



The ML4109 is part of the 4000 range of advanced temperature and humidity radio transmitters. It allows wire-free monitoring in an outside area, with real time alarm notification and historical analysis of data. Each ML4109 unit reads its on-board sensors providing accurate and reliable information about environmental conditions. This data is transmitted, at user-defined intervals, to the Radiolog system where it is filed for analysis.

The ML4109 has a precision temperature sensor and a high quality humidity sensor. Each 4000 radio transmitter has enough internal memory to store up to 100,000 readings and is in fact continually logging.

The humidity probe used on the ML4109 has enhanced temperature compensation to give an improved RH accuracy over a wide temperature range and the full RH range.

Transmitter ID number and transmission rate are set in the ML4109 using a simple software program (free to download) and a USB cable.

The ML4109 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 transmission rate set. The ML4109 maintains a record of when the battery was last changed.

#### Benefits:

- ° Continuous analysis of temperature and humidity
- ° Reads up to a temperature of +50 °C
- ° ML4109 wireless range can reach up to 3km on open ground
- ° Memory capacity can hold 100,000 readings
- ° The moulded case allows easy access to the battery and USB socket.

The ML4000 range has been designed to comply with the RoHS and WEEE EU directives, and carries the CE mark.

## Temperature & humidity

**Product Code** ML4109-xxx.xxx\*  
**Series** ML4000

#### Typical Applications

° Outdoor temperature and humidity monitoring

#### Instrument

**Dimensions:** 150 x 88 x 50 mm  
**Weight:** 485 grams  
**Power Supply:** 3.6 Volt AA Lithium battery  
**Battery Life:** Up to 18 months  
**Case Materials:** ABS & PC  
**Memory Capacity:** 100,000 readings

**N.B. Instrument operating range -30 to +70°C in a 0-100% non-condensing RH environment**

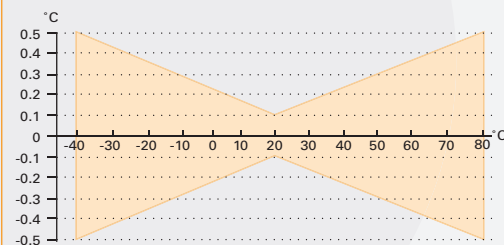
#### Sensors

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

#### Temperature

**Sensor type:** Pt1000 (tolerance class A)  
**Range:** -40 to +60°C  
**Resolution:** 0.1°C

**Accuracy:** (at 20°C: ±0.1°C) elsewhere see chart



#### 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) [  $\frac{\%RH}{^{\circ}C}$  ]

#### Radio

**\*Radio Frequency:** 434.075MHz, 433.920MHz (fixed), 433.875 - 434.650MHz in 25KHz increments (synthesised)  
**Radio Power:** 10 mW  
**Radio Range:** 3 km over open ground

#### Accessories

**Code:**  
**Y055** Set up communications cable  
**G129** Replacement 3.6V Lithium AA battery  
**CAL** 3 point calibration certificate