

# Float Switch 101

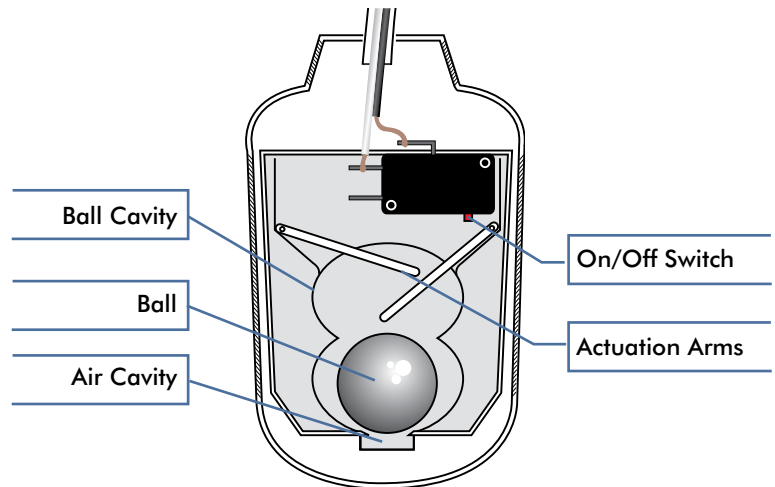
## Basics of a mechanical float switch

Mechanical float switches are normally activated by an internal, movable part. In the diagram to the right, the Ball is used to pressure the Actuation Arms to engage the On/Off Switch when the float changes positions.

It is important to note, the switch can be wired to either turn On or to turn Off with activation. The position of the float, when *hanging*, designates whether the switch is 'normally open' or 'normally closed'.

If the On/Off switch, as shown to the right, is wired to activate (close a circuit) when pushed, this would be considered a 'normally open' float. The float is hanging and the circuit is open.

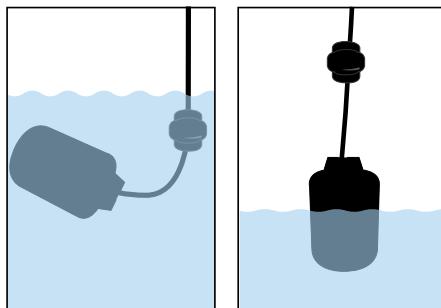
Conversely, if the switch is wired to open a circuit when pushed, this diagram would depict a normally closed circuit. The hanging float is closed and would open with the change of position.



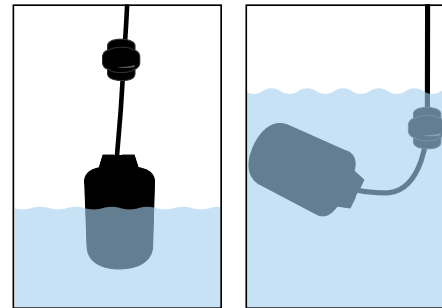
## Practical Use/Application

Float switches are often used to monitor tanks, cisterns, lakes and other water catchment situations. The floats can activate a pump to either fill or drain based on the application.

**NORMALLY OPEN SWITCH-**  
Closes at rise = Pump Down control



**NORMALLY CLOSED SWITCH-**  
Opens at rise = Pump Up control



## Placement

A tether point or weight provides the pivot point for the float. Keeping the float within 9-12" of the pivot point reduces the opportunity for the float to tangle. Position the top float at the maximum fill, or the bottom float at the lowest level allows for a range of water levels to be utilized. Multiple float switches can be used to monitor varying levels, provide alarms, secondary pump, etc.

