

Waste water level monitoring in lift stations

When waste water flows within the water recovery system, manufacturers and system builders of sewage networks integrate inclined pipes that use gravity to ease the transport of waste water to the treatment plant. Therefore, lift stations respectively pump stations are used, which lift the waste water to a higher level and let gravity move the sewage towards treatment. Therefore the waste water level monitoring in lift stations has to be undertaken as the sewage pumps used for lifting the waste water have to be protected from dry-run and controlled to run most efficiently.



A lift station basically consists of a receiving tank with a level monitoring sensor such as a submersible pressure transmitter and a sewage pump or submersible pump to lift the waste water to a higher level. As the tank fills with waste water from the network, the level sensor will signal the pump to start. The main target of waste water level monitoring in lift stations is to start the pump when sufficient waste water is in the tank and to detect low level, to send a signal to the pump to stop pumping. In the event of a pump or control failure the level sensor will trigger an alarm and warn maintenance technicians that they need to attend to the problem.

The level monitoring signal can also be used to control multiple sewage pumps sharing and alternating the pump duty depending on the current load within the network. Waste water level monitoring in lift stations helps to control how many pumps are running, always according to the level and continuous flow into the tank.

The submersible pressure transmitter is easy to install and maintain. It does not require complex setting up to integrate the structure of the tank or any tank obstructions. Such a hydrostatic level probe is also not influenced by foam or debris on the surface that can give false readings as many other level monitoring devices. Pump stations are often unstaffed and therefore rely on efficient remote monitoring solutions for waste water level monitoring of lift stations, solutions which must achieve a long service life with high accuracy and stability. The hydrostatic level probe is proven to give long service, accuracy and stability without manual intervention.



Gravity is the most efficient way to transport sewage to the treatment plant. A reliable and accurate waste water level monitoring in lift stations reduces costs and increases the overall network efficiency.

Please find further information on this topic on our information platform www.wika.com/hydrostatic-level



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