

# BM11

## 5 kV Analogue insulation tester



- Simplicity and ease of use
- User safety features
- Unique rugged casing
- Analogue display
- Wide range of test voltages

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### DESCRIPTION

The traditional BM11 instrument became the industry-standard 5 kV tester. It is battery-powered, housed in a rugged case and has a large, simple white-on-black scale.

The BM11 incorporates a guard terminal to allow surface leakage to be removed and pre-set standard test voltages at 500 V, 1000 V, 2500 V and 5000 V.

### APPLICATIONS

The BM11 is designed for testing the insulation of high voltage electrical equipment and the wide voltage range also allows it to be applied to low voltage equipment.

Generators, motors, transformers, cables and switchgear all require effective maintenance and the BM11 gives valuable diagnostic information.

'Spot' Insulation tests that are the most widely used, check on the general condition of electrical insulation, called up in most standards covering equipment design, testing, installation and maintenance.

**FEATURES AND BENEFITS**

- Choice of test voltages
- Direct reading display
- Unique rugged case
- Guard terminal
- Designed for user safety

**Features**

- Large direct reading analogue scale
- Guard terminal
- Rugged case design
- 123 mm scale length

**Note: Not for sale in E.U.**

**SPECIFICATIONS**

Test voltages (d.c.)	500, 1000, 2500, 5000 V
Accuracy (20°C)	±5% on open circuit
Insulation resistance range	100 kΩ to 100 GΩ; at all test voltages
Basic accuracy	±1,5% of arc length
Short circuit current	1 mA nominal, 2 mA max.
Voltage range	50 to 1000 V d.c. or a.c.
Accuracy (20 °C)	±5% ±10 V
Display	Analogue
Interference rejection	2 mA a.c. (50/60 Hz) on 5 kV range
Capacitor discharge time	<1 s per μF to discharge from 5000 V to 50 V
Leakage current measurement	None
Capacitance measurement	None
Timer	None
Temperature range	Operating -15 to +55 °C (5 to +131 °F) Storage -40 to +65 °C (-40 to +149 °F)
Temperature coefficient	< 0,04% of arc length per °C (0.2%/°F) 0,2% per °C (0.1%/°F) for test currents >100 nA
Humidity range	90% RH @ 40 °C max. (104 °F)
Safety	IEC348

**Power Supply**

NiCd battery pack of 2 Ah capacity.

Battery life: typically 8 hrs continuous (varying between 2 h and 20 h depending upon load conditions).

Battery charging: built-in-charging unit, operating from 100 V to 250 V a.c. supply, 50 Hz or 60 Hz, charging time: 16 hrs.

Low battery voltage indication: small oscillations of the pointer occur with an approx. 80% exhausted battery, large pointer oscillations occur when the battery must be recharged.

**Dimensions**

344 mm x 245 mm x 158 mm  
(13½ in x 9¾ in approx.)

**Weight**

4,8 kg (10½ lb approx.)

**CB101 CALIBRATION BOX**

**Nominal resistance values:** 10 MΩ, 100 MΩ, 1 GΩ and 10 GΩ.

High quality resistors, rated to high voltage, suitable for calibration checks on insulation testers up to 5 kV d.c. Voltage coefficient is less than 1 part per million per volt.

A calibration certificate is provided with each CB101 showing the actual value of each resistance check-point.

**CB101 SPECIFICATION**

<b>Calibration accuracy</b>	1%
<b>Voltage coefficient</b>	1 ppm/V
<b>Calibration temperature</b>	20°C
<b>Temperature coefficient</b>	250 ppm/°C (139 ppm/°F)
<b>Shelf stability, typically</b>	0,5% per year

**Environmental specification**

<b>Operating temperature</b>	+5 to +40 °C (41 to 104 °F)
<b>Storage temperature</b>	-20 °C to +60 °C (-4 °F to 140 °F)
<b>Operating humidity</b>	60% RH max.

**Safety**

Meets the requirements of EC1010-1 (1992), EN61010 (1993) to installation category III, 300 V, phase to phase

**EMC**

In accordance with IEC61326 including Amendment No. 1.

<b>ORDERING INFORMATION</b>	
<b>Item (Qty)</b>	<b>Order No.</b>
Analogue Insulation Tester	BM11
<b>Included Accessories</b>	
3 x 3m HV leads	6220-317
Mains Supply lead for charging	25424-860
Accessory pouch, leather	6430-193
User Guide	6172-922
<b>Optional Accessories</b>	
High Voltage test lead, 8 m long	6220-318
CB101 Calibration box	6311-077
Test record cards (pack of 20)	6111-217
<b>Publications</b>	
'A Stitch in Time'	AVTM21-P8B
'The Lowdown on High Voltage d.c. Testing'	AVTM22P-1
<b>Optional Accessories</b>	
Test leads with fused prods, FPK4 — unsuitable for continuity measurements: comply with Health and Safety Executive Guidance Note GS 38 (1 set)	6111-287

**UK**  
Archcliffe Road Dover  
CT17 9EN England  
T +44 (0) 1304 502101  
F +44 (0) 1304 207342

**UNITED STATES**  
4271 Bronze Way  
Dallas TX 75237-1088 USA  
T 800 723 2861 (USA only)  
T +1 214 333 3201  
F +1 214 331 7399

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