



## ELECTROCHEMISTRY

Example applications:

- Rates of reactions involving pH change
- Interaction between acids and alkalis
- Environmental pollution, water quality
- Oxygen levels
- Photosynthesis

### pH Amplifier ①

Allows standard pH electrodes to connect to LogIT and measure level and trends in full range of 0 to 14 pH. Input via standard BNC socket.

### Adjustable pH Amplifier ②

For pH work requiring high accuracy, this amplifier enables individual calibration adjustment of most standard pH electrodes and measures the full range of 0 to 14pH. Input via standard BNC socket.

### Redox Adapter ③

Enables a standard Redox potential electrode or Ion Selective electrode to be connected to the LogIT system. The adapter is fitted with a standard BNC type connector.

### Dissolved Oxygen Probe ④

Designed to measure percentage saturation with automatic temperature compensation. Features simple single control calibration and needs no battery. Set includes amplifier, DO2 probe, 3 membranes and bottle of KCl solution. Spare membrane sets are available and contain 3 membranes and KCl solution.

### Conductivity Probe Set ⑤

A robust temperature compensated submersible conductivity probe with amplifier ideal for water quality measurement, monitoring and testing. Supplied with ready calibrated probe and fitted with 1 metre of waterproof cable.

## Technical Specifications

	Redox	DO2	Conductivity
Accuracy	Nominal $\pm 1\%$	Nominal $\pm 7\%$	Nominal $\pm 10\%$
Range	-1250 to +1250mV DC	0-200% saturation	100-20,000 $\mu\text{S}$

Catalogue No	Description	£ each
CRD-130-550G	pH amplifier	39.90
CRD-130-551E	pH amplifier & electrode set	79.90
CRD-130-553A	Adjustable pH amplifier	59.90
CRD-130-554V	Adjust. pH amp & electrode set	97.50
CRD-130-552C	Coax to BNC plug adapter	6.00
FB68800	pH electrode	49.65
CRD-220-695C	Redox adapter	49.90
CRD-220-680P	Conductivity probe set	158.00
CRD-220-670S	Dissolved oxygen probe	169.00
CRD-220-672X	Spare membrane set for dissolved oxygen probe	44.00

## PHYSIOLOGY

Example applications:

- Monitoring heart rate during exercise
- Effect of stress on the heart
- Analysing different types of exercise

### Heart Receiver - wireless (does not work with LIVE)

Enables a person's heart rate transmitted from a 'Polar', or similar wireless pulse transmitter system to be monitored and recorded. There are no electrical connections to the logger which makes it safe and ideal for monitoring heart rate during exercise.

### Polar A1 Heart Rate Transmitter System

A self contained heart rate monitor with two components - a chest strap transmitter belt and a watch style receiver unit with large LCD display, water resistant to 20m. Ideal for use with LogIT and heart receiver sensor (see details on page 609 of main catalogue).

### Pulse Monitor with ear or finger clip ⑥

The LogIT Pulse Monitor clips to the ear or finger enabling a person's pulse to easily and quickly be measured. The clip detects minute changes of blood pressure in the artery and a small microprocessor calculates pulse rate or displays the waveform. For best results clip needs to be still so not suitable for use during vigorous exercise but fine for exercise bikes, steps.

Catalogue No	Description	£ each
CRD-130-555T	Heart Receiver - wireless	49.90
YTH-710-D	Polar beat heart rate transmitter	65.85
CRD-130-815T	Pulse monitor with ear/finger clip	69.90

## PHYSICS: MOVEMENT, COUNTING & TIMING

Example applications:

- Harmonic motion
- Tensile Strengths
- Time, distance, acceleration and speed investigations
- Counting events

### Linear Accelerometer

Solid state accelerometer which measures x-y acceleration - ideal for trolley, vehicle, lift or amusement park investigations!  
Contained in a small housing allowing easy attachment to trolleys and air tracks.

### LogIT Ranger- Ultrasonic Movement & Timing Sensor ❶

An ultrasonic motion and position sensor which measures precise distance in fast real time millimetres (Time-Distance) or displays echo time, thereby enabling students to calculate the speed of sound in air. The sensor plugs directly into any LogIT and can also be used with other sensors (eg see how speed of sound varies with temperature) using any data logging software. Powered from either standard 9 volt battery or any LogIT power pack (not included). Operating range is 200 to 5000mm with a resolution of better than 1mm or 1 $\mu$ S timing.

### Movement & Position Sensor ❷

A rotation sensor with extremely low torque giving output of 0-340° angular position. Use for simple harmonic motion (pendulum), auxanometer etc. With clamp & locking screw.

### Push Switch ❸

A push button that operates as a digital sensor recording on/off. When used with suitable timing software, such as LogIT Lab or Insight, can be used for manual triggering, counting and measuring time relationships between events.

### Light Gate Set (Pair) ❹

Sensor detects when the beam between the gate opening is broken and so allows timing, acceleration, velocity etc using dynamics trolley, air track, etc.

### Light Switch ❺

A digital light switch which has an integral light guide to be used for recording events that make or break an infrared or visible light path. (Can be used with infrared source below)

### Infrared Source

An infrared source with lens system, with enough power for a 1 metre gate distance with an aligned light switch opposite.

### Reflective Light Switch ❻

An infrared transmitter and receiver which detects the presence of close reflective objects for counting, tacho etc.

### Magnetic Switch ❼

An encapsulated reed switch which can detect a nearby magnet for timing, counting etc - small magnet included.

### Pressure Mat Set (set of 2)

Can be triggered by falling objects or human feet for time/speed/reaction investigations.

Catalogue No	Description	£ each
CRD-130-820D	Linear Accelerometer	99.00
CRD-130-800J	LogIT Ranger	110.00
CRD-130-590R	Movement & position sensor	49.90
CRD-130-530M	Push switch	14.90
CRD-130-520P	Reflective light switch	29.00
CRD-130-595H	Light gate set (pair)	56.00
CRD-130-515Y	Light switch	19.90
CRD-130-605H	Infra red source	18.75
CRD-130-535C	Magnetic switch	19.50
CRD-130-522L	Pressure mat Set	29.00





## BALANCE ADAPTERS

Example applications:

- Monitoring transpiration
- Reaction rates where gas is involved
- Studying evaporation
- Monitoring titration

### Serial Balance Adapter ❶

Enables most standard electronic balances with suitable RS232 serial outputs to be connected to a LogIT. The adapter contains a small microprocessor converting the balance output into a LogIT compatible digital signal, therefore displaying exactly the same reading as the balance. Using other sensors, many parameters can be recorded simultaneously.

To connect your balance to the adapter either use the balance manufacturer's standard 9 pin PC cable or make up a simple 2 wire lead (a connector for the adapter and instructions are provided). For fact sheet please contact us or visit LogIT web site [www.dcpmicro.com](http://www.dcpmicro.com)



Catalogue No	Description	£ each
CRD-230-501L	Serial balance adapter	96.00

### Ohaus Scout/Fisher Version 1 Balance Adapter

Enables any LogIT to be connected to these popular balances. Although the Ohaus Scout/Fisher Version 1 balance is no longer manufactured, this adapter remains available to enable connection of those balances already in use. This adapter is only compatible with the first version of the Ohaus Scout/Fisher balances with a capacity of 150g or above. Please contact us if in doubt whether your balance is suitable.

Catalogue No.	Description	£ each
CRD-230-505D	Ohaus Scout/Fisher Version 1 Balance Adapter	75.00

## VOLTAGE AND CURRENT ❷

Example applications:

- Potential difference measurements
- Ohms law experiments
- Maximum power theory
- Battery or capacitor discharge



### Voltage Measurement Set

Designed for general voltage measurement in electronic circuits or for connecting to other sensors. The set includes a range of probes, plugs and clips. Range -25 to +25 volts DC. Accuracy  $\pm 1\%$  over voltage range.

### Current Measurement Probe

Allows easy measurement of current in a low voltage (max 25V) DC circuit. The set contains a range of probes, plugs and clips. Nominal accuracy  $\pm 1\%$ . Maximum rating  $\pm 1$  Amp DC (updated design now with built-in overcurrent protection).

Catalogue No	Description	£ each
CRD-130-540J	Voltage measurement set	24.90
CRD-130-635V	Current measurement probe	24.90

## MAGNETIC FIELD

Example applications:

- Electromagnetic induction/reaction
- Magnetic field through a coil

### Magnetic Field Probe ❸

Intended for educational investigations into the characteristics and strength of magnetic and electromagnetic fields. The probe is a miniature Hall effect solid state sensor mounted on a very flexible probe to allow easy access for coils. Range -90mT to +90 mT Magnetic flux density (B). Nominal accuracy  $\pm 9\%$

Catalogue No	Description	£ each
CRD-220-665L	Magnetic field probe	49.90

CAN'T  
FIND WHAT  
YOU'RE  
LOOKING FOR?  
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## ADAPTERS

### 1 Volt Sensor Adapter ❶

Fitted with leads and 4mm plugs for direct connection to popular sensors with a 0-1 volt output. The probe can measure 0 to +2.5 volts dc and some software allows range units calibration and naming. Ideal for connecting most colorimeters to LogIT.

### Designer Sensor Set ❷

A pair of adapters to make and connect your own design sensors. The set comprises one digital and one analogue adapter, 2 matching phono plugs and instructions.

### 100mV Signal Adapter ❸

A compact signal adapter with built in amplifier and BNC socket termination to allow the connection of sensors and equipment with a  $\pm 100\text{mV}$  DC output range.

### 4-20mA Current Loop Adapter ❹

Allows sensors and equipment using the industrial standard 4-20mA current loop output to be connected to LogIT.

### Instrument Adapter ❺

Electrically similar to 1 Volt Sensor Adapter but with two 4mm sockets for connecting to many instruments and sensors available with suitable outputs (eg chart recorder outputs).

Catalogue No	Description	£ each
CRD-130-545W	1 volt sensor adapter	21.90
CRD-130-610X	Designer sensor set	19.90
CRD-220-690M	100mV signal adapter	35.00
CRD-220-660V	4-20mA current loop adapter	59.90
CRD-130-640F	Instrument adapter	29.90

## SENSOR ACCESSORIES

### LogIT Microsense Sensor Pack

Contains some of the most popular sensors to help introduce and utilise the various function of data logging. Each item in the pack is compatible with DataMeter 1000, LIVE, DataVision and LogIT SL and contains:

- 1 x HiTemp Temperature sensor
- 1 x Sound Level Sensor
- 2 x Light Switches
- 1 x Control LED (not compatible with LogIT SL)
- 1 x 1m Moulded Sensor Extension Cable

### Sensor Extension Leads ❻

These cables enable sensors to be used away from the data logger. Professional sensor extension leads are very high quality sensor extension leads with metal plugs and sockets secured by a screw which can be repaired by a technician should they become damaged.

Available in 1 and 3 metre lengths.

The Moulded economy sensor extension lead - a lower cost 1 metre lead with moulded plug and socket (non-repairable).

### Start/Mark Switch (not compatible with LIVE)

A push button which allows events to be marked remotely with a DataMeter 1000 and logging to be started remotely with a LogIT SL.

### Sensor Mounting Set

6 spring clips & screws for mounting sensors for models, light gates etc.

Catalogue No	Description	£ each
CRD-401-010G	LogIT Microsense Sensor pack	85.00
CRD-130-500V	Pro sensor extension lead, 1 metre	9.90
CRD-130-560D	Pro sensor extension lead, 3 metre	11.90
CRD-360-500H	Moulded sensor extension lead, 1 metre	6.95
CRD-130-525F	Start/Mark switch	14.90
CRD-130-565Q	Sensor mounting clip set	2.50

