Cost effective, accurate, reliable

Inverse frequency shift capacitance continuous level measurement

SITRANS LC300

Answers for industry.

SIEMENS

Cost effective, accurate, reliable level measurement

SITRANS LC300 is an inverse frequency shift capacitance continuous level transmitter for liquids and solids applications. SITRANS LC300 is cost effective, reliable, low maintenance, and easy to install. It is ideal for standard and industrial applications in chemical, hydrocarbon processing, food and beverage, mining, aggregate and cement industries. Patented Active-Shield technology protects the measurement from the effects of moisture, vapors, foam, temperature or pressure variations, and material buildup.

- Accurate and reliable PFA-lined probes
- 2-wire (4 to 20 mA) current loop design
- Current signaling according to NAMUR NE 43
- Patented Active-Shield technology protects the measurement from the effects of moisture, vapors, foam, temperature, or pressure variations, and material build-up
- Integrated local LCD display
- Push-button calibration and programming
- Fully adjustable range: level, damping, diagnostics
- Corrosion-resistant construction and wetted parts
- Rugged, shear, and abrasion-resistant probe
- 25 m (82 ft) maximum insertion length

SITRANS LC300	
Power	
	12 to 30 V DC any polarity, 2-wire current loop circuit
Performance	
Range	1.66 to 3300 pF, minimum span 3.3 pF
Accuracy	<0.5% of actual measurement value
Temperature stability	0.25% of actual capacitance value
Non-linearity and reproducibility	<0.4% of full scale and actual measurement value
Current signaling	According to NAMUR NE 43, signal 3.8 to 20.5 mA, fault ≤ 3.6 or ≥21 mA (22 mA)
Wiring connections	max. 2.5 mm^2
Interface	
Output: loop current	4 to 20 mA/20 to 4 mA 2 wire current loop
Display (local)	LCD, 4 digit, each 0 to 9 and limited alpha characters
Mechanical	
Enclosure	• Aluminum, epoxy-coated • Ingress protect: Type 4/NEMA 4/IP65, IP68 • Cable inlet 2 x ½" NPT, 2 x M20x15
Sensor	AISI 316L / PFA
Process connection	• Threaded: ¾",1",1¼",1½" NPT/BSPP/BSPT/JIS-P • Flanges: 1 to 4" ASME, DIN DN 25 to 100
Probe diameter	• Rod version: 19 mm (0.75") with PFA jacket • Cable version: 9 mm (0.35") with PFA jacket, 6 mm (0.24") without PFA jacket
Probe lengths	• Rod version: min. 300 mm (12"), max. 5000 mm (197") • Cable version: min. 1000 mm (40"), max. 25000 mm (984")
Active shield length	• Rod version: 100 mm (3.94") • Cable version: 105 mm (4.13")
Process conditions	
Ambient temperature	-40 to 85 °C (-40 to 185 °F)
Process temperature	-40 to 200 °C (-40 to 392 °F)
Pressure	-1 to 35 bar g (-14.6 to 511 psi g)*
Approvals	
General	CE, CSA, FM,
Hazardous	CSA/FM, ATEX
Marine	Lloyd's Register of Shipping, categories ENV1, ENV2, ENV3, ENV5, and American Bureau of Shipping (ABS)
Pressure	PED 97/23/ EC, CSA B51
Other	C-TICK (Australia), Pattern Approved (China)

*Pressure rating of process seal is temperature dependent. Contact Siemens Milltronics for derating curves.