



Aguardio



Aguardio Leak Sensor

PRODUCT DATA SHEET

Version 1.5 UK date: 09-02-2023

Introduction

One of the most common causes of water waste in households, is toilet and tap leaks. Large quantities of water can flow down the inner backside of a toilet pan without being noticed and without being visible. The Aguardio Leak Sensor detects such water leaks by measuring the temperature difference between the water inlet pipe temperature and the ambient room temperature. The difference in temperature triggers the alarm. The Leak Sensor can detect water leaks as small as 5 litres per hour.

The sensor is designed to work at room temperature (around 20°C/68°F). Due to the mass of water and of the pipe itself, the change in temperature is slow, and it can take hours before a leakage is detected by the Leak Sensor. The leak is detected as cold water runs through the pipe constantly and will change the temperature of the pipe significantly. A change in temperature will send an alert of a water leak, either by acoustic alert, or to a connected gateway (or other device).

Applications

Toilets, water taps (indoors)

Product details

- Manufacturer's code: XT088, Part number 80088400
- Weight: 25 g excluding strip
- Measurements: L - 6.5 cm, W - 2.1 cm, H - 3 cm
- Plastic tie included, to fasten the Leak Sensor to the water inlet pipe.
- Box Quantities:
 - Box of 40 Leak Sensors: Measuring 27 x 14.5 x 5.5 cm
 - Box of 360 Leak Sensors: Measuring 33 x 27 x 28 cm contains 9 boxes of 40
 - Box size 720 Leak Sensors: Measuring 58 x 39 x 28 cm contains 2 boxes of 360 that contains each 9 boxes of 40.

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Features

- The sensor can be mounted on all pipes measuring 8 to 27 mm (1/2") in diameter.
- Bluetooth 5.1 radio
- Transmitting range 30 to 100 metres depending on the character of room.
- Battery powered (lifetime >10 years)
- Low battery warning
- Can detect water leaks of 5 litres per hour and more.
- Acoustic alert (alarm sound) > 80dbm
- Ability to connect to a Gateway to receive leak notifications remotely (requires separate software).

Functionality

- The thermal gap filler pad

The grey thermal pad on the connecting surface of the Leak Sensor is sensitive. Please avoid damaging it or moving the Leak Sensor once it has been installed.

If the pad is loose before installation, gently reposition it back into place.

- The function of the button

The button has two functions: It activates new sensors and it mutes the alarm.

- 1) The Leak Sensor is in sleep mode when the product is delivered. To permanently activate the Leak Sensor, press and hold the button for five seconds until it sounds a beep (connected to a gateway the Leak Sensor will not sound a beep, but still has to be activated by pressing and holding the button). The product will remain activated for the rest of its lifetime.
- 2) If an alarm sounds, short pressing the button will mute the alarm for 24 hours. Once the water leak in the toilet is fixed, the alarm will stop recurring.

- Alarm occurrences

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If the Leak Sensor beeps, it has detected a water leak.
Press the button to mute the alarm for 24 hours.
When the water leak is fixed, the alarm stops recurring.

In a normal setting, the water inside the water inlet pipe will be close to ambient room temperature. When the toilet flushes, the automatic mechanism that fills up the tank with 4-5 litres of water will take about 1-5 minutes. This cools down the water supply pipe. When the toilet's water tank is full again, the water inlet pipe temperature will increase gradually until it reaches room temperature again. This means that the toilet works as it should.

The alarm sounds if

- the water leak is small and continuous for more than 24 hours
- there is a continuous water leak of more than 10 l/h within 60min.

Installation

Press and hold the button until the Leak Sensor beeps. Connect it to the water inlet pipe using the plastic tie. That's it!

Pressing and holding the button for five seconds until it beeps, permanently activates the sensor. This is only necessary to do once. When connected to a gateway, the Leak Sensor will not beep, but it still has to be activated by pressing and holding the button.

See complete installation guide:

Click INSTALLATION GUIDE, top left corner of www.aguardio.com

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Operating requirements

| General requirements | | |
|----------------------|------|--|
| IP | IP54 | <p>Protected from water splashes from all angles, not submersion.</p> <p>Protected against dust quantities that could interfere with the normal operation of the product, but not fully dust tight. Protected against impact from solid objects.</p> |
| | | The sensor is only protected when it is correctly fastened to the pipe connector. |
| CE (EU) | | EMC Directive 2014/30/EC |
| | | Low Voltage Directive 2014/35/EC |
| | | RED Directive 2014/53/EC |
| | | RoHS Directive 2011/65/EC |
| | | WEE Directive 2002/96/EC |
| Product life span | | 10 years |

Battery preformats

| Lithium Batteries | | |
|-----------------------------|--|-------------|
| Nominal Voltage | | 3.6V |
| Nominal capacity | | 1Ah |
| Battery Life | Battery lifetime at 0 to 25°C | 10 Years |
| Operating temperature range | Operation above ambient temperature may lead to reduced capacity and lower voltage readings at the beginning of pulses. | - 60/+ 85°C |
| Typical weight | | 9.4 grams |
| UL | Underwriters Laboratories Inc. "Standard for Lithium Batteries" – UL 1642 – Third Edition – 1995 | |
| UN | Secretariat of the United Nations "Model Regulations on the Transport of Dangerous Goods" Ref. ST/SG/AC.10/1 – Revision 13 – 2003 + "Manual of Tests and Criteria" Ref. ST/SG/AC.10/11 – Revision 3 – Amendment 1 "Lithium Batteries" – 2002 | |
| IEC | International Electrotechnical Commission International safety standard for lithium batteries "IEC-CEI 86-4" – First Edition – 1996 | |

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