

<b>Doc. Type:</b>	Product
<b>Sub. Type:</b>	Specification
<b>Status:</b>	<b>Rev 1.3</b>
<b>P/N:</b>	Newsteo LOG range Temperature 1 sensor
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## Newsteo LOG range Temperature 1 sensor Product Specification

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## Revisions

Revision	Issue Date	Author	Comments
1.0	August 18th, 2011	AC	
1.1	December 13 <sup>th</sup> , 2016	AC	Removal of several references : LOG11, LOG21, LOG31 LOG36: EN12830 certified
1.2	April 13 <sup>th</sup> , 2018	AC	New annex with details on casing size for LOG26
1.3	October 5 <sup>th</sup> , 2018	AC	Modification of the reference and size of the antenna for LOG26

# Table of contents

<b>1</b>	<b>Introduction</b>	<b>4</b>
<b>2</b>	<b>Summary of the product functioning</b>	<b>5</b>
<b>3</b>	<b>Newsteo Data Logger</b>	<b>5</b>
<b>3.1</b>	<b>Technical characteristics</b>	<b>5</b>
3.1.1	Measurement accuracy	6
3.1.2	Casing	6
3.1.3	Power supply / Autonomy	6
3.1.4	Antenna and RF range	7
3.1.5	Other characteristics	7
<b>3.2</b>	<b>Casing specification</b>	<b>8</b>
<b>3.3</b>	<b>Starting of the Data Logger</b>	<b>8</b>
<b>3.4</b>	<b>Certification</b>	<b>8</b>

# Table of figures


Figure 1: Functioning	5
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# 1 Introduction

**Object:**

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

**Products:** LOG temperature range, Data Loggers with 1 temperature sensor

	References	Description
	<b>PFPN-LOG26-001</b>	Newsteo temperature Data Logger with external antenna and high accuracy

	References	Description
	<b>PFPN-LOG36-001</b>	Newsteo temperature Data Logger with external antenna and high accuracy IP65 EN12830 certified

## 2 Summary of the product functioning

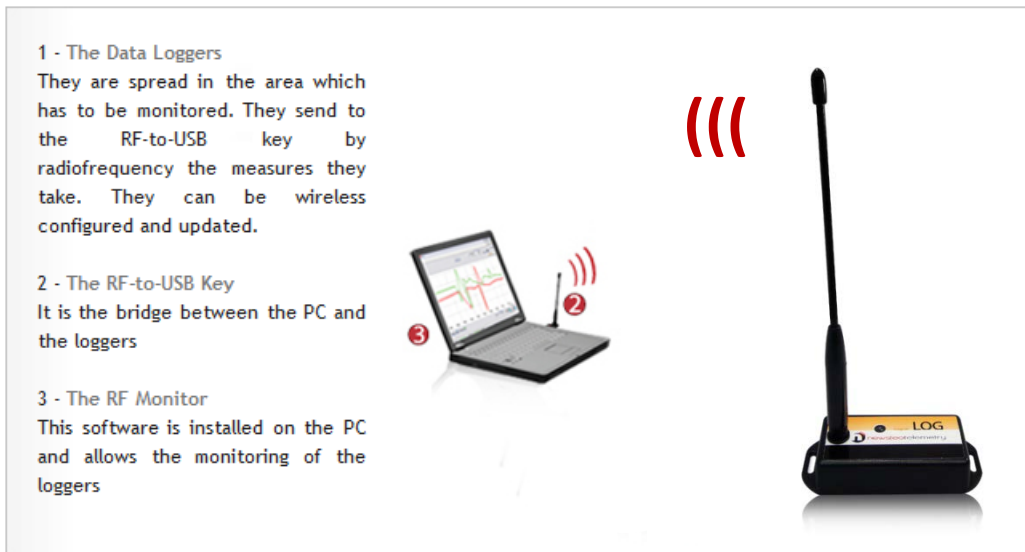


Figure 1: Functioning

The Data Loggers can be used in two different modes:

- **Monitoring** (real time monitoring applications): the data logger sends in real time its measurements to a PC or a Gateway. If a measurement is not received by it, it stores it inside its internal memory and sends it to the receiver on the next communication channel
- **Record / Restitution** (a posteriori monitoring): the data logger records in its embedded memory the measurements it takes. The user can download on the PC all the stored measurements when he wants.

## 3 Newsteo Data Logger

### 3.1 Technical characteristics



Preliminary specification – Subjected to change without prior notification.

**TBC** : To be confirmed

**TBD** : To be defined

**NA**: Not applicable

### 3.1.1 Measurement accuracy

	LOG26	LOG36
		
<b>Type</b>	High precision Temperature	High precision Temperature
<b>Appearance</b>	Internal sensor	Internal sensor
<b>Operating temperature</b>	-40°C to +70 °C	-40°C to +85 °C
<b>Resolution</b>	@12 bits (0.1°C)	@12 bits (0.1°C)
<b>Accuracy</b>	± 0,3°C [-30°C...+70°C] ± 1°C [-40°C...-30°C]	± 0,3°C [-30°C...+70°C] ± 1°C [-40°C...-30°C; +70°C...+85°C]
<b>Product latency (response time)</b>	≤10 min	≤10 min
<b>Sensor drift</b>	Smaller than the resolution product for a 4 years period of use	

### 3.1.2 Casing

Characteristics	LOG26	LOG36
<b>IP Level of the Data Logger</b>	IP54	IP65

### 3.1.3 Power supply / Autonomy

Characteristics	LOG26	LOG36
<b>Battery</b>	½ AA lithium Thionyle (included)	AA Lithium Thionyl (included) with plug-in connector
<b>Autonomy @ 25°C</b>	Up to 2 years At 25°C with a frequency measures of 10 minutes. Average value which can slightly vary depending on the use. It is given with the product working in non alert mode.	Up to 3 years At 25°C with a frequency measures of 10 minutes. Average value which can slightly vary depending on the use. It is given with the product working in non alert mode.

Using the product at high temperature highly reduces its autonomy. A LOG26 used at 60°C has autonomy of about 1 month.



### 3.1.4 Antenna and RF range

Characteristics	LOG26	LOG36
<b>RF connector</b>	SMA connector	SMA connector
<b>Antenna</b>	½ wave antenna (included)	½ wave antenna (included)
<b>Radio range</b>	900 meters	900 meters

### 3.1.5 Other characteristics

Characteristics	LOG26	LOG36
<b>LED</b>	1 bi-color LED	No LED
<b>Memory Capacity</b>	32 256 measurements with date and time	
<b>Time resolution</b>	1s	
<b>Time deviation</b>	+/- 2 min/month @ 25°C	
<b>Time retention</b>	Main battery life time. Time kept: <ul style="list-style-type: none"><li>- 3 min if the main battery is removed, when the main battery is at 3,6V</li><li>- 1 min if the main battery is removed, when the main battery is at 2,2V</li><li>- Time lost if the main battery is under 2 V.</li></ul>	
<b>Flash life time</b>	Up to 100 000 cycles (meaning 100 years is a measure is done every second)	
<b>ILS</b>	ILS integrated for several functions: <ul style="list-style-type: none"><li>- wakeup of the product in hibernate mode</li><li>- take of a measure outside of the frequency measure set</li></ul>	

### 3.2 Casing specification

LOG26		LOG36		
				
<b>Features</b>	The casing of the LOG is an ABS plastic casing. Color: black The casing integrates 2 holes for fixation on a wall or inside a parcel.		Aluminium casing (4mm)	
<b>Dimensions (w/o antenna)</b>		Flanged lid included Without antenna	No flanged lid Without antenna	
	Length	96 mm	Length	98 mm
	Width	40 mm	Width	64 mm
	Height	20 mm	Height	34 mm
To have more details on the casing size, please refer to the Annex 1.				
<b>Weight</b>	45g		About 250 g	
<b>Stickers</b>	2 stickers on the product : - 1 sticker on the top face, giving the product range - 1 sticker on the side, giving the complete product reference and its serial number			

### 3.3 Starting of the Data Logger

The product is delivered with a battery inserted, in hibernate mode.  
The user has to pass a magnet on the product to wake up it and to set it.  
The time is set in production.

### 3.4 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.

LOG36 : EN12830 certified.

**On order, Newsteo can provide COFRAC certification for its products.**



ANNEX 1 : LOG26 DIMENSIONS

