

A927ZET

EN 12830 DECLARATION OF CONFORMITY

We

CAEN RFID Srl
Via Vetraia, 11
55049 Viareggio (LU)
Italy
Tel.: +39.0584.388.398 Fax: +39.0584.388.959
Mail: info@caenrfid.com
Web site: www.caenrfid.com

herewith declare under our own responsibility that the product:

Code: WA927ZETAAAA
Description: A927ZET - Temperature Logger UHF Semi-Passive Tag with External Probe

corresponds in the submitted version to the following standards:

EN 12830:1999 - Temperature recorders for transport, storage and distribution of deep frozen/quick frozen food and ice cream-Tests, performance and suitability.

According to the EN 12830:1999 standard, the classification of the devices is the following:

Climatic environment: D
Logger type: device with internal sensor to be used inside cold room
Temperature measurement operating range: -30°C to +70°C
Temperature measurement absolute range: -40°C to +70°C
Storage temperature range: -40°C to +85°C
Accuracy class: 1

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CAEN RFID Srl
Via Vetraia, 11
55049 VIAREGGIO - ITALY
VAT IT 02032050466

Adriano Bigongiari (Chief Executive Officer)

EN 12830 Compliance Matrix

§	Requirement	Compliance	Note
4.1	The means used by the thermometer must be independent of any temperature measurement which is used to control the refrigeration system	Yes	Independent stand alone self powered loggers
4.2	The measurement range of the sensors must be $<-25\text{ }^{\circ}\text{C}>15\text{ }^{\circ}\text{C}$ with minimum span of $50\text{ }^{\circ}\text{C}$	Yes	Temperature measurement operating range is $-30\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$
4.3	The time and date of the beginning shall be readable and any settings which configure the recording shall be protected against un-authorized or accidental modification	Yes	All data inside memory can be password protected according to EPC Class1 Gen2 standard
4.4.1	At least the time and temperature shall be recorded. The place of measurement has to be indicated	Yes	Time and temperature are recorded. The user memory of the tag (54 byte) can be used to store the place of measurement
4.4.2	It shall be possible to identify and consult the charts and the recorded data. Records shall be available for at least one year	Yes	All records are identified and stored on the users system indefinitely
4.5	Devices with an autonomous power supply shall be marked as such with an indication of the temperature range. An indication of battery life is desirable	Yes	The recommended operating range is reported on the user manual. The battery charge status can be detected through RFID interface
4.6	The degree of protection shall be at least IP20, IP55 or IP65 for different environments	Yes	Degree of protection is IP 67 ¹
4.8.5	Electrical power disturbances and susceptible to radiated electromagnetic field	Yes	See test report ²
4.9.2.1	Under rated operating conditions the recorder shall have a maximum error of $\pm 1\text{ }^{\circ}\text{C}$ and a resolution of better than $\pm 0.5\text{ }^{\circ}\text{C}$	Yes	Resolution is $0.1\text{ }^{\circ}\text{C}$. Temperature accuracy is $\pm 0.1\text{ }^{\circ}\text{C}$ (typical), $\pm 0.75\text{ }^{\circ}\text{C}$ (worst case) ³
4.9.2.2	The maximum recording interval for transport shall be 5m for recording durations shorter than 24 Hrs and 15m for 1-7 days and 60m for durations longer than 7 days. For storage, the recording interval shall be 60m	Yes	The recording interval is fully programmable from 8s to 18hours
4.9.2.3	The manufacturer shall specify the recording capacity as either duration at a given interval or as a number of readings	Yes	The recording capacity is 8k samples (temperature only) or 2k samples (temperature and timestamp)
4.9.2.4	The maximum relative timing error shall be better than 0.2% for up to 31 days and 0.1% for durations > 31 days	Yes	The maximum timing error is 0.01% ³
4.9.2.5	Response Time shall have a maximum response time of 60 min. (90%)	Yes	The response time is 20min. ³
4.9.3.1 Tab 3D	The standard operating range is -30 to $+70\text{ }^{\circ}\text{C}$ operationally and -40 to $+85\text{ }^{\circ}\text{C}$ for storage	Yes	See test report ³
4.9.3.2	The equipment shall withstand vibration from 5Hz to 8.6 Hz 10mm amplitude and 8.6Hz to 150 Hz acceleration of 3g	Yes	See test report ⁴
4.9.3.3	The equipment shall withstand shocks with the following characteristics: acceleration 10g, duration 10ms, number of shocks 1	Yes	See test report ⁴
4.10	The data shall be protected against alteration	Yes	All data inside memory can be password protected according to EPC Class1 Gen2 standard

¹ TesLab s.r.l. - Environmental Test Report – A927Z UHF Semi-Passive Logger Tag - Ref. TesLab 09B204A

² GSD s.r.l. – CE Test Report - A927Z UHF Semi-Passive Logger Tag - Ref. 29346A

³ CAEN RFID s.r.l. internal test report: A927Z EN 12830 Test Report – 01/03/2010

⁴ GSD s.r.l. – Vibration Test Report – A927Z UHF Semi-Passive Logger Tag - Ref. 29340