

LR74 (24 GHz) free space radar

Liquid level measurement for
challenging applications



Benefits

Designed for liquids in harsh environments such as tanks with agitators containing corrosives, in processes with fast changing levels (≤ 60 m/min; 196.85 ft/min), in process tanks requiring high accuracy, this FMCW radar level transmitter has everything to solve tricky situations and replaces obsolete radars in high-end applications.



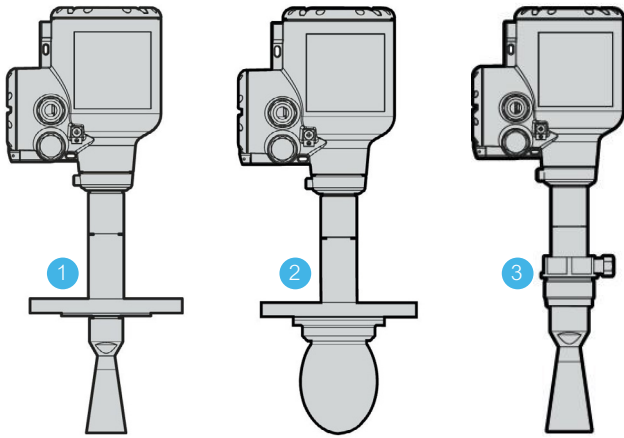
Tank height, 0% and 100% level are all that's needed for setup

- M12 cable connector option lowers labor costs with quick plug and play wiring
- Coupling housing system allows safe installation – install the antenna separately from the electronics
- Process safety with Metaglas® second sealing barrier for toxic and dangerous products
- Quick intuitive set-up with push buttons or PACTware™ DTM
- Compatible with WirelessHART Adapter WHA-ADP2

Unique features

- 2-wire, loop-powered, with HART 7
- Up to 1450 psig (100 barg) process pressure
- Empty tank spectrum function
- 0.08" / ± 2 mm accuracy
- Wide range of flange or thread connections
- Large, backlit LCD screen
- Dual Seal system for cQPSus-approved devices
- NAMUR NE 107 sensor diagnostics

EcoStruxure™ Process Instrumentation's level radar transmitters offer increased performance with the highest operational efficiency and reliability in the industry.



Selecting the proper antenna is one of the most important steps in selecting a 24 GHz radar. The versatility of the LR74's antenna options allows for use in several applications.

- Proven PTFE and PEEK Drop antennas:
 - Insensitive to condensation
 - Small beam angle (4° with DN150; 6" PTFE Drop)
 - Ellipsoidal shape and smooth surface to reduce scaling
 - Flange plate protection for corrosive media
 - New DN100; 4" PTFE Drop antenna measures up to 80 m; 262.5 ft
- Metallic Horn antenna DN200; 8" for measuring distances up to 100 m; 328 ft
- Purging system for metallic Horn antenna

1 Metallic Horn Antenna 2 Drop Antenna with Flange and Flange Plate Protection 3 Threaded Connection for Purging System

Approved vendor list (AVL) specifications

Manufacturer:	Schneider Electric
Model number:	LR74
Power supply:	12...30 V DC (Exi), 16...36 V DC (Exd), 2-wire
Technology type:	Frequency Modulated Continuous Wave (FMCW) Radar
Measuring type:	Height measurement – Radar K-band frequency, 24 GHz
Process temperature:	-50...+200 °C/-58...+392 °F (higher on special request)
Process pressure:	-1...100 barg/-14.5...1450 psig (higher on special request)
Accuracy:	±2 mm/±0.08"
Output/communication protocol:	4...20 mA (HART® 7) Coming soon: FOUNDATION fieldbus, PROFIBUS PA
Process connection:	Thread and Flange
Housing:	IP66, 68; 0.1 barg/1.45 psig
Level measuring range:	0...100 m/0...328 ft
Antenna type:	Metallic Horn (316L), Drop (PEEK), Drop (PTFE)
Local display:	Backlit LCD with integrated keypad
Safety:	Developed acc. to SIL2/3, IEC 61508 – 2010. The SIL approval is in the process of validation
Suggested applications:	Measurement of liquids such as solvents, alcohols, acids, bases, condensates, liquefied gases, hydrocarbons, benzene, butadiene, ethylene, propylene, fuels, hydraulic oil, molten salt, molten steel, molten sulphur, additives.

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Literature:
 PSS: 2A-7A3A
 Master Instruction: 023-151
 Parts List: 011-001

To purchase: find your local rep at <https://www.buyautomation.com/>

