

Re: Capacitive water level sensor

small-signal speed of sound varies as $\sqrt{1/\text{density}}$, it also varies as $\sqrt{\text{AbsTemp}}$. So temperature compensation would be required for an accurate measurement unless temperature is controlled.

The decrease in Q due to the increased viscosity of humid vs dry air is very small, probably hard to detect without a lot of care.

For real entertainment, consider the non-linear finite-amplitude case :-).

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