

# IRRIGATION SENSOR

## USER MANUAL



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## **THANK YOU FOR CHOOSING THE 7SENSE IRRIGATION SENSOR.**

The sensor is a durable, waterproof monitor that is attached to the pipe or hose of an irrigation system. It measures pressure by detecting vibrations and track's location using GPS coordinates. If any issues arise, such as water loss or system overturns, it alerts the user.

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# **SAFETY INFORMATION**

## **Battery Handling**

- Only use battery types recommended by the manufacturer. Do not attempt to recharge non-rechargeable batteries.
- Store batteries not used in a cool, dry place, away from direct sunlight and heat sources.
- Never dispose of batteries in fire or general waste. Recycle them according to local regulations.
- Avoid short-circuiting batteries and ensure they are installed with the correct polarity.

## **Electronic Handling**

- Do not open or disassemble the sensor's electronic compartment. Doing so may void the warranty and compromise safety.
- Avoid exposing the sensor to strong impacts or heavy mechanical stress.
- Ensure all connections are dry before handling or installing the sensor to prevent electrical shorts.

## **Waterproofing**

- The sensor is IP67 rated, meaning it is dust-tight and can withstand temporary immersion in water up to 1 meter for 30 minutes. Make sure all seals and covers are securely closed to maintain protection. If the seals are not properly mounted during use, the sensor warranty will not apply.


## **Certifications**

- The sensor is certified under IEC 61010, ensuring compliance with safety standards for electrical equipment.
- The sensor holds the Made in Norway certificate, meaning the product is developed and produced in Norway.

## **Environmental considerations**

- Handle the sensor and batteries responsibly to minimize environmental impact. Recycle components by the local guidelines.

## Consult the Manual Symbol

- This equipment is marked with **IEC 61010-1 Symbol 14**, which indicates that the **user manual must be consulted**.
-  Whenever this symbol appears on the device, it indicates that the device is associated with potential hazards or important safety instructions.
- It is essential to read the relevant sections of this manual to understand the nature of the hazard and to learn about any actions that must be taken to prevent injury, equipment damage, or operational issues.

## Additional Safety Notes

- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

## UNBOXING AND PACKAGE CONTENTS

Upon receiving your package, ensure that the following components are included:

- 7Sense Irrigation Sensor
- Battery
- Two mounting straps
- Quick start guide

Contact your supplier if any items are missing or damaged.

# SETUP AND INSTALLATION

## Downloading the App and portal access

- App: Download the 7Sense Portal app from App Store(iOS) or Google play (Android)
- Portal: When you purchase a product from 7sense, your portal access is automatically activated from our headquarters. You will receive an email with your username. Please visit <https://portal.7sense.no/> to create a personal password for your account.

## Initial start-up

- Insert the battery and securely fasten the lid using the provided screws.
- Affix the provided 7sense bands to the mounts situated beneath the box.
- Mount the sensor to the irrigation system. Ensure the sensor is securely attached to monitor water pressure accurately.



## USING THE PRODUCT

- **Real-time monitoring:** The sensor continuously measures water pressure during irrigation. Use the app or portal to view the real-time data.
- **Alerts:** Enable notifications in the app to receive alerts for water pressure loss, unexpected system movement, or if the system has tilted or overturned.
- **Irrigation Optimization:** Utilize the gathered data to evaluate your irrigation practices, plan future irrigation schedules, or enhance your irrigation methods.
- **Historical Analysis:** Access historical irrigation data in the app or portal to evaluate irrigation system performance and make informed decisions about maintenance or adjustments.

## MAINTENANCE AND BATTERY HANDLING

- **Cleaning:** Gently clean the sensor with a damp cloth when needed.
- **Battery replacement:**
  1. Remove the old battery.
  2. Insert a new battery of the recommended type.
  3. Recycle the old battery according to local regulations.
- **Battery Storage:** Store batteries in a cool, dry place.
- **Sealing:** Ensure all covers and seals are properly secured after maintenance to preserve the sensor's IP67 rating.

## TROUBLESHOOTING

- **No Connection:** Ensure the battery is correctly installed and there is adequate signal strength.
- **Inaccurate data:** Verify that the sensor is correctly mounted and not obstructed.
- **No LED Indicator or sound:** Try replacing the battery or contact customer support.
- **Intermittent Data Transmission:** Verify that the network is stable and the sensor has a consistent signal.
- **Waterproofing issues:** Inspect the seals and covers for any wear or damage. Ensure that the sensor is properly closed.
- **Other issues:** Contact customer support for persistent problems or visit <https://7sense.no/faq> for additional guidance.

## END OF PRODUCT LIFE

- **Batteries:** Remove and recycle the battery.
- **Sensor:** Dispose of the sensor at an authorized electronic waste facility.
- **Environmental considerations:** Recycle all components according to local regulations.

# TECHNICAL SPECIFICATIONS

## Product Dimensions and Weight

Box:

30x21x9cm

760 g

Sensor:

16x12x6cm

500 g

## Operating Conditions

IP67 classification

- Fully dust-tight.
- Protected against temporary immersion in water, up to 1 meter for 30 minutes.

Temperature range: -20°C and 60°C

Maximum Operating Altitude: 2000 meters above sea level

Relative Humidity range: 0% - 95% (non-condensing)

Pollution Degree: 2. (Intended for outdoor use where only non-conductive pollution occurs)

*Prolonged exposure to extreme conditions beyond the specified ratings may impact performance.*

**Battery Specifications**

SAFT LSH20 Lithium battery

Battery Specifications	
Nominal Capacity	13.0Ah
Nominal Voltage	3.6V
Operating temp.	-60°C +85°C
Cell type	D-size spiral cell
Primary lithium-thionyl chloride (Li-SOCl <sub>2</sub> )	

**Intended Environment**

The 7Sense Irrigation Sensor is designed specifically for outdoor use and wet locations, such as irrigation systems. Its IP67 enclosure offers effective protection in outdoor conditions, but users should always ensure that all covers are properly sealed to maintain this protection.

The equipment is not a permanent installation and is only intended for temporary outdoor usage. It is recommended that the device be placed in storage off-season.

## CERTIFICATIONS AND COMPLIANCE

This product complies with relevant CE and FCC standards for electronics. It is also certified under IEC 61010, ensuring compliance with international safety standards.

For more information on compliance, refer to the product's certifications or contact 7Sense.

This product proudly carries the "Made in Norway" certification, an official designation reserved for Norwegian products and solutions. To qualify for this certification, several strict criteria must be met, including:

- *A significant portion of its production must take place in Norway.*
- *The product must contribute to at least one of the United Nations' Sustainable Development Goals (SDGs).*
- *It must have no negative impact on the European Union's six environmental objectives.*
- *The company must adhere to strict standards of responsibility.*

This certification reflects our commitment to quality, sustainability, and responsible business practices, ensuring that the product meets the highest standards of production and environmental stewardship.

# WARRANTY AND SUPPORT

## Warranty Terms

**7Sense** offers a two-year warranty for this product, covering defects in materials and workmanship. The warranty period begins on the purchase date, and you'll need to provide the original proof of purchase to confirm this date. During the warranty period, **7Sense** will either repair or replace any defective product at no cost to you. Please note that replacement products or repaired components will be covered for the remaining duration of the original warranty or six months, whichever is longer.

This warranty does not cover defects resulting from negligence, accidents, misuse, or factors beyond **7Sense's** reasonable control. These include but are not limited to: normal wear and tear, failure to follow the user manual's instructions, improper maintenance, use of non-recommended batteries, unauthorized modifications to the product, and damages caused by fire, lightning, flooding, or other external factors. Additionally, using the product for commercial purposes may void this warranty.

The warranty is only valid in the country of purchase or in other countries where **7Sense** offers the same model with identical technical specifications. Warranty service offered outside the country of purchase is subject to the terms and conditions applicable in that country. If any repair or replacement costs are not covered by this warranty, **7Sense** will inform you, and you will be responsible for those costs.



The terms of this limited warranty do not exclude, limit, or modify any mandatory statutory rights regarding the sale of this product, except as permitted by applicable law.

### **Contact information for Support**

If you believe your product is defective, please contact **7Sense** for guidance on how to proceed with repairs. For more information, visit our website at [www.7Sense.no](http://www.7Sense.no) or reach out to us at [support@7Sense.no](mailto:support@7Sense.no) or +47 33084400

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