

Above:
PT100 probe

Below:
Optional wall mounting security bracket

The RL4301 & RL4302 are precision 3-wire PT100 temperature measuring and radio transmission devices. The RL4301 has a single channel the RL4302 is dual channel. The sensors are connected via 5 pin Lemo plugs and sockets. They allow wire-free monitoring of a site, with real time alarm notification and historical analysis of data. Each 4000 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.

RL4000 series transmitters can be used in accordance with GAMP and FDA regulations. The transmitters and sensors can be calibrated by the either user or Hanwell staff on-site or at Hanwell's in-house calibration laboratory.

Transmitter ID number and transmission rate are set in the transmitter using a simple software program (free to download) and a USB cable. Each unit has an LCD screen simultaneously displaying the most recent readings taken and the predicted battery life.

The transmitter 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. An indicator on the LCD will warn when the battery is

low, and the transmitter maintains a record of when the battery was last changed.

Each 4000 series radio transmitter has enough internal memory to store up to 100000 readings and is in fact continually logging guaranteeing 100% validity of the data. The 4000 series unit can be downloaded via the high speed USB connection directly into the PC software (V8.4 or later only). The data logged will be added to the radio data, providing a continuous history for that transmitter.

The moulded case allows easy access to the battery and USB socket, as well as having slots to fit onto secure wall brackets.

CFR21 part 11 compliant software is available. OQ & IQ templates are included, full on-site validation services are available.

The 4000 range has been designed to comply with the RoHS and WEEE EU directives, and carries the CE mark.



Temperature

Product Code RL4301-434.075* &
RL4302-434.075*

Series RL4000

Typical Applications

Monitoring in:

- ° Fridge/Freezer monitoring
- ° Laboratories
- ° Hospitals
- ° Pharmaceutical
- ° Warehousing

Instrument

Dimensions: 110 x 80 x 35mm
Weight: 200 grams
Power Supply: 3.6 Volt AA Lithium battery
Battery Life: 18 months
Case Materials: ABS & PC
Operating Humidity Range: 0...100% non-condensing
Operating Temp Range: -20° to +60° C
Memory Capacity: 100000 readings

Sensors

Temperature

Sensor: 3 wire PT100
Range: -100 to +110C
Accuracy: +/- 0.1° C
Resolution: 0.1° 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:

Y119 Wall mounting security bracket
 Y055 Setup communications cable
 G129 Replacement 3.6V Lithium AA battery
 CAL-T 3 point calibration between
 -20 and +110C (single Ch)
 CAL-T-LOW 3 point calibration between
 -90 and +110C (single Ch)
 CAL-T-2 3 point calibration between
 -20 and +110C (dual Ch)
 CAL-T-LOW-2 3 point calibration
 between -90 and +110C (dual Ch)





- Detailed arbitration evidence
- Visible deterrent
- Audits carrier and routing efficiency
- Intelligent packaging design

The RD298 ShockLog is a programmable, re usable electronic, tri-axial shock recorder designed specifically to help organisations to reduce the cost of damage to goods whether in production, transit or storage.

A battery life of up to 12 months allows you to understand the entire supply chain life of your product and the conditions it experiences. More importantly it tells you when incorrect physical handling, poor quality packaging or inappropriate temperature and humidity control will have damaged the quality of your product, your reputation and your cash flow.

The comprehensive WindowsT based software programme allows you to programme your own wake up, warning and alarm levels and frequency of data collection. When a programmed impact level is exceeded a visual alarm will alert you as well as storing the data for future analysis.

ShockLog provides you with:

The when, where and how

Real time date stamping identifies when a shock has occurred. When combined with the axis of impact, a clear picture of the likely damaging event emerges

allowing effective remedial action to be taken.

Detailed arbitration evidence

ShockLog is vital for determining at what point during a journey damage may have occurred. As the information is clear, accurate and incontestable, it is invaluable in arbitration by avoiding unnecessary delays in apportioning responsibility.

A visible deterrent

The sheer presence of ShockLog acts as a clear indication that your products are being monitored. By involving your staff, carriers and customers in the monitoring programme, inappropriate handling or storage can be minimised.

A means to audits carrier and routing efficiency

ShockLog's sophisticated monitoring capability helps to analyse the cause of persistent damage in transit. Damage that could be avoided by a simple change of route, handling procedure or even

Shock Log

Product Code r18008-xxx.xxx*
Series rl-8000

Typical Applications

- ° Flood detection
- ° Condensation detection
- ° Fridge/freezer failure detection

Instrument

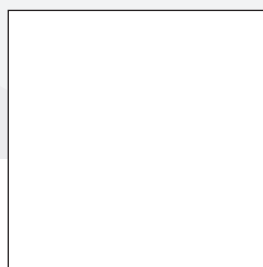
Dimensions: 216mm x 117mm x 48 mm
Weight: 780 grams
Power Supply: 2 volts DC
Case Materials: Brushed stainless steel
Operating Humidity Range: 0...90% RH, non-condensing
Operating Temp Range: 10...30C (temperature compensated range)
Input Channels: 8

Radio

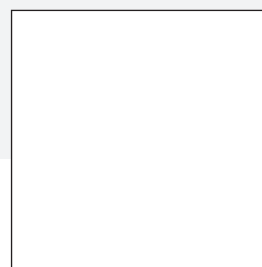
*Radio Frequency: 434.075MHz
433.920MHz
433.875 - 434.650MHz
in 25KHz increments
Radio Power: 10 mW
Radio Range: 2 miles over open ground

Accessories

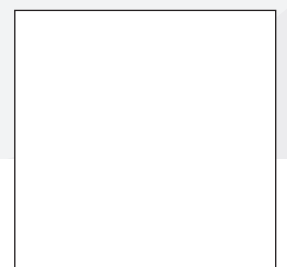
Code 5m length (standard)
or as required
Nominal 8mm diameter



A. Aerial



B. Sockets



cr-1 base station