

## Overview

**LogIT Microsense® Sensor socket**  
Compatible with most standard LogIT Microsense sensors

**Locking bay**  
Locks to other uLog sensors

**Multicolour indicator**

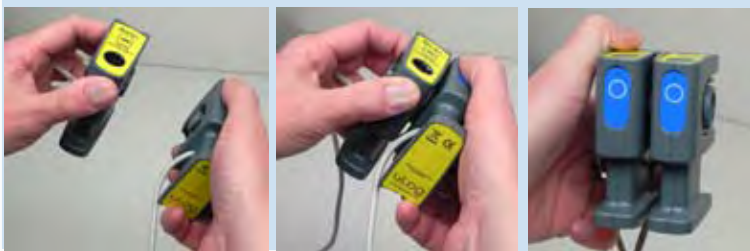
Colour corresponds to the sensor channel on the computer screen and flashes when logging

**Single button operation**

Press once to start logging  
Press again to mark events  
Press & hold to stop logging



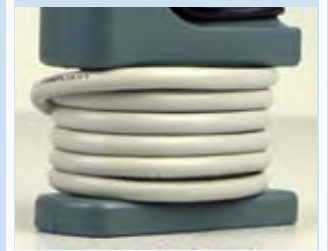
•Sensors can lock together



•Fit direct to stand



•Cable storage



## Getting started with uLog

### 1 Insert the CD and install SensorLab

(see last page for more information)



### 2 Run SensorLab and plug your uLog adapter into a free USB port

Plug a LogIT Microsense sensor firmly into the adapter

You should see live readings from the sensor on the screen



### 3 Press the uLog button to start logging

You should see a graph recording your live readings

(or if using a digital sensor such as a light gate click setup icon to use it for timing)

### 4 To mark an event, press the button again

You will add a small arrow marker at the top of then graph



### 5 To stop logging, press and hold the button

Your graph will show the complete set of data

**Congratulations, you have recorded your first sensor data using uLog!**

## More with SensorLab

You can use SensorLab to do much more than display live readings and a graph. Just hover the pointer over any icon to see what it does. Full details of all SensorLab functions are in the comprehensive user guide on the CD - here are a few of the extra features you can explore:

- **Change range or calibration of a sensor:** Click the icon above the gauge when you start
- **Change logging type: SensorLab defaults to automatic logging**
- **Switch a sensor display on or off:** Click on gauge display or when graphing click on tick
- **Zoom in on a graph:** Draw a box around where you wish to zoom or click Magnifier icon
- **Take precise readings from graph:** Click on graph & position cursor with mouse or arrows
- **Label different points on the graph:** Click **IA** icon or Graph / Annotate
- **Change SensorLab complexity level:** Click level icon bottom right of screen to increment
- **Find information about the experiment:** Click on the *i* icon
- **To print graph:** Click on the Printer icon or select menu File / Print menu
- **Save SensorLab file onto your computer:** Click Disc icon or use File / Save As menu
- **Export data in a different format for use in another program or share:** File / Export menu

## Using multiple uLog sensors

You can connect several uLog adapters and sensors to the same computer for multi channel logging on the same graph. The multicolour LED on each uLog will show which sensor is displayed on which channel (especially useful if using several sensors of the same type). Note that the number of uLog sensors you can use is dependant on the computers processing power, number of USB ports available and the USB power available (particularly limited on smaller computers). Use a high quality **powered** USB hub to increase both number of USB ports and power capacity. You can move uLog sensors further away from the computer by using a USB extension cable.

## Other SensorLab functions

As well as graphs, SensorLab can also display data from some sensors in different ways.

**Setup:** The setup icon on the home screen (cog wheel) enables you to change the types of logging. You can also select Timing from this option to use with sensors such as Light Gates etc. Full details of all SensorLab functions are in the comprehensive user guide on the CD.

**Oscilloscope:** The SensorLab oscilloscope function is not compatible with the uLog sensor adapter and will be greyed out. For fast scope capture and display use a dedicated uLog sensor such as uLog sound (for Sound waves) or uLog Light sensors which are scope compatible.

## Using the Sensor adapter

The uLog Sensor adapter enables most standard LogIT Microsense® sensors to be plugged directly into a computer and used on their own or simultaneously with other uLog sensors or adapters. Please note that the uLog sensor adapter does not support the oscilloscope mode built into SensorLab, so extremely fast signals from sensors such as the LogIT Sound Wave sensor cannot be measured. However new uLog sensors can use the SensorLab oscilloscope mode, so for example the uLog Sound Sensor can be used to display both sound waves as well as sound levels.

Most LogIT Microsense® sensors are supplied with experiment ideas and there are many more on the CD supplied with this adapter and online at [www.logitworld.com](http://www.logitworld.com)



A selection of some LogIT Microsense® sensors which can be used with the uLog sensor adapter and available from your LogIT dealer or direct from DCP:

### **Temperature and Light sensing**

D100089	HiTemp Temperature sensor with 1m long cable -10 to 110°C
D100047	ProTemp temperature sensor -30 to +130°C Probe type
D100067	K-Type Thermocouple adapter - works with standard K thermocouples Range -50°C to +1200°C
D100160	Infrared sensor - calibrated in both W/m <sup>2</sup> and °C
D100158	Ultraviolet light sensor - both UVA and UVB sensitive
D100088	General Light Level sensor - Range 0-100%
D100044	Light Level sensor with lens & filter set Range 0-100%
D100073	LUX sensor Range 0-25000 LUX with eye response filter built in

### **Voltage, Current, Movement and Timing**

D100079	Magnetic Field sensor - Range -90mT to +90mT
D100045	Voltage Measurement probe set - Range -25 to +25V dc
D100068	Current Measurement probe set - Range -1 to +1A dc
D100081	100mV signal adapter - Range -100mV to +100mV
D100059	Movement & position rotation - low friction Range 0-340°
D100091	Ranger VS Vision - LED display, stand & no battery required
D100042	Linear Accelerometer - X or Y Range -50 to + 50 m/s/s
D100156	Force Sensor - mass, dynamics: Dual range 0-3N / 0-30N
D100054	Light Gate Vision - visible beam & universal mounts
D100094	Pressure mat set - pair of mats for timing experiments
D100048	Light Switch sensor for timing etc-can use with IR source
D100055	Infra Red Source - use with Light switch for long beam
D100052	Reflective Light Switch - for counting/timing, eg Tacho
D100049	Push Switch - used to count or time, eg reaction timing

### **Electrochemistry, Air Pressure and Environmental Sensing**

D100060	Sound Level sensor - Range 50 to 100dBA
D100162	ElectroSmog sensor - measure & compare RF radiation
D100086	Standard amplifier and pH electrode set
D100097	Adjustable pH Amplifier and Electrode set
D100135	DO2 Submersible probe set - with membranes and KCL
D100161	CO2 Sensor - Range 0-2000 & 0-20,000 ppm
D100083	Conductivity probe set - Range 100-20000 microsiemens
D100150	Colorimeter - easy to use with built-in stable wavelength LEDs
D100077	HumiPro Humidity Sensor-Fast response Range 0-100%
D100040	Radioactivity Probe - Sensitive Alpha, Beta & Gamma
D100080	Air Pressure - with multi size nipple Range 0-200 kPa
D100041	Barometric Air Pressure - Range 800 - 1100 millibar
D100110	Stream Flow sensor - measure flow in rivers & streams
D100082	Ion selective / ORP Redox electrode adapter - see below

A range of Ion selective electrodes are available for use with above;  
Ammonium, Bromide, Calcium, Chloride, Fluoride, Nitrate, Sulphide

### **Heart Monitoring**

D100148	Polar Wireless Heart Transmitter - belt fits around chest and transmits to receiver below
D100057	Wireless Heart Receiver - receives signal from above
D100092	Pulse Monitor - with ear / finger clip on cable. Displays both Counts per minute & waveform

### **Connecting Balances and other equipment**

D100084	Balance adapter - connects many standard Balance's with serial output
D100058	Designer sensor set with a Digital and Analogue adapter to connect your own sensors
D100046	1 volt sensor adapter - for connecting other sensors with standard 1V output
D100066	Instrument adapter with 4mm socket inputs - for connecting instruments 0-1V
D100076	4-20mA Current loop adapter for connection to professional instruments