

DLR-TL001



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
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RFID DECODING CAPABILITY

Standards supported	EPC Global C1G2 and ISO 18000-6C Compliant
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ELECTRICAL

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

ESD protection	16 kV
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Particulate and water sealing	IP67
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Temperature	Operating Range: -20 to 70 °C / 14 to 131 °F Accuracy: +/- 0.5 °C / 32 °F typical
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Shelf life prediction	Calculations based on Arrhenius kinetic model with customer designation of time/temperature dependency
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Shelf life monitoring	Provides Remaining Shelf Life information at check points with RFID readers or manual interface
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INTERFACES

RFID interface	UHF EPC Class 1 Gen2/ISO; 18000-6C compatible
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PHYSICAL CHARACTERISTICS

Dimensions	10.7 x 10.7 x 0.87 cm3 / 4.2 x 4.2 x 0.3 in3
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Weight	31.0 g / 1.0 oz
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Enclosure material	PVC Tecnovil
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Tag type	Semi-passive
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READING PERFORMANCE

Memory capacity	Up to 90.0 cm / 35.4 in
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Available memory	Up to 512 bits in EPC bank, up to 512 bits in User Memory bank
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Monitoring delay option	Up to 18 hours
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READING RANGES

Reading range	Approximately 8.0 m / 26.2 ft in air @ 2W ERP
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SAFETY & REGULATORY

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

DL RFID software tool	RFID configurations tools are available for download
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WARRANTY

Warranty	3-Month Factory Warranty
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