

# 4 Factors to Consider when Choosing Between a Point Level Switch or Continuous Level Sensor

When starting your search for a level sensor, it is first of all very important to understand the difference between a level switch and a level sensor.

There are many different level sensing technologies to choose from on the market today, some of which have been around for decades, operating in industries such as food and beverage, manufacturing, automotive and white goods.

*In this article we will cover the main differences and things to consider when making your selection of a point level switch or continuous level sensor.*

## 1. Operating Principle

### Level Switch:

A level switch is a device that detects the presence or absence of fluid when a certain predefined level is reached. For the most part, they work as an on/off switch to engage a function when the tank or vessel level either rises or falls to a certain level. This could be to sound an alarm or to engage a piece of equipment. Essentially, the switch detects when the liquid has reached the desired point and it acts as a switch to activate the necessary response.

### Level Sensor:

A continuous level sensor is required when it is necessary to measure every possible intermediate level of a tank or vessel, otherwise known as continuous level measurement. This means the sensor provides feedback regardless of the level of the liquid.



## 2. Measuring Task

### Level Switch:

A level switch is generally intended for processes where high or low levels need to be monitored. Preventing overfills, run dry situations and leaks.

### Level Sensor:

A continuous level sensor relay the exact level of fluid to be monitored. Ideally suited for processes where increased precision is necessary and for applications where knowing the level is important.

## 3. Environmental Factors

In addition to distinguishing between a continuous level sensor or point level switch, there are several environmental factors that can determine which type of sensor will work best for the application. Factors such as:



- **Temperature and pressure:**

Depending on the operating temperature and pressure in the application environment, different materials and designs of level switches and sensors may or may not be suitable.



- **Chemical compatibility:**

The type of housing material of the sensor or switch should be selected based on the liquid media being measured. You must take into account whether the liquid media will build up or coat surfaces; in these cases, solid-state sensors with no moving parts are preferable.



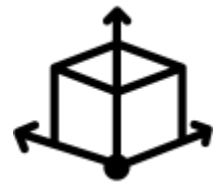
- **Range of measurement:**

How deep the vessel or tank is and the required distance between the liquid surface and the sensor will help determine the right sensor.



- **Type of response or output:**

Different sensors are better suited for producing different outputs: analog, relay, digital and others.



- **Tank size and shape:**

Extremely wide or narrow tanks and those without access to mount sensors on the sides, top or bottom will have specific needs. For example, ultrasonic sensors will not be suitable for narrow shaped tanks.

## 4. Types of Level Sensors and Point Level Switches

Even although most level sensor technologies fit into these two main categories (continuous level sensors or point level switches) there are many different types of devices to choose from within each category, suitable for the never-ending list of applications.

Examples of **Point Level Switches** are listed below:

- [\*\*\*Optical liquid level switches \(SST Sensing\)\*\*\*](#)
- [Horizontal float switches](#)
- [Vertical float switches](#)
- [Ultrasonic level sensors](#)

Examples of **Continuous Level Sensors** are listed below:

- [Submersible liquid level sensors](#)
- [Ultrasonic level sensors](#)
- [Capacitive level sensors](#)

### **Optical Point Level Switches from SST Sensing**

SST Sensing is one of the world leaders in [optical level sensing technology](#). We supply an extensive range of optical sensors which we have massive success in sectors as varied as food and beverage processing, off high-way vehicle fuel and coolant level monitoring, [leak detection in telecom and automation equipment](#).

If you would like more information about using one of our advanced optical level switches in your application, please do not hesitate to [contact us directly](#).

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## **Get in touch**

Our Engineers have over 60 years combined experience in the sensor industry. To ask a question or get a quote, please contact us