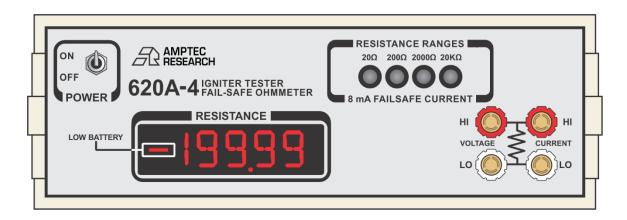# The 620A-4
Igniter Circuit Tester &
Fail-Safe Ohmmeter

The gold standard in ultra-safe resistance testing.

The 620A-4 Igniter Tester is a portable digital ohmmeter specifically designed for ultra-safe resistance testing on explosive devices. Approved by the USAF Non-nuclear Munitions Safety Board and compatible with our RS232C Interface (OP-232), this product is the safest and easiest to use in its field. Now thanks to our ISO 9001:2015 certification, you can also be confident that you're receiving the highest quality instrumentation available.

The AMPTEC 620A-4 offers fail-safe current limiting resistor network circuitry to ensure that instrument test currents cannot exceed 8 mA. In the unlikely event of a component failure, the output current limiting network would still be in effect. If the 620A-4 had an electrical fault, it offers the life-saving advantage of failing safely.

The 620A-4 leads a lineage of intrinsically safe igniter circuit testers in the 620 Series product line, enabling you to take high-accuracy resistance measurements across virtually any range from 2 Ω to 20 MΩ.

Every AMPTEC product is proudly made from start to finish in the USA and comes with a one-year warranty, plus an N.I.S.T calibration certificate with data at no extra cost.

AMPTEC 620A-4 Igniter Circuit Tester Datasheet

The below specifications apply to units that are purchased as a part of our 620A-4 Commercial Package with no additional options. For information on the specifications of units with additional options, please refer to the following page.

AMPTEC 620A-4 Range, Resolution, Accuracy, & Current Levels

Range	20 Ω	200 Ω	2000 Ω	20 KΩ
Nominal Current	5 mA	.5 mA	50 uA	5 uA
Failsafe Current	8 mA	8 mA	8 mA	8 mA
Resolution	1 mΩ	10 mΩ	100 mΩ	1 Ω
Accuracy	± .02% of reading & range	± .02% of reading & range	± .02% of reading & range	± .02% of reading & range

AMPTEC 620A-4 General Specifications

Display ………………… 4 ½ digit LED display

Input Voltage ……….…... 250 VDC maximum

Low Battery …………….…… Display reads"—"

Overload/Overrange ……....… Display flashes

Temperature Coefficient … ± 0.002% per 1° C

Temperature Limit (Storage) ..…. -20° to 70° C

Weight (Standard Version) …….….…. 3.5 lbs.

Dimensions …………….... 9.75″ x 10″ x 3.25″

Internal Voltage ………........ 4.8 VDC maximum

Open Circuit ………………………….... 1.6 VDC

Terminal ……….....… Banana jack binding posts

Temperature Limit (Operating) ……. 0° to 50° C

Update Rate …….……. 3 readings per second

AMPTEC 620A-4 Power Specifications

Batteries …….... 4ea 5000 mAh NICAD batteries

Battery Charger ……….…….. AMPTEC 620-DC

Battery Charger Input …….…... 90 – 264 VAC

Battery Charger Output ……………….… 5.9V

Battery Charge Time …….... ~8 hrs. til full charge

Battery Charger Charging Current ….... 2A max

Battery Life …………….… 1000 cycles or 3 years

OP-247 Optically Isolated Power Specifications

This option enables your unit to be ran via AC power, allowing for uninterrupted use. Unless otherwise noted in the table below, all other specifications match those listed in the general specifications section.

AC/DC adaptor ….…….…..… AMPTEC 247-DC

Adaptor output …….……..….……… 24 VDC

Adaptor input ……....….……..……. 120VAC

Unit Weight ……………….…….…..… 2.3 lbs

OP-232 RS232C Interface Specifications

This option enables your unit to connect to a computer and receive commands via RS232C.

Connection ……….…...…..... DE-9 connector

Rear terminal block …. 4 Gold-Plated terminals

OP-519 Rack Mount Specifications

This option, OP-519S (for single units) and OP-519D (for dual units), allows your unit to be rack mounted. Unless otherwise noted in the table below, all other specifications match those listed in the general specifications section.

OP-519S (Single Unit)

Dimensions ……….…..... 19″ x 3.5″ x 10″

Materials …….... ABS plastic face, aluminum

Weight ………….… 2.3 lbs (plus unit weight)

OP-519D (Dual Units)

Dimensions ……………….. 19″ x 3.5″ x 10″

Materials …….... ABS plastic face, aluminum

Weight ………….… 2.1 lbs (plus unit weights)

AMPTEC 620A-4 Igniter Circuit Tester Ordering Information

The below is a comprehensive list of every available AMPTEC brand accessory and modification that is compatible with the 620A-4 Igniter Tester. Please contact us for pricing or questions about a custom accessory/modification.

General 620A-4 Ordering Information

SKU	Description
620A-4 NSN PACKAGE	Igniter tester, OP-100 transit case, OP-290 leads, OP-430 connector adapter, 620-DC battery charger, N.I.S.T. calibration certificate
620A-4 COMM PACKAGE	Igniter tester, OP-300 leads, OP-401 probes, OP-110 lead pouch, 620-DC battery charger, N.I.S.T. calibration certificate

620A-4 Compatible Accessories

SKU	Description	Notes
247-DC	Power cord for meters with OP-247	Compatible only with units that have OP-247
620-BAT	Replacement set of 4 NiCd D cell batteries	Pre-installed in unit upon purchase
620-DC	Battery charger replacement	One is provided with unit upon purchase
OP-100	Hard shell transit case for unit	Incl. in NSN PKG
OP-110	Test lead storage pouch	Incl. in COMM PKG
OP-290	4' Alligator clip test lead set	Incl. in NSN PKG
OP-291	4' Dual banana jack to single banana jack lead set	
OP-300	4' Gold plated 4-Wire Kelvin clip leads	Incl. in COMM PKG
OP-302	5-way Banana jack backed Kelvin clips (no cable incl.)	
OP-304	4' Banana jack calibration lead set	
OP-304AC	Version of OP-304 lead set with alligator clips instead of banana jacks	
OP-350	4' Kelvin with large jaw/clamp lead set	
OP-401	4' Gold plated single tip Kelvin probes	Incl. in COMM PKG
PG-401	Pistol grip version of OP-401 probe set	
OP-402	4' Surface mount sized Kelvin micro probe set	
OP-403	4' Kelvin mini spear probe set	
OP-430	Amphenol connector adapter	Incl. in NSN PKG

620A-4 Compatible Modifications

SKU	Description
OP-CC	Conformal coating of all internal PCB
OP-RFI	Installation of internal conductive and conformal coating to reduce RFI
OP-RPI	Installation of reverse polarity switch
OP-232	Installation of Optically Isolated RS232C interface
OP-247	Installation of Optically Isolated Power (AC power operated)
OP-500	Installation of Isolated Analog Output
OP-519	Modifies unit to fit rack mount, includes hardware and face plate(s), OP-519S designation for single unit and OP-519D designation for dual units