

Underground Level & Volume applications

PTX 1730/PTX 1740

Application:

Caterpillar, a customer in Southern part of India has 2 underground tanks where they were interested in displaying volume. One tank is for lube oil and the other was for Diesel.

Many plants have underground water or diesel tanks. Normally the customers use mechanical system like float gauges for level detection. Occasionally customers will use ultrasonic, radar or hydrostatic sensors. These underground tanks are normally having small depth but their area is large.

Solution from GE sensing:

GE sensing can offer submersible sensors that can measure depth (level). We offered PTX 1730 for lube oil and 1740 for diesel. 1740 come with a cable material which is suitable for hydrocarbon applications. These sensors are ideal for underground application. Our sensors will measure the depth and the depth can directly be correlated to volume. We have offered a local controller to this customer.

Installation:

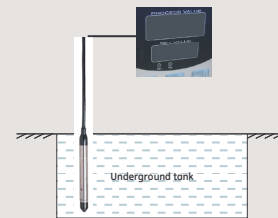
The sensor is immersed in the tank and the cable is terminated in the offered controller. The tank is filled with the known volume of the medium. The sensor output is fed into the controller. The controller will power the sensor so no additional power cable has to be laid for sensor. In this application the level and volume relation is linear (the tank is open rectangular). Hence with just two points (no liquid output and known volume output) the whole system can be used to display volume linearly.

Benefits offered:

1. Level and volume both parameters displayed.
2. Simple installation and commissioning.
3. Suitable and cost effective solution even for smaller depths.
4. Hydrocarbon resistant cable integral to the sensors offer extended operational life
5. Retransmission and pump control possible.

Commissioning

- ◆ No liquid, output from sensor is 4mA.
- ◆ When known volume is filled read the output current from the sensor.
- ◆ Correlate the volume and sensor output in the controller.
- ◆ Set the switching point,



Important Target applications:

- Underground level measurement
- Volume measurement in open tanks
- River, channel, dam level measurement
- Water and waste water / Desalination, etc treatment plants
- Town/ city water distribution
- Diesel/non corrosive level applications