

Product Information NCS-M

FOOD

Capacitive Limit Switch Food NCS-M



Application / Specified Usage

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

Application Examples

- Limit detection in vessels or pipes
- Product monitoring in pipes
- Pump/dry running protection
- Detection of syrup and fruit concentrate

Hygienic Design / Process Connection

- Hygienic process connection with CLEANadapt
- Conforming to 3-A Sanitary Standard
- All wetted materials are FDA-conform
- Sensor completely made of stainless steel, sensor tip made of PEEK
- 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 143 °C / max. 120 minutes
- Compact installation size
- No adjustment necessary
- Capacitive measuring principle
- Independent of the medium conductivity
- Insensitive to foam and adherence
- Very short response time (< 100 ms)
- By using M12 angular connector, self-adjusting to "PG" label of CLEANadapt system.

Measuring Principle

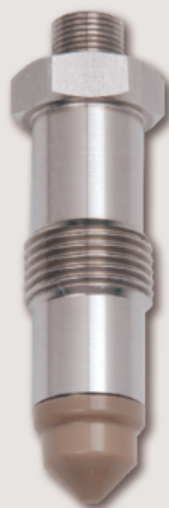
The capacity of a capacitor is affected by 3 factors: **Distance** and **size of the electrodes** as well as the kind of **fluid (medium)** between the electrodes. Using the capacitive sensors only the kind of medium is of interest.

The electrode of the sensor and surface of tank can be seen as capacitor, the medium as dielectric fluid. Caused by the higher Dk-value of the medium compared to air the capacity increases if the sensor is covered with the medium. The change of capacity is evaluated by electronics and converted into a corresponding switching order. This functional principle requires that the sensor tip is completely covered with medium. That way the sensor is insensitive to foam and adhesences.

Authorizations



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Measuring principle

