

# DULCOTEST sensors for total chlorine

Reliable online measurement of total chlorine – with DULCOTEST sensors.



Reliably measure total chlorine with the versatile DULCOTEST sensors for total chlorine. Accurate measured values and a high degree of monitoring and process reliability are guaranteed.

## Technical Details

Total chlorine

■ CTE 1; pH: 5.5 ... 9.5; Temperature 5 ... 45 °C



# DULCOTEST sensors for total chlorine

Reliable online measurement of total chlorine – with DULCOTEST sensors.

## Sensor for Total Chlorine CTE 1-mA

Sensor for total chlorine, including, for example, free chlorine, chloramines etc. even with high pH values in different kinds of water. For use on controllers with mA input

### Your Benefits

- Measured variable: Total chlorine, chlorine compounds, in which chlorine acts as an oxidising agent, e.g. free chlorine (HOCl and OCl<sup>-</sup>), chloramines etc.
- Diaphragm-covered sensor (encapsulated) prevents faults caused by changing flow or ingredients in the water
- Hydrophilic diaphragm guarantees permeability for different water-soluble oxidising agents towards the measuring electrodes
- The special reaction system of the electrolyte allows components containing oxidising chlorine to be determined and used at a high pH of up to 9.5

Measured variable	Total chlorine
Reference method	DPD4
pH-range	5.5...9.5
Temperature	5...45 °C
Max. pressure	3.0 bar
Flow	DGMa, DLG III: 30...60 l/h BAMa: 5...100 l/h (depending on design)
Supply voltage	16...24 V DC (2-wire)
Output signal	4-20 mA ≈ measuring range, temperature-compensated, uncalibrated, not electrically isolated
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with diaphragm, monochloramine
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DGMa, DLG III
Controllers	D1C, DAC, AEGIS II
Typical applications	CTE 1-mA-0.5 ppm: Potable water; CTE 1-mA-2/5/10 ppm: Potable, industrial, process, waste water. In swimming pools combined with CLE 3.1 to detect combined chlorine.
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 1-mA-0.5 ppm	0.01...0.5 mg/l	740686
CTE 1-mA-2 ppm	0.02...2.0 mg/l	740685
CTE 1-mA-5 ppm	0.05...5.0 mg/l	1003203
CTE 1-mA-10 ppm	0.10...10.0 mg/l	740684
CTE 1-mA-20 ppm	0.20...20.0 mg/l	1116253

Chlorine sensors complete with 50 ml of electrolyte

A mounting kit, order no. 815079, is required for initial fitting of the chlorine sensors in the in-line probe housing DLG III.

# DULCOTEST sensors for total chlorine

**Reliable online measurement of total chlorine – with DULCOTEST sensors.**

## Sensor for Total Chlorine CTE 1-DMT

Sensor for total chlorine, including, for example, free chlorine, chloramines etc. even with high pH values in different kinds of water. For operation with the transmitter DMT

### Your Benefits

- Measured variable: Total chlorine, chlorine compounds, in which chlorine acts as an oxidising agent, e.g. free chlorine (HOCl and OCl<sup>-</sup>), chloramines etc.
- Diaphragm-covered sensor (encapsulated) prevents faults caused by changing flow or ingredients in the water
- Hydrophilic diaphragm guarantees permeability for different water-soluble oxidising agents towards the measuring electrodes
- The special reaction system of the electrolyte allows components containing oxidising chlorine to be determined and used at a high pH of up to 9.5

Measured variable	Total chlorine
Reference method	DPD4
pH-range	5.5...9.5
Temperature	5...45 °C
Max. pressure	3.0 bar
Flow	DGMa, DLG III: 30...60 l/h BAMa: 5...100 l/h (depending on design)
Supply voltage	3.3 V DC (5 P)
Output signal	Uncalibrated, not temperature-compensated, not electrically isolated
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with diaphragm, monochloramine
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DGMa, DLG III
Controllers	DMT
Typical applications	Potable, industrial, process, waste water.
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 1-DMT-10 ppm	0.01...10.0 mg/l	1007540

Chlorine sensors complete with 50 ml of electrolyte

A mounting kit, order no. 815079, is required for initial fitting of the chlorine sensors in the in-line probe housing DLG III.

# DULCOTEST sensors for total chlorine

**Reliable online measurement of total chlorine – with DULCOTEST sensors.**

## Sensor for total chlorine CTE 1-CAN-P

Sensor for total chlorine, including, for example, free chlorine, chloramines etc. even with high pH values in different kinds of water. For use on controllers with CAN-bus connection

### Your Benefits

- Measured variable: Total chlorine, chlorine compounds, in which chlorine acts as an oxidising agent, e.g. free chlorine (HOCl and OCl<sup>-</sup>), chloramines etc.
- Diaphragm-covered sensor (encapsulated) prevents faults caused by changing flow or ingredients in the water
- Hydrophilic diaphragm guarantees permeability for different water-soluble oxidising agents towards the measuring electrodes
- The special reaction system of the electrolyte allows components containing oxidising chlorine to be determined and used at a high pH of up to 9.5
- Operation on the CAN-bus with all the associated benefits

Measured variable	Total chlorine
Reference method	DPD4
pH-range	5.5...9.5
Temperature	5...45 °C
Max. pressure	3.0 bar
Flow	DGMa, DLG III: 30...60 l/h BAMa: 5...100 l/h (depending on design)
Supply voltage	Via CAN-interface (11 – 30 V)
Output signal	Uncalibrated, temperature compensated, electrically isolated
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with diaphragm, monochloramine
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DGMa, DLG III
Controllers	DULCOMARIN 3, DULCOMARIN II only with hardware after 06.02.2014 from software version 3035 or later
Typical applications	Potable, industrial, process, waste water.
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 1-CAN-P-10 ppm	0.01...10.0 mg/l	1083210

Chlorine sensors complete with 100 ml of electrolyte

A mounting kit, order no. 815079, is required for initial fitting of the chlorine sensors in the in-line probe housing DLG III.