

Floating RTD for Cooling Water Temperature

APPLICATION

Requirement was for an RTD that would float 36" below the water surface in the cooling water of a nuclear reactor. The sensor would only be deployed in the event of a catastrophic power failure to monitor the temperature of the cooling water until power can be restored. A battery powered display with an easy on/off or continuous on function was also required.



CHALLENGE

Keeping the assembly waterproof and ready for easy deployment were the main challenges with the design. It also had to be durable enough to withstand the potential for rough handling during deployment.



22276 and HD23

Probe assembly drawing coming soon



Floating RTD and Indicator

SOLUTION

We chose to use the Burns Series 300A style sensor threads into a pipe extension from the bottom of a standard spherical float made of stainless steel. The cable attaches to the top of the float through a cord connector for a watertight seal. The Series 300 probe is low cost and is designed to withstand drops on a concrete floor and other rough handling without damage. The current configuration terminates into a Burns HD23 battery powered indicator which runs continuously and has a battery life of up to two years.

The assembly is in the late stage of development and is a good example of how a difficult application can be solved by our engineering group using standard off-the-shelf components. For more information please contact me at:

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