6. Troubleshooting

6.1 New or existing installation

• If the receiver functions at a shorter distance relative to the sensor, it is subject to interference or used outside the transmission range.
• Search the system environment for changes that could cause the interference (for example movement of metallic cabinets, furniture or partitions).
• Use the sensor or receiver in a more suitable location.
• Clear the receiver and perform a new learn process.

6.2 Limitation of the range of the radio signals

• Transmitter/receiver used close to metallic objects or close to materials containing metallic elements. Observe a distance of at least 10 cm.
• Humidity in the materials.
• Devices emitting high frequency signals such as audio and video systems, computers, electronic ballasts or fluorescent tubes. Observe a distance of at least 0.5 m.

6.3 Contacts

E-mail:............................ contact@trio2sys.fr

7. Declaration of conformity

These products can be marketed and distributed in the countries of the European Union, Switzerland, Iceland and Norway. TRIO2SYS hereby declares that the sensors *10020033.xx* conform to the base requirements and other applicable requirements of the directive 1999/5/CE referred to as R&TTE.

TRIO2SYS sarl – 8 grande rue le village 21160 FLAVIGNEROT

Installation and operating manual
Temperature sensor 0-40°C EN

Ref. *10020033.xx* CE

1. General

1.1 Use

The sensors O2LINE *10020033.xx* are designed to measure ambient temperature and transmit it wirelessly to a matched receiver. As the sensor is supplied by a solar cell, it is maintenance-free. As soon as the change in temperature exceeds +/-0.5°C, a signal is sent immediately. Moreover the signal is retransmitted every 15 minutes.
Note: Read the operating manual carefully before initial use.

1.2 Guarantee terms

This operating manual is an integral part of the device and our guarantee terms. It must always be delivered to the user. We reserve the right to modify the technical design of these devices without warning. TRIO2SYS products are manufactured and their quality checked by making use of the latest technologies and taking into account the applicable national and international directives. If nevertheless a fault arises, TRIO2SYS undertakes to remedy the default as follows, without prejudicing the rights of the end customer that arise from the sales contract with his reseller:

If the event of exercising of a legitimate and regular right, TRIO2SYS, may at its sole discretion, rectify the device fault or supply a fault-free device. Any claim beyond this and all claims for consequential damages are excluded.
A legitimate fault exists if the device cannot be used at the time of delivery to the end customer because of a design or manufacturing defect or if its practical use is severely limited. The guarantee is void in cases of natural wear and tear, incorrect use, incorrect connection, where the device has been repaired or external influence. The period of guarantee is 24 months (from the date of invoicing). French law applies to the regulation of guarantee rights.

1.3 Recycling of the device

To recycle the device, conform to the legislation and standards in force in the country of use.
The casing is made from recyclable plastic.

2. Safety

Observe the following points:
• The laws, standards and directives in force.
• Best practice at the time of installation
• The device operating manual.
• An operating manual can only give general instructions. They must be interpreted in the context of a specific installation.

The device is intended solely for use conforming to its purpose. Any repairs or modifications by the user are forbidden! Do not use with other devices the operation of which could endanger people, animals or property.

3. Technical characteristics

General characteristics	
Transmission frequency	868.3 MHz
Transmission power	10 mW max.
Measurement range	from 0°C to +40°C
Measurement accuracy	+/-0.5°C from +15°C to +25°C
Measurement resolution	0.16°C
Storage temperature	From -20°C to +60°C
Illumination	>100 lux on average per day
Conformity	CE
Degree of protection	IP 30

Range in buildings	
Masonry	20m, through 3 walls at most
Reinforced concrete	10m, through 1 wall/ceiling at most
Plasterboard / wood	30m, through 5 walls at most

Note: The signal strength between the transmitter and the receiver decreases as the distance increases. Where there is a line of sight connection, the range is approximately 30 m in corridors and 100 m in large workshops or halls. The range can be increased with an 0₂**LINE** repeater.

4. Installation and initial use

The sensor is supplied on a base which as well as installation allows a learn process to be performed close to the matched receiver by separating (using a small screwdriver to depress the clips) the sensor from the base; the base remaining in position.
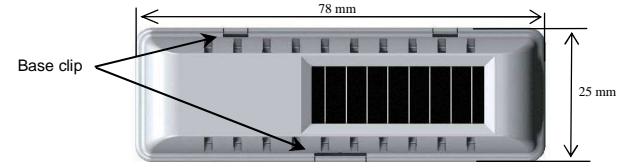
4.1 Installation instructions:

⚠ Never mount the sensor in a metallic casing or close to a largely metallic object. Installation on the ground or close to the ground is not recommended

• The sensor must be positioned so that air can circulate freely around it and within an area representative of the temperature to be measured.
• Secure the base by gluing or screwing.
• Place the sensor on its base until it engages.

4.2 Initial use:

The devices are supplied in an operational state but will probably require recharging, following storage of the radio sensors in the dark.
• Prior to first use, charge the sensor's power reserve using light with an illuminance of at least 200 lux for 5 minutes or more.
• Ensure that averaged across the day, the mean illuminance is 100 lux/d.
• The sensor's operating power reserve (when fully charged) in conditions of total darkness is 4 days.

Note: The device is designed for interior use. Do not install it in locations that could be sprayed by water! To clean, use a damp cloth!

5. Controls and functions

10020033.xx sensors transmit the measured temperatures using the frame described in the document Enocean Equipment Profiles EEP2.1 §A5-02-05 (consultable under www.enocean.com).

5.1 Temperature measurement:

The temperature is measured every 100 seconds. If the temperature change between two measurements exceeds +/-0.5°C, a signal is sent.
If changes remain below this level, the temperature is transmitted approximately every 15 minutes.

5.2 Programming and LRN button:

Located behind the sensor, pressing the **LRN** button causes the sending of a frame used to identify or associate a matched receiver.
Where the sensor is located on its base, it must first of all be unclipped from the base to allow access so that it can be placed closed to the matched receiver during the identification or association phase (the receiver having reduced sensitivity during this phase).