

FAQ's for Siemens Radar Transmitters

❖ LR 250 – Liquid Radar Transmitter

- Q: I'm getting false high levels. My level is really lower than what the transmitter is reporting.
- A: There are a few things that you can check.
 - I would first check the orientation of the meter with regards to the tank. The radar signal comes out in the shape of an elliptical. This signal is in the same plane as the display. For best results on a vessel with obstructions, a unit mounted close to the wall, or a stillpipe with openings, orient the front or back of the device toward the obstructions.
 - Then check your algorithm in parameter 2.8.4.1. It comes default as true first, but I would change it to best of largest and first.
 - If that did not solve your problem, look at the echo profile with your PDM software or your LUI display (parameter 3.1). Check to see if there are any obstructions at the place where you see your false echo. If there are no visible obstructions, it is probably a signal from the nozzle. What you should do is extend your blanking distance. This is parameter 2.8.1 and is called near range. I would extend this out as far as you can without getting closer than 2 feet from your max level point.
 - If that still did not solve your problem, you probably have an obstruction inside your tank, and you will have to perform an auto false echo suppression. See parameters 2.8.7.1 and 2.8.7.2 in the manual to set this up.
- Q: When my tank level gets low, the transmitter says that I am completely empty even though I have about 3 feet of level.
- A: You are probably measuring an oil or another liquid with a low dielectric (dK). When the level gets low, the signal is passing through the liquid and reflecting off the bottom of the tank. To correct for this, you need to select liquid low dK under the material parameter 2.2.3.

❖ LR 260 – Solids Radar Transmitter

- Q: My signal is hopping around slightly, and my echo profile is showing two echoes side by side that looks like a camel's back.
- A: Turn on the echo reform. Start with setting it at 5 or 10. Do not exceed 20. This will clean up your graph, and smooth out your reading.

- Q: I'm getting false high levels. My level is really lower than what the transmitter is reporting.
- A: Change the algorithm to largest.

❖ Any Siemens Radar Transmitter

- Q: I have a good signal when my level is high, but I'm getting a false reading at lower levels.

- A: Check to see if the Auto False Echo Suppression (AFES) is turned on. Even if you have done a master reset IT WILL NOT RESET THE AFES. To turn off the AFES, you must change the range value to 0 and you must relearn the value.
- ❖ **Q.** I have a vessel with a conical bottom, and get an erratic reading when the vessel is empty, or very low.

A. You may get a loss of echo signal when the vessel is empty. Since an empty vessel would normally read zero level, and transmit 4 ma, we want to do the same when we get loss of echo. With an LR250, do the following

Setup/Failsafe/Material level: Lo

Setup/Failsafe/Timer: 100 seconds as default, adjust as necessary

In the above example the LR250 and LR260 will indicate and transmit empty vessel value with loss of echo. Be aware that any loss of echo event will cause the level control to read empty, so you may want to add a high level switch in case they get near zone issues.