



Digital Level Sensor (DLS)

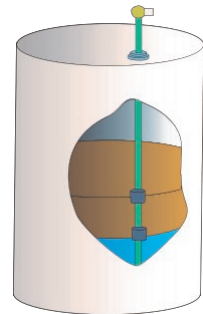
Siemens Model 2100 Digital Level Sensor (DLS) consistently delivers high accuracy monitoring of tank level and temperature - regardless of the application. Advanced monitoring technology ensures accurate measurements of multiple fluid densities. The sensor's reliability and robustness contribute to its low life cycle cost.

Pro-Tek Field Services
Corporate Office:
4104 Hwy 90 West
New Iberia, LA 70560
337.369.7098

www.dupre.com/pro-tek

Accurate measurement

Utilizing patented reed-switch technology, the Siemens DLS provides accurate measurement of total fluid level, water-interface level and fluid temperature. Up to eight temperature sensors can be placed along the length of the DLS for monitoring different temperature zones. Switch placement ensures accuracy without cumulative error. Up to 32 tanks can be monitored with a single control unit.



Versatile measurements

The Siemens DLS is effective with crude oil, diesel, kerosene, condensate, gasoline, water and many other fluids. It is suitable for production monitoring, inventory control, leak detection and is acceptable for custody transfer measurements. The Siemens DLS is appropriate for H₂S environments, high/low alarms and many other applications. Communications to SCADA systems can be digital or analog, and the DLS has wireless capability. Both 16- and 32-bit Modbus protocols are supported.



Reliable measurements

After seating an initial level offset, the sensor does not require additional calibration. All electronics, with the exception of the fuse board, are sealed inside the sensor tube, which is constructed of stainless steel or fiberglass. The DLS is intrinsically safe when connected to the internal barrier board, has low power consumption and is virtually maintenance-free over its life cycle.





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Model 2100 Digital Level Sensor specifications

Measurement length

- Available from two to 35 feet in length

Tubing material

- 316L stainless steel: standard
 - 18 gauge: standard
 - 14 gauge: optional
- Fiberglass: optional for high H₂S and caustic applications

Float

- NYTROPHYL stainless steel
- One used for single liquid
- Two used for water interface
- Designed to fit through a three-inch NPT female tank port

Level measurement increments and accuracy

- 1/4-inch resolution
- +/- 1/8-inch accuracy

Operating temperature range

- -40 °C to +80 °C

Temperature measurement

- First sensor 12 inches from bottom
- Up to eight temperature sensors available with desired spacing: optional
- +/- 1.5 °C accuracy





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Power requirements

- 5.6 VDC to 18 VDC

Power consumption

- 15mA nominal 20mA maximum

Pressure

- 15 psi: standard
- Higher pressure ratings available as custom orders

Communication

- RS485
 - Two- or four-wire communications
 - Baud rate and parity programmable (up to 57,600 baud)
- 4-20mA signal available when connected to digital-to-analog converter board
- Wireless capable

Protocol

- Modbus RTU 16-bit unsigned integer
- Modbus RTU 32-bit floating point
- Serial data via ASCII

Wiring

- Two-wire communication: two twisted pair, (16-18 AWG) recommended

- Four-wire communication: three twisted pair, (16-18 AWG) recommended

Classification

- Class 1, Dev 1, Group D hazardous locations (when connected to an approved intrinsically safe barrier board)

Certification

- ANSI/UL-913
- CAN/CSA C22, No. 157

