



Art. 19030

EN **Operator's manual**
smart Sensor

GARDENA smart Sensor

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Translation of the original instructions.



For safety reasons, children and young people under 16 as well as anyone who is not familiar with these operating instructions should not use the product. Persons with reduced physical or mental abilities may use the product only if they are supervised or instructed by a responsible person. Children must be supervised to ensure that they do not play with the product. Never operate the product when you are tired, ill or under the influence of alcohol, drugs or medicine.

Intended use:

The **GARDENA smart sensor** is designed exclusively for private use outdoors in home gardens, on allotments and in greenhouses. It controls the smart system by measuring soil moisture, light intensity and temperature.

The **smart Sensor** can only be used together with the **GARDENA smart Gateway Art. 19000**.



DANGER! Risk of injury!

The GARDENA smart Sensor must not be used for industrial purposes or in conjunction with chemicals, foodstuffs, easily flammable and explosive materials.

1. SAFETY

Important!
Read the operator's manual carefully before use and keep for future reference.



DANGER!
Risk of suffocation!

Small parts can be easily swallowed. There is also a risk that the polybag can suffocate toddlers. Keep toddlers away when you assemble the product.



DANGER! Cardiac arrest!

This product makes an electromagnetic field while it operates. This field may under some conditions interfere with active or passive medical implants. To decrease the risk of conditions that can possibly injure or kill, we recommend persons with medical implants to speak with their physician and the medical implant manufacturer before you operate the product.

The product can be used in the temperature range $-1\text{ }^{\circ}\text{C}$ – $+50\text{ }^{\circ}\text{C}$ outdoors.

Do not set the sensor down with the tip facing upwards. The tip poses a risk of injury.

Examine the work area (the sensor must be located outside of the mowing area).

Do not use damaged products. Ensure that all parts are correctly disposed of with immediate effect (please see Chapter 6. STORAGE “Disposal / Disposing of flat batteries”).

Keep damaged parts out of the reach of children.

Regularly examine the product for damage.

There is a risk of tripping. Position the sensor in such a manner that it can be seen at all times.

Regularly examine the batteries for damage.

Do not use damaged batteries. Ensure that they are correctly disposed of (please see Chapter 6. STORAGE “Disposal/Disposing of flat batteries”).

Keep damaged batteries out of the reach of children.

Do not use the sensor in explosive areas.

The product will become hot when exposed to sunlight. Touching the product in such a condition can result in slight burns if touched.

Ensure that the product is only used within the stated temperature range (see Chapter 1. SAFETY: $-1\text{ }^{\circ}\text{C}$ – $+50\text{ }^{\circ}\text{C}$).

Batteries:

To ensure the Sensor runs safely, only 2 x alkalimanganese (alkaline) batteries type LR6 (AA) (Mignon) must be used for the authorized temperature range $-1\text{ }^{\circ}\text{C}$ – $+50\text{ }^{\circ}\text{C}$.

**DANGER!**

There is a risk of explosion if batteries are not replaced in the proper manner. See 6. STORAGE for information on how to dispose of used batteries.

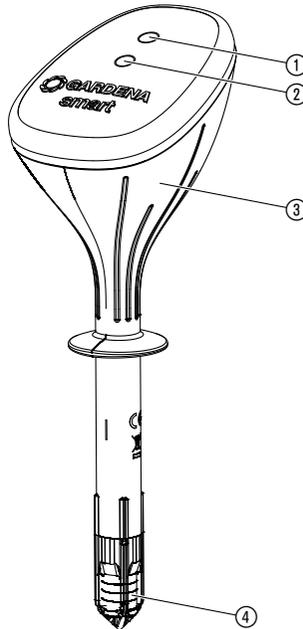
Do not use re-chargeable batteries.

To prevent failure of the Sensor due to weak batteries in conjunction with a lengthy absence, batteries should be replaced in due course. This will depend on the previous operating life of the batteries and the probable length of absence, which should not exceed 6 month in total.

2. FUNCTION

The Sensor measures the soil moisture at the root level of the plants, the lightness and the temperature automatically and sends the measured results to the Gateway. (The values can be read using the GARDENA smart system app).

Display/Sensors:



① **Light sensor**

② **Connection-LED:**

Green flashing:

Green for 20 sec:

Yellow for 20 sec:

Red for 20 sec:

While connection

Signal strength high

Signal strength medium

Signal strength low

③ **Temperature sensor** (inside the product)

④ **Moisture sensor**

3. INITIAL OPERATION

To insert batteries:

The batteries are not included in the scope of delivery.

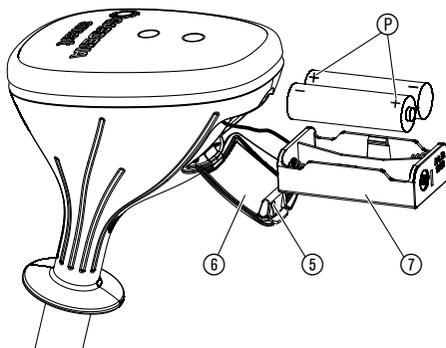
The Sensor must only be operated with 2 x alkalimanganese (alkaline) batteries type LR6 (AA) (Mignon).

The operating period is approx. 6 months. The operating period can vary depending on ambient temperature and transmission frequency.



CAUTION!

Rechargeable batteries should not be used!



1. Push the flap ⑤ and open the lid ⑥.
2. Remove the battery holder ⑦.
3. Insert the batteries into the battery holder ⑦.
When doing so, ensure correct polarity ⑧.
4. Insert battery holder ⑦ in the sensor.
5. Close the lid ⑥.

To select correct location:

Correct location:

The Sensor must be positioned at a location in the watering area which is exposed to the same climatic conditions as the plants (sun, wind, rain, etc.) for which a status is to be displayed.

Incorrect location:

The Sensor should not be covered by neighbouring plants.
Areas of shade should be avoided.

To rule out erroneous reaction results caused by waterlogging, the Sensor should not be positioned in dips in the ground.

The sensor should not be positioned in places, where lawnmowers mow.

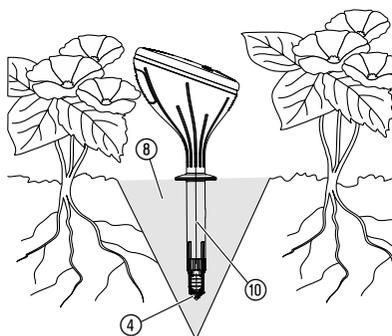
In direct sunlight, it should be noted that the measured ambient temperature can differ from the actual temperature.

To plant the Sensor:



CAUTION!

The tip of the sensor will only measure the soil moisture correctly if the sensor tip is in full contact with the ground on all sides! No air should be trapped at the sensor tip in the ground.



1. Dig a funnel-shaped hole in the ground ⑧ at least 12 cm deep.
2. Break up the soil ⑧ removed and take out any stones.
3. If the soil is dry, moisten.
4. Replace the damp broken-up soil ⑧ in the funnel-shaped hole without packing tight.
5. Immerse entire sensor tip ④ in water (felt must be wet).
6. Insert the Sensor to the upper edge of the sensor ⑩ in the broken-up soil ⑧.
Here the sensor tip ④ must be in full contact with the damp soil on all sides.
7. Press down the soil ⑧ around the sensor ⑩ lightly.
The Sensor should not stand loose in the ground.
8. Water the area around the Sensor with approx. 1 litre water.
Depending on the ground it may take several hours until the Sensor measures the actual soil moisture.

HINT: To Connect GARDENA Micro-Drip-System:

To ensure that the quantity of water delivered is registered by the sensor tip when using the GARDENA Micro-Drip-System, a drip head should be installed directly above the sensor.

4. OPERATION

Operation with the GARDENA smart system App:

You can use the **GARDENA smart system app** to control all smart system products from anywhere at any time. You can download the free **GARDENA smart system app** from the Apple App Store or from the Google Play Store.

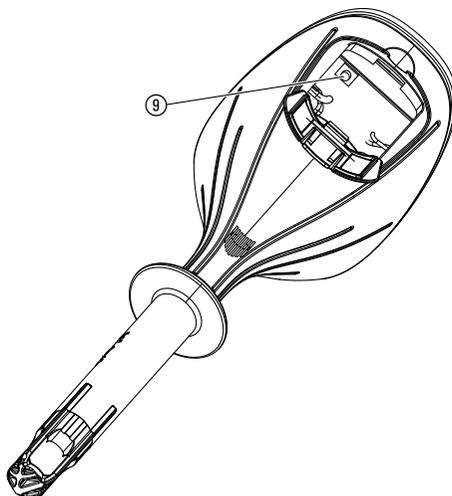
In order to include, a smart Gateway with internet connectivity is needed. All GARDENA smart products are integrated via the app. Follow the instructions inside the App.

Displays of the sensor:

- Soil moisture (0 – 100 %)
- Light intensity (0 – 200,000 Lux)
- Temperature (– 1 – + 50 °C)
- Battery status

Factory Reset:

The smart Sensor will be reset to the factory settings.



→ Push the Reset key ⑨ for a short time.
New connection.

- or -

→ Push and hold down the Reset key ⑨ for at least 5 seconds.
Cancels the existing connection and allows a new connection to be established, e. g. different Gateway.

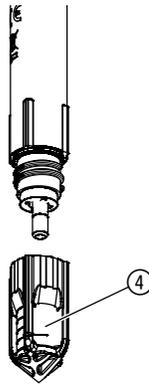
Usages:

To keep the soil moisture level as constant as possible, irrigation should be carried out with short watering cycles and short watering times. This especially applies to flower boxes on balconies, which have a watering time of < 5 min.

The spread of moisture in the soil after watering or rainfall is rather slow. In the worst-case scenario it may happen that irrigation and a rain shower overlap until the required soil moisture is attained.

5. MAINTENANCE

To clean/replace the sensor tip:



Whenever the Sensor is relocated, the sensor tip should be cleaned/replaced. The felt on the tip should not come into contact with grease/oil.

→ Clean sensor tip ④ with clear water.

If the felt becomes damaged, the sensor tip can be re-ordered from GARDENA Service.

→ Unscrew sensor tip ④ and screw on new tip.

To clean the sensor:

No caustic/abrasive cleaning agents should be used.

→ **Clean the sensor with a damp cloth (do not use solvent).**

6. STORAGE

To put into storage:

The product must be stored away from children.

1. To preserve the batteries, these should be removed (see 3. INITIAL OPERATION).
2. Stow the Sensor in a dry area where it has protection from frost.

Disposal:

(in accordance with RL2012/19/EC)



The product must not be disposed of to normal household waste. It must be disposed of in line with local environmental regulations.

IMPORTANT!

Dispose of the product through or via your municipal recycling collection centre.

Disposing of flat batteries:

Please return flat batteries to a GARDENA dealer or dispose of them properly at your nearest recycling centre.

Only dispose of batteries when they are flat.

7. TROUBLESHOOTING



NOTE: For any other malfunctions please contact the GARDENA service department. Repairs must only be done by GARDENA service departments or specialist dealers approved by GARDENA.

8. TECHNICAL DATA

<i>smart Sensor</i>	Unit	Value (Art. 19030-20)
Operation temperature range (outdoors)	°C	-1 – +50
SRD:		
Frequency range	MHz	863 – 870
Maximum power	mW	25
Free field radio range	m (approx.)	100
Soil moisture	%	0 – 100
Light intensity	Lux	0 – 200.000
Batteries required		2 x alkalimanganese (alkaline) batteries type LR6 (AA) (Mignon)
Operating time of the batteries		approx. 6 months with alkaline batteries (min. 2000 mAh)

EC Declaration of Conformity:

Hereby, GARDENA Manufacturing GmbH declares that the radio equipment type (Art. 19030) is in compliance with directive 2014/53/EU.

The full text of the EC declaration of conformity is available at the following internet address:

<http://www.gardena.com/int/support/safety-regulations>

9. ACCESSORIES

**GARDENA sensor tip
with felt**

For replacement if sensor tip
is damaged.

**Art. 19030-00.620.00
(from GARDENA
Service)**

10. SERVICE/WARRANTY

Service:

Please contact the address on the back page.

Warranty:

In the event of a warranty claim, no charge is levied to you for the services provided.

GARDENA Manufacturing GmbH offers a 2-year warranty for this product (from the date of purchase) if the product has been used exclusively for private purposes. This manufacturer's warranty does not apply to used products purchased from a secondary market. This warranty includes all significant defects of the product that can be proved to be material or manufacturing faults. This warranty is fulfilled by supplying a fully functional replacement product or by repairing the faulty product sent to us free of charge; we reserve the right to choose between these options. This service is subject to the following provisions:

- The product was used for its intended purpose as per the recommendations in the operating instructions.
- Neither the purchaser nor a third party has attempted to repair the product.
- Only original GARDENA spare and wear parts were used.

Normal wear and tear of parts and components, optical changes, as well as wear parts and consumables, are excluded from the warranty.

This manufacturer's warranty does not affect warranty entitlements against the dealer/retailer.

If problems arise with this product, please contact our Service department. In the event of a warranty claim, please send the defective product together with a copy of the purchase receipt and a description of the defect, sufficiently stamped, to the GARDENA service address on the back page.

Consumables:

As a wear part the sensor tip with felt is not covered by the guarantee.

Faults which occur as a result of incorrectly installed or leaking batteries are not covered by the guarantee.

Product liability:

In accordance with the German Product Liability Act, we hereby expressly declare that we accept no liability for damage incurred from our products where said products have not been properly repaired by a GARDENA approved service partner or where original GARDENA parts or parts authorised by GARDENA were not used.

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