

Selection guide

Radar level instrumentation

		LG01 Guided-Wave Radar	LR01 Free-Space Radar 10 GHz FMCW	LR54 Free-Space Radar 24 GHz FMCW	LR64 Free-Space Radar 24 GHz FMCW	LR74 Free-Space Radar 24 GHz FMCW	LR65 Free-Space Radar 80 GHz FMCW	LR75 Free-Space Radar 80 GHz FMCW
Why choose this technology		- Liquid and solid applications - Applications with foam	- Liquid applications - Applications with foam	Liquid applications	- Solids applications - Applications with larger solids material such as granulates or rocks - Installations with heavy buildup potential	- Liquid applications - Agitated and corrosive media - Dual safety seal requirements - High pressure / high temperature applications	- Solids applications - Applications with powders and dust - High and narrow silos installations - Installation close to tank wall	- Liquid applications - Very low dielectric constants - Applications with long nozzles and internal obstructions - Installation close to tank wall
Contact/non-contact measurement		contact	noncontact	noncontact	noncontact	noncontact	noncontact	noncontact
Application	Liquid (clean) level	↑	↑	↑	↓	↑	↓	↑
	Interface (liquid/liquid) ¹	↔	↔	↔	↓	↔	↓	↔
Media conditions	Applications with foam	↑	↔	↔	↓	↔	↓	↔
	High viscosity or waxy fluids	↔	↑	↑	↓	↑	↓	↑
	Buildup/coating	↔	↔	↑	↑	↑	↑	↑
	Slurries	↔	↑	↑	↓	↑	↓	↑
	Wavy/turbulence	↑	↑	↔	↓	↑	↓	↔
	Corrosive media	↔	↑	↔	↓	↑	↓	↔
	Low dielectric <2.0	↑	↔	↔	↔	↔	↑	↑
	Temperature up to 392 °F (200 °C)	↑	↑	↓	↓	↑	↑	↑
	Pressure up to 1450 psig (100 barg)	↓	↓	↓	↓	↑	↓	↓
	Solids — rocks and granulates	↑	↓	↓	↑	↓	↔	↓
Installation	Solids — powders and dusty atmosphere	↑	↓	↓	↔	↓	↑	↓
	Agitator/obstacles in way of measurement	↓	↑	↔	↔	↔	↓	↓
	High, long narrow nozzles	↔	↓	↔	↔	↔	↑	↑
	Small tank height 8" (20cm)	↓	↓	↔	↓	↔	↓	↑
	Stilling wells and bypass chambers	↑	↑	↑	↓	↑	↓	↔
	Open pit/open air ²	↑	↓	↑	↑	↑	↑	↑
	Mount outside and measure through non-conductive (plastic) tanks ²	↓	↔	↑	↓	↑	↓	↑
	Side of tank connection/entry	↓	↑	↓	↓	↓	↓	↓

1.

All radar can be used as part of an interface system - must be coupled with differential pressure or multivariable transmitter and pid controller such as SCADAPack™ 4102

2.

When using any type of radar in an open vessel, check local regulations for rules/laws regarding potential stray radar emissions