# DLR-TL001

**DATALOGIC**

## RFID TEMPERATURE LOGGER

The DLR-TL001 logger is a low cost, semi-passive UHF logger tag used to monitor temperature sensitive products like perishable foods and pharmaceuticals during transportation and storage. The combination of the high resolution sensor, the large memory size and the standard RFID interface of the temperature logger allows perishable items to be effectively tracked and traced during transportation and delivery.

Because of its compatibility with the EPC Global Class 1 Gen 2 and ISO18000-6C standards, the DLR-TL001 logger can be used with standard UHF RFID readers without requiring any additional equipment.

## CONTROLLABLE CONFIGURATION

The tag can be configured to store temperature samples in intervals from 1 second to 18 hours in the internal memory, which can contain up to 3,958 samples. The user can define up to 16 temperature ranges with independent threshold alarms for very accurate control of the temperature excursions. The tag can be controlled either by using a button or via standard RFID commands.

The tag is also able to calculate the Mean Kinetic Temperature and the user configurable remaining shelf life time as well as generate alarms in case the parameters exceed user defined thresholds.

The DLR-TL001 logger can be used for multiple shipments because of its long battery life and the reset function, thus allowing the user to reduce the total cost of the solution.

## FEATURES

- High temperature accuracy
- Fast download of samples
- Button and LED for fast inspection
- Long monitoring time span
- EPC Class 1 Gen 2 RFID interface

## INDUSTRY - APPLICATION

- Fresh food
- Seafood
- Meat and poultry
- Milk-based products
- Frozen food
- Chemical/pharmaceutical products

**DLR-TL001**
# TECHNICAL SPECIFICATIONS

## CORDLESS COMMUNICATIONS

| | |
|---|---|
| *Frequency Range* | 860 MHz - 928 MHz |

## RFID DECODING CAPABILITY

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|---|---|
| *Standards Supported* | EPC Global C1G2 and ISO 18000-6C Compliant |

## ELECTRICAL

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| *Battery* | Battery Type: Li-Ion 3.7V, 570 mAh |
| *Battery Life* | Operating: >12 hours with 40,000 tag readings; Standby: >5 days |

## ENVIRONMENTAL

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|---|---|
| *ESD Protection* | 16 kV |
| *Particulate and Water Sealing* | IP67 |
| *Temperature* | Operating Range: –20 to 70 °C / 14 to 131 °F Accuracy: +/- 0.5 °C / 32 °F typical |
| *Shelf Life Prediction* | Calculations based on Arrhenius kinetic model with customer designation of time/temperature dependency |
| *Shelf Life Monitoring* | Provides Remaining Shelf Life information at check points with RFID readers or manual interface |

## INTERFACES

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| *RFID Interface* | UHF EPC Class 1 Gen2/ISO; 18000-6C compatible |

## PHYSICAL CHARACTERISTICS

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|---|---|
| *Dimensions* | 10.7 x 10.7 x 0.87 cm³ / 4.2 x 4.2 x 0.3 in³ |
| *Weight* | 31.0 g / 1.0 oz |
| *Enclosure Material* | PVC Tecnovil |
| *Tag Type* | Semi-passive |

## READING PERFORMANCE

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| *Memory Capacity* | Up to 90 cm / 35.4 in |
| *Available Memory* | Up to 512 bits in EPC bank, up to 512 bits in User Memory bank |
| *Monitoring Delay Option* | Up to 18 hours |

## READING RANGES

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| *Reading Range* | Approximately 8 m / 26.2 ft in air @ 2W ERP |

## SAFETY & REGULATORY

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| *Monitoring Time Span* | Up to 5 years |
| *Time Accuracy* | <0.01% error |
| *Alarms* | Multiple user-configurable High Temperature and Low Temperature alarms; ETA alarm; MKT alarm; Shelf Life alarm; Low Battery alarm |

## UTILITIES

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| *DL RFID Software Tool* | RFID configurations tools are available for download |

## WARRANTY

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| *Warranty* | 3-Month Factory Warranty |