



Test Equipment

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Full range of Test Equipment available at:

www.rapidonline.com

Multimeters

VOLTcraft®

VC130-1 Digital Multimeter, DMM, 2000 Counts

The Voltcraft VC-130-1 is a Digital Multimeter that is a robust unit with a manual selection range. The VC-130-1 offers something for every user, and can handle measurements up to 250V.

- Diode test
- Acoustic: Continuity tester
- Non-contact AC Voltage Detector
- hFE transistor testing (with optional adaptor)
- Hold function
- Low battery indication
- Robust housing with soft rubber protection
- Supplied with Test leads, 9V battery and manual
- Manufacturer's part: **Voltcraft VC-130-1**

Type	Order code	1+
Voltcraft VC-130-1	55-9059	18.45

547650



VOLTcraft®

VC130 Digital Multimeter - Class Pack of 16



A classpack of 16 Voltcraft VC130 Digital LCD Multimeters in a deep Grannell's Tray with lid.

See order code **55-9059** for full details of the Voltcraft VC130 Digital LCD Multimeter.

- Perfect storage solution for classroom multimeters
- Multimeters are held in place by a slotted foam sheet

Type	Order code	1+
VC130 Classpack 16	86-1090	208.42

526194

Rapid

RHMM17 Digital Multimeter

The Rapid RHMM17 digital multimeter has a highly versatile selection of ranges covering AC and DC voltage, AC and DC current, resistance, audible continuity testing, frequency, temperature, capacitance and transistor testing.

Basic accuracy on the DC voltage range is $\pm(0.5\% \text{ of the reading} \pm \text{digit})$. See Technical Details for a full listing of ranges and accuracies.

- Basic DC voltage accuracy 0.5%
- Large clear LCD display with backlight
- Low battery indicator



- Auto power off
- Display hold button
- Easy access for fuse changing
- Rubberised holster
- Red and black test probes
- K-type thermocouple temperature probe
- **Conforms to IEC61010-1**
- **RoHS, CE, EMC & LVD compliant**
- **Rapid model RHMM17**

Takes a single 9V, PP3 battery, included.

Type	Order code	1+
RHMM17 multimeter	90-0005	22.07
Spare 250mA fuse	N90-0006	0.99
Spare 10A fuse	N90-0007	0.99

566384

VOLTcraft®

VC650BT Desktop Multimeter

The VC650BT multimeter shows actual effective measured values (True RMS) in the direct and alternating voltage and current measuring area.



The measurement functions are selected using the rotary control. The measuring range is selected automatically for all measuring functions (except for diode and continuity tests). Manual setting is possible at any time.

Polarity is automatically indicated with the prefix (-) in case of negative measured values.

The multimeter is operated with six 1.5V batteries type C or 230V/AC, 50Hz. Automatic switching off saves power if the device is not used for approx. 15 minutes. (The function is activated only when the multimeter is powered by batteries).

- Measurement of direct and alternating voltage up to 600V
- Measurement of direct and alternating current up to 10A
- Measuring impedance values of up to 40MΩ
- Diode test
- Please see individual specs for each of these multimeters

Type	Order code	1+
Voltcraft VC650BT	51-1949	224.45

524010

Function Generator

VOLTcraft®

FG 250D Function Generator

The Voltcraft FG 250D function generator is easy to use and reliable for applications in the NF-range up to 250kHz.

The FG 250D is suitable for testing control circuits, analogue and digital circuits, or for measuring the frequency response of LF amplifiers, filters and speakers. The amplitude of sine and triangular signals can be modified in the range from 100mV to 5Vpp. The amplitude of the rectangular signal corresponds to the TTL-level (+5V). A DC-voltage coupled output (DC) opens up many usage possibilities in digital circuits through the continuous offset setting.

- Frequency range 1Hz to 250kHz in 1Hz steps
- Sine, triangle, rectangle (TTL) settings
- LCD display
- Dimensions 225 x 73 x 212mm
- Weighs 950g

Type	Order code	1+
FG 250D	55-2319	130.63

540242



VOLTcraft®

8202 Function Generator and Frequency Generator

The professional generator produces sine, rectangle and triangle signals. The square signal is available with CMOS-TTL and variable amplitude. The pulse width can be continuously adjusted.



- Frequency range 0.02 Hz to 2 MHz
- Frequency meter 2 to 10 MHz
- Wobble function

Power cable, BNC cable and operating instructions included.

Type	Order code	1+
Function generator	51-1602	269.29

523600

RVFM

3MHz Function Generator with Counter

A multi purpose 3 MHz function generator ideally suited for electronics, education, production, and research and development laboratories. Supplied with manual, mains cable and BNC test leads.



- Six output waveforms
- Pulse generator
- Sweep generator
- Digital counter

Type	Order code	16+
3MHz FG with counter	85-2009	200.47

072934

RVFM

Logic Probe

This logic probe has a memory function which can detect the occurrence of single pulses or logic level. It can detect one shot and low repeat rate narrow pulses, which are nearly impossible to see even with a fast scope. With this probe, they are easily detectable and visible.

The probe has three LEDs, red for high logic level, green for low logic level and yellow for pulse. The intensity of the pulse LED is directly proportional to the duty cycle of the signal observed. All single pulses or pulse trains are recognised from 30ns up to 500ms.

The probe is supplied with approx. 500mm lead terminated in a red and black probe clip. In use, the red clip should be connected to the positive of the circuit under test, and the black to the negative.

- Perfect for testing TTL and CMOS
- Displays pulse presence and logic states
- Able to detect pulse to 30ns or pulse trains to 17MHz
- Input overvoltage protection
- Pulse enlargement capability allows pulse detection down to 25ns
- LED indicators indicates HI or LO logic states
- Supplied complete with power lead and comprehensive instruction manual

Type	Order code	1+
Logic probe	85-0695	18.09

031949



No minimum order value
UK mainland only

Oscilloscopes

VOLTCRAFT®

DSO-1062D Digital Storage Oscilloscope 60MHz

The Voltcraft DSO-1062D 2-Channel Oscilloscope is an entry-level model in the field of digital storage oscilloscopes. The device has two channels with a bandwidth of 60MHz and a real-time sampling rate of max. 1GSa/s and a memory depth of 512kpts.

Up to 1Mpts are available if only one channel is used. The DSO-1062C is almost unbeatable value for money with its large 17.7cm 800 x 480 pixel colour display and USB host for storing data on an optional stick.

The DSO-1062D is completed by a USB interface, multilingual Help menu, extensive trigger possibilities, automatic measuring functions including FFT and standard software included in the delivery.

- 60MHz bandwidth
- 1 GS/s real time sampling rate, equivalent to 25GS/s
- Supplied with Voltcraft DSO-1062D, 2 probes (each 1:1 / 10:1), Power cord USB cable, software, detailed instruction manual (English), Quick Start Guide (Multilingual)

2 probes (each 1:1/10:1), Power cable, USB cable, Software, Detailed user manual (English), Quick instructions (Multilingual).

Type	Order code	1+
Voltcraft DSO-1062D	51-5195	301.91

592506



VOLTCRAFT®

DSO-1062D-VGA Digital Oscilloscope, 60MHz with VGA Interface

The Voltcraft DSO-1062D-VGA is an Entry-Level Digital Storage Oscilloscope with a VGA Interface for connection to a large screen or projector if required.

This oscilloscope provides two channels with a bandwidth of 60MHz, a real-time sampling rate of 1GSa/s, and a memory depth of 512kpts per channel, which are available when using only one channel to 1Mpts.

The oscilloscope has a large 17.7cm (7 inch) colour display with a resolution of 800 x 480 pixels as well as **WINDOWS-style interfaces** and menus for easy operation.

The **DSO-1062D-VGA** has a multilingual Help menu, easy-to-operate buttons and multifunctional knobs. The shortcut keys help you save a lot of time in operation; the Autoset function lets you detect sine and square waves automatically; the Probe Check Wizard helps you to adjust the probe compensation and set the Probe option attenuation factor.

The oscilloscope provides context-sensitive, hyperlinks, and an index to enable you to master all operations on the device easily and quickly, improving your efficiency in production and development. It has also a VGA interface for connection to a large screen for classroom demonstration purposes.

What's in the Box?

Voltcraft DSO-1062D-VGA
2 probes (each 1:1/10:1)
Power cord
USB cable
Software
Detailed instruction manual (English)
Quick Guide (multilingual)



- 60MHz bandwidth
- 1GS/s real-time sampling rate, 25GS/s equivalent
- Discount set with 2 probes
- Manufacturer's part: **Voltcraft DSO-1062D-VGA**

Please Note: The oscilloscope screen is still valid when connection to a large screen is made.

Type	Order code	1+
DSO-1062D-VGA	52-0935	314.88

552685

VOLTCRAFT®

610-2 1-Channel Oscilloscope

The Voltcraft 610/1 is a portable 1-channel oscilloscope with a frequency bandwidth of 0 to 10MHz and sensitivity of 5mV/DIV to 5V/DIV. The oscilloscope is very easy to operate, highly reliable and its light weight design makes it very easy to carry.

This 10MHz oscilloscope has an excellent price/quality ratio and can also be used for research, education, DIY and development in the electronics and circuitry industries.

- Calibrated switch settings for vertical deviation and time base
- Adjustable focus, intensity and elongation
- 4.8 x 6cm CRT with internal raster
- Integrated trigger function (with external trigger input)
- X-Y operation and probe calibrator
- Supplied with power cable and operating instructions

Power cable - Operating instructions.

Type	Order code	1+
Voltcraft 610/1	51-5193	168.48

552504



owon®

SmartDS 5032E Oscilloscope

The OWON SDS5032E is a 30MHz Slim Design Oscilloscope that

provides a combination of comprehensive features, speed of use and comprehensive analysis capabilities.

The impressive **full colour 8 inch LCD display** has a high resolution 800 x 600 that makes the wave easy to read. The SDS5032E offers a 30MHz bandwidth, a sample rate of 125MSa/s in dual Channels. VGA output is included for external monitors or video projectors, making it ideal for teaching situations.

The OWON digital storage oscilloscope SDS5032E offers reliable measurement technology for a really good price.

- 8 inch LCD TFT colour display 800 x 600
- Bandwidth: 30MHz
- Sample rate: Up to 250MS/s
- Autoscale and built-in FFT
- Record length: 10K points per channel
- Store up to 15 waveforms
- 20 Automatic measurements
- USB interface, LAN
- VGA output for use of projection
- Rechargeable battery (optional)
- Light weight: 1.5kg
- Compact design
- Dimensions: 350 x 157 x 80mm
- What's in the box? Power probe, power cord, USB data cable, CD-Rom and user's manual
- Manufacturer's part: **OWON SDS5032E**

Type	Order code	1+
OWON SDS5032E	85-9990	251.11

538624



Tektronix®

TBS1000B Series 2-Channel Digital Storage Oscilloscopes

A wide range of Tektronix Digital Storage Oscilloscopes from the **TBS1000B** and **EDU Series**. These oscilloscopes provide you with affordable performance in a compact design. The TBS1000B Series is the only 2-channel oscilloscope in its class that is designed for extensive monitoring and analysis activities. Versatile features like

34 automated measurements, up to 200MHz bandwidth, limit testing, data logging, dual channel frequency counters, waveform trending and up to 2GS/s sample rate puts the TBS1000B in a class all its own, and helps you get more done, in less time.

The TBS1000B-EDU Digital Storage Oscilloscope Series

is designed specifically to meet the needs of today's schools and universities. It is the first oscilloscope to use an innovative new Courseware system that enables educators to seamlessly integrate teaching materials onto TBS1000-EDU oscilloscopes. The Courseware information is presented directly on the oscilloscope display and can be used to provide; step by step instructions, background theory, hints and tips or an efficient way for students to document their lab work. The instrument includes a 7-inch WVGA TFT colour display, and a 5 year standard warranty, are just a few of the features that make the TBS1000B-EDU the industry's best value entry level oscilloscope for educational activities.

Usually, entry-level instruments are as light in features as they are in price. But **Tektronix TBS1000** and **EDU Series** are not usual instruments. Ideal for students, hobbyists or any person or organization on a tight budget, TBS1000 Series oscilloscopes deliver outstanding performance, including best-in-class digital real-time sampling, pass/fail testing, and familiar, easy-to-use controls. All at a price that's equally impressive.

What's in the box?

Your chosen Oscilloscope model, Power cord, Traceable certificate of calibration, Printed documentation (Installation and safety manual), CD with customer documentation (including detailed user manuals), and 5-year warranty

- 2-channel models
- Up to 2GS/s sample rate on all channels
- 2.5k point record length on all channels
- 7 inch WVGA (800X480) Active TFT Colour Display
- 34 automated measurements
- Dual window FFT, simultaneously monitors both the time and frequency domains
- Integrated Courseware feature (EDU Models only)
- Dual channel frequency counter
- Multiple-language user interface
- Small footprint and lightweight - Only 4.9 in. (12 mm) deep and 4.4lb. (2kg)
- Advanced triggers including pulse and line-selectable video triggers
- Built-in waveform limit and trend plot testing
- Zoom Function
- Automated, extended data logging feature
- Autoset and auto-ranging functions
- Built-in context-sensitive help
- Available in **200MHz, 150MHz, 100MHz, 70MHz** and **50MHz bandwidth models**

Type	Order code	1+
TBS1072B, 70MHz	55-8778	681.00
TBS1102B, 100MHz	55-8779	850.25
TBS1202B, 200MHz	55-8781	1460.00
TBS1202B-EDU, 200MHz	55-8785	1368.00
TBS1152B, 150MHz	55-8780	1190.00
TBS1152B-EDU, 150MHz	55-8784	1102.00

544285



RIGOL

4 Channel Digital Storage Oscilloscope, DS1100Z Series

A range of Rigol High Quality 4-Channel Digital Storage Oscilloscopes (DSO) with a real-time sample rate of up to 1GSa/s.

These high-performance and economical digital oscilloscopes are ideal for the designing, debugging and educational requirements of the mainstream digital oscilloscope market. The oscilloscopes are compact, easy-to-use and packed with useful features and functions for all measuring tasks. This high performance standard not only ensures capturing real-time instantaneous signals, but also observes details of repeated signals.

The particularly large TFT colour displays are very easy to read with the largest possible area always available for displaying signals. The signal curves, the FFT display, and other functions can be shown simultaneously on the display.

The oscilloscopes are available in two models, with or without a built-in 2 channel function/ arbitrary waveform generator.

The **Rigol DS1104Z-S-Plus** (order code **64-6950**) is supplied with a built-in 25MHz bandwidth 2-channel arbitrary waveform generator.

What's in the Box?

4-Channel Digital Storage Oscilloscope
4x passive probes (150MHz)
USB cable
UK and European mains leads
Quick guide
CD (user guide and application software)

- MSO Ready
- Built-in 2 channel function/ arbitrary waveform generator (**DS1104Z-S Plus only**)
- Maximum sample rate 1GSa/s
- Vertical scale 1mV/div to 10V/div
- Innovative 'UltraVision' technology
- Up to 30,000wfms/s waveform capture rate
- 7 inch WVGA (800x480) TFT LCD display, 64 intensity grading levels
- Up to 15 off trigger functions, including various protocol triggers
- Auto measurement of 33 waveform parameters, with statistics
- Built-in FFT with a choice of window functions
- Pass/fail test function
- Built-in help facility
- Compact size, light weight, easy to use
- Available with a **bandwidth of 50, 70 and 100MHz**
- Available **with or without a built-in 2 channel function/ arbitrary waveform generator**

Type	Order code	1+
DS1104Z-S Plus	64-6950	772.72
DS1104Z Plus	64-7977	604.24
DS1074Z Plus	64-6951	491.71
DS1074Z-S Plus	64-7976	665.97
DS1054Z	64-7999	415.36
Software bundle	64-7432	201.77

561770

Order online

Save time, and place your order at:

www.rapidonline.com

GWINSTEK

GDS-1052-U 50MHz, 2 Channel Digital Storage Oscilloscope

The **GDS-1052-U** is a 50MHz digital storage oscilloscopes with 5.7 inch colour TFT LCD display. With dual sampling modes, a 4,000 point record length, a real-time sampling rate of 250MSa/s and an ET sampling rate of 25GSa/s, the GDS-1052-U provides an excellent balance of performance between memory length and sampling speed. Other major features include user-friendly menu tree operations, compact size, ergonomic design, USB host for PC connectivity and USB device port support. The GDS-1052-U is designed to meet today's most demanding engineering requirements and budgets.

The USB Host port on the front significantly enhances the data storage capability of the product. The large amount of data, including screenshot, waveform and panel setup, could be easily stored into a popular flash drive. A USB device port on the rear of the product transfers the screen image and waveform raw data to PC, and also allows your PC to remotely control the GDS-1052-U DSO.

A total of 15 waveforms can be saved into memory to be displayed at a later time. Two saved reference waveforms and two live waveforms can be compared on the screen at the same time. All signal time and voltage related measurements can be shown on the screen simultaneously in real-time via the Measure key press.

The GDS-1052-U has an enhanced 1kHz calibration signal. Its output frequency is adjustable from 1kHz to 100 kHz and has an adjustable duty cycle of 5% to 95%. Due to the flexible output, the calibration output can also be used as a basic signal generator for other applications.

- 50MHz Bandwidth with 2 input channels
- 250MSa/s real-time and 25GSa/s equivalent-time sampling
- 4k Memory length per channel
- Peak detect as fast as 10ns
- Save/recall of 15 front panel settings and waveforms
- 5.7 inch TFT colour display
- 19 Auto measurements
- Arithmetic operators - add, Subtract, FFT
- USB Port for PC connection
- Data logger
- Limited lifetime warranty
- Manufacturer's part no. **GDS-1052-U**

Type	Order code	1+
50MHz, GDS-1052-U	90-6017	282.15

502686

pico
Technology

Picoscope 2204A 2 Channel PC Oscilloscope with Probes 10MHz

The PicoScope 2204A

oscilloscope offers a small, light, modern alternative to the bulky bench top device. You can slip this 10MHz instrument easily in your laptop bag, making it perfect for engineers on the move; and ideal for a wide range of applications including design, test, education, service, monitoring, fault finding and repair.

The supplied PicoScope 6 software has an array of high-end features, such as serial decoding and mask limit testing now included as standard. New functionality is regularly delivered through free upgrades, optimised with the help of customer feedback.

The PicoScope 2204A has a built-in arbitrary waveform generator (AWG). Waveforms can be imported from the oscilloscope as well as external data files. New files can be created and modified using the built-in graphical AWG editor.

A function generator is also included, with sine, square, triangle, DC level and many more standard waveforms.



As well as level, offset and frequency controls, the advanced options allow you to sweep over a range of frequencies. Combined with the spectrum peak hold option, this creates a powerful tool for testing amplifier and filter responses. Being able to print, copy, saving, and emailing your data from the field is quick and easy with the USB connection.

- Light but sturdy build
- Easy to use software with powerful features such as serial decoding
- 10MHz, 2 channels, 100MS/s sampling rate
- SDK makes it possible to use it as very capable data capture device
- Powerful signal generator in the same package
- Advanced digital triggers
- Arbitrary waveform generator
- Serial decoding
- USB powered
- Ultra compact design

What's in the box?

- PicoScope 2204A Series oscilloscope
- USB cable
- Quick Start Guide
- Software and reference CD
- Two x1/x10 passive probes are included, chosen to match the bandwidth of your scope

Type	Order code	1+
PicoScope 2204A	85-7492	134.75

534017

pico
Technology

Picoscope 2205A 2 Channel PC Oscilloscope with Probes 25MHz

The PicoScope 2205A

oscilloscope offers a small, light, modern alternative to the bulky bench top device. You can slip this 25MHz instrument easily in your laptop bag making it is perfect for engineers on the move; and ideal for a wide range of applications including design, test, education, service, monitoring, fault finding, and repair.

The supplied PicoScope 6 software has an array of high-end features, such as serial decoding and mask limit testing now included as standard. New functionality is regularly delivered through free upgrades, optimised with the help of customer feedback.

The PicoScope 2205A has a built-in arbitrary waveform generator (AWG). Waveforms can be imported from the oscilloscope as well as external data files. New files can be created and modified using the built-in graphical AWG editor.

A function generator is also included, with sine, square, triangle, DC level and many more standard waveforms. As well as level, offset and frequency controls, the advanced options allow you to sweep over a range of frequencies. Combined with the spectrum peak hold option, this creates a powerful tool for testing amplifier and filter responses.

Being able to print, copy, saving, and emailing your data from the field is quick and easy with the USB connection.

- Light but sturdy build
- Easy to use software with powerful features such as serial decoding
- 25MHz, 2 channels, 200MS/s sampling rate
- SDK makes it possible to use it as very capable data capture device
- Powerful signal generator in the same package
- Advanced digital triggers
- Arbitrary waveform generator
- Serial decoding
- USB powered
- Ultra compact design

What's in the box?

- PicoScope 2205A Series oscilloscope
- USB cable
- Quick Start Guide
- Software and reference CD
- Two x1/x10 passive probes are included, chosen to match the bandwidth of your scope

Type	Order code	1+
Picoscope 2205A	85-7493	159.00

534018

Environmental Meters

VOLTCRAFT®

MS-1300 Digital Light Meter

This device is used to register the exact level of illumination required in the home, workplace or hobby room, or to check individual lights. This handy device has an external light sensor and is easy to use. Also perfect for hobby-photography or terrarium owners for measuring optimum brightness.

- Accuracy $\pm 5\%$
- 0.1 to 50 000 lux
- Supplied with carry bag, 1x battery and operating instructions



Type	Order code	1+
Light meter	51-5154	32.80



813-513 pH Pal Plus pH Tester

This pH Tester from ETI is a robust meter that can be used both indoors and outdoors, courtesy of the water resistant case, making it ideal for measuring the pH in food processing and water testing applications. It is also an invaluable tool when mixing concentrates with water.

The meter is user-friendly and incorporates an automatic recalibration feature. At the touch of a button, the instrument will automatically recalibrate itself when used in conjunction with a 7.00 pH buffer solution. It also features an easy to read 8mm LCD display, indicating pH over the range of 0 to 14 pH, with a resolution of 0.1 pH, plus an accuracy of ± 0.2 pH.

The pH Pal Plus tester will power off automatically after 10 minutes, maximising battery life, and is powered by four LR44 button cell batteries (supplied). Also included is a protective cap.

- Pocket-sized meter, ideal for everyday use
- Easy to read 8mm LCD display
- Display hold function
- 15 x 32 x 170mm
- 70g
- UK manufacturer
- 2-year manufacturer's guarantee
- Manufacturer's part **813-513**



Type	Order code	1+
pH tester	85-3173	44.63

VOLTCRAFT®

PHT-01 ATC pH Meter

The Voltcraft PHT-01 ATC pH Meter Stick 0 to 14 pH is a handy device for quickly and easily measuring the pH in aquariums, swimming pools, nurseries, etc. Despite the low price, this device has 1-point calibration and includes automatic temperature compensation for precise measurements at different temperatures.

The pH meter stick PHT-01 ATC is a state-of-the-art product and therefore meets the requirements of the current European and national guidelines. All the relevant documents have been deposited at the manufacturer. The PHT-01ATC is powered by 1x 9V battery (PP3 type).



- One-point calibration
- Automatic temperature compensation
- Supplied with Voltcraft PHT-01 ATC pH meter stick, preservation solution, calibration solution pH 7, battery (9V block), calibration screwdriver, preservation box, instructions for use

Type	Order code	1+
Meter Stick	51-5151	56.81

VOLTCRAFT®

PH-100 ATC pH Meter

The Voltcraft PH-100 ATC is a handy pH measuring device with a resolution of 0.01pH. Whether you want to know the pH of water in a swimming pool or in an aquarium, this clever device is for you.

Poor water quality is often the cause of fish death, poor plant growth or for failed experiments in the school and laboratory. And when the consequences of poor water quality become apparent, it's usually too late. With the Voltcraft PH 100 ATC you can check the pH in a variety of fluids quickly and reliably.

The Voltcraft Digital pH meter PH-100 ATC is a reliable and accurate pH meter for applications in swimming pools and other water storage areas for quality checking. With this measuring device, you can easily detect how acidic or alkaline a liquid is.

The device has a fast response time and low power consumption making it highly effective. With the HOLD function, you can keep the reading on the large LCD if measuring in an awkward situation. The automatic temperature compensation (ATC) ensures correct measurements over the meter's whole operating temperature range.

- Data hold
- Two-point calibration
- Automatic temperature compensation
- Supplied with pH electrode with storage solution and operating instructions
- Spare electrodes are also available **55-2341**

PH-100ATC, pH-electrode with storage solution, operating instructions

Type	Order code	1+
Voltcraft pH Meter	51-5153	76.80
Spare electrode	55-2341	24.89

Balances



School Scales

These scales are ideal for general purpose weighing in laboratory environments through to quality control applications.

- Only two function keys
- Very easy to use
- Large 16mm LCD display
- Adjustment program CAL
- Battery powered (supplied) or by optional AC/DC power adaptor
- Impact resistant ABS case with non-slip rubber feet
- Splash-proof membrane keypad



Type	Order code	1+
EMB 200-2 Scales	85-2356	112.18
EMB 2200-0 Scales	85-2358	51.16
EMB 5.2K5 Scales	85-2359	31.50
EMB 500-1 Scales	85-3436	49.36
EMB 5.2K1 Scales	85-3437	52.50



Precision Balances

The Kern PCB series is an economical alternative to premium priced balances. PCB precision scales are affordable, accurate and easy to use for all of your basic weighing needs. They are great in academic, educational and school environments.



This range of Laboratory scales and balances covers both spectrums of the requirements of the modern laboratory, whether you are in a pharmaceutical company, quality control laboratory, a university, college or school.

- Pre-tare function for manual subtraction of a known container weight
- Backlit LCD display with digit height 15mm
- Data transfer, for example to a printer or PC
- Battery operation possible; block battery (9V).
- Auto-Off function after 3 min without a change of load to preserve the batteries
- Protective working cover
- Simple adding function
- Accurate and reliable weighing
- Large LCD display
- Crafted by the oldest and most respected German precision scales company
- Easy to use, fast response
- All the features your laboratory needs
- Durable precision electronic scales for laboratory and industrial use

Type	Order code	1+
PCB 100-3	85-3441	237.81
PCB 6000-1	85-3448	215.50
PCB 10000-1	85-3450	214.38



600g X 0.01G Precision Weighing Balance FGL-600

This ATP FGL-600 600g X 0.01G Precision Weighing Balance is housed in an impact-resistant ABS case with a 115mm stainless steel weighing pan, splash-proof membrane keypad, levelling bubble and adjustable feet. The balance can be either battery or mains powered via an AC/DC Adaptor.



- Weighs in g, oz, ct and tola
- Impact-resistant ABS case with adjustable feet
- Splash-proof membrane keypad incorporating 3 function keys
- 115mm diameter stainless steel weighing pan
- 26mm hi-contrast LCD display with backlight
- Automatic backlight when weight is placed on the pan
- Zero tracking ensures stable and repeatable readings
- Tare facility over the full range
- Overload protection to 100% over capacity
- Low battery indication
- Auto power Off after 1.5 minutes of no activity (battery powered only)
- Supplied with user guide and battery
- 2 year warranty

Type	Order code	1+
Precision Balance	90-6579	104.48
Power Adaptor	90-6592	12.09



We bring STEM to life

Thermometers & Thermal Imaging



Green Fill Laboratory Thermometers



These green fill laboratory thermometers are a safe alternative to traditional mercury filling.

- Moulded glass triangular top to prevent rolling
- Available in 150mm, 200mm and 300mm lengths
- 150mm thermometer is available in total immersion and the 200mm and 300mm thermometers are available in partial immersion
- Temperature range -10 to +110°C
- Clear permanent markings

Type	Order code	1+
150mm	85-2652	1.48
200mm	85-2653	1.55
300mm	85-2654	1.60

072993

VOLTCRAFT®

IR 110-1S Infrared Thermometer

The Voltcraft IR-110-1S mini infrared thermometer is intended for non-contact measuring of temperatures of -33°C to +110°C. The IR-110-1S can also be used as a clock or a stopwatch. It is not suitable for industrial or medical use. The product is powered by a CR2032 battery.

- Small, convenient and accurate
- The ideal companion with a wide variety of optional features
- Min/ Max function
- Automatic power off after 15 seconds



- Duration measuring activated
- Integrated clock
- Stopwatch
- Display of the room temperature
- Switchable between C and F
- Optics 1:1
- Measuring range -30°C to +110°C
- Integrated stopwatch

Lithium battery (CR2032), Manual.

Please Note: Use only in a dry indoor environment.

Please Note: It is not suitable for industrial or medical use.

Type	Order code	1+
Voltcraft IR 110-1S	51-5190	16.00

525201



C3 Compact Thermal Imaging Camera with Wi-Fi



The FLIR C3 is a pocket-sized thermal imaging system that features an infrared camera and Wi-Fi data transfer. The unit is designed to be the perfect choice for application such as building inspections, facilities maintenance, HVAC, or electrical repair. The camera fits easily into a pocket so it can be taken anywhere and be ready for instant use, ideal for use in the field. The integrated 3in capacitive touch screen has auto orientation and is a snap to learn, getting you up and running quickly and easily, allowing you to start

finding hidden problems, documenting repairs, and sharing images over the embedded Wi-Fi.

Along with the thermal imager, there is a fixed focus camera so that there are several image modes to choose from: thermal, visual, MSX, and picture-in-picture. The MSX mode adds visual details to full resolution thermal images, and the picture-in-picture mode allow the superimposition of an IR view over a visual view. Fully radiometric images gives the ability to measure any point in the image in post-analysis when the temperature is between -10°C and +150°C. Max/min box measurement finds the hottest or coldest temperature within a defined area.

The Wi-Fi connection allows the C3 to instantly connect to a mobile device or remote PC, so that critical issued can be reported immediately. The imager includes the FLIR Tools professional reporting software, for PC or Mac, that allows the streaming of live video. The Thermal imaging camera is supplied with lanyard, pouch, power supply/charger, tripod mount, USB cable, and printed documentation.

Uses for the C3 include:

Building - Let the FLIR C3 help you uncover missing insulation, drafts, and other hidden energy waste culprits. Find signs of invisible moisture, locate pipes in walls, and much more.

Electrical - Scan equipment for hot spots signalling loose connections and overloaded circuits to keep homes, businesses, and manufacturing safely up and running.

HVAC-R - FLIR C3 makes it easy to spot ductwork gaps and refrigerant issues, see overheating mechanical equipment, and inspect radiant floor heating systems.

- Extremely portable thermal imaging system
- Focus free imager and fixed focus camera
- Image gallery
- Colour palettes iron, rainbow, rainbow HC, grey
- Spotmeter
- Emissivity and measurement correction
- Image file format JPEG
- Battery charged inside camera

Type	Order code	1+
Pocket TIC + Wi-Fi	85-3707	543.00

565001

wonder
workshop

£141.99

Cue Robot

Order code 70-1108 – See page 64

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