Float Switches – Understanding Terminology

Pump Up vs. Pump Down & Normally Open vs. Normally Closed

A “Pump Up” float switch opens the circuit on the rise.

A “Pump Down” float switch closes the circuit on the rise.

Sometimes the terms “Normally Open” and “Normally Closed” are used to describe float switches. Please use the following identities:

- Normally Open = Pump Down
- Normally Closed = Pump Up

A pump with a DSP200 Controller (Item #11069 - used with PV-direct Dankoff pumps except the SunCentric) will continue to run when the float switch circuit is open. With a DSP200, a closed float switch circuit will shut the pump off. With no controller, Dankoff pumps will not run when the circuit is Open. Dankoff pumps will run when circuit is Closed.

So, to shut pump off when the tank is **Full**:

- Use “Pump Up” when no DSP200 is used.
- Use “Pump Down” when using a DSP200.

To shut pump off when the tank is **Empty**:

- Use “Pump Up” when using a DSP200.
- Use “Pump Down” when no DSP200 is used.

**As of 11/27/2007:**

All float switches sold by Dankoff Solar Pumps, LLC are certified safe for drinking water applications, EXCEPT those rated for 25 Amps (Item # 11007 and #11009). The 25A units contain mercury and risk contaminating the system if they were to break.

Windy Dankoff says that the current ratings that we give to the float switches we sell are based on 28VDC operation. So, the rating for our float switches are really only for 24VDC nominal systems and the current ratings should be halved when used with 48V systems. This ratio is not precise, but it has shown itself to yield accurate results.

Keep in mind that the current rating of a float comes into play mainly with SunCentric pumps. All other Dankoff pump lines (SlowPump, SolarForce, Solaram) benefit from the use of a DSP200 Controller, when in PV-direct systems. In these cases, the float wires connect to the DSP200 float terminals, and the power to the pump does not pass through the float.

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