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LOM16 - LOM18 - LOM56
Product Specification

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Revisions

Revision	Issue Date	Author	Comments
2.0	23th May 2019		
3.0	July 22th, 2019		

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1 Introduction

Object:

Define the products specifications in term of technical characteristics, physical dimensions, aperture, accessories and casing.

Products: Mini logger temperature range, loggers with 1 temperature sensor

	Reference	Description
	PFPN-LOM16-001	Newsteo temperature Logger with internal antenna
	PFPN-LOM18-001	Newsteo temperature Logger with internal antenna Very high accuracy temperature sensor

	Reference	Description
	PFPN-LOM56-001	Newsteo temperature Logger with internal antenna Delivered with an **Alkaline** Battery
	PFPN-LOM56-006	Newsteo temperature Logger with internal antenna Delivered with a **Lithium Thyonil** Battery

2 Operating mode

1 - The Data Loggers
They are spread in the area which has to be monitored. They send to the RF-to-USB key by radiofrequency the measures they take. They can be wireless configured and updated.

2 - The RF-to-USB Key
It is the bridge between the PC and the loggers

3 - The RF Monitor
This software is installed on the PC and allows the monitoring of the loggers
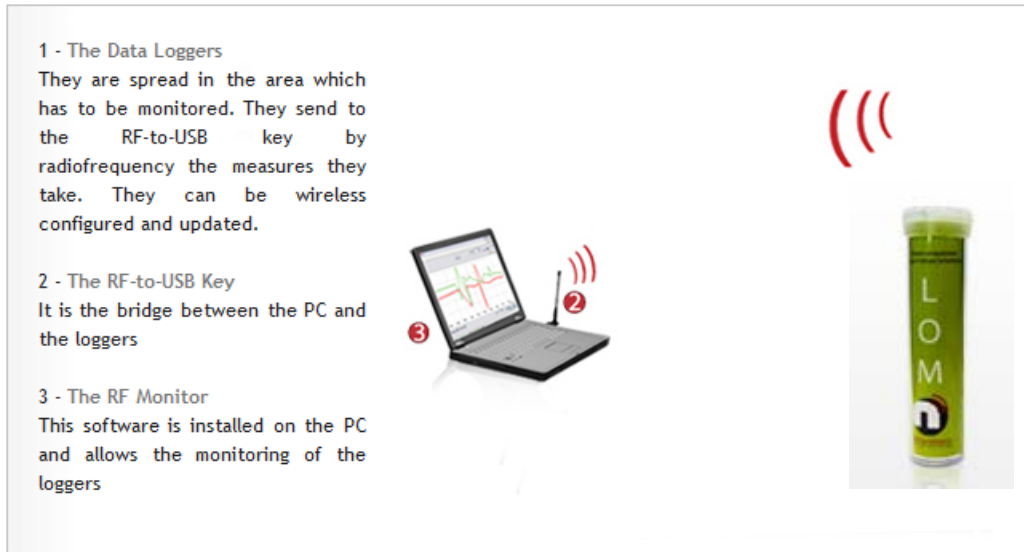
Figure 1: Functioning

- **Monitoring** (real time monitoring applications): the data logger sends in real time its measurements to a receiver (RF-to-USB Key, Ethernet or 3G gateway). If a measurement is not received by the receiver, the data logger stores it inside its internal memory and sends it to the receiver on the next communication channel

3 Newsteo logger

3.1 Technical characteristics

Preliminary specification – Subjected to change without prior notification.

3.1.1 Measurement accuracy

	LOM16 LOM56		LOM18
Type	High accuracy Temperature		Very High accuracy Temperature
Appearance	Internal sensor		
Operating temperature	-40...+70 °C	Alkaline Battery: -5°C … +50°C Lithium thionyl Battery: -40°C … +70°C	-10...+60 °C
Resolution	0.1°C		0.034 °C
Accuracy	± 0,3°C [-30°C...+60°C] ± 1°C [-40°C...-30°C] [60°C...+70°C]		± 0,1°C [5°C...+45°C] ± 0,2°C [-10°C...+5°C] [45°C...+60°C]
Product latency (response time)	≤10 min		
Sensor drift	Excellent long-term stability		

3.1.2 Casing

LOM16 – LOM18 – LOM56	
IP Level of the Logger	IP67

3.1.3 Power supply / Autonomy

3.1.3.1 LOM16 – LOM18

Characteristics	LOM16 - LOM18
Battery	½ AA Lithium Thionyl (included) with plug-in connector User-replaceable battery
Autonomy @ 25°C	Up to 2 years at 25 ° C with a measuring frequency of 15 minutes (LED deactivated) Up to 4 years at 25 ° C with a measuring frequency of 1 hour (LED deactivated) Average value which can vary depending on the use. It is given with the product working in non alert mode and with a good transmission level with the radio receiver

Using the product at high temperature highly reduces its autonomy. A LOM16 used at 60°C has autonomy of about 8 months @ 15 min.

3.1.3.2 LOM56

The LOM56 is available with 2 different battery references:
- PFPN-LOM56-001   Delivered with an Alkaline Battery
- PFPN-LOM56-006   Delivered with a Lithium Thyonil Battery

Characteristics	LOM56-001
Battery	AA Alkaline (included) – Industrial range User-replaceable battery
Autonomy @ 25°C	Up to 2 years at 25 ° C with a measuring frequency of 15 minutes (LED deactivated) Average value which can vary depending on the use. It is given with the product working in non alert mode and with a good transmission level with the radio receiver.

Characteristics	LOM56-006
Battery	AA Lithium Thionyl (included) User-replaceable battery
Autonomy @ 25°C	Up to 4 years at 25 ° C with a measuring frequency of 15 minutes (LED deactivated) Average value which can vary depending on the use. It is given with the product working in non alert mode and with a good transmission level with the radio receiver.

Using the product at high temperature highly reduces its autonomy.

3.1.4 Antenna and RF range

	LOM16 - LOM18	LOM56
RF connector	No connector (antenna inside the case)	
Antenna	Internal antenna Printed on the PCB	Internal antenna
Radio range	200 meters (in free area)	200 meters (in free area)

3.1.5 Other characteristics

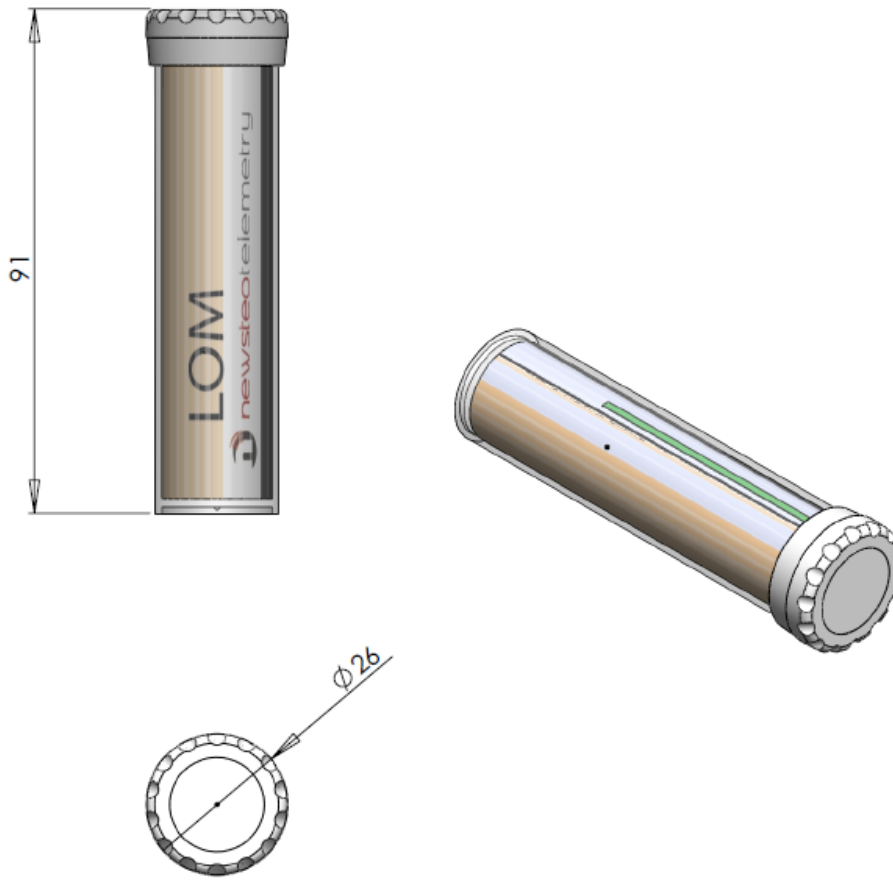|	LOM16 – LOM18 – LOM56
LED	1 bi-color LED
Memory Capacity	32 256 measurements with date and time
Time resolution	1s
Time deviation	+/- 2 min/month @ 25°C
Flash life time	Up to 100 000 cycles (meaning 100 years is a measure is done every second)
ILS	ILS integrated for several functions: - wakeup of the product in hibernate mode - take of a measure outside of the frequency measure set

3.2 Casing specification

Figure 2: LOM16 LOM18 Dimensions

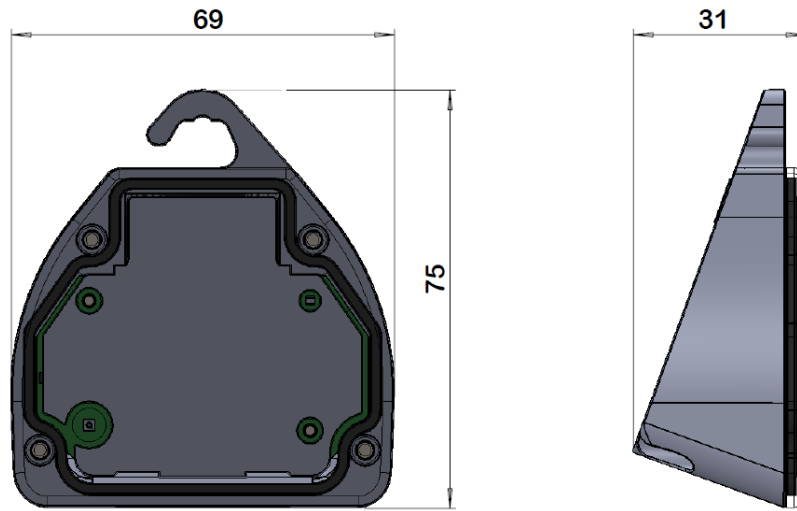| LOM16 - LOM18	
Dimensions	Height : 91 mm Diameter : 26 mm

Figure 3: LOM56 Dimensions

LOM56	
Dimensions	Height: 75 mm Width: 69 mm Depth: 31 mm

3.3 Certification

Products certified for radio use in Europe, on the frequency of 868 MHz (ISM band). For use in another area, check with local authorities.

LOM16: EN12830 certified

On order (with additional fees), **Newsteo can provide individual calibrations performed under its COFRAC accreditation.** COFRAC is equivalent to UKAS (UK's National Accreditation Body), DAkkS (Germany), ENAC (Spain), ACCREDIA (Italy).