

Tank Level



Reference Application

EXPLORE THE NEXT SENSE

Use this reference application together with the XM132 Entry Module to speed up development and shorten time to market for products implementing contactless monitoring of tank levels.

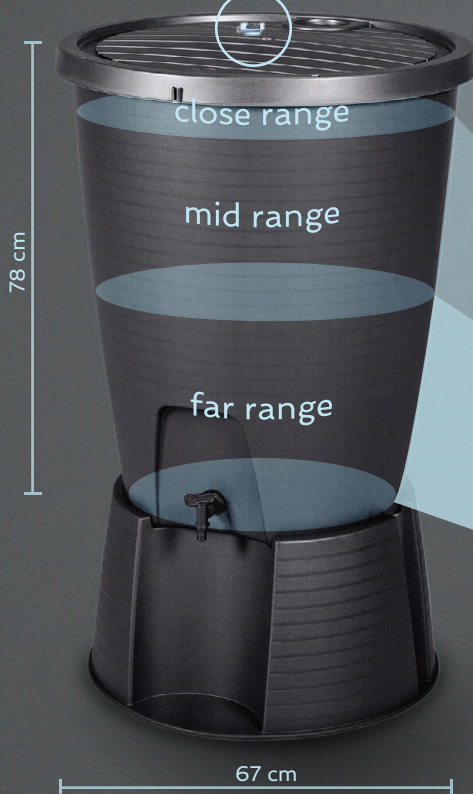
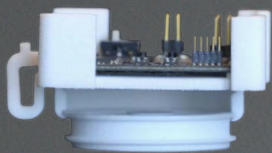
The tank level reference application can be used for tanks, sewers and other containers that are between 0.5 and 7 meters deep and at least 0.5 meters wide.

Provided an FZP lens is used, the application measures the distance to a liquid surface in the range 0–7 meters, with mm accuracy.

The source code of the application is provided, and can be adapted for other tank dimensions.

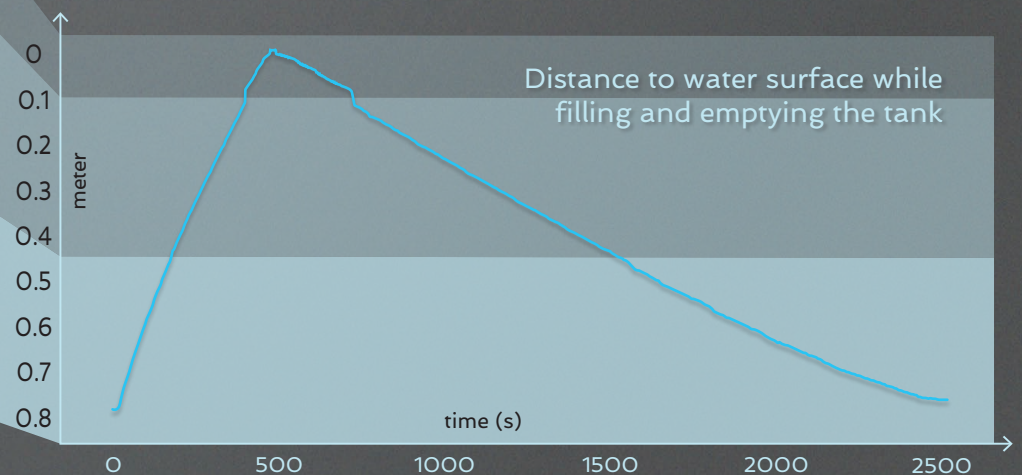
Proof of concept

XM132 and LH132 with an FZP lens in the outermost position. The lens is attached to the plastic lid with double-sided tape



220 liters water tank with a lid in PP plastic

The application is able to accurately measure the distance to the water surface when the tank is filled and emptied. The application makes the measurements in three sections (close, mid and far range), each with different configuration. The ranges are noticeable in the graph with small changes in the line between each range.



In a typical use case, in which you measure the tank level twice in an hour, you can expect a power consumption of around 0.08 mW/hour for tanks not deeper than 0.5m and around 0.09 mW/hour for larger tanks. The figures are based on actual measurements in our Proof of Concept tank.

Memory usage

| | |
|---------------|-------|
| Flash | 82 kB |
| Static memory | 12 kB |
| Stack | 2 kB |
| Heap | 14 kB |

Download the reference application at:
www.developer.aconeer.com