

**Product Information D3****FOOD**

# D3 Differential Pressure & Level Transmitter

**Range of applications**

- Level in pressurized vessels with continuous process temperatures up to 110°C (230°F)
- CIP/SIP at 135°C (275°F) for 1 hour when ambient is below 60°C (140°F)\*
- Differential pressure measurement across filters

**Application examples**

- Level monitoring in yogurt culture vessels
- Level monitoring in fermentation vessels
- Grain bed monitoring in lauter tuns
- Level monitoring in brine tanks
- Pressure drop measurement across filters

**Hygienic design/Process connection**

- Front flush, 3-A installation for silos by Anderson flush fitting, E&H universal, or tank spud connections
- Conforming to 3-A Sanitary Standard 74-06 with Tri-Clamp® DIRECTadapt
- Product contacting materials compliant to FDA
- Sensor and product contact surfaces made of stainless steel
- Available with over 20 integral hygienic connections, more available through CLEANadapt adapters

**Features**

- Intuitive user interface makes set-up and configuration easy
- Electronic Differential provides 2 analog outputs (differential pressure and top or bottom pressure)
- State of the art temperature compensation minimizes error in dynamic temperature applications
- Fully electronic differential allows field replacement of components and reparability.
- Integrated tank tables allows volume and mass output when tank and product information are input
- Available in relative (vacuum and pressure)
- Patented dual o-ring seals provide IP69K ingress protection
- Dual loop output with graphical LCD display

**Options/Accessories**

- Optional digital remote kit making display easier to view
- Optional M12 molded cordset available
- Wide range of ranges and fittings available

**Measuring principle of the pressure sensor**

In the D3 system each sensor uses a piezoresistive transducer to measure the difference between the atmospheric and process pressures. Additionally, a temperature sensor measures the temperature of the transducer and fill fluid to provide an output compensation. The resistive temperature signal and the voltage signal from the transducer are inputs to a correction algorithm which provides a pressure output in digital form. The digital signal is transferred from each sensor to the head where the microprocessor determines the difference and converts the output to a 4-20mA signal for the difference and one for the head pressure or total system pressure depending on the user's selection.

\* CIP/SIP temperature limit of 121°C (250 °F) for fitting options 088 and 089

**Authorizations****Differential level sensor D3****Differential level sensor D3**