasheet 5991-4290 and U1461A user guide. Confirm firmware, wireless accessory presence, and calibration status on the unit.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.