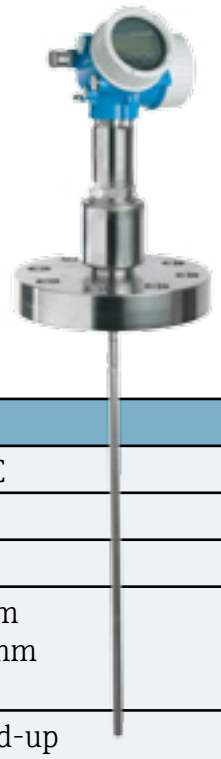
Endress+Hauser
People for Process Automation

Popular technologies for continuous level measurement

Which technology is the best for your liquid level application? Here's how they measure up!



	Radar	Guided radar	Capacitance	Hydrostatic
Process temperature	-196 to +450°C	-196 to +450°C	-80 to +200°C	-70 to +400°C
Process pressure	-1 to +160 bar	-1 to +400 bar	-1 to +100 bar	Vacuum to +420 bar
Measuring range	0.3 to 80m	0.2 to 45m	0.1 to 10m	0.1 to 100m (1 mbar to 40 bar)
Accuracy	▪ 6 GHz: +6mm ▪ 26 GHz: +2mm ▪ 80 GHz: +1mm	▪ < 15m: +2mm ▪ > 15m: +10mm	▪ 1% of measuring range	▪ +0.05% of set span
Function affected by	▪ Foam ▪ Extreme turbulence ▪ Conductive build-up on antenna connection ▪ Heavy build-up	▪ Extreme build-up	▪ Plastic tanks ▪ Extreme build-up	▪ Dynamic pressure fluctuations by agitator or vortices
Accuracy affected by	▪ Wall effects ▪ Interfering reflections ▪ Extreme pressure changes	▪ Interfering reflection from obstacles (not coaxial) ▪ Extreme pressure changes (not gas phase compensation)	▪ Conductivity < 30µS/cm (changing dielectric constants) ▪ Conductive build-up	▪ Temperature change ▪ Changing densities ▪ Dynamic pressure
Application limits	▪ Measurement up to abs 0% ▪ DC < 1.4	▪ Measurement up to abs 0% ▪ DC < 1.4 ▪ Strong mechanical stress in agitator applications	▪ Agitator blade ▪ Changing non-conductive media or conductivity between 1 to 100µS/cm ▪ DC < 2.0	▪ Hard build-up ▪ Vacuum with simultaneous temperatures > +200°C ▪ Density fluctuations

Want to know more?

Download our free handy guide to continuous level measurement in liquids >>>