



**Above:**  
Optional wall mounting security bracket

**Below:**  
RH remote lead

The HL4115 datalogger is one of a new series of advanced standalone temperature and humidity dataloggers. These smart loggers are ideal for situations where logging may be temporary, for enclosing with a valuable shipment or situations where a wired or radio system is not the best solution.

Each 4000 logger reads its on-board sensors to provide accurate and reliable information about environmental conditions. The logging interval can be set for any period between 10 seconds and 24 hours, depending on the data requirements. An unlimited delay can be set so that logging only begins when the unit is in situ. The readings are written to its 192K memory, which can either stop logging if it becomes full, or wraparound so that the most recent data is not lost. A unit set to log every 5 minutes will take more than 340 days to fill.

Each logger has an LCD screen simultaneously displaying the most recent readings taken, the predicted battery life, and if any readings have exceeded the alarm parameters set. The HL4115 logger is configured with 2 Lemo sockets for the probes. Probes can be connected directly to the unit, or supplied with cables and plugs for remote mounting. The flexible probe mounting options allow easy on-site calibration.

The humidity probe used on the HL4115 has enhanced temperature compensation to give an improved RH accuracy over a wide temperature range.

The logger is set-up and downloaded using an integrated software package which automatically recognises the type of unit connected to the PC via the USB lead. Additional software add-ons allow the software to be run with advanced security features. CFR21 part 11 compliant software is available. OQ & IQ templates are included, full on-site validation services are available.

The logger is powered by a single 3.6V AA lithium battery, which can be fitted by the user. The battery life will be dependent on the logging interval selected. An indicator on the LCD will warn when the battery is low, and the logger maintains a record of when the battery was last changed. Replacing the battery when the logger is connected to the PC allows the logging session to continue uninterrupted. The moulded case allows easy access to the battery and USB socket, as well as having slots to fit onto secure wall brackets. The ML4000 range has been designed to comply with the RoHS and WEEE EU directives, and carries the CE mark.



## Temperature & humidity

**Product Code** HL4115  
**Series** HL4000

### Typical Applications

- Monitoring in:
- ° Fridge/Freezer monitoring
  - ° Laboratories
  - ° Hospitals
  - ° Pharmaceutical
  - ° Warehousing

### Instrument

**Dimensions:** 110 x 80 x 35 mm  
**Weight:** 200 grams  
**Power Supply:** 3.6 Volt AA Lithium battery  
**Battery Life:** 18 months  
**Case Materials:** ABS & PC  
**Memory Capacity:** 100000 readings

**N.B. Instrument operating range -10 to +70°C in a non-condensing RH environment**

### Sensors

**EE07 probe:** 11.8 mm x 83 mm

### Temperature

**Sensor:** Precision thermistor  
**Range:** -40 to +60°C  
**Accuracy:** +/- 0.1°C between -20 to +50°C +/-0.3 elsewhere  
**Resolution:** 0.1°C

### Humidity

**Sensor type:** Capacitive polymer  
**Range:** 0-100% RH non-condensing  
**Accuracy:** +/- 2% 0-90% RH  
+/- 3% 90-100% RH  
**Resolution:** 0.1%RH  
**Temp Dependence:** < (0.025 + 0.0003 x RH) [  $\frac{\%RH}{^{\circ}C}$  ]

### Logging Functions

**Memory:** 2048k EEPROM  
**Logging Intervals:** Programmable from 10 seconds to 24 hours  
**Record Capacity:** 100,000 records  
**PC Interface:** USB communications

### Accessories

**W200** USB logger software  
**Y119** Wall mounting security bracket  
**Y055** Setup communications cable  
**G129** Replacement battery  
**W300** Validated software  
**Y300** Plug-in temperature probe  
**J140** Plug-in RH probe  
**J095-05** Remote temperature probe  
**Y421-3** 3 mtr RH remote lead  
**Y421-5** 5 mtr RH remote lead