**PROCESS INSTRUMENTATION**

# Cost effective, accurate, reliable

Inverse frequency shift capacitance continuous level measurement

**usa.siemens.com/level**

SIEMENS

## Cost effective, accurate, reliable level measurement

SITRANS LC300 is an inverse frequency shif 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 mm2 |
| **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<br>• Ingress protect: Type 4/NEMA 4/IP65, IP68<br>• 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<br>• Flanges: 1 to 4" ASME, DIN DN 25 to 100 |
| Probe diameter | • Rod version: 19 mm (0.75") with PFA jacket<br>• 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")<br>• Cable version: min. 1000 mm (40"), max. 25000 mm (984") |
| Active shield length | • Rod version: 100 mm (3.94")<br>• 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. SITRANS is a registered trademark of Siemens AG. Specifications subject to change without notice.

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