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 measuring range (different versions)

- 0.01...20.0 mg/l
- pH range 5.5...9.5
- Temperature 5…45 °C
- Pressure max. 3.0 bar

ProMinent Webshop

DULCOTEST sensors for total chlorine

Reliable online measurement of total chlorine – with DULCOTEST sensors.

Sensor for Total Chlorine CTE 2-mA

Long-term stable sensor for total chlorine, including free chlorine and chloramines. Reliable measurement even at high pH values in various waters. For operation on measuring and control devices with mA input.

Your Benefits

- Measured variables: Total chlorine, chlorine compounds in which chlorine acts as an oxidising substance, e.g. free chlorine (HOCl and OCl-), chloramines, etc.
- Improved measurement accuracy due to equalisation of the sensitivities for free and combined chlorine
- Increased long-term stability due to membrane-covered sensor with innovative membrane design. This also prevents interference from changing flow rates or water constituents
- Hydrophilic membrane ensures permeability for different water-soluble oxidising agents to the measuring electrode
- Special reaction system of the electrolyte enables the determination of components that contain oxidising chlorine as well as use at 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	Uncalibrated, not temperature-compensated, not electrically isolated
Electrical Connection	with 2-wire signal cable via 4-pin connector on the sensor and open ends on the measuring device
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with diaphragm, monochloramine. Not suitable for inline electrolysis (tubular cell electrolysis, use type CTE3 for this).
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DLG III
Controllers	D1C, DAC, AEGIS II, diaLog X
Typical applications	Drinking water, industrial water, process water, waste water. In swimming pools in combination with sensors for free chlorine to determine the combined chlorine
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 2-mA-0,5 ppm	0.01…0.5 mg/l	1136433
CTE 2-mA-2 ppm	0.02…2.0 mg/l	1133340
CTE 2-mA-5 ppm	0.05…5.0 mg/l	1136464
CTE 2-mA-10 ppm	0.10…10.0 mg/l	1133338
CTE 2-mA-20 ppm	0.20…20.0 mg/l	1136465

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DULCOTEST sensors for total chlorine

Reliable online measurement of total chlorine – with DULCOTEST sensors.

Sensor for Total Chlorine CTE 2-CAN

Long-term stable sensor for total chlorine, including free chlorine and chloramines. Reliable measurement even at high pH values in various waters. For operation with measuring and control devices with CAN bus connection

Your Benefits

- Measured variables: Total chlorine, chlorine compounds in which chlorine acts as an oxidising substance, e.g. free chlorine (HOCl and OCl^-), chloramines, etc.
- Improved measurement accuracy due to equalisation of the sensitivities for free and combined chlorine
- Increased long-term stability due to membrane-covered sensor with innovative membrane design. This also prevents interference caused by changing flow rates or water constituents
- Hydrophilic membrane ensures permeability for different water-soluble oxidising agents to the measuring electrode
- Special reaction system of the electrolyte enables the determination of components containing oxidising chlorine as well as use at high pH of up to 9.5
- Operation on the CAN bus with all the associated advantages

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 DC)
Output signal	Uncalibrated, temperature compensated, electrically isolated
Electrical Connection	via CAN signalling cable with M12, 5-pin plug on the sensor and M12, 5-pin socket on the measuring device
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with diaphragm, monochloramine. Not suitable for inline electrolysis (tubular cell electrolysis, use type CTE3 for this).
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DLG III
Controllers	DULCOMARIN 3, DULCOMARIN II only with hardware after 06.02.2014 from software version 3035 or later
Typical applications	Drinking water, industrial water, process water, waste water. In swimming pools in combination with sensors for free chlorine to determine the combined chlorine
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 2-CAN-10 ppm	0.01…10.0 mg/l	1136030

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DULCOTEST sensors for total chlorine

Reliable online measurement of total chlorine – with DULCOTEST sensors.

Sensor for Total Chlorine CTE 3-mA

Sensor for total chlorine, including, for example, free chlorine, chloramines etc. even with high pH values in different kinds of water. Trouble-free use in inline electrolysis (tubular cell electrolysis). For use on controllers with mA input

Your Benefits

- Measured variables: Total chlorine, chlorine compounds in which chlorine acts as an oxidising substance, e.g. free chlorine (HOCl and OCl^-), chloramines, etc.
- Suitable for the determination of combined chlorine (total chlorine minus free chlorine) in the pool & wellness sector if inline electrolysis (tubular cell electrolysis) is used for chlorination
- Improved measuring accuracy by equalising the sensitivities for free and combined chlorine
- Low flow dependency and avoidance of interference from water constituents, as the measuring electrodes are protected by an innovative membrane system
- Hydrophilic membrane ensures permeability for different water-soluble oxidising agents to the measuring electrode
- Special reaction system of the electrolyte enables the determination of components that contain oxidising chlorine, as well as use at 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	Uncalibrated, not temperature-compensated, not electrically isolated
Electrical Connection	with 2-wire signal cable via 4-pin connector on the sensor and open ends on the measuring device
Selectivity	Non-selective, cross-sensitive towards many oxidation agents
Disinfection process	Chlorine gas, hypochlorite, electrolysis with membrane, inline electrolysis (tubular cell electrolysis), monochloramine
Process integration	Bypass: open sample water outlet
Sensor fitting	BAMa, DLG III
Controllers	D1C, DAC, AEGIS II, diaLog X
Typical applications	Determination of combined chlorine in the swimming pool in combination with sensors for free chlorine using the differential method. Also suitable for the disinfection process: Inline electrolysis (tubular cell electrolysis)
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 3-mA-2 ppm	0.02…2.0 mg/l	1133132
CTE 3-mA-5 ppm	0.05…5.0 mg/l	1136466
CTE 3-mA-10 ppm	0.10…10.0 mg/l	1133337
CTE 3-mA-20 ppm	0.20…20.0 mg/l	1136467

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DULCOTEST sensors for total chlorine

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Sensor for Total Chlorine CTE 3-CAN

Sensor for total chlorine, including, for example, free chlorine, chloramines etc. even with high pH values in different kinds of water. Trouble-free use in inline electrolysis (tubular cell electrolysis). For use on controllers with mA input

Your Benefits

- Measured variables: Total chlorine, chlorine compounds in which chlorine acts as an oxidising substance, e.g. free chlorine (HOCl and OCl^-), chloramines, etc.
- Suitable for the determination of combined chlorine (total chlorine minus free chlorine) in the pool & wellness sector if inline electrolysis (tubular cell electrolysis) is used for chlorination
- Improved measuring accuracy by equalising the sensitivities for free and combined chlorine
- Low flow dependency and avoidance of interference from water constituents, as the measuring electrodes are protected by an innovative membrane system
- Hydrophilic membrane ensures permeability for different water-soluble oxidising agents to the measuring electrode
- Special reaction system of the electrolyte enables the determination of components containing oxidising chlorine as well as use at high pH of up to 9.5
- Operation on the CAN bus with all the associated benefits

Measured variable	Total chlorine
Reference method	DPD4
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Typical applications	Determination of combined chlorine in the swimming pool in combination with sensors for free chlorine using the differential method. Also suitable for the disinfection process: Inline electrolysis (tubular cell electrolysis)
Resistance to	surfactants
Measuring principle, technology	Amperometric, 2 electrodes, diaphragm-covered

	Measuring range	Order no.
CTE 3-CAN-10 ppm	0.10…10.0 mg/l	1136031

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