SIEMENS

Process instrumentation

Liquid level measurement for aggressive applications

SITRANS LR250 Threaded PVDF Antenna

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Corrosive and aggressive level measurement

SITRANS LR250 is Siemens 2-wire continuous radar level transmitter with threaded PVDF antenna for liquid and slurry measurement. It is designed for aggressive conditions characteristic of acids, alkalis, and other corrosive chemicals.

The SITRANS LR250 Threaded PVDF Antenna is easy to install, quick to configure, and can be installed practically anywhere on your vessel.

The graphical user interface and Quick Start Wizard gets you operational in minutes. Process Intelligence echo processing ensures reliable dynamic echo evaluation, even on short ranges and low dielectric media.

The SITRANS LR250 Threaded PVDF Antenna is able to withstand aggressive environments while remaining a cost-effective solution. It also uses FDA-compliant materials suitable for use in food and beverage, chemical, and water treatment applications.

Installation of the SITRANS LR250 Threaded PVDF Antenna.

SITRANS LR250 Threaded PVDF Antenna on a lined tank.

This 2-wire, 25 GHz pulse radar level transmittter continuously monitors liquids and slurries in storage and process vessels. Some examples include sodium hypochlorite, sodium hydroxide, and sulfuric and hydrochloric acid applications. These applications are not suitable for stainless steel and usually require transmitters be made from exotic and costly materials.

- Easy to install – small antenna and narrow beam allows installation practically anywhere on your vessel
- Quick to configure – Quick Start Wizard guides you during setup
- Process Intelligence – advanced echo processing for unparalleled performance
- Reliable and accurate – extremely high signal and low noise yields high performance
- Communication
  - HART
  - PROFIBUS PA
  - FOUNDATION Fieldbus
- Locally programmed – with intrinsically safe infrared handheld programmer
- Remotely programmed – with SIMATIC PDM, Emerson AMS, or Field Device Tool (PACTware) via SITRANS DTM
- Local user interface – graphically displays echo profiles and diagnostic information
- SIL-2 functional safety declaration with Safe Failure Fraction (SFF) of 86%, making it suitable for use in Safety Instrumented Systems (SIS)
- Conforms to NAMUR NE 43 standard for fault recognition

Standard specifications at a glance	SITRANS LR250 Threaded PVDF Antenna
Power	Nominal 24 V DC, max 30 V DC
Measurement range*	0.05 to 10 m (2" to 32 ft)
Non-repeatability*	3 mm (0.0118")
Frequency	25 GHz (k-band)
Dielectric constant	>3 (1.6 in still pipe)
Analog output	4 to 20 mA, conforms to NAMUR NE43
Display (local)	Graphical local user interface including Quick Start Wizard and echo profiles
Communication	HART, PROFIBUS PA, FOUNDATION Fieldbus
Programming	• SIMATIC PDM • Intrinsically safe infrared handheld programmer (local operation) • AMS • SITRANS DTM
Enclosure	• Construction: die-cast aluminum, polyester powder-coated • Ingress protection: Type 4X/NEMA 4X, Type 6/NEMA 6, IP67, IP68 • Cable inlet: M20x1.5 or ½" NPT (qty 2)
Process connections	2" NPT (ASME 1.20.1), 2" R (BSPT) [EN10226-1], or 2" G (BSPP) [BS EN ISO 228-1]
Ambient temperature**	-40 to 80 °C (-40 to 176 °F)
Process temperature**	-40 to 80 °C (-40 to 176 °F)
Pressure (vessel)**	5 bar g (72 psi g) max., temperature and process connection type dependent
Approvals	$CSA_{us/c}$, CE, FM, NE 21, NE 43, C-TICK, KC, European Radio (R&TTE), Industry Canada, FCC, ATEX, SIL-2, GOST, INMETRO, IECEx

* Reference conditions according to IEC 60770-1
** For applications beyond these specifications, custom configured units are available: contact your local representative.

More information:

www.siemens.com/level
www.siemens.com/lr250

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