

Capacitive Limit Switch Food NCS-M



Application / Typical Usage

- Limit detection of fluid also with low or no water content like syrup, fruit concentrates, starches and oils with a dielectric constant ϵ_r (Page 2)

Application Examples

- Limit detection in vessels or pipes
- Product monitoring in pipes
- Pumpily monitoring protection
- Detection of spray and fruit concentrates

Hygienic Design / Process Connection

- Hygienic process connection with G1/4" (M18x1.5)
- Conformance to 3 sanitary standards
- All wetted materials are 316L stainless steel
- Stem completely made of stainless steel, sensor tip made of PEEK
- Complete absence of process connections on sensor cable
- The Anderson-Negele T3 L4000 system offers a clean optimized hygienic and easily serviceable installation solution for sensors.

Features

- IP 67 / IP 69K (depending on tool T, class 1, 20 minutes)
- Compact installation size
- No adjustment necessary
- Easy filter cleaning principle
- Independent of the medium's conductivity
- Immunity to heat and vibration
- Very short response time (< 100 ms)
- No using PTC register connection, self-adjusting to "0" level of G1/4" (M18x1.5) system

Measuring Principle

The capacity of a capacitor is affected by 3 factors: Distance and area of the electrodes as well as the kind of fluid (medium) between the electrodes. Using the capacitive sensors only the kind of medium is of interest.

The electrode - either sensor and/or face of tool can be seen as capacitor, the distance as distance is fluid. Depending on the higher value of the medium compared to the capacity increases if the sensor is covered with the medium. The change of capacity is evaluated by electronics and causes then a corresponding switching action. This has several advantages: requires that the sensor tip is completely covered with medium, that way the sensor is insensitive to heat and vibration.

Authorizations



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Measuring principle

