Testing measuring lines for leakages

(exerpt from LevelDatic 100S Functional Description V2.0 - Appendix C

A leakage from the measuring line to atmospheric can cause measurement error depending on how big the leakage is. The effect of this error is normally that the level measurement result is much lower than the real level in the tank or, if the leakage is very big, level measurement result is probably 0 (near Ho-value set to this measuring point).

If there is reason to believe that there might be leakage on the measuring line this can be easily tested using LD 100S pressure measuring itself.

It is possible to do a leakage checking using the LD 100S system when it is really known that the liquid level in the tank is above the sounding pipe end or the 1:1 converter connection point(level over 1 m or more if possible).

When the LD 100S is in normal measuring condition (flow on, near 0.5 l/min) and there is indication of some level on the tested point, simply close the FLOW adjustment screw on the constant-flow speed controller tightly (the flow is 0 l/min).

After this just check if the level indication drops during test time (e.g. 3 min). If there is no leaking on the measuring line, level should stay near the same indication during the test time.

As an alternative for level indication you can use the service terminal ST 100S and read the level (or the pressure) from the cabinet directly. Also you can use some other pressure measuring device connected to the test quick connector on the constant-flow speed controller.

If the leakage is found you can use the PURGE possibility to find out the exact leaking point. Just plug the measuring line near the tank side e.g. from the pipe connector of the tank penetration or end of the sounding pipe if possible and connect the PURGE-hose to this line and PURGE the measuring line. Now use soap water to find the leaking point from the measuring line. Note that the leakage can also be on the sounding pipe inside the tank.