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.

RFID RAIN RFID

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-APPLICATIONS

- 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

STANDARDS SUPPORTED	EPC Global C1G2 and ISO 18000-6C Compliant

ELECTRICAL

BATTERY TYPE	Li / MnO2 Model Renata CR 2450N
BATTERY LIFE	1 year (typical - depending on usage and operating temperature)

ENVIRONMENTAL

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

RFID INTERFACE	UHF EPC Class 1 Gen2/ISO; 18000-6C compatible

PHYSICAL CHARACTERISTICS

DIMENSIONS	10.7 x 10.7 x 0.87 cm^3 / 4.2 x 4.2 x 0.3 in^3
WEIGHT	31.0 g / 1.0 oz 85.0 g / 3.0 oz
ENCLOSURE MATERIAL	PVC Tecnovil
TAG TYPE	Semi-passive

READING PERFORMANCE

MEMORY CAPACITY	4,000 samples (8 KB)
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

READING RANGE	Approximately 8.0 m / 26.2 ft in air @ 2W ERP

SAFETY & REGULATORY

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

DL RFID SOFTWARE TOOL	RFID configurations tools are available for download

WARRANTY

WARRANTY	3-Month Factory Warranty

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