5025 Series
Multifunction Calibrators

High Performance Wide Workload Laboratory Calibrators
5025 Series Multifunction Calibrators

Precision calibration for wide workload coverage

Multi Instrument Calibration

The 5025 series are high performance multi-product calibrators that provide the foundation for cost-effective calibration. Built for versatility and simplicity each model offers a solution to efficient calibration of a wide range of test and measurement equipment.

The 5025E is an entry level calibrator that is ideal for companies requiring fast implementation and immediate return on investment. The 5025C is a superior specification model that delivers superb accuracy over wide conditions with excellent capabilities. Both models are built for wide workload calibration, combining functionality with features for ease of use. For calibration professionals on a budget the 5025 series cover a comprehensive range of applications at an affordable price.

Functionality and Enhancements

Each model features over 11 standard functions. These include AC/DC voltage and current, digital frequency, decade and simulated variable resistance, capacitance, conductance, PT100 and thermocouple simulation. Internal options can be fitted for power and oscilloscope calibration. External adaptors are available for clamp meter calibration, optical tachometer calibration and more.

Both calibrators can be fitted with enhanced performance packs. These provide full range variable resistance, extended temperature functions, extended capacitance and increased ACV frequency bandwidth. On the 5025C inductance and additional precision high DCV ranges are included to cover the requirements for high specification multimeters.
Easy to Use Front Panel Controls
Functions and ranges are easily accessed from the front panel. Increase and decrease keys per digit, are used to quickly set the output value.

Deviation control then enables the user to finely adjust the output value as a percentage (+/-9.999%). All this information is shown on a clear, easy to read LED display.

Virtual Control software
5025 series calibrators are supplied as standard with Time Electronics’ windows based Virtual Control software. It allows quick and direct input of any value required.

The remote SCPI command is displayed to help users develop custom applications.

EasyCal Calibration Software
The 5025 can be connected to a PC/Laptop installed with Time Electronics’ EasyCal software and automate the calibration process. This provides increased speed of calibration and consistency of results.

Produce calibration certificates and reports to ISO 9001, ISO 17025, and other international quality standards.
5025 Series Multifunction Calibrators
Precision calibration for wide workload coverage

5025E and 5025C Specifications

<table>
<thead>
<tr>
<th>Function</th>
<th>Range / Values</th>
<th>Best 1 year Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage DC</td>
<td>0 to ± 1050V</td>
<td>± 40ppm of setting</td>
</tr>
<tr>
<td>Current DC</td>
<td>0 to ± 22A</td>
<td>± 120ppm of setting</td>
</tr>
<tr>
<td>Voltage AC</td>
<td>1mV to 1050V / 20Hz to 2kHz (100kHz on 5025C) sine-wave</td>
<td>± 0.04% of setting</td>
</tr>
<tr>
<td>Current AC</td>
<td>10μA to 22A / 20Hz to 1kHz (5kHz on 5025C) sine-wave</td>
<td>± 0.07% of setting</td>
</tr>
<tr>
<td>Thermocouple Simulation</td>
<td>-210 to 1820°C. Type J, K, R, T, S, B, E, N</td>
<td>± 0.3°C</td>
</tr>
<tr>
<td>Digital Frequency/Period</td>
<td>0.1Hz to 10MHz / 10ns to 10s</td>
<td>± 20ppm of setting</td>
</tr>
<tr>
<td>Conductance</td>
<td>5025E: 100ms to 1ns</td>
<td>5025C: 1s to 1ns (decade values)</td>
</tr>
<tr>
<td>Decade Resistance</td>
<td>5025E: 1Ω to 1GΩ</td>
<td>5025C: 1Ω to 1GΩ (decade values)</td>
</tr>
<tr>
<td>Simulated Resistance</td>
<td>5025E: 40Ω to 40kΩ</td>
<td>5025C: 1Ω to 40MΩ (variable)</td>
</tr>
<tr>
<td>PT100 Simulation</td>
<td>5025E: -140°C to 850°C</td>
<td>5025C: -180°C to 850°C</td>
</tr>
<tr>
<td>Capacitance</td>
<td>1nF, 10nF, 20nF, 50nF, 100nF, 200nF, 500nF, 1μF</td>
<td>± 0.25% of setting</td>
</tr>
</tbody>
</table>

Option 9780: Clamp Meter Adaptor
AC/DC Current up to 1100A (DC, 45 to 90Hz) ± 0.5%

Option 9770: Oscilloscope Calibration
Amplitude ± 20ppm
Frequency/Period 0.01Hz to 100MHz / 10ns to 10s (fixed values 1, 2, 5 sequence)
Duty Cycle 3 frequencies: 100Hz, 1kHz, 10kHz, settable from 0 to 100%
Fast-Rise < 400ps. Bandwidth checking up to 400MHz

Option 9783: Frequency Reference
0.1Hz to 10MHz enhanced frequency accuracy reference ± 0.1ppm (enhanced accuracy for timer/counters)

Option 9797: Power Calibration
Power 22A, 1050V, 23kW, 45 to 400Hz ACV: 0.03%, DCV: 0.01%. ACI: 0.1%, DCI: 0.03%
Phase/Power Factor ± 90°/ 0.00 to 1.00PF ± 0.3°

Enhanced Performance Packs – 5025E option: 9702 / 5025C option: 9701 (selected values/types shown in bold where applicable)

Full Range Resistance 1Ω to 120MΩ (variable) ± 100ppm of setting
RTD Simulation -180 to 850°C. Type PT100, PT200, PT500, PT1000 ± 0.03°C
Extended Thermocouple Simulation -210 to 2315°C. Type PT100, PT200, PT500, PT1000 ± 0.05°C
Extended Capacitance 1nF, 10nF, 20nF, 50nF, 100nF, 200nF, 500nF, 1μF ± 0.2% of setting
Extended AC Voltage Frequency 5025E: 1mV to 200mV/100kHz, 200mV to 2V/100kHz, 2V to 20V/100kHz ± 0.05% of setting
5025C: 1mV to 20mV/30kHz, 20mV to 200mV/300kHz, 200mV to 2V/1MHz ± 0.05% of setting

Additional Enhancements – 5025C only, included in option 9701
Enhanced DC High Voltage 20 to 200V and 100 to 1020V additional ranges ± 15ppm
Inductance 1mH, 1.9mH, 5mH, 10mH, 19mH, 50mH, 100mH, 190mH, 1H, 10H ± 0.1% of setting

5025E and 5025C External Options

External Adaptors/Instruments
9780: Clamp Meter Adaptor (1 & 50 turn coil) • 9773: Optical Tacho Adaptor • 9790: 100 Amp AC Current Transformer
9775: Power Amplifier (60V AC, 90V DC - 100mA) • 9712: Rubidium High Stability Frequency Reference
9764: Current Probe Calibration Adaptor • 9766: Low Noise Attenuator (1000:1) • 9767: Low Noise Attenuator (100:1)

Accessories and Calibration Certificates
9085: Soft Carry Case • 9059: Hard Transit Case • 9728: 19” Universal Rack Mount Kit • 9796: Premium Test Lead Set
Factory Certificates (NPL traceable): C159 for 5025E / C220 for 5025C • UKAS Certificates (ISO 17025): C103 for 5025C

EasyCal Software
ECFLA: EasyCal Full License • 9777: Bar Code Reader • 9779: Job and Address Label Printer
EC2FL/EC2WL: Additional User Licenses • EAD: EasyAdmin Add-On • EWC: WebCerts • CREP: Crystal Reports Software

General Specifications

Supplied Accessories Basic Test Lead Set • PC Virtual Control Software • RS-232 Cable • RS-232 to USB Adaptor • User Manual
Warm up 30 minutes to full accuracy
Temperature Performance Operating: 5 to 45°C. Calibration: 15 to 28°C. Storage: -10 to 50°C
Operating Humidity / Altitude < 80% non condensing. Altitude: 0 to 3km. Non operating: 3km to 12km
Line Power 100 to 230V AC 50/60Hz. 200W maximum
Interfaces RS-232, USB (and GPIB on 5025C)
Dimensions / Weight w455mm, h155mm, d480mm. Weight: 16.5kg
<table>
<thead>
<tr>
<th>Instrument Type</th>
<th>Time Electronics Solution</th>
<th>Software Driven Calibration</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5 Digit Multimeter</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>4.5 Digit Multimeter</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>5.5 Digit Multimeter</td>
<td>5025C</td>
<td>✓</td>
</tr>
<tr>
<td>6.5 Digit Multimeter</td>
<td>5025C with option 9701 performance enhancement pack</td>
<td>✓</td>
</tr>
<tr>
<td>Clamp Meter</td>
<td>5025E / 5025C with option 9780 clamp meter adaptor</td>
<td>✓</td>
</tr>
<tr>
<td>Ohm Meter</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>Optical Tachometer</td>
<td>5025E / 5025C with option 9773 optical tachometer adaptor</td>
<td>✓</td>
</tr>
<tr>
<td>Volt / Continuity Tester</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>Data Logger</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>Frequency Meter</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>Oscilloscope</td>
<td>5025E / 5025C with option 9770 scope calibration (9769 2.2GHz sweep required for high range scopes)</td>
<td>✓</td>
</tr>
<tr>
<td>Timer Counter</td>
<td>5025E / 5025C with option 9770 scope calibration + 9763 timer/counter calibration</td>
<td>✓</td>
</tr>
<tr>
<td>Current Probe</td>
<td>5025E / 5025C with option 9770 scope calibration + 9764 current probe adaptor</td>
<td>✓</td>
</tr>
<tr>
<td>Power Meter</td>
<td>5025E / 5025C with option 9797 power calibration</td>
<td>✓</td>
</tr>
<tr>
<td>Thermocouple Meter</td>
<td>5025E / 5025C</td>
<td>✓</td>
</tr>
<tr>
<td>Insulation Tester</td>
<td>5069 Insulation Tester Calibrator</td>
<td>Manual Entry</td>
</tr>
<tr>
<td>Micro Ohm Meter</td>
<td>5070 Ductor Tester/ Micro-Ohmmeter Calibrator</td>
<td>Manual Entry</td>
</tr>
<tr>
<td>Decade Resistance Box</td>
<td>5065 Digital Multimeter</td>
<td>✓</td>
</tr>
<tr>
<td>Temperature Calibrator</td>
<td>5065 Digital Multimeter</td>
<td>✓</td>
</tr>
<tr>
<td>4-20mA Source Meter</td>
<td>5065 Digital Multimeter</td>
<td>✓</td>
</tr>
<tr>
<td>Portable Appliance Tester</td>
<td>5080 PAT Calibrator</td>
<td>Manual Entry</td>
</tr>
<tr>
<td>RCD Tester</td>
<td>5030 Electrical Tester Calibrator</td>
<td>✓</td>
</tr>
<tr>
<td>Loop Tester</td>
<td>5030 Electrical Tester Calibrator</td>
<td>✓</td>
</tr>
<tr>
<td>Installation Tester</td>
<td>5030 Electrical Tester Calibrator</td>
<td>✓</td>
</tr>
<tr>
<td>Earth Ground Tester</td>
<td>5030 Electrical Tester Calibrator</td>
<td>✓</td>
</tr>
<tr>
<td>DC Power Supply</td>
<td>9758 DC Electronic Load</td>
<td>Manual Entry</td>
</tr>
<tr>
<td>Pressure Indicator</td>
<td>TE pressure pump and digital gauge (models by range and accuracy required)</td>
<td>✓</td>
</tr>
<tr>
<td>Pressure Transmitter</td>
<td>TE pressure pump and digital gauge (models by range and accuracy required) Power supply and 5065 multimeter for measure capabilities required</td>
<td>✓</td>
</tr>
<tr>
<td>Pressure Gauge</td>
<td>TE pressure pump and digital gauge (models by range and accuracy required)</td>
<td>✓</td>
</tr>
</tbody>
</table>

Instrument type is based on commonly used products, please check specifications to confirm your DUT is covered by the above TE models.
Adaptors and Accessories
Products for use with the 5025 series calibrators

9780 Clamp Meter Adaptor
A precision adaptor for use with calibrated AC or DC sources and allows accurate calibration of a wide range of clamp meters. When used with the 5025 series models clamp calibration up to 1100A is possible.

- Twin coils fitted as standard
- Ratios 1:1 and 50:1
- Primary current up to 22A
- Simulated current up to 1100A
- AC or DC
- Frequency up to 90Hz
- Max drive voltage 3V
- Low resistance test leads included
- W240 x H85 x D280mm, weight 3.9kg

9773 Optical Tachometer Adaptor
An optical tacho adaptor is designed to provide an interface to allow the 5025 multifunction calibrators to calibrate virtually all optical tachometers. A high intensity LED can be driven from the 10MHz digital frequency output or the main output terminals when AC voltage is selected.

- RPM range (using digital frequency): 6 rpm (0.1Hz) - 600,000 rpm (10KHz)
- RPM range (using 2V AC range): 600 rpm (10Hz) - 600,000 rpm (10KHz)
- Standard accuracy 0.01% (0.03% using 2V AC range)
- Screened 1000mm lead
- Create EasyCal procedures to show accuracy at any required RPM on certificate
- Supplied with battery charger and carry case
- 77 x 50 x 28mm, weight 153g

9760 Power Amplifier
The 9760 has been designed to complement 5025 series multifunction calibrators. The amplifier provides an output current suitable for driving even the most demanding analogue meters.

- 60V AC RMS – 100mA
- 90V DC – 100mA
- 0.02% best accuracy
- AC V to 10kHz
- Short circuit protection: 160mA
- Compact unit takes up minimal bench space
- W430 x H90 x D230mm, weight 5kg

9764 Oscilloscope Current Probe Adaptor
The 9764 current probe adaptor converts the amplitude output of the 5025 calibrator to a square-wave current in the wire loop of one of three interchangeable heads.

- For use with the 5025E/5025C with fitted oscilloscope calibration option
- Calibrate oscilloscope current probes
- Drive current 0.1mA to 100mA pk-pk
- 0.5% accuracy
- Three interchangeable heads supplied – 1, 10 and 100 turn
- Battery powered, easily portable
- 142 x 78 x 50mm, weight 0.6kg
Carry Cases

For the 5025 series two types of carry case are available. The 9085 is a soft case for personal transportation and the 9059 is a durable transit case suitable for customers that require a secure solution for shipping the unit.

9085 Soft Carry Case
- Light weight canvas material
- Heavy duty velcro openings

9059 Hard Transit Case (shown)
- Injection molded ultra strong shell
- Double-layered, soft-grip handle
- Flush Powerful Hinges
- Telescopic handle
- L632 x W602 x H333mm
- Two Press and Pull Latches
- Two Padlockable Hasps
- Watertight
- Transport wheels for easy mobility
- 11kg / 30kg with 5025

Test Lead Sets

The 5025E and 5025C are both supplied as standard with a basic test lead set. An optional premium test lead set is also available.

Supplied Test Lead Set
- General purpose 4mm test leads
- 4mm to mini thermocouple
- BNC to 4mm plug
- Low thermal 4mm test leads & clips
- 4mm sockets to BNC
- Thermocouple male to male CU

9796 Premium Test Lead Set including wall mount holder
- General purpose 4mm test leads
- 4 wire screened, 4mm test leads
- BNC test lead
- BNC to 4mm plug
- 4mm test lead couplers
- Low thermal 4mm test leads & clips
- 4mm to mini thermocouple
- 4mm to spade adaptors
- Thermocouple male to male CU
- Pair of 4mm test Clips

9790 100A Current Transformer
A heavy duty current transformer mounted in a robust steel case. It extends the AC current capability of the 5025 calibrators to 100A RMS.
- Robust clamp action 100A terminals
- 20A input terminal posts take 4mm plugs, spade connectors, or bare wired ends
- Portable steel case with carry handle
- Current: 100A RMS maximum
- VA Rating: 30VA maximum
- Compliance: 0.3V RMS at 100A increasing to 0.5V rms at 20A
- Operating Frequency: 50/60Hz only
- Ratio Error: 5A to 50A 0.15%. 50A to 100A 0.2%
- Phase Error: < 0.05 degree from 5% to 120% of full load current (100A)
- W317 x H275 x D177mm, weight 9.2kg

9762 Rubidium Frequency Standard
The 9762 is a high accuracy rubidium atomic frequency reference. It is designed to enhance the output frequency of the 5025 calibrator up to 10MHz.
- High accuracy frequency reference
- For use with the 5025E/5025C with fitted oscilloscope calibration option
- 10MHz sine-wave
- Accuracy 1 x 10^-10
- Good short and long-term stability
- Compact design
- Built for long operating periods (10 years)
- 190 x 120 x 90mm, weight 0.60kg
Accompanying Calibration Instruments

Additional instruments for expanding your calibration capabilities

5030 Electrical Tester Calibrator

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.

- 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

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 100kΩ to 100GΩ
- Accuracy: Resistance 1% of setting. Voltage and Current to 1% of reading
- 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, 2000mΩ ranges
- Accuracy/rng: 0.2mΩ (0.8%), 2mΩ (0.5%), 20mΩ (0.2%), 200 & 2000mΩ (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 18Ω to 20mΩ
- Earth bond currents up to 50A AC
- Load test currents up to 13A AC
- Accuracy: Resistance 1% of setting. Voltage and Current to 0.25% of reading
- 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
Accompanying Calibration Instruments

Dimensional: 7151 Vernier and Micrometer Calibration Kit

A comprehensive kit for dimensional calibration applications including verniers, calipers, micrometers, and depth gauges.

- 47 piece grade 1 block set comprising of:
  - 21 pcs - 1mm to 1.19mm x .01mm, (plus 1.005mm)
  - 8 pcs - 1.2mm to 1.9mm x .1mm
  - 8 pcs - 2mm to 9mm x 1mm
  - 10 pcs - 10mm to 100mm x 10mm
- 300mm gauge block holder and cylindrical jaws for internal measurements
- 4 optical parallels (0 - 25mm, grade 1)
- Compact granite surface plate for precision depth measurements
- Supplied with gloves, oil, wipes, 2 compact carry cases and calibration certificate

Measurement: 5065 Bench Digital Multimeter

A versatile 6½ digit bench multimeter with 19 measurement functions. Low cost, easy to use, stability, and high accuracy make the 5065 an ideal DMM for a variety of applications. With a comprehensive range of features the 5065 is suitable for test engineers, R&D, service, and calibration technicians.

- 6½ digit resolution
- Accuracy 0.005% DC voltage
- RS-232 and USB interfaces (optional GPIB)
- Temperature measurements
- High sample rate
- 10 channel scanner card option
- PC/laptop control via EasyCal software
- W210 x H85 x D350mm, weight 4.4kg

DC Power Supply Calibration: 9758 Electronic Load

The 9758 electronic load is a precision instrument that works by putting a required DC load across a power source under test. It can be also be used to investigate the behaviour of many different types of power source such as batteries, solar cells, fuel cells or wind generators, as well as electronic power supply units.

- Constant current, resistance, conductance, voltage, and power modes
- Wide voltage and current range: 0 to 80 volts and 0 to 80 amps
- 300 watts continuous dissipation at 40°C
- Ten turn controls for level setting
- Built-in transient generator – variable slew
- Current monitor output for waveform viewing
- Variable drop-out voltage for battery testing
- W212 x H130 x D435mm, weight 6kg

Pressure: Digital Gauges and Test Pumps

For pressure calibration Time Electronics offer benchtop pumps that are a comfortable and simple operation, providing an easy way to generate pressure in the lab. Each pump is a dual pressure source for connection to both a DUT and digital pressure guage, enabling reference calibration.

- 7193 Pneumatic Pump – 0.95bar vacuum to 40bar pressure (600psi)
- 7194 Pneumatic Pump – 0.95bar vacuum to 100bar pressure (1500psi)
- 7195 Hydraulic Pump – 0.9bar vacuum to 600bar pressure (8700psi)
- Digital pressure gauges with ranges up to 2500bar (37500psi)
- Gauge/Absolute/Differential/Compound models
- 0.025%, 0.05%, 0.1% or 0.2% FS accuracy
- Easy-to-read backlit display with 5 digit resolution
- RS-232 connection on rear of gauge, EasyCal compatible
Manage, Automate and Optimise the Calibration Process

About EasyCal

EasyCal is a complete software package with features covering all aspects of calibration work and management. It is designed to reduce workload, improve efficiency, and provide the essential platform for companies looking to create and sustain an effective calibration program. The comprehensive features simplify the administration process from reminder reports through to despatch. With a familiar and intuitive user interface all operators can quickly learn and navigate through the applications. This allows fast, straightforward implementation and integration of the software.

Communication and Control

EasyCal automates calibration runs by allowing the user to remotely control and communicate with compatible calibrators and DMMs. User friendly features and controls aid the process to further decrease calibration times. EasyCal can also read back values and data from compatible Time Electronics pressure and process instruments, and can be used with external instruments such as dry block calibrators.

For Multiple Industries and Disciplines

EasyCal is a versatile solution to multi-device calibration with the comprehensive functionality that is required across industries. It is globally used as the principal software in both calibration businesses and companies with on-site test facilities.

EasyCal is also designed for universal testing applications and can cover a wide range of disciplines. Users can calibrate and verify various instruments and devices: electrical and electronic; level, pressure, and flow; temperature and loop; mechanical and dimensional.

Features

- Communicate with calibrators, DMMs, bench modules
- Automated planning and scheduling
- For use with multiple devices and instruments
- Print/email/store certificates and reports
- Network compatible
- Produce calibration labels
- Quickly generate procedures using templates
- 1200+ pre-written test procedures included
- Calibration due reminder system
- E-mail reminder letters and lists
- Customise reports and certificates
- Create PDF reports and certificates (PDF engine)
- Print and read bar codes
- Universal instrument control
- HART and Foundation Fieldbus communication
- Secure user log in and electronic signatures
- Create uncertainty tables for laboratory & site
- WebCert feature for online certificates
Automating the Calibration Process with EasyCal

Pre-Cal:
- Reminder letters and emails are sent to owner
- Unit for test is received and booked in
- Unit is checked and workload is scheduled

Cal:
- Testing is done using TE calibrator and EasyCal
- Results/reports are stored and printed

Post-Cal:
- Certificate is issued and unit is returned

EasyCal: For the Calibration Process
Automating the calibration process brings important benefits and provides increased speed of calibration and consistency of results.

Pre-Calibration: The calibration management features of EasyCal make the planning and organisation of instrumentation calibration simple. A recall/reminder system informs the user of upcoming jobs, and search functions allow the user to quickly identify a unit for test.

Calibration: EasyCal controlled calibration significantly decreases testing times, meaning less instrument downtime and faster turnaround. This improves throughput meaning greater return on investment. EasyCal optimises the process by allowing the user to create procedures quickly and easily with the help of the included design wizards and pre-written templates.

Post Calibration: Easily produce calibration certificates and reports to ISO 9001, ISO 17025, and other quality standards. These can be printed, stored, or emailed as PDFs. EasyCal has a selection of preformatted certificate templates suitable for displaying typical calibration results.

The Core Benefits of using EasyCal

Achieve compliance with quality standards
- Automated document control ensures conformity and quality
- Establish procedures to maintain repeatability and monitor quality
- Schedule and maintain calibration intervals.
- Evidence of traceability to national standards
- Record calibration environmental conditions
- Produce calibration labels, maintain calibration history
- Reduce possibilities for errors or omissions
- Electronic record retention ensures integrity for successful audits

Create an efficient control and management system
- Reduce testing times
- Eliminate continual outsourcing calibration costs
- Full control over the calibration process
- Improve turnaround
- Quick and easy solution to instrument analysis when needed
- Internal scheduling for calibrations. No external factors
- Centralised document management
- On demand networked review of certificates and reports

EasyCal Calibration Software
Inventory, Reminders, and Jobs

A comprehensive inventory database can be created and customised to company requirements. For internal calibration and quality management, departments and users can be specified. Alternatively EasyCal can be used as the controlling system for a calibration business based around customers and owners.

Search

A powerful search feature enables the user to enter specific criteria to quickly find the required data. When adding details the user is aided by drop-down lists, which automatically update when new information is added.

Input Fields

Used to add details such as ID and serial number, manufacturer and model, instrument status and service notes. In addition custom fields can be created to integrate with a company system. Images can be uploaded to provide further reference.

Instrument Recall and Reminder System

Instruments which are due for calibration are listed on screen. Reminder letters and lists can be printed or emailed directly to the customer or department. An advanced notice period can be set to bring forward the recall date allowing for response time.

Job Management

When a unit for test is booked in the job process starts. Specific information about the job is entered; such as ‘service required’, ‘sub contracted’ and ‘accessories supplied’. A job sheet and label can be produced at this stage to accompany the instrument. As the job is put through the system these parameters can be updated, for example ‘quote price’, ‘job status’ and ‘invoiced’.

Attachments

Create links to technical files, specifications, web pages, word documents, videos, and more. These can be set to automatically display prior to the calibration run.

Devices and Standards used for Calibration

Traceability information for instruments and standards that perform the calibration work is stored and maintained by EasyCal.

Uncertainties

Uncertainty tables for laboratory and site can be created for each calibrating instrument. These are then automatically processed and applied to certificates as required.
Procedure Writing and Editing

Creating and editing test procedures is made simple with an intuitive, user-friendly interface. Editing test information can be done by adding, inserting, or copy and pasting. EasyCal keeps track of each time a procedure is edited.

Procedure Library
A calibration library comprising of over 1200 procedures covering a wide variety of instruments and devices is included as standard.

Procedure Templates
Procedure templates for multimeters, clamp meters, decade boxes, insulation testers, and more can be used for creating any new procedures as required.

Fast Procedure Creation and Editing
Copy and paste multiple tests. Globally edit a group of tests. Colour coded listing helps sort and identify different test types.

Procedure Simulation
The Calibration Run Simulator enables a procedure to be tested without the need for a controlling instrument. To further assist with development of procedures a test can also be edited during the actual calibration run.

Format Certificates
Colour code and add borders to test group titles. Add column headers where a change of layout is required. A preview feature allows the user to check the certificate layout to determine if formatting is correct.

Conversion Tables
Conversion tables for thermocouples, RTDs, current transformers, and clamp meter adaptors are included. Alternatively user-defined tables can be created.

Remote Commands
For more complex instrument control, commands can be sent on a test-by-test basis or run as a script. Closed loop calibration is also achievable using the universal readback feature. This allows EasyCal to control third party calibration equipment and communicate with devices under test.
Instrument and Device Calibration

Automated calibration run provides fast and accurate collection of data, whether using direct instrument control or manual entry. EasyCal guides the operator through the procedure using graphical test screens and user prompts.

Search
Selection of the device under test is quick and easy. With the use of a barcode scanner this selection becomes automatic.

Calibration Prompts
Text and graphical prompts aid the user with instrument range selection and connection. So even the most complex calibrations can be performed with relative ease.

Graphical Test Screen
The calibration run is made simple and efficient by a graphical user-interface, which increases speed of data entry. The colour coded indication bar displays the test limits. This allows the operator to easily identify out of tolerance results.

Test Control
At any stage during the calibration run a summary can be displayed, this includes both completed and remaining tests. Colour coding indicates tests passed or failed. The operator is able to move forward or backward through the procedure as required.

End of Calibration Run
Data for every test is stored, including a snap shot of the procedure used. If required calibration comments and service history can be updated. The operator is able to print the certificate, produce a calibration label and/or store the results to be issued as required.

Recovery Mode
If for any reason a calibration run is interrupted, recovery mode allows the user resume from the point of termination.

Calibration Test Forms
Alternatively ‘calibration test forms’ for hand written results are available. This data is then entered manually into EasyCal at a later date.
Certificates/Reports/Data Management

Produce, print, and store calibration certificates, reports, and labels. Simple search facilities enable the user to locate any data on demand. Keeping track of instrument history and servicing is made easy.

Certificate Templates
A range of pre-formatted templates are available for immediate use. A company logo can be added without the need for 3rd party software.

Electronic Signatures
Password protected electronic signatures allow management to approve certificates. In addition a scanned image of the signature can automatically be inserted, eliminating the need to print certificates.

Built-in PDF Engine
Generate PDF reports and certificates ready for emailing and universal review.

Calibration Reports
Documented traceability provides a recorded audit trail. Reports showing calibration duration times can assist with costing and assessments.

Archive
The results database can be streamlined by using the archive feature. This improves data organisation and management. Archives are quickly retrieved, giving instant access to historical certificate data.

Import and Export
Exchange data from one system to another using the import/export feature. This method is ideal for site and field calibration work, where data is recorded externally then uploaded to the main database upon return.

Customise
Crystal Reports (optional) allows full modification of certificate, label, and report layouts. Design custom reports using queries, formulas, and running totals.
EasyCal Add-Ons and Accessories
Optional enhancements and extras for increased functionality

EasyAdmin

EasyAdmin is an add-on that provides increased security for EasyCal and its users.

User Rights: A master user sets the user rights for the relative staff and defines log in criteria.

Access Levels: Setting access levels within EasyCal to limit secondary users can be done, safe guarding sensitive information.

Administration: EasyAdmin provides an administration point for calibration instruments, certificate information and user fields.

Predefined Pick-Up Lists: For instrument manufacturers, sub contractors, customer details and other information. These can be created to make EasyCal data entry quick, easy and uniformed.

WebCerts

WebCerts is a web based application that enables EasyCal users to upload and retrieve certificates and reports online.

Simple Upload/Download: Uploading is incorporated into EasyCal by allowing the user to quickly and directly upload to their WebCert folders via FTP.

Secure User Log In: A security feature that allows users to access private folders with their relevant documentation. Ideal for companies with different sites or locations.

Search and Filter: Users can easily locate required data by using the filter tabs or the straightforward search fields.

Hosted Package: Time Electronics also offer a hosted WebCerts package where data is uploaded and stored on one of our designated WebCert servers. Retrieval and viewing of certificates is via the web based interface.

EasyCal Accessories

To complement and further optimise the calibration process Time Electronics offer a range of external options.

Printer and Connectivity Kit: Inkjet printer for calibration certificates and reports. Also includes a DVD-RW, 4 port USB hub, numeric key pad and USB memory stick.

Calibration and ID Label Printer: For printing labels to be placed on calibrated units. EasyCal has different layouts for required information to be shown.

Job and Address Label Printer: For printing information that accompanies a unit under test through the calibration process. Also for user tagging instruments.

Bar Code Reader: Enables fast identification of devices in the pre-calibration stage.

EasyCal to PC Communication Options: Interface cables and adaptors providing PC connectivity to Time Electronics calibrators or external instruments.
Networking with EasyCal

For multi-user systems EasyCal can be implemented as the universal software for administration, management, and control. With designated features for use in different workstations, EasyCal can provide a solution to calibration businesses with customers as well calibration departments within industrial plants.

Data can be shared and accessed on a central server, creating an organised and efficient networking set-up. EasyCal’s pre-calibration features enable automated scheduling and also speed up the booking in process with quick instrument identification.

Calibration runs can be automated by using a compatible Time Electronics calibrator with EasyCal. Once calibration has been performed the data can be made available on the server to the necessary parties. Hard copy certificates and reports can be issued by authorised staff.

Enhanced security features can be added for increased protection, allowing a master user to control access rights to data and applications. Also available is an online application enabling users to upload and retrieve certificates.

Scheduling is simplified by EasyCal’s recall/reminder system. Instruments are returned following reminder letters/emails. Instruments arrive and are booked in. Job sheets and labels can be produced. EasyCal starts to optimize the job process for fast turnaround time.

A simple search feature can locate the instrument’s data or a barcode reader can instantly identify the item.

Once uploaded on the system, necessary parties can access/modify data without the need for paperwork to be passed from station to station.

Can oversee the complete operation.

The calibration standards and instruments used by the laboratory are also monitored on the system.

Create, edit, and sign off test procedures. View and issue reports and certificates. Simulate calibration runs.

Create and update uncertainty information. Monitor progress and calibration statistics.

As the key user the manager can control user access to data and programs.

Customers or employees can use EasyCal’s ‘WebCerts’, a web based application allowing certificate retrieval online.

A secure log in feature allows access the user’s private folder with their relevant documentation.

Specific PDF calibration certificates can be located quickly and easily using WebCert’s simple search function.

The user can print calibration certificates for instruments as required. This is especially useful when certificates are lost or misplaced.
CERTIFICATE OF CALIBRATION

Issued By: Time Electronics
Date of Issue: 20 May 2009

Time Electronics
Unit 11
Sovereign Way
Tonbridge, Kent. TN9 1RH
Tel: 01732 355993 Fax: 01732 770312
email: mail@timeelectronics.co.uk

Customer /Owner
Cal Systems
Cal House
Unit 34 Lock Drive
Sevenoaks
Kent
Tel: 01732 355559 Fax: 01732 770312
Email: mail@t-e.co.uk

Instrument /Device
Type: Process Calibrator
Manufacturer: Fluke
Model Number: 725
Serial Number: 419456
ID Number: EC4
Procedure: FLUKE-725-AUTO

Approved Signatory
Date of Issue: 20 May 2009

Environmental Conditions
Temperature: 22.0°C ±4.0°C
Supply Voltage: 230V ±2V @ 50Hz ±5Hz
Relative Humidity: 50% ±10%

Traceability Information
Instrument Description
Multifunction Calibrator
Model: 5025
Manufacturer: Fluke
Serial No: 1089008
Cert No: UKAS-90897
Cal Date: 08 May 2009
Cal Due: 07 May 2010

Calibrated by: Robert Martins
Date of Calibration: 20 May 2009
Calibration Due: 19 May 2010

This certificate has been produced by EasyCal Calibration Software from Time Electronics Ltd

Example EasyCal Certificates
Sample certificates created by EasyCal
### CERTIFICATE OF CALIBRATION

**Issued By:** Time Electronics  
**Date of Issue:** 20 May 2009  
**Date of Issue:** 20 May 2009

#### UPPER DISPLAY

**Voltage Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>0V DC</td>
<td>0.000V</td>
<td>0.000V</td>
<td>±0.002V</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>15V DC</td>
<td>15.000V</td>
<td>14.987V</td>
<td>±0.005V</td>
<td>40%</td>
<td>Pass</td>
</tr>
<tr>
<td>20V DC</td>
<td>20.000V</td>
<td>19.887V</td>
<td>±0.006V</td>
<td>50%</td>
<td>Pass</td>
</tr>
<tr>
<td>30V DC</td>
<td>30.000V</td>
<td>29.987V</td>
<td>±0.006V</td>
<td>38%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**mA Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>4mA</td>
<td>4.050mA</td>
<td>4.000mA</td>
<td>±0.030mA</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>12mA</td>
<td>12.000mA</td>
<td>11.986mA</td>
<td>±0.030mA</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>24mA</td>
<td>24.000mA</td>
<td>23.986mA</td>
<td>±0.030mA</td>
<td>0%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### LOWER DISPLAY

**mV/TC Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>0mV DC</td>
<td>0.000mV</td>
<td>0.000mV</td>
<td>±0.020mV</td>
<td>50%</td>
<td>Pass</td>
</tr>
<tr>
<td>45mV DC</td>
<td>45.000mV</td>
<td>45.000mV</td>
<td>±0.030mV</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>90mV DC</td>
<td>90.000mV</td>
<td>89.980mV</td>
<td>±0.030mV</td>
<td>0%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Voltage Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>0V DC</td>
<td>0.000V</td>
<td>0.000V</td>
<td>±0.002V</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>10V DC</td>
<td>10.000V</td>
<td>9.987V</td>
<td>±0.006V</td>
<td>33%</td>
<td>Pass</td>
</tr>
<tr>
<td>20V DC</td>
<td>20.000V</td>
<td>19.987V</td>
<td>±0.006V</td>
<td>38%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**mA Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>4mA</td>
<td>4.000mA</td>
<td>4.000mA</td>
<td>±0.003mA</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>12mA</td>
<td>12.000mA</td>
<td>12.000mA</td>
<td>±0.005mA</td>
<td>0%</td>
<td>Pass</td>
</tr>
<tr>
<td>24mA</td>
<td>24.000mA</td>
<td>23.994mA</td>
<td>±0.007mA</td>
<td>1%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Resistance Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>10Ω</td>
<td>10.0Ω</td>
<td>10.0Ω</td>
<td>±0.1Ω</td>
<td>15%</td>
<td>Pass</td>
</tr>
<tr>
<td>30Ω</td>
<td>30.0Ω</td>
<td>30.0Ω</td>
<td>±0.3Ω</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>50Ω</td>
<td>50.0Ω</td>
<td>50.0Ω</td>
<td>±0.5Ω</td>
<td>30%</td>
<td>Pass</td>
</tr>
<tr>
<td>1kΩ</td>
<td>1.0kΩ</td>
<td>1.0kΩ</td>
<td>±1Ω</td>
<td>2%</td>
<td>Pass</td>
</tr>
<tr>
<td>10kΩ</td>
<td>10.0kΩ</td>
<td>10.0kΩ</td>
<td>±10Ω</td>
<td>10%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Thermocouple Measure**

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Junction</td>
<td>-23.8°C</td>
<td>-23.7°C</td>
<td>±0.7°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>0°C</td>
<td>0.0°C</td>
<td>0.1°C</td>
<td>±0.7°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>100°C</td>
<td>100.0°C</td>
<td>100.0°C</td>
<td>±1°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

### CERTIFICATE OF CALIBRATION

**Issued By:** Time Electronics  
**Date of Issue:** 20 May 2009  
**Date of Issue:** 20 May 2009

#### Voltage Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>0V</td>
<td>0.000V</td>
<td>0.000V</td>
<td>±0.002V</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>5V</td>
<td>5.000V</td>
<td>5.000V</td>
<td>±0.005V</td>
<td>5%</td>
<td>Pass</td>
</tr>
<tr>
<td>10V</td>
<td>10.000V</td>
<td>10.000V</td>
<td>±0.006V</td>
<td>6%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### mV Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>0mV</td>
<td>0.000mV</td>
<td>0.000mV</td>
<td>±0.020mV</td>
<td>10%</td>
<td>Pass</td>
</tr>
<tr>
<td>45mV</td>
<td>45.000mV</td>
<td>45.000mV</td>
<td>±0.030mV</td>
<td>12%</td>
<td>Pass</td>
</tr>
<tr>
<td>90mV</td>
<td>90.000mV</td>
<td>90.000mV</td>
<td>±0.030mV</td>
<td>12%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### Frequency Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>10kHz</td>
<td>10.000kHz</td>
<td>10.000kHz</td>
<td>±0.025kHz</td>
<td>0%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### mA Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>10mA</td>
<td>10.0mA</td>
<td>10.0mA</td>
<td>±0.005mA</td>
<td>13%</td>
<td>Pass</td>
</tr>
<tr>
<td>12mA</td>
<td>12.0mA</td>
<td>12.0mA</td>
<td>±0.005mA</td>
<td>13%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### Ohms Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Ω</td>
<td>1.0Ω</td>
<td>1.0Ω</td>
<td>±0.1Ω</td>
<td>13%</td>
<td>Pass</td>
</tr>
<tr>
<td>10Ω</td>
<td>10.0Ω</td>
<td>10.0Ω</td>
<td>±0.1Ω</td>
<td>13%</td>
<td>Pass</td>
</tr>
<tr>
<td>50Ω</td>
<td>50.0Ω</td>
<td>50.0Ω</td>
<td>±0.5Ω</td>
<td>23%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

#### Thermocouple Source

<table>
<thead>
<tr>
<th>Test Name</th>
<th>Rpt Value</th>
<th>Actual Value</th>
<th>Allowed Error</th>
<th>% of Spec</th>
<th>Pass/Fail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold Junction</td>
<td>-23.8°C</td>
<td>-23.7°C</td>
<td>±0.7°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>0°C</td>
<td>0.0°C</td>
<td>0.1°C</td>
<td>±0.7°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
<tr>
<td>100°C</td>
<td>100.0°C</td>
<td>100.0°C</td>
<td>±1°C</td>
<td>1%</td>
<td>Pass</td>
</tr>
</tbody>
</table>

**Cert.rpt v8.1** This certificate has been produced by EasyCal Calibration Software from Time Electronics Ltd
### 5025 Series Ordering Information

#### 5025E

**Entry Level Multifunction Calibrator (40ppm)**

- AC/DC 1kV/22A
- Decade Resistance to 1G ohm
- Simulated Resistance 40 ohm to 40k Ohm
- Thermocouple Simulation (J,K,R,T,S,B,E,N)
- Conductance
- PT100 Simulation
- Capacitance
- 10MHz Frequency
- Basic Test Lead Set
- Virtual Control Software

**5025E Internal Options**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9702</td>
<td>5025E Enhanced Performance Pack</td>
</tr>
<tr>
<td>9797</td>
<td>Power Calibration (0 - 20KW AC and DC)</td>
</tr>
<tr>
<td>9770</td>
<td>Oscilloscope Calibration (1mV - 200V, 0.1Hz - 100MHz / Bandwidth checking to 400MHz)</td>
</tr>
<tr>
<td>9783</td>
<td>Oven-Controlled Frequency Reference (for timer/counters, increases accuracy to 0.1ppm from 0.1Hz to 10MHz). Option 9770 must be fitted.</td>
</tr>
<tr>
<td>9769</td>
<td>Oscilloscope Calibration 2.2GHz Levelled Sine Generator</td>
</tr>
</tbody>
</table>

#### 5025C

**Multifunction Calibrator (15ppm)**

- AC/DC 1kV/22A
- Decade Resistance to 1G ohm
- Simulated Resistance 10 ohm to 40M ohm
- Thermocouple Simulation (J,K,R,T,S,B,E,N)
- Conductance
- PT100 Simulation
- Capacitance
- 10MHz Frequency
- Basic Test Lead Set
- Virtual Control Software

**5025C Internal Options**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9701</td>
<td>5025C Enhanced Performance Pack</td>
</tr>
<tr>
<td>9797</td>
<td>Power Calibration (0 - 20KW AC and DC)</td>
</tr>
<tr>
<td>9770</td>
<td>Oscilloscope Calibration (1mV - 200V, 0.1Hz - 100MHz / Bandwidth checking to 400MHz)</td>
</tr>
<tr>
<td>9783</td>
<td>Oven-Controlled Frequency Reference (for timer/counters, increases accuracy to 0.1ppm from 0.1Hz to 10MHz). Option 9770 must be fitted.</td>
</tr>
<tr>
<td>9769</td>
<td>Oscilloscope Calibration 2.2GHz Levelled Sine Generator</td>
</tr>
</tbody>
</table>

#### 5025 Series External Adaptors, Accessories and Calibration Certificates

- [9762](#) | Rubidium High Stability Frequency Reference (9770 internal scope option must be fitted) |
- [9764](#) | Current Probe Calibration Adaptor (9770 internal scope option must also be fitted) |
- [9773](#) | Optical Tacho Adaptor |
- [9780](#) | Clamp Meter Calibration Adaptor (1 & 50 turn coil) |
- [9790](#) | 100 Amp AC Current Transformer |
- [9760](#) | Power Amplifier (60V AC, 90V DC - 100mA) |
- [9766](#) | External Low Noise Attenuator 1000:1 |
- [9767](#) | External Low Noise Attenuator 100:1 |
- [9085](#) | Soft Carry Case |
- [9059](#) | Hard Transit Case |
- [9728](#) | 19" Universal Rack Mount Kit |
- [9796](#) | Premium Test Lead Set (basic test lead set supplied with both models) |

- [ECFLA](#) | EasyCal Calibration Software - for further options/accessories see page 20 |
- [C159](#) | Factory Calibration Certificate (NPL traceable) for 5025E |
- [C103](#) | UKAS Calibration Certificate (ISO 17025) for 5025E |
- [C113](#) | Extended UKAS Calibration Certificate (ISO 17025) for 5025E |
- [C220](#) | Factory Calibration Certificate (NPL traceable) for 5025C |
- [C225](#) | UKAS Calibration Certificate (ISO 17025) for 5025C |
- [EW01](#) | 5025E/5025C Extended Warranty - 3 years total covering parts and labour. |
### EasyCal Licenses, Add-Ons, and Accessories

#### Primary Licenses

<table>
<thead>
<tr>
<th>License</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECFL</td>
<td>EasyCal Full License (stand alone, when purchased individually)</td>
</tr>
<tr>
<td>ECFLA</td>
<td>EasyCal Full License (discounted price when purchased with compatible calibrator/DMM)</td>
</tr>
</tbody>
</table>

#### Extra User Licenses

<table>
<thead>
<tr>
<th>License</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC2FL</td>
<td>EasyCal Additional Full License (secondary user)</td>
</tr>
<tr>
<td>EC2WL</td>
<td>EasyCal Work Station License (full management/scheduling, no calibration run)</td>
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</tbody>
</table>

#### EasyCal Add-Ons

<table>
<thead>
<tr>
<th>Add-On</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAD2</td>
<td>EasyAdmin - 2 Users: Security add-on that enables setting of user rights and access levels. For installations of 2 users or less.</td>
</tr>
<tr>
<td>EAD5</td>
<td>EasyAdmin - 5 Users: Security add-on that enables setting of user rights and access levels. For installations of 5 users or less.</td>
</tr>
<tr>
<td>EAD10</td>
<td>EasyAdmin - 10 Users: Security add-on that enables setting of user rights and access levels. For installations of 10 users or less.</td>
</tr>
<tr>
<td>EAD10+</td>
<td>Additional users of EasyAdmin beyond 10 users</td>
</tr>
<tr>
<td>EWC</td>
<td>WebCerts: Online application enabling upload and retrieval of certificates and reports</td>
</tr>
<tr>
<td>EWCTE</td>
<td>WebCerts - Hosted by Time Electronics: Online application enabling upload and retrieval of certificates and reports.</td>
</tr>
<tr>
<td>CREP</td>
<td>Crystal Reports Software: Edit and format certificate styles</td>
</tr>
</tbody>
</table>

#### EasyCal Accessories

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9795</td>
<td>Printer and Connectivity Kit</td>
</tr>
<tr>
<td>9777</td>
<td>Bar Code Reader</td>
</tr>
<tr>
<td>9778</td>
<td>Cal and ID Label Printer</td>
</tr>
<tr>
<td>9779</td>
<td>Job and Address Label Printer</td>
</tr>
</tbody>
</table>

#### Calibrator to PC Communication Options

<table>
<thead>
<tr>
<th>Communication Option</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>9588</td>
<td>RS-232 Cable (supplied as standard with 5025E and 5025C)</td>
</tr>
<tr>
<td>9597</td>
<td>GPIB Cable</td>
</tr>
<tr>
<td>9794</td>
<td>GPIB to USB Interface Adaptor</td>
</tr>
<tr>
<td>9765</td>
<td>RS-232 to USB Interface Adaptor (supplied as standard with 5025E and 5025C)</td>
</tr>
<tr>
<td>9763</td>
<td>USB to 4x RS232 Interface Adaptor</td>
</tr>
<tr>
<td>9743</td>
<td>PCI to GPIB Interface Card for PC</td>
</tr>
</tbody>
</table>

#### Accompanying Calibration Instruments (shown on page 7 and 8)

#### Additional Instruments for expanding your calibration capabilities

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
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<tbody>
<tr>
<td>5030</td>
<td>Electrical Tester Calibrator</td>
</tr>
<tr>
<td>5069</td>
<td>Insulation Tester Calibration System</td>
</tr>
<tr>
<td>5070</td>
<td>Micro-Ohmmeter and Ductor Tester Calibrator</td>
</tr>
<tr>
<td>5080</td>
<td>Portable Appliance Tester Calibrator (PatCal)</td>
</tr>
<tr>
<td>5065</td>
<td>Benchtop 6.5 Digit Multimeter</td>
</tr>
<tr>
<td>9758</td>
<td>DC Electronic Load</td>
</tr>
</tbody>
</table>

For full listings on additional products and options please visit [www.timeelectronics.com](http://www.timeelectronics.com).

Please visit [www.tegauge.com](http://www.tegauge.com) for full listings of available pressure pumps and digital gauges.