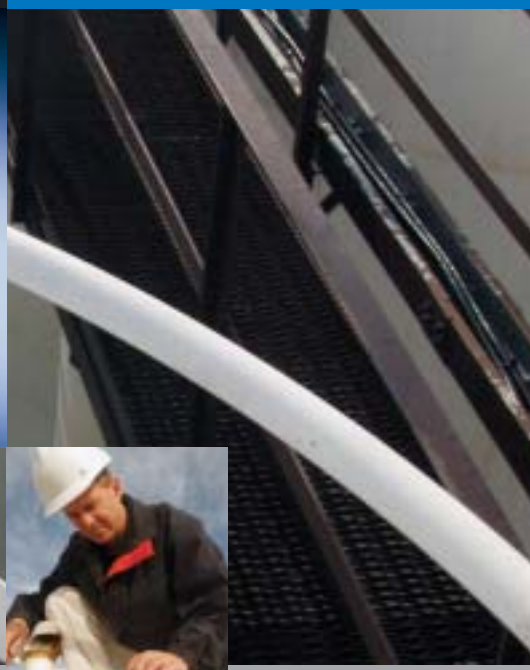
Flexible and reliable
SITRANS LR 200 Radar

SITRANS LR 200

- Reliable up to 20 m (66 ft)
- Sonic Intelligence® and Auto False-Echo Suppression signal processing technology for superior reliability and performance
- Easy to install and set up with as few as two parameters
- Patented infrared Intrinsically Safe programmer allows local programming without opening the cover
- Rotating head aligns with conduit for easy wiring
- Uni-Construction polypropylene rod antenna standard or optional PTFE antenna
- Wave guide antenna or horn antenna options available
- SIMATIC® PDM offers programming and commissioning with a PC
- HART® or PROFIBUS PA communications
- Intrinsically safe or explosion proof



solution

SITRANS LR 200 is a 2-wire, loop-powered pulse radar transmitter that offers a cost-effective level measurement solution for liquid bulk storage or process vessels. SITRANS LR 200 has many features, including Auto False-Echo Suppression, that make it the easiest instrument of its kind to install and operate.

Built for harsh environments, SITRANS LR 200 features safety approvals for hazardous areas including explosion proof and intrinsically safe. Field proven around the world, SITRANS LR 200 is ideal for chemical, pharmaceutical or hydrocarbon processing plant applications. Sonic Intelligence echo processing means "plug and play" performance without the fine tuning required of other devices.

SITRANS LR 200 – a million in one.

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million
in one

Technical specifications

	SITRANS LR 200
Power	
mA/HART version	■ General Purpose, intrinsically safe: nominal 24 V DC max. ■ Flameproof, increased safety, explosion proof: nominal 24 V DC, (30 V DC max)
PROFIBUS PA version	■ 10.5 mA (per IEC 61158-2)
Performance*	
Measurement range	0.3 to 20 m (1.0 to 66 ft)
Accuracy	± the greater of 0.1% of range or 10 mm
Non-Repeatability	± 5 mm
Frequency	5.8 GHz (North America 6.3 GHz)
Dielectric constant	ε_r >1.6 (for ε_r <3, use waveguide antenna or stilling well)
Interface	
Display (local)	Alphanumeric liquid crystal for readout and entry
Communications/ programming	■ HART ■ PROFIBUS PA (optional) Class B, Profile 3.0 ■ SIMATIC PDM ■ Intrinsically Safe infrared handheld programmer
Mechanical	
Enclosure	■ Construction: aluminum, polyester powder-coated ■ Ingress protection: Type 4X/NEMA 4X, Type 6/NEMA 6, IP67, IP68 ■ Cable inlet: 2 x M20x1.5 or 2 x 1/2" NPT
Process Conditions	
Ambient temperature	-40 to 80 °C (-40 to 176 °F)
Process temperature	Up to 200 °C (392 °F) process connection dependent
Pressure (vessel)	Up to 40 bar (580 psi) process connection dependent
Approvals	
Safety	CE, $CSA_{US/C}$, FM, ATEX, ANZEx, IECEx, PED
Radio	FCC, Industry Canada, European Radio (R&TTE)
Marine	Lloyd's Register of Shipping, ABS Type Approval

SITRANS LR 200 radar antenna configurations

Antenna version	Flat faced flange with rod and integral process seal	Shielded rod eliminates nozzle interference	Sanitary rod (1-piece construction) for food and pharmaceutical applications	Horn (3", 4", 6", 8" sizes available) (3" and 4" for stilling well only)	Waveguide for low dielectric products
Process connection types	Nominal pipe sizes 50, 80, 100, 150 mm (2, 3, 4, 6")	• 2" threaded NPT, BSP, G • Flat-face flange nominal pipe sizes 80, 100 mm (3", 4")	Sanitary flange connector 2", 3", 4" sizes	Flat-face flanges ANSI, DIN, JIS	Flat-face flanges ANSI, DIN, JIS
Wetted parts †	PTFE	• FKM O-ring • PTFE • 316 stainless steel	• UHMW-PE or • PTFE	• FKM O-ring • PTFE • 316 stainless steel	• FKM O-ring • PTFE • 316 stainless steel
Insertion length (max.)	41 cm (16.3")	Variable	41 cm (16.3")	Variable with extension	Variable up to 3 m (9.8 ft) max.
Extensions / options	50 or 100 mm (2 or 4") PTFE or UHMW-PE	100, 150, 200 or 250 mm (4, 6, 8 or 10") standard shield length, or longer by request	N/A	•Sliding waveguide for digester applications •Purging	Two sections (max.) can be connected together

* Reference conditions
Special configurations for particular applications are designed and made on request
† Alternative materials are available upon request by special order.
Specifications are subject to change without notice.
HART is a registered trademark of the HART Communication Foundation. Sonic Intelligence is a registered trademark of Siemens Milltronics Process Instruments Inc. SITRANS and SIMATIC PDM are registered trademarks of Siemens AG.

Certification No. 002284

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Million in one

Signal processing with field experience

Siemens level measurement instruments come with extensive field experience. Siemens Milltronics developed the signal processing technology for level instruments based on the experience of a million instruments in industrial applications.

With this experience we understand the importance of reliability, and we know what it takes to make a trusted and accurate level instrument for demanding applications. That's why our engineers invented Sonic Intelligence and Auto False-Echo Processing, and that's why these instruments carry so many patents. With Siemens you get the experience of a million applications in one instrument.

7ML1996-5FF03 Printed in Canada