

# Salt Level Gauge

The sensor is designed to measure the salt level in the brine tank. The sensor unit uses laser technology to detect the salt level. It shows graphically with a Colored LCD screen on the device. It also warns you with sound and light when the desired minimum level is reached. There are two types of alarm outputs. By connecting any of these outputs to a PLC , it can give an external alarm signal when the minimum salt level is reached.

The sensor should be mounted upright, above the brine tank and facing the salt. The maximum level of salt must be 5cm below from the bottom of the sensor. The alarm level of the device can be adjusted according to your requirement.

## Technical Specifications

Measurement Range	1-200 cm
Measurement Accuracy	1 mm
Power Input	100-240VAC 50 / 60Hz 0.5A
Cable Length	2 meters $\pm$ 1 0cm
Protection Class	IP54
Sensor Outer Material	Stainless Steel (Polished)

(Sensor connection should be made with the 4-pole connection socket at the end of the 2-meter cable.)



Sensor Outer Diameter	M18S (18 mm)
Sensor Length	55 mm
Sensor Weight	45gr (Cable excluded)

## PLC Output Cables

Common Tips	Blue and Black
N Type Alarm Output	Brown
P Type Alarm Output	White

When the device is started for the first time, the screen will appear as in Figure- 1 :

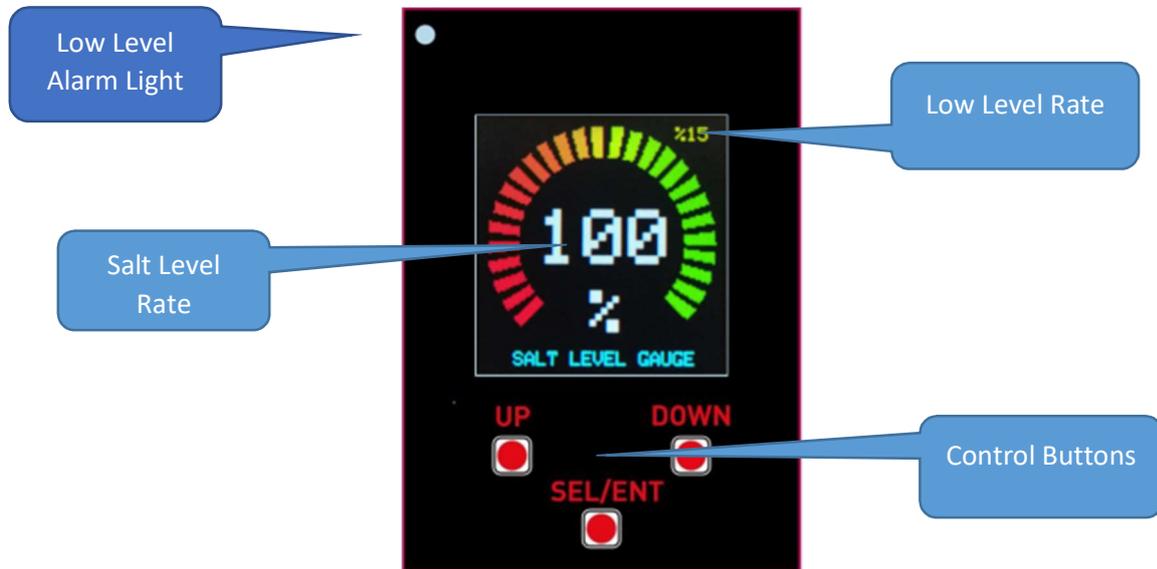


Figure 1

### Using the Setting Menu



The menu consists of three options. The first two options will be explained in detail in the next section.

In the factory setting, the display is in the "up (Top)" position. In this case, the buttons remain below. The screen can be adjusted to the desired position according to the status of the plug in which the device is inserted.

To make an adjustment;

- Select the option you want to adjust by using the "UP" and "DOWN" buttons.
- After selecting the option you want with a "Blue" background, press the "SEL / ENT" button once.
- On the left side of the Options will be a small yellow triangle sign and this shows that you are on the change mode
- Again, use the "UP" and "DOWN" buttons to set the value you want to adjust.
- Exit the change mode by pressing the "SEL / ENT" button once again .
- Finally, by using the "UP" and "DOWN" buttons, come to the " Save & Exit " line and press the "SEL / ENT" button.

The device will automatically save the settings you selected and return to the measurement screen.

NOTE: These settings will be restored if device disconnects from power source or there is power failure

Display cases are then shown in the following picture:



### Tank Height and Warning Settings

The level measuring device can be used in tanks up to 2 meters. Some basic points for accurate measurement are explained below.

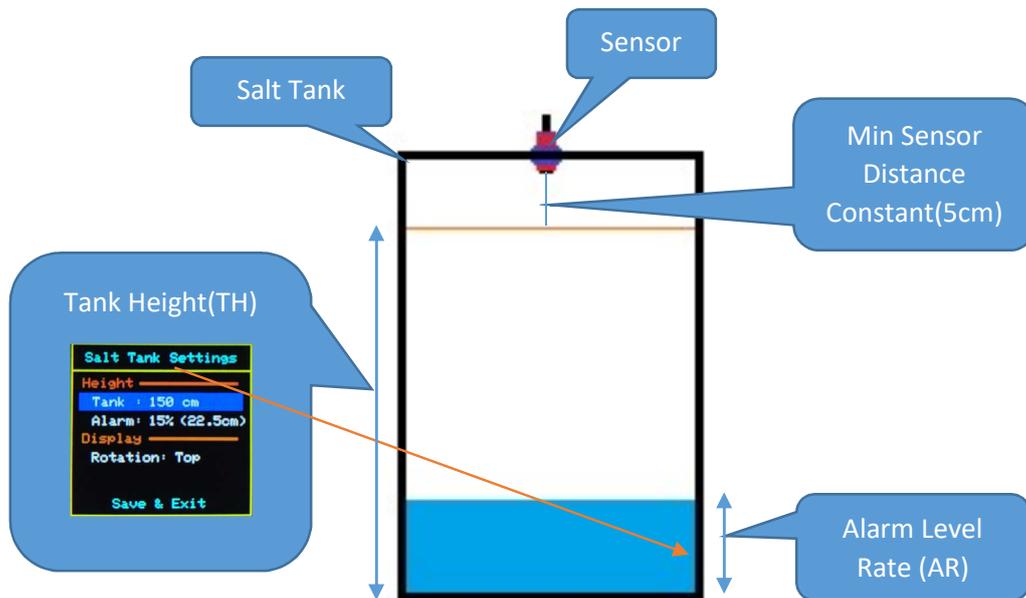


Figure-2

If the device is full to the tank height (TH), 100% will be displayed on the screen. Low level alarm of the device will occur as a result of the decrease of the Tank Height that you have determined in the menu, to the Alarm Level Rate (AR) that you have set in the setting menu.



To illustrate this with an example:  
 Base on the settings of the picture  
 Tank Height (TH) = 150cm  
 Alarm Level Rate = 15%

In this case, Warning Height =  $(TH * AR / 100) \Rightarrow 22.5$  cm. Briefly, the sensor alerts measure height 22.5 cm. To explain in more detail; The screen will show 100% when the sensor measures 150 cm , and show 15% when it measures 22.5cm . Accordingly, it will give a warning when it goes below 22.5 cm . Next to the audible warning, there is a Warning Light on the front panel. The audible warning signal will continue until the level is raised.

### **Automation Connection**

There are 2 On / Off outputs on the device . These are completely isolated from the electronic internal structure of the device. When the device gives a warning, these outputs are also active. It has a 4-wire waterproof connection. These outputs are "Open Collector ".

Cable colors are as follows:

Blue-Black	Joint Connection
White	Normally " Off " Output
Brown	Normally "On" Output