

## 620ES Low Ohm Igniter Tester Ultra-Safe Resistance Measurement



### 620ES Explosive Safety Igniter Tester

The 620 Series Igniter Testers are portable digital ohmmeters that have been specifically designed for ultra-safe resistance testing on explosive devices (e.g. squibs, igniters, flares, detonators). The 620 Series have had the unit's circuitry reviewed and approved by many U.S. Government Safety Boards as well as most branches of the armed forces for specific military programmes (e.g. U.S. Navy Cruise Missile, U.S.A.F. Non-Nuclear munitions).

### Low Ohm Range – Accuracy and Resolution

A common question asked is "What is offered to improve the measurement accuracy and resolution with a low resistance value squib/detonator measurement/application?" Hence the development of the 620ES Explosive Safety Igniter Tester. The 620ES has the following fullscale ranges – 2.0Ω, 20Ω, 200Ω and 200KΩ. The 2.0Ω fullscale range provides a four-wire Kelvin resistance measurement from 0.0000Ω to 1.9999Ω. The 2.0Ω range also offers a low (1/10) 0.1mΩ resolution. An optional Four Wire Kelvin Lead Set (OP300) eliminates the effect of test lead length resistance and contact resistance errors. The 200KΩ range provides a relatively high resistance range for determining an "open circuit" (>200KΩ) state on ordnance wiring.

### Better and Safer than a multifunction DMM

Multifunction DMM's have many modes (e.g. DC Voltage, AC Voltage, DC Current, AC Current, frequency, shift keys and more) that can accidentally mis-measure igniter circuit resistance. If the DMM has an electrical fault the igniter circuit may accidentally fire. The 620ES Igniter Tester only measures resistance. If the 620ES had a fault it offers the life saving advantage of failing safe.

### 620ES Resistance Range/Resolution

2.0Ω	20Ω	200Ω	200KΩ
100μΩ	1.0mΩ	10mΩ	10Ω

### 620ES Nominal Test Current/Failsafe Current Levels

2.0Ω	20Ω	200Ω	200KΩ
5mA	5mA	50μA	0.5μA
8mA	8mA	1.5mA	1.5μA

### Meter Accessories – Transit Case, Probes and more

The 620ES comes with Battery Charger, Operator Manual and Calibration Certificate. A variety of operational accessories include 48" long Kelvin Clip Leads (OP300), Impact Resistant Transit Case (holds the 620ES and all accessories). Handheld probes and custom leads are also available.

### Specifications

**Accuracy:** (180 days 25°C ±10°C) ±0.02% of reading ±0.05% of range for the 2Ω range, ±0.02% of reading and range for 20Ω through 200KΩ ranges.

**Failsafe Current:** <8mA – 2Ω and 20Ω ranges, <1.5mA – for 20Ω range, <15μA for the 200KΩ range.

**Display:** 4 1/2 digit (19999) L.E.D. – 20,000 counts.

**Terminal Configuration:** Four-wire Kelvin

**Overload Indication:** Display flashes

**Maximum Input:** 250VDC or peak AC without damage

**Operating Temperature Range:** 0°C to 50°C

**Temp. Coefficient:** ±0.002%/°C (0°C - 15°C & 35°C - 50°C)

**Conversion Rate:** Approximately 3 per second

**Power:** Rechargeable Ni-Cad batteries (5.0Ahr) & Charger (115VAC 50-60Hz)

**Max. Internal Voltage:** 4.8VDC – 4 ea. 1.2V Ni-Cads

**Size:** 235mm (9")D x 254mm (10")W x 76mm (3")H

**Weight:** 1.6kg (3.5lbs) Net; 3kg (6.5lbs) Shipping

### Ordering Information

620ES Igniter Tester Ohmmeter

OP100	Meter Accessory Carrying Case
OP101	BCD Data Outputs (for Limit Comparator)
OP110	Test Lead Pouch
OP300	Kelvin Clip Lead Set
OP350	Large Kelvin Leads with Jaws
OP401	Single Point Handheld Mini-Probes
OP402	Handheld Kelvin Micro-Probes
OP403	Handheld Kelvin Mini-Probes
OP519	Rack Mount Adapter with Support Tray
OhmTone	Ohm-Tone Generator (internal speaker)
620ISO	Isolated Analogue Output Interface
OPMAN	2 <sup>nd</sup> User Maintenance Manual

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