Easy liquid level measurement

Benefits
The focused, small radar beam of Schneider Electric’s FMCW 80 GHz radar technology allows installations in virtually any location and tank size. The small beam angle and negligible dead zone of this FMCW radar level transmitter makes it the premium choice for liquids in small and narrow tanks with internal obstructions like agitators or heating coils, as well as tanks with long nozzles. It can even measure through tank roofs made of non-conductive material.

- Easily adaptable to retrofit existing applications – can be installed close to tank wall
- M12 cable connector option lowers labor costs with quick plug and play wiring
- Compatible with ball valves for complete process safety isolation
- 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
- Small beam angle due to 80 GHz
- PEEK flange protection against corrosive media – insensitive to deposits
- 112 mm / 4.4” antenna extension for long nozzle
- Empty tank spectrum function
- 0.08” / ±2 mm accuracy
- Wide range of flange or thread connections
- Large, backlit LCD screen
- NAMUR NE 107 sensor diagnostics
- Dual Seal system for cQPSus-approved devices

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

LR75 (80 GHz)
free space radar

Tank height, 0% and 100% level are all that’s needed for setup.
Approved vendor list (AVL) specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>Schneider Electric</td>
</tr>
<tr>
<td>Model number</td>
<td>LR75</td>
</tr>
<tr>
<td>Power supply</td>
<td>12...30 V DC (Exi), 16...36 V DC (Exd), 2-wire</td>
</tr>
<tr>
<td>Technology type</td>
<td>Frequency Modulated Continuous Wave (FMCW) Radar</td>
</tr>
<tr>
<td>Measuring type</td>
<td>Height measurement – Radar W-band frequency, 80 GHz</td>
</tr>
<tr>
<td>Process temperature</td>
<td>-50...+200 °C/-58...+392 °F</td>
</tr>
<tr>
<td>Process pressure</td>
<td>-1...40 barg/-14.5...580 psig</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±2 mm/±0.08&quot;</td>
</tr>
<tr>
<td>Output/communication protocol</td>
<td>4...20 mA (HART® 7) Coming soon: FOUNDATION fieldbus, PROFIBUS PA</td>
</tr>
<tr>
<td>Process connection</td>
<td>Thread and Flange</td>
</tr>
<tr>
<td>Housing</td>
<td>IP66, 68; 0.1 barg/1.45 psig</td>
</tr>
<tr>
<td>Level measuring range</td>
<td>0...100 m/0...328 ft</td>
</tr>
<tr>
<td>Antenna type</td>
<td>Lens (PEEK)</td>
</tr>
<tr>
<td>Local display</td>
<td>Backlit LCD with integrated keypad</td>
</tr>
<tr>
<td>Safety</td>
<td>Developed acc. to SIL2/3, IEC 61508 – 2010. The SIL approval is in the process of validation</td>
</tr>
<tr>
<td>Suggested applications</td>
<td>Level measurement of liquids such as hydrocarbons, LPG, ethylene, corrosion inhibitors, foaming agent, drilling mud, slop oil, solvents, acids, urea, chlorine, resins, paint, ink, lubricant oil, lime milk.</td>
</tr>
</tbody>
</table>

Compared to traditional 10 GHz and 24 GHz – 80 GHz offers increased signal strength and focusing.

LR75

Small convenient PEEK antenna insensitive to buildup
Installation can be closer to tank wall due to small beam
Small beam angle avoids tank internals

Traditional radar

Large radar horn prone to buildup and difficult to install
Wider beam prone to false echoes

Se.com

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https://pasupport.schneider-electric.com

Literature:
PSS: 2A-7A4A
Master Instruction: 023-153
Parts List: 011-001

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

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• 998-20795687