

## Overview



SITRANS LR260 is a 2-wire 25 GHz pulse radar level transmitter for continuous monitoring of solids and liquids in storage vessels including extreme levels of dust and high temperatures, to a range of 30 m (98.4 ft).

## Benefits

- Graphical local user interface (LUI) makes operation simple with plug-and-play setup using the intuitive Quick Start Wizard
- LUI displays echo profiles for diagnostic support
- 25 GHz high frequency allows for small horn antennas mounted easily in nozzles
- Communication using HART or PROFIBUS PA
- Process Intelligence signal processing for improved measurement reliability and Auto False-Echo Suppression of fixed obstructions
- Programming using infrared Intrinsically Safe handheld programmer or SIMATIC PDM

## Application

SITRANS LR260 includes a graphical local user interface (LUI) that improves setup and operation using an intuitive Quick Start Wizard, and echo profile displays for diagnostic support. Start-up is easy using the Quick Start wizard with a few parameters required for basic operation.

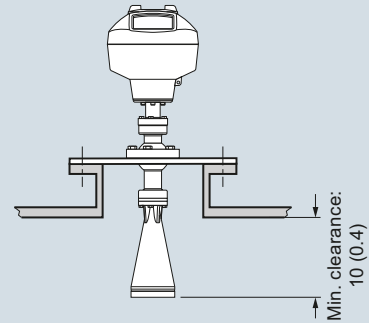
SITRANS LR260's unique design allows safe and simple programming using the Intrinsically Safe handheld programmer without having to open the instrument's lid.

SITRANS LR260 measures virtually any solids material to a range of 30 m (98.4 ft).

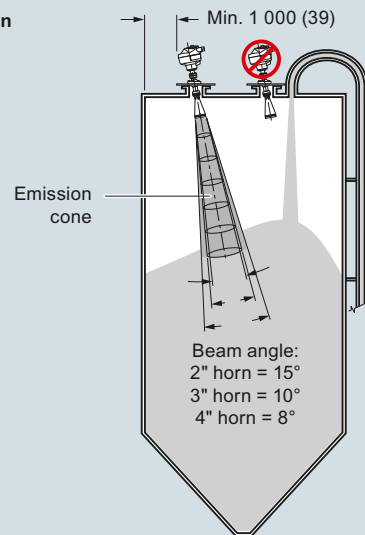
- Key Applications: cement powder, plastic powder/pellets, grain, flour, coal, solids and liquids bulk storage vessels, and other applications.

## Configuration

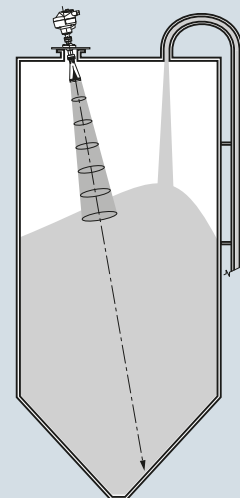
### Mounting on a nozzle



### Installation



### Positioning with easy Aimer



SITRANS LR260 installation, dimensions in mm (inch)

## Level Measurement

### Continuous level measurement – Radar transmitters

#### SITRANS LR260

#### Technical specifications

<b>Mode of operation</b>		<b>Design</b>	
Measuring principle	Pulse radar level measurement	Enclosure	Aluminum, polyester powder-coated
Frequency	K-band (25.0 GHz)	• Construction	2 x M20x1.5 or 2 x 1/2" NPT
Minimum detectable distance	0.05 m (2 inch) from end of horn	• Conduit entry	Type 4X/NEMA 4X, Type 6/ NEMA 6, IP67, IP68
Maximum measuring range <sup>1)</sup>		Degree of protection	< 8.14 kg (17.9 lb) including 4" flange and standard Easy Aimer with 4" horn antenna
• Solids	<ul style="list-style-type: none"> <li>• 2" horn: 10 m (32.8 ft)</li> <li>• 3" horn: 20 m (65.6 ft)</li> <li>• 4" horn: 30 m (98.4 ft)</li> </ul>	Weight	Graphic LCD, with bar graph representing level
• Liquids	<ul style="list-style-type: none"> <li>• 2" horn: 20 m (65.6 ft)</li> <li>• 3" horn: 30 m (98.4 ft)</li> <li>• 4" horn: 30 m (98.4 ft)</li> </ul>	Display (local)	
<b>Output - HART</b>		Flange and horn (easy aimer model)	
Power	• 4 ... 20 mA ( $\pm$ 0.02 mA accuracy)	• Material	304 stainless steel
Fail signal	• Nominal 24 V DC (max. 30 V DC)	• Horn antenna	2" horn
Load	• 3.6 mA ... 23 mA; or last value 230 ... 600 $\Omega$		3" horn
<b>Output - PROFIBUS PA</b>			4" horn
	<ul style="list-style-type: none"> <li>• Per IEC 61158-2</li> <li>• 15.0 mA</li> <li>• Profile version 3.01, Class B</li> </ul>	Process connections	
<b>Performance (according to reference conditions IEC60770-1)</b>		• Universal flanges <sup>2)</sup>	2 inch/50 mm, 3 inch/80 mm, 4 inch/100 mm, 6 inch/150 mm
Maximum measured error (including hysteresis and non-repeatability)	<ul style="list-style-type: none"> <li>• 25 mm (1 inch) from minimum detectable distance to 300 mm (11.8 inch)</li> <li>• Remainder of range = 10 mm (0.39 inch) or 0.1 % of spa(whichever is greater)</li> </ul>	Mechanical (Threaded Connection model)	
<b>Rated operating conditions</b>		• Threaded connection	2" NPT (ASME B1.20.1), R (BSPT, EN 10226-1) or G (BSP, EN ISO 228-1) 316L/1.4404 or 316L/1.4435 stainless steel PTFE emitter
Installation conditions		• Materials	
• Location	Indoor/outdoor	<b>Certificates and approvals</b>	
Ambient conditions (enclosure)		General	CSA <sub>US/C</sub> , CE, FM
• Ambient temperature	-40 ... +80 °C (-40 ... +176 °F)	Radio	Europe (R&TTE), FCC, Industry Canada, RCM
• Installation category	I	Hazardous	CSA/FM Class II, Div. 1, Groups E, F, G, Class III ATEX II 1D, 1/2D, 2D Ex ta IIIC T100 °C Da IECEX/ATEX II 1 GD Ex ia IIC T4 Ga, Ex ta IIIC T100 °C Da CSA/FM Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G SABS ARP0108 Ex ia IIC T4 Ga
• Pollution degree	4	<b>Programming</b>	
<b>Medium conditions</b>		Intrinsically Safe Siemens handheld programmer	Infrared receiver IS model: ATEX II 1GD Ex ia IIC T4 Ga Ex iaD 20 T135 °C Ta = -20 ... +50 °C CSA/FM Class I, II, and III, Div. 1, Groups A, B, C, D, E, F, G, T6 Ta = 50 °C
Dielectric constant $\epsilon_r$	$\epsilon_r > 1.6$ , antenna and application dependent	• Approvals for handheld programmer	
Process temperature	-40 ... +200 °C (-40 ... +392 °F)	Handheld communicator	HART communicator 375
Process pressure	<ul style="list-style-type: none"> <li>• 0.5 bar g (7.25 psi g) maximum</li> <li>• 3 bar g (43.5 psi g) optional with 80 °C (176 °F) temperature max</li> </ul>	PC	SIMATIC PDM
		Display (local)	Graphic local user interface including quick start wizard and echo profile displays

<sup>1)</sup> From sensor reference point

<sup>2)</sup> Universal flange mates with EN 1092-1 (PN 16)/ASME B16.5 (150 lb)/JIS 2220 (10K) bolt hole pattern