

SIEMENS

Ingenuity for life



One transmitter, a world of liquid level applications

Flexible range of SITRANS LR250 radar antenna
options for inventory and process control

usa.siemens.com/radar

Liquid level made simple



The infrared intrinsically safe handheld programmer is certified for use in hazardous locations.

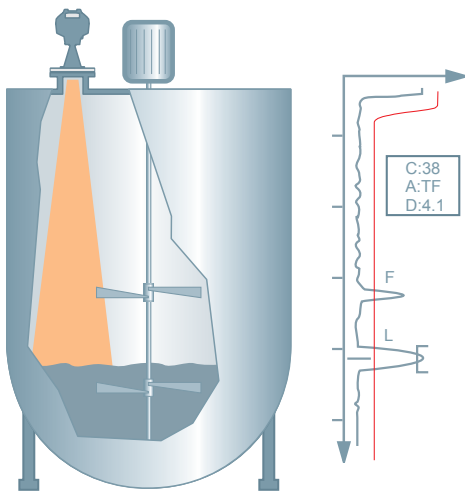
Easier-than-ever setup and commissioning

Flexible and easy to install, SITRANS LR250 lets you get back to other plant issues that need your attention. Within minutes, the transmitter's Quick Start Wizard on the graphical HMI guides you through configuration, using an infrared handheld programmer or remotely via SIMATIC PDM.

Process Intelligence

With advanced echo processing for unparalleled performance, Process Intelligence is the field-proven firmware built into every Siemens radar transmitter based on more than a million installed applications. Continually monitoring signals received from the application and adapting to changing conditions, Process Intelligence gives you reliability through:

- Auto false-echo suppression, which separates true echoes from false and avoids fixed obstructions in your application
- Dynamic Time Varying Threshold (TVT), reliably and accurately adapting to the correct levels in changing conditions



Selecting the right radar transmitter is simplified with SITRANS LR250's wide range of process connections and antennas. Ready for digitalization, our full portfolio of antennas makes the transmitter suitable for a multitude of applications in the chemical, oil and gas, power, and food and beverage industries.

From our new horn with a polypropylene lens for most of your everyday applications to antennas specializing in extreme environments, hydrocarbon-based materials, and hygienic connections, SITRANS LR250 is your first choice for liquids level measurement requiring radar technology.

Radar technology is virtually unaffected by temperature, pressure, vacuum or vapour conditions. Field-proven technology, with tens of thousands of installations worldwide, SITRANS LR250 does what you need where you need it.



Safety first

Eliminate the need for constant human measurement from the top of vessels by providing accurate level indication where it is needed on the ground. With reliable radar level transmitters, you keep workers out of hazardous situations altogether. Provide safe and accurate level indication to operators on the ground or in the control room with:

- Explosion protection approvals using intrinsic safety or flame proof design
- SIL 2 for use in safety related systems in accordance to IEC 61508/61511
- Full diagnostic support on a graphical HMI or remotely over your digital network
- Suitable for use with your API 2350 overfill protection program

Cost savings

Managing raw materials and finished products is essential for keeping processes efficient and optimizing inventory ordering and shipments. By knowing where materials are located, companies can use these resources more effectively, decreasing human intervention and increasing efficiency. Reliable instruments also help you save on labor costs by eliminating the need for frequent checks of vessel levels.

Meet your portfolio of SITRANS LR250 liquids level radar transmitters

SITRANS LR250's complete range of antennas and process connections makes this transmitter suitable for nearly any liquids application. Built to last, these antennas give you liquid level flexibility for inventory and process vessels.



SITRANS LR250 PLA

The all-rounder: Polypropylene lens antenna

- Excels in most industrial applications at a budget-conscious price point
- Lightweight polyester powder-coated horn yields a very high signal
- Highly corrosion-resistance polypropylene and FKM wetted materials for use in a wide range of chemicals with nominal pressure and temperature
- Universal polymeric flanges offer exceptional value and fit DIN, ASME and JIS bolt patterns



SITRANS LR250 Horn

The oil and gas specialist: the 316L horn antenna

- Featuring multiple sizes and pressure classes
- PTFE emitter and FKM seal, optional FFKM seal for higher corrosion resistance
- Flanges and threaded process connections to ASME/ANSI and DIN standards, typical in oil and gas applications
- Highest temperature range to 200 °C (392 °F)
- Ideal for stilling wells and bypass pipes



TFM™ PTFE lens offers extreme corrosion resistance.



SITRANS LR250 FEA

The extreme expert: flanged encapsulated antenna with PTFE lens

- Can handle extremely corrosive chemicals and high temperatures/pressures
- Ideal for process control applications in the chemical industry
- Easy to clean FDA-approved TFM™ PTFE lens
- A cost-effective replacement for antennas made of exotic metals



SITRANS LR250 HEA

The hygienic hero: HEA hygienic encapsulated antenna

- Hygienic antenna suitable for dairy, breweries, and pharmaceutical industries
- EHEGD and 3A approved design is easy to clean
- 316L stainless steel and TFM™ PTFE wetted surfaces suitable for clean-in-place operations
- Widest range of process connections

	SITRANS LR250 PLA (polypropylene lens antenna)	SITRANS LR250 FEA (flange encapsulated antenna)	SITRANS LR250 Horn	SITRANS LR250 HEA (hygienic encapsulated antenna)
Order No	7ML54315	7ML5432	7ML5431	7ML5433
Range	66 ft	66 ft	66 ft	66 ft
Process temperatures	176 °F	338 °F	392 °F	1338 °F
Wetted materials	polypropylene, FKM	TFM™ PTFE	316L stainless steel, PTFE, FKM	TFM™ PTFE
Process connection types & sizes	universal flanges 3"/80mm, 4"/100mm, 6"/150mm	flanges 2", 3", 4", 6" Class 150 ASME B16.5, DN50, 80, 100, 150 PN10/16	1-1/2", 2" and 3" threaded. flanges 2", 3", 4", 6" Class 150 and 300 ASME B16.5, DN50, 80, 100, 150 PN10/16 and PN40	ISO 2852 sanitary clamp, DIN 11864-1, DIN 11864- 2, DIN 11864-3, DIN 11851, and Tuchenhagen Varivent Type F and N
Approvals	CSA, FM, ATEX, IECEx, INMETRO, NEPSI, Ex-proof, Intrinsically safe	CSA, FM, ATEX, IECEx, NEPSI, INMETRO, Ex-proof, In- trinsically safe, Marine	CSA, FM, ATEX, IECEx, NEPSI, INMETRO, Ex-proof, In- trinsically safe, Marine	CSA, FM, ATEX, IECEx, NEPSI, INMETRO, Ex-proof, Intrinsically safe, 3A, EHEDG



Take your system to the next level

Siemens offers a range of accessories that take your radar installation a step further. From easy transmitter programming with infrared handheld programmers to reliable point level devices, we're here to help, from installation to your day-to-day operations.



Supplementary components

Supplementary components enhance your operations through seamless wireless communications, remote displays, and remote monitoring solutions. Data capturing and alarming anywhere, at any time. For hazardous areas, the SITRANS I100 isolating power supply provides intrinsically safe power to the field.



Point level instrumentation

Backup alarming to material presence detection and/or point level monitoring – Siemens' range of point level devices covers it all. Capacitance, ultrasonic, rotating and vibrating level switches are suitable for virtually all applications from bulk solids to liquids, and everything in between.



Optional mounting bracket

For open applications such as river or pond level measurement, the stainless steel adjustable mounting bracket allows quick and easy installation.

Innovative devices to meet all of your needs

So, what do you want from your process instrumentation?

Digitalization-ready devices

SITRANS LR250 connects to any control system via HART, PROFIBUS PA, FOUNDATION fieldbus or wireless HART. Integrating critical level measurement or process control data into your plant's operations, you can unlock new opportunities to analyze processes and identify areas for improvement.

Monitor level measurements from the comfort of the control room or connect to Siemens MindSphere Cloud for Industry with a Simatic IOT2040 or Simatic Nano IPC and you now have in-depth access to your operations.

Thanks to modern fieldbus communication, field devices can be optimally integrated into the overall plant. Process and diagnostic data can be transferred from smart measuring devices to the control desk as well as to the control or maintenance system. An additional benefit: When the devices are integrated into PCS 7 Asset Management, users can access diagnostic information at all times, and can thus optimize plant maintenance and prevent downtime. If desired, the data can be uploaded to Mindsphere, the open cloud solution, for comprehensive analysis.

Quality you can trust

Siemens level measurement instruments come with extensive field experience. Our signal processing technology is based on the experience of over a million instruments worldwide. And Siemens global support network provides experienced technical help when and where you need it.



Measuring everything that matters:

www.usa.siemens.com/pi

Siemens Process Instrumentation offers best-in-class measurement and seamless integration into your automation system. We are the total solution provider for flow, level, pressure, temperature, weighing, positioners and more.

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