When to Use a Float Switch and Point Level Sensor

by Vincent.Lamar

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Float switches, and other point level sensors, are great alternatives to the more expensive continuous level sensors (ultrasonic, radar, level probes, etc.). Functionally, of course, they are not as capable. However, they work great under the right circumstances and continue to be a staple in level measurement applications throughout the world.

When To Use

The right time to use a float switch is tied to the application goals. What does the sensor need to do? If the answer to that question is only to perform a repeatable action at a specific and consistent level, then a float switch just may be a good sensor.

For example, a custom float switch sensor would work if youâ€™re using a rudimentary level indication such as turning on and off lights when a certain level is met.

A more common application is lift station pump control. A lift station pumps water or wastewater out of a wet well to higher ground where gravity can continue to carry it down the line. Cable suspended float switches are often used to turn on a pump as the level in the wet well rises. For larger lift stations, there are several pumps, each turned on by a single switch activated as the level rises faster than the previous pump can handle.

The examples above represent common point level sensor usage. However, if the sensor needs to do more than simply initiate an action at a specific level, then a float switch no longer makes sense. The same is true for any point level technology.

When Not To Use

Continuous level sensors provide the most flexibility. These sensors can be used to accomplish all the tasks that a point level sensor can, but with a variety of added benefits.

You will know itâ€™s time to look for a continuous level sensor when you become concerned with the accuracy of a level or a volume measurement, or when switching to a continuous sensor can save money or increase efficiency.

Point level sensors are inadequate for level measurement or monitoring. They simply activate notifications, alarms or control measures to keep liquid level within pre-defined boundaries. They cannot give measurements or provide the advanced control that relies on real-time data.

Applications that do not require a continuous level sensor may still benefit from having one. A good example of this is the development of pumps with a variable speed motor. These pumps are controlled by a continuous level sensor and run as fast or slow as needed - rather than simply on or off. This saves energy, is environmentally friendly, and will often result in a quick return on investment.

Float switches, and other point level switches, are great for simple control and cost less than continuous measurement. However, itâ€™s important to study your application and the equipment that can improve your process. You may be able to upgrade sooner than you think.

Vincent.Lamar - About Author:
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