



## Radiologgers

R A D I O L A B T E L E M E T R Y

### Typical Applications

- Incubators
- Fridges
- Freezers
- Water baths
- Walk in chambers

### Options & Accessories

- Mounting brackets
- Remote probes
- Calibration traceable to national standards

### rl-100<sup>w</sup> wireless

The rl-100 (Radio Lab) telemetry unit builds upon the Hanwell Instruments range of products by providing a small and economical temperature only telemetry unit specifically designed for use in laboratories.

This telemetry unit is, primarily, intended for use with the C-Sense precision temperature sensor and, depending upon the environment or item to be measured, a selection of optional remote probes are also available.

Each unit contains a micro-controller that switches itself on for short intervals. The measurement is carried out, converted to digital form and then transmitted by low power radio using a bespoke protocol, ensuring complete integrity of the data transfer to the Hanwell Architect controller\ sr-1 smart receivers. The radio system is fully approved and exceeds all specifications enforced by the relevant national authority. In addition, the system complies with the European R&TTE Directive, which covers EMC and radio specifications and, therefore, a license is not required.

Fully portable and battery powered, the rl-100 weighs just 140 grammes. A "battery low" indication is displayed via the PC software, warning of the requirement for battery change prior to power loss. Further, in the event of total failure in transmission the software will also flag an alert.

The obvious, inherent advantage of this type of monitoring is zero installation costs with no wiring requirement, disruption or damage to the environment you wish to monitor. Simply place the sensor in the area to be covered and switch on. These telemetry units are particularly useful for temporary assignments due to their absolute portability.

Being wireless has the added benefit of being able to easily move any equipment anywhere within the lab. The lab technicians can freely move refrigerators, freezers, incubators, water baths and other laboratory equipment and maintain data integrity during the move.

Hanwell products are designed with calibration very much in mind. The physical construction and software architecture, together, allow multi-point calibration to very high precision.

In addition, we offer in-house or on-site temperature and humidity calibration services, using equipment traceable to national standards. For those customers who have their own in-house calibration facilities, we can provide all the necessary supplementary calibration documentation and software.

The rl-100 series loggers, when used together with Hanwell software, comply with the most stringent administrative controls such as those required in FDA regulated environments.

### Specification

ISO9001:2000 certified

<b>Dimensions (excluding aerial)</b>	110mm x 65mm x 28mm	<b>Temperature ranges</b>	
<b>Weight</b>	140 grammes	<b>Low</b>	-35 °C to 60 °C
<b>Case material</b>	ABS	<b>Ambient</b>	-15 °C to 100 °C
<b>Temperature sensor connection</b>	2 way miniature Lemo	<b>High</b>	10 °C to 150 °C
<b>Temperature sensor</b>	C-Sense precision thermistor	<b>Resolution</b>	+/- 0.1 °C
<b>Battery life</b>	15 months (typical)	<b>Accuracy</b>	+/- 0.1 °C
<b>Channels</b>	1		
<b>Radio frequency</b>	434.075 or 433.920 MHz		
<b>Power</b>	10mW		
<b>Range</b>	2 miles over open ground		
<b>Transmit rate</b>	4 seconds to 3 minutes (standard)		