

# Compact conductivity device Smartec CLD18

## Toroidal conductivity measuring system for hygienic applications



More information and current pricing:

[www.de.endress.com/CLD18](http://www.de.endress.com/CLD18)

### Benefits:

- Unique hygienic design avoids contamination
- 3-A approval
- Compliant with EG 2023/2006 and 1935/2004
- Suitable for cleaning-in-place (CIP)
- Smart and easy integration into your plant infrastructure thanks to optional IO-Link protocol
- Compact design permits installation in small tubes without restricting the flow

### Specs at a glance

- **Measurement range** 200  $\mu\text{S}/\text{cm}$  to 1000  $\text{mS}/\text{cm}$  Cell constant k: 11.0  $1/\text{cm}$
- **Process temperature**  $-10\text{ }^{\circ}\text{C}$  to  $110\text{ }^{\circ}\text{C}$  ( $14\text{ }^{\circ}\text{F}$  to  $230\text{ }^{\circ}\text{F}$ )  
Sterilization: max.  $130\text{ }^{\circ}\text{C}$  at 6 bar abs up to 60 min (Max.  $266\text{ }^{\circ}\text{F}$  at 87 psi up to 60 min)
- **Process pressure** 13 bar abs up to  $50\text{ }^{\circ}\text{C}$  (188.5 psi up to  $122\text{ }^{\circ}\text{F}$ )  
7.75 bar abs at  $110\text{ }^{\circ}\text{C}$  (112 psi at  $230\text{ }^{\circ}\text{F}$ ) 6.0 bar abs at  $130\text{ }^{\circ}\text{C}$  for max. 60 minutes (87 psi at  $266\text{ }^{\circ}\text{F}$  for max. 60 minutes)

**Field of application:** Smartec CLD18 is the cost-effective solution for all applications in beverage plants where small tubes are used and where the toroidal measurement is used as a switch function. The combination of a transmitter and a sensor is interference-free, easy-to-use and features a hygienic design that protects your products and processes from contamination. Smartec CLD18 ensures the Overall Equipment Effectiveness (OEE) of your plant thanks to fast and reliable CIP and optional IO-Link protocol.

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## Features and specifications

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### Conductivity

**Measuring principle**

Inductive

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**Application**

Food and beverage industries

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**Characteristic**

Specifically intended for use in beverage industry applications and especially suitable for:

Phase separation, control of CIP, concentration control, product monitoring, leakage monitoring

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**Measurement range**

200  $\mu\text{S}/\text{cm}$  to 1000  $\text{mS}/\text{cm}$

Cell constant k: 11.0  $1/\text{cm}$

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**Measuring principle**

Inductive conductivity measurement

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**Design**

Hygienic design with FDA certified virgin PEEK

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**Material**

Sensor: PEEK

Process connection 1.4435 (316L)

Seal: EPDM

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**Process temperature**

-10 °C to 110 °C (14 °F to 230 °F)

Sterilization: max. 130 °C at 6 bar abs up to 60 min

(Max. 266 °F at 87 psi up to 60 min)

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**Process pressure**

13 bar abs up to 50 °C (188.5 psi up to 122 °F)

7.75 bar abs at 110 °C (112 psi at 230 °F)

6.0 bar abs at 130 °C for max. 60 minutes

(87 psi at 266 °F for max. 60 minutes)

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## Conductivity

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### Temperature sensor

Pt 1000 (class B)

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### Connection

Dairy pipe, aseptic-fitting DN40 and DN50, Clamp 2"  
ISO 2852, SMS-2", Varivent N DN 40-125  
Thread G1 1/2 SS, G1 1/2 PVC , Union nut 2 1/4 Inch PVC

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### Ingres protection

IP69

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### Output / communication

0/4...20mA  
IO-Link (option)

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### Additional certifications

3A, FDA, EHEDG  
EC Regulation No. 1935/2004

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