



***Time Electronics***  
*Calibration, Test and Measurement*

# Electrical Test Calibrators

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For Rapid Calibration of Electrical Test Equipment

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# Electrical Test Calibrators

Instruments for rapid calibration of electrical test equipment



## 5068 Insulation Tester/Megohmmeter Calibrator

A precision instrument for calibrating general purpose insulation testers and megohmmeters with test voltages up to 2.5kV. Rugged, compact, and portable it is ideal for site calibration.

- Insulation resistance from 100k $\Omega$  to 10G $\Omega$
- Low ohm verification at 1 $\Omega$ , 10 $\Omega$ , 100 $\Omega$ , 1k $\Omega$
- Basic accuracy 1%
- Up to 2.5kV operation
- Battery operation (over 150 hours between charges)
- Continuous connection – no arcing
- Fully shrouded safety connectors
- Display of open circuit voltage (0 to 1.999kV or 0 to 2.50kV)
- Display of short circuit current (0 to 2mA or 0 to 20mA)
- w270 x h175 x d250mm, weight 2.1kg



## 5069 Insulation Tester/Megohmmeter Calibrator

A high accuracy calibrator for insulation testers and megohmmeters with test voltages up to 10kV. Sturdy and transportable it is suitable for both lab and site calibration.

- Insulation resistance from 100k $\Omega$  to 100G $\Omega$
- Basic accuracy 1%
- Up to 10kV operation
- Battery operation (over 150 hours between charges)
- Continuous connection – no arcing
- Fully shrouded safety connectors
- Display of open circuit voltage (0 to 2kV or 0 to 9kV)
- Display of short circuit current (0 to 2mA or 0 to 20mA)
- w406 x h175 x d330mm, weight 4.4kg



## 5070 Ductor Tester/Micro-Ohmmeter Calibrator

The DuctorCal is a portable instrument suitable for calibrating high current ductor testers and micro-ohmmeters. It contains 5 sets of high current rating standard resistors that simulate the resistance being measured.

- Calibrate ductor testers and micro-ohmmeters
- 0.2, 2, 20, 200, 2000m $\Omega$  ranges
- Accuracy/rng: 0.2m $\Omega$  (0.8%), 2m $\Omega$  (0.5%), 20m $\Omega$  (0.2%), 200 & 2000m $\Omega$  (0.1%)
- 5 point calibration: 0, 25, 50, 75, 100%
- Gold plated terminals
- Low thermal EMF connection
- Portable robust carrying case
- w540 x h210 x d410mm, weight 11kg



## 5080 Portable Appliance Tester Calibrator

Designed to provide rapid high accuracy calibration of portable appliance testers and insulation/continuity testers. The 5080 has calibration functions for earth bond, insulation, leakage, touch leakage, and load test.

- Earth bond range 18 $\Omega$  to 20m $\Omega$
- Earth bond currents up to 50A AC
- Load test currents up to 13A AC
- Voltage and current displayed on integral LCD display
- Safety interlock feature
- Portable robust carrying case
- Battery powered (over 200 hours between charges)
- w406 x h175 x d330mm, weight 5.5kg



# 5030 Electrical Tester Calibrator

- RCD 3mA to 2500mA, 10ms to 2000ms
- Loop 50mΩ to 1.8kΩ
- Insulation up to 2GΩ / 1kV
- Continuity 0.1Ω to 10kΩ
- RS-232 / USB Control
- Fast and intuitive user interface
- PC/laptop control via EasyCal software
- W430 x H155 x D255mm, weight 8kg



A precision instrument designed to calibrate RCD, loop, insulation, earth testers and multifunction installation testers. The 5030 accurately simulates RCD trip times and measures currents produced by RCD testers. It replicates loop impedance and auto adjusts for local line impedance. It also provides insulation resistances and measures test voltages and currents.



Function	Range / Values	Resolution	Accuracy
<b>Loop</b>			
Loop Impedance Resistor Values	1800, 330.0, 180.0, 33.00, 18.00, 3.300, 1.800, 0.330, 0.150 & 0.050Ω	4 digit	±0.5% of displayed value ± 10mΩ Test Current 40A max (200ms) / 50W max
Local Loop Compensation	0 to 9.99Ω	0.001Ω	±0.5% of value ± 10mΩ
<b>RCD</b>			
Trip Time	10, 20, 30, 40, 50, 60, 80, 100, 300, 500, 1000, 1500, 2000ms (Fully variable from via remote commands - EasyCal software)	1ms	±0.1ms
Current	6.000, 10.00, 30.00, 100.0, 300.0, 500.0, 1000mA	4 digit	±0.5% of rdg, ±1% of rdg with x5 multiplier
Additional Specifications	Current Multipliers: x0.5, x1, x2, x5 • Maximum Current: 2500mA • Waveforms: AC, DC & half wave rectified Phase detection: 0° or 180° • Pre Trigger Delay: 0 to 2000ms • Pre Trigger Threshold: 0 to 100% of nominal current		
<b>Insulation</b>			
Resistance	1MΩ to 2000MΩ	1MΩ	1% of value
	50kΩ to 1990kΩ	50kΩ	1% of value
Test Voltage Measurement @ 0.5mA or 1.0mA Load	50.0 to 99.9V DC	0.1V	1% of reading
	1000 to 1200V DC	1V	1% of reading
Short Circuit Current	0.00 to 300.00mA DC	0.01mA	1% of range
<b>Continuity</b>			
Resistance	0.1Ω to 100.0Ω	0.1Ω	1% of value
	250Ω, 500Ω, 1.00kΩ, 2.50kΩ, 5.00kΩ & 10.0kΩ	3 digit	1% of value
Test Voltage Measurement (input resistance 10MΩ)	0.0 to 50.0V DC	0.1V	0.5% of range
Test Current Measurement (between 0.1Ω and 100Ω)	0 to 400mA DC	1mA	0.5% of range
Power Dissipation	1 watt maximum	-	-
<b>Voltage</b>			
Line Voltage Measurement	200 to 260V RMS	0.1V	0.5% of reading
Line Frequency Measurement	45 to 65Hz	0.01Hz	0.1% of reading



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## *Electrical Test Calibrators Ordering Information*

**5030..... ELECTRICAL TESTER CALIBRATOR**

ECFLA ..... EasyCal Calibration Software  
C201 ..... Factory Calibration Certificate (NPL traceable)  
C137 ..... UKAS Calibration Certificate (ISO 17025)

**5068..... INSULATION TESTER CALIBRATOR (100k $\Omega$  to 10G $\Omega$ )**

C189 ..... Factory Calibration Certificate (NPL traceable)  
C112 ..... UKAS Calibration Certificate (ISO 17025)

**5069..... INSULATION TESTER CALIBRATOR (100k $\Omega$  to 100G $\Omega$ )**

C189 ..... Factory Calibration Certificate (NPL traceable)  
C112 ..... UKAS Calibration Certificate (ISO 17025)

**5070..... CALIBRATOR FOR DUCTOR TESTERS & MICRO-OHM METERS (DUCTORCAL)**

C146 ..... Factory Calibration Certificate (NPL traceable)  
C107 ..... UKAS Calibration Certificate (ISO 17025)

**5080..... CALIBRATOR FOR PAT'S AND INSULATION TESTERS (PATCAL 2)**

C188 ..... Factory Calibration Certificate (NPL traceable)  
C135 ..... UKAS Calibration Certificate (ISO 17025)

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