

# Digital total chlorine sensor Memosens CCS53E

## Memosens disinfection sensor for wastewater and utilities in all industries



More information and current pricing:

[www.endress.com/CCS53E](http://www.endress.com/CCS53E)

### Benefits:

- The sensor is not deactivated after periods of time when no chlorine is present, but reacts right away. This continuous measurement facilitates quick responses to process changes and ensures compliance with regulations.
- The low-maintenance, amperometric sensor reduces the cost of ownership of the measuring point, particularly compared to colorimetric measuring systems.
- High process up-time: pre-calibrating the sensor and swapping it with plug & play enables a fast sensor exchange. Plus, the polarization time is faster with Memosens 2.0.
- Easy combination with other relevant parameters of liquid analysis such as pH and ORP by easily connecting the Liquiline multiparameter transmitter.
- Wide measurement range for different applications: From zero to trace measurement up to total chlorine concentrations of 20 mg/l.

### Specs at a glance

- **Measuring range** 0 to 5 mg/l total chlorine or 0 to 20 mg/l total chlorine
- **Process temperature** 0 to 55 °C , non-freezing (32 to 130 °F)
- **Process pressure** 1 bar relative (14,5 psi relativ) Max. 2 bar (max. 29 psi)
- **Measuring method** Total chlorine consists of free chlorine (HOCl, OCl-) and bound chlorine (chloramines) All components are reduced at the working electrode Almost pH independent

**Field of application:** Total chlorine is the mixture of free and bound chlorine components and thus a good indicator of residual disinfectants

in discharge and process water. Memosens CCS53E provides continuous measurements of total chlorine, even after periods when no chlorine is present. This enables to measure "zero" chlorine, the absence of chlorine. Thanks to Memosens 2.0 technology, the sensor combines maximum process and data integrity with simple operation. This is the perfect basis for predictive maintenance.

## Features and specifications

### Disinfection

#### Measuring principle

Total chlorine

#### Application

Wastewater treatment plants, disinfection monitoring and control in wastewater outlet, reuse of outlet water  
utilities of all industries  
drinkingwater to regulate disinfection  
all disinfection measuring points  
swimming pool with efficient disinfection  
Food and Beverage, cleaning water or zero chlorine applications for reverse osmosis,

#### Characteristic

Amperometric measurement of total chlorine

#### Measuring range

0 to 5 mg/l total chlorine or  
0 to 20 mg/l total chlorine

#### Measuring method

Total chlorine consists of free chlorine ( $\text{HOCl}$ ,  $\text{OCl}^-$ ) and bound chlorine (chloramines)  
All components are reduced at the working electrode  
Almost pH independent

#### Design

Closed amperometric 2-electrode measuring cell with PET membrane

## Disinfection

### Material

Sensor shaft: POM  
Membrane: PET/PVDF  
Mebrane cap: PVDF

### Dimension

Diameter: 25 mm (0.98 in)  
Length: 161 mm (6.34 in)

### Process temperature

0 to 55 °C , non-freezing  
(32 to 130 °F)

### Process pressure

1 bar relative (14,5 psi relativ)  
Max. 2 bar (max. 29 psi)

### Temperature sensor

10k NTC integrated (Memosens)

### Connection

Inductive, digital connection head with Memosens 2.0

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