

Level monitoring in oil tubs / overflow detection

The problem:

Oil is a dangerous media for our groundwater. Operators of oil tanks have to make sure that in case of any defect of an oil tank no oil will run out and sink into the ground, spoiling the groundwater. If any damages on natural environment occur (dying fish in the lakes, damaged plants) the authorities will conduct examinations and also check the companies nearby.



It's not unlikely that a defect tank or machine will be found. In this case the operator of the plant will face high cost for recycling the complete soil, earth, water and whatever is spoiled by his media. For this reason oil tanks have to be equipped with a reliable overflow switch. Those have to be set into leakage tubs which collect any out passing media. Those tubs must be equipped with a reliable overflow switch detector that will give an alarm immediate when it is touched by media.

The problem for the measurement technique is that the measuring ranges are very small and that the sensor will (hopefully) seldom be touched by media. Therefore the function of the sensor will not be regularly checked. Still the sensor must provide a reliable switch point.

The overflow sensor in the tank may also be under pressure and temperature influences.

Read about the GHM - solution:

As overflow sensor the tank can be equipped with a LCC2 capacitive GHM sensor.

It is fixed with a robust G1 screwing or flange and is completely made of stainless steel. It's optimised for turbulent media and it can be adapted to different kind of oil by using a reference capacity.



For the tub we offer our LCC1 sensor in angled version.

Both offer as an additional option an integrated temperature sensor and provide as well the level switch output as also an analogue signal.



Applications:

- monitoring oil tanks
- monitoring level in compressors in ship building industry
- level measurement in hydraulic tanks