

Monitoring water level in a tank

APPLICATION A126

Type of Company: [Public Utility](#)

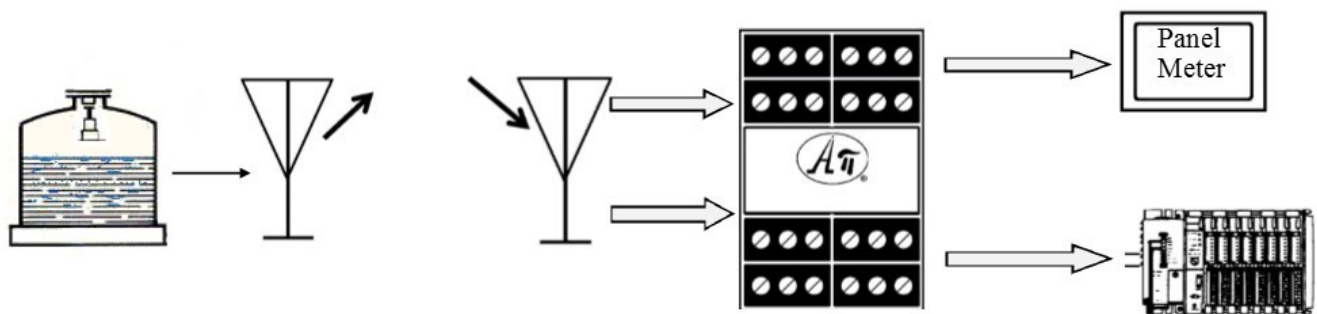
Location: [New Mexico](#)

A water tower is an elevated structure supporting a water tank constructed at a height sufficient to pressurize a water supply system for the distribution of potable water, and to provide emergency storage for fire protection. Water towers are able to supply water even during power outages, because they rely on hydrostatic pressure produced by elevation of water (due to gravity) to push the water into domestic and industrial water distribution systems; however, they cannot supply the water for a long time without power, because a pump is typically required to refill the tower.



The Engineering Issue

- The engineer has a requirement to monitor the water level in a remote water tower using a previously installed Delta Controls Model 591 cable-suspended transmitter.
- The level transmitter signal is sent to an Zlinx radio modem which is sending a signal to both a Honeywell PLC and a panel meter. When both devices are connected to the radio receiver channels a ground loop is formed and causes erroneous readings.



The engineer used an APD 2000 to isolate both signals. The APD 2000 isolated signal conditioner provides three-way isolation and eliminates the ground loop degradation problems.

Problem. Solved.