

Product Information D3

Differential Pressure and Level Sensor D3

Range of applications

- Hydrostatic level measurement in environments with temperature fluctuations
- Differential pressure measurement in tanks up to 110 °C (230 °F)
- Hydrostatic level, volume and mass measurement in pressure vessels

Application examples

- Hygienic differential pressure and level monitoring for processes in breweries, dairies and the food and beverage industry
- Pressure drop measurement in diaphragms

Hygienic design/Process connection

- Hygienic process connection with CLEANadapt
- Conforming to 3-A Sanitary Standard for versions with DIRECTadapt
- All wetted materials are FDA-conform
- Sensor completely made of stainless steel
- Complete overview of process connections: see order code
- The Anderson-Negele CLEANadapt system offers a flow-optimized, hygienic and easily sterilizable installation solution for sensors.

Features

- CIP-/SIP-cleaning up to 135 °C (275 °F) for 60 minutes max.
- Electronic differential pressure measurement with 2 analog outputs (differential pressure and top or total pressure as required)
- The intuitive user interface makes setup and configuration easy
- Due to the modular system, sensor components can be replaced in the field
- Improved temperature compensation enables temperature-independent differential pressure and level measurement
- Configuration using integrated display or HART protocol - including turndown of 10:1 and units of measure
- Direct display of volume and mass measurement values as required
- Pre-defined and customer-specific tank geometries and product characteristics can be adjusted
- Protection class IP 69 K through patented, dual o-ring seals
- Dual loop output with HART 7.0 communication and graphical LCD display
- Large selection of measurement ranges

Options/Accessories

- Optional remote kit provides a separate version of the sensor and display
- Optional M12 molded cordset available

Measuring principle of the pressure sensor

In the D3 system, each sensor uses an internal piezo-electric signal converter and a temperature sensor to measure the pressure and temperature of the capillary fill. The electrical signal of the pressure converter and the resistance of the temperature sensor are measured and converted to a compensated pressure value in the pressure fitting. Both signals are transferred digitally to the head. They are then output in a standardized 4...20 mA and HART 7.0 signal for the differential pressure and in a 4...20 mA signal for the top or total pressure.

Authorizations



Differential pressure sensor D3 with one remote pressure transmitter



Differential pressure sensor D3 with two remote pressure transmitters

