

620UK Explosive Safety Ohmmeter Ultra-Safe Resistance Measurement



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The 620UK Explosive Safety Ohmmeter is a portable digital ohmmeter that has been specifically designed for ultra-safe resistance testing in explosive atmospheres (e.g. squib resistance, igniters, detonators, electrical bonds). The 620UK complies with the EU ATEX Directive and meets the Intrinsic Safety standard Eex-ib-IIc-T4. EMC tested in accordance with Defence Standard 59-41 and designed in accordance with Defence Standards 66-31, 07-85 and 05-34 the 620UK provides a reliable and safe means of measuring resistance in explosive and volatile atmospheres. Featuring seven resistance ranges and an all metal case with a separate battery compartment the 620UK provides a safe and easy method of measuring resistance in explosive atmospheres.

Low Ohm Range – Accuracy and Resolution

The 620UK has the following fullscale resistance ranges – 2.0Ω, 20Ω, 200Ω, 2KΩ, 20KΩ, 200KΩ and 2MΩ. The 2.0Ω fullscale range provides a two-wire resistance measurement from 0.0000Ω to 1.9999Ω. The 2.0Ω range also offers a low (1/10) 0.1mΩ resolution. The 2MΩ range provides a relatively high resistance range for determining an “open circuit” (>2MΩ) 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 620UK only measures resistance. If the 620UK had a fault it offers the life saving advantage of failing safe.

620UK Resistance Range/Resolution

2.0Ω	20Ω	200Ω	2KΩ
100μΩ	1.0mΩ	10mΩ	100mΩ

20KΩ	200KΩ	2MΩ
1.0Ω	10.0Ω	100.0Ω

620UK Nominal Test Current/Failsafe Current Levels

2.0Ω	20Ω	200Ω	2KΩ
5mA	5mA	0.5mA	50μA
8mA	8mA	1.5mA	150μA

20KΩ	200KΩ	2MΩ
5μA	0.5μA	50nA
15μA	1.5μA	15nA

Meter Accessories – Transit Case, Probes and more

The 620UK comes with Operator Manual and Calibration Certificate. A variety of optional accessories include Impact Resistant Transit Case (holds the 620UK and all accessories). Handheld probes and custom leads are also available.

Specifications

Accuracy: (1 year 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 20KΩ ranges, ±0.05% of reading and range for the 200KΩ range, ±1% of reading and ±0.2% range for the 2MΩ range.

Display: 41/2 digit LCD (20,000 counts) with backlight for use in low ambient light conditions.

Operating Temperature Range: -20°C to 40°C

Temp. Coefficient: 2Ω to 200KΩ - ±0.002%/°C (0°C - 15°C & 35°C - 50°C); 2MΩ - ±0.02%/°C (0°C - 15°C & 35°C - 50°C);

Low Battery Indication: LCD Display shows 'Low Battery'

Over Range Indication: LCD Display shows '1 and <<OR'

Measurement Update Rate: Approximately 3 per second

Open Circuit Current Source Compliance Voltage: Diode clamped at <1.4V

Power: Four 1.5V AA-size Alkaline batteries

Size: 178mm (7")W x 203mm (8")D x 63.5mm (2.5")H

Weight: 2.3kg (5lbs) Net; 3.2kg (7lbs) Shipping

Calibration Access: Requires tamper-proof security screwdriver.

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