



Water level sensor EPS

MANUAL



Product type

Name of product:	SENECT® Pegelsensor EPS
Type:	EPS-250-MA, EPS-250-MAK
Art.-No.:	2000
Producer:	SENECT GmbH & Co. KG An 44 – No. 11 76829 Landau / Germany

Important note:

Please read this manual carefully and store it so that you can use it later. Read the warning and safety notes attentive.

Further information and latest software releases or documents can be downloaded from:





www.senect.de

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Used symbols and wording

	<p><i>DANGER!</i> Warning of life threatening dangers.</p> <p><i>WARNING!</i> Warning of possible life threatening and / or severe irreversible injuries.</p> <p><i>ATTENTION!</i> Warning of possible medium or slight injury.</p>
	<p><i>ATTENTION!</i> Follow the notes to avoid damage of equipment.</p>
	<p><i>NOTE!</i> Further information for the use of the device.</p>
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General Security Notes

The water level sensor EPS is an electronic sensor unit for the measurement of the hydrostatic water level in aquaculture applications and must be used in combination with SENECT control units.

Since it is an electronic product the common prerequisites for a safe instrument usage must be fulfilled. The



corresponding control unit must be operated with 230 V AC (~50 Hz). Ensure that all cables are installed safely so that no obstacles for persons are built and all. Mount all cables and electric devices protected against direct environmental impacts like overheating by direct sunlight and water. Even if the products are protected against spray water, the product's lifetime will be elongated, if it is mounted on a protected place. The water level sensor EPS uses 24 V DC supply voltage which is therefore not of danger for persons.

For many applications a ground fault circuit interrupter (interrupting current ≤ 30 mA) is required by law. Inform yourself about the valid legislation.

Intended use

The operating temperature of the device must be between 0°C and +40°C. It is not allowed to modify the sensor, to open the housing or to insert anything into the housing.

The water level sensor EPS is designed to be operated by professional users. However, it can be operated by children of the age of at least 8 years and persons with limited physical, sensorial or cognitive ability, if they are supervised and trained in the usage of the instrument, so that no dangers or threats can result of the operation.

Please store this manual. We suggest the storage a copy of the manual in the vicinity of the device.

Technical and optical changes of this manual are subject to alterations.



Warning: Before starting any maintenance work, unplug all electrical devices in the water.

Intended use

The water level sensor EPS can be used to measure the hydrostatic pressure to calculate the water level in a range

between 0 and 250 mbar (or 0 – 2.5 m water column) and a operating temperature between $>0^{\circ}\text{C}$ and $+40^{\circ}\text{C}$.

The measurement values can be used to control particle filters like drum or belt filters, to refill water or just to monitor the water level.

The sensor is intended to be used in industrial aquaculture farms in freshwater.

Getting started

Scope of delivery

- 1 x Water level sensor EPS incl. 5 m cable
- 1 x Manual

Note



Please check directly after delivery, that the package is not destroyed or damaged or was opened before. Please check also, that all parts as listed above are included. If anything is missing or broken, please contact us as soon as possible within 14 days. Unfortunately, we cannot accept later information of damage, which happened during the transport.

Installation and start-up

Select the correct position for the sensor depending on the function, for which the EPS measures the water level.



If the sensor is used for controlling particle filters, the optimal location of the water level sensor is where the water level responds to the clogging of the filter and a control over the proper functioning of the circulation pump is. In a **gravity system**, this location is usually behind the filter (filter chamber) while in **pumped systems**, this is typically before the filter or in the pre-chamber of the filter.

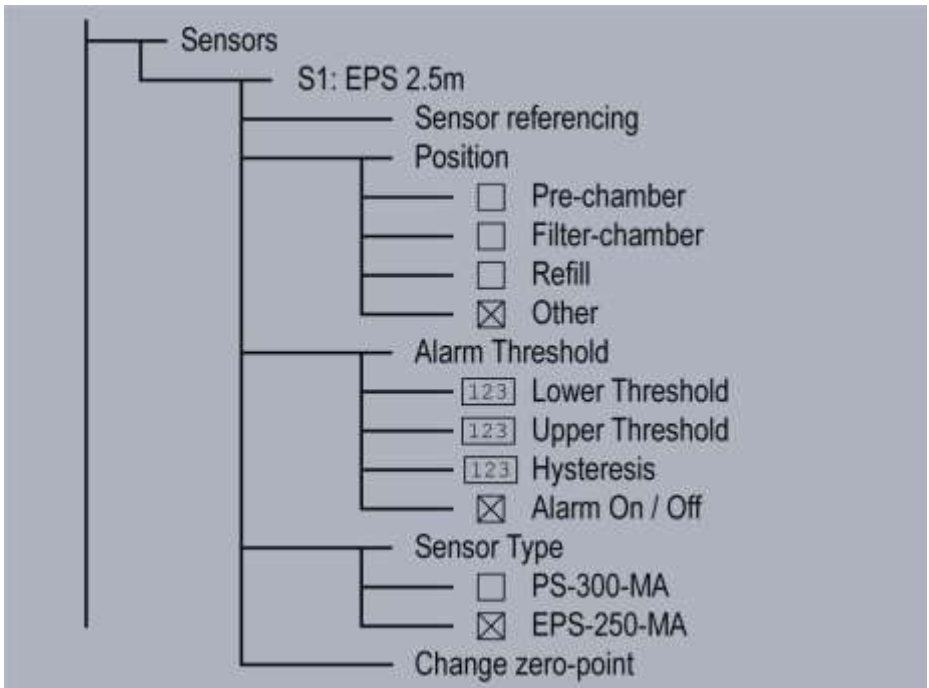
If the water level sensor is used to refill the water e.g. in a tank, mount the sensor in there.

Mount the sensor EPS screwed in – either with sealing tape directly in a G1/2" thread – or through a hole with a corresponding sealing and counter nut. Ensure that the cable side of the sensor is always dry and the sensor side always submerged.



Lay the cable to your control unit. Ensure that all cables are placed safely and all regulations are fulfilled. Make sure that the plug cannot get wet!

Connect the plug to your control unit at one of the blue marked **SENSOR** plugs and adjust the settings in relation to the desired function.



Depending on the actual software version, the menu can be different. You find the latest manuals at www.senect.de.



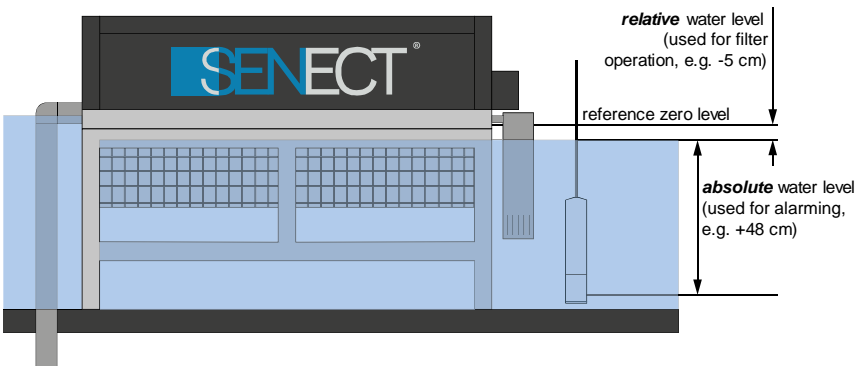
Functions:

1. Controlling a particle filter

Select in the menu the water level sensor (**MENU / Sensors / S: EPS 2.5m**) and click on **Position**. If your sensor is mounted in the filter-chamber, select **Filter-chamber**, if it is mounted in front of the filter mesh, select **Pre-chamber**.

Flush the filter once by pressing **CLEAN FILTER**.

Reference the water level sensor under **MENU / Sensors / S: EPS 2.5m / Sensor referencing**. Now, the relative water level is set to "0 cm" and the filter functions (e.g. backwashing) refer to this reference water level.



Please check always under **Sensor Type**, if the EPS-250-MA is selected.

2. Refilling water level

Select in the menu as **position** of the sensor “Refill”. Set the current value to “0 cm” by **referencing** the sensor.

If the water level in your tank is too low, you can adjust the referenced water level manually. Go therefore in the menu to / **Sensors / S: EPS 2.5m / Change zero-point** and set the value for which you want to adjust the level. E.g. if you set +3 cm, the “0 cm” water level is then 3 cm higher.

3. Only monitoring of the water level

If you want to measure the water level and get alarms, in case thresholds are exceeded, select as function “Other”.

In the submenu **Alarm Thresholds** you can select the desired boundaries of alarming.

Maintenance and cleaning

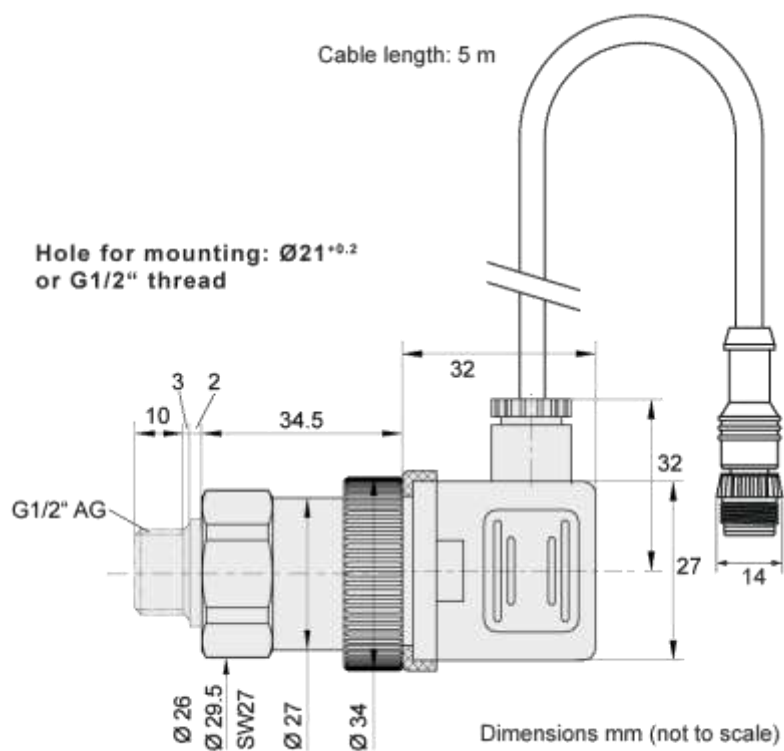
The water level sensor is factory calibrated and does not need to be recalibrated.



The housing of the water level sensor can be cleaned by wiping dirt off with a towel. However, the pressure sensor itself **must not** be touched and no cleaning is necessary!

Technical data

Dimensions probe:	Ø 29 mm, length: 62 mm
Material (medium-side):	Stainless steel 316L
Cable length:	5 m
Voltage:	24 V DC
Power consumption:	<< 1 W
Temperature range:	0° to 40 °C
Berst pressure	2,5 bar
Range:	0 – 250 mbar or 0 – 2,5 m water column
Precision:	< 1% FS
Response time:	T ₉₀ < 3 s
Ingress protection:	IP54 (outer sensor part)



Information about the correct disposal



Your device is well packed at delivery. Please dispose the packaging material accordingly to the regulations in your country.

Do not throw the product in the casual litter bin. Make sure you are informed about the local disposal regulations and dispose your product accordingly. Alternatively, you can also send the product back to the producer.

The SENECT GmbH & Co. KG is member of the Stiftung Elektro-Altgeräte Register and the products are registered (WEEE-Reg.-Nr.: DE37193510).

Guarantee



Please check at delivery of your device, that all parts are delivered completely and that they function correctly. In case of any claims, contact us immediately per email or phone (info@senect.de or +49-6341 - 95 95 210). Please describe your claim as detailed as possible so that we can provide a solution as fast as possible. The product has a guarantee of 1 year and a warranty of 2 years. Furthermore, the § 377 HBG (German law) is valid.