

# DULCOTEST® Sensors for Ozone

Reliable online measurement of ozone – with DULCOTEST® sensors.



## Measuring range 0.02 – 2 mg/l

To monitor or control clear water, for instance in the disinfection of potable water, there is the tried-and-tested standard ozone sensor type OZE3 mA. The innovative sensor type OZR1 can be used in polluted waters, e.g. raw water

for potable water generation, cooling water and waste water. When monitoring for the absence of ozone, the active carbon filters indicate that ozone is getting through.

## Your benefits

- Two application-optimised sensor types available
- Precise, real-time amperometric measurement for efficient process control (short response time)
- Amperometric measuring means no clouding or discolouration
- Integrated temperature compensation eliminates faults caused by influence of temperature
- Diaphragm-covered electrodes for reduced dependence on flow, cross sensitivities, substances in water and film-forming media
- Diaphragm-covered measuring electrodes embedded in an electrolyte ensure long service life. This maintains optimum measuring conditions regardless of process conditions

## Field of application

- Type OZE3: Swimming pool water, potable water
- Type OZR1: Raw water, cooling water, industrial water, process water, waste water, ozone penetration monitoring

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## Technical Data

### Ozone sensor OZE 3-mA

Standard sensor for measuring ozone in clear water. For operation on controllers with 4-20 mA input

### Your benefits

- Measured variable: Ozone, without cross sensitivity to chlorine, hydrogen peroxide
- Diaphragm-covered sensor (encapsulated) minimises faults caused by changing flow or ingredients in the water

<b>Measured variable</b>	Ozone (O <sub>3</sub> )
<b>Reference method</b>	DPD4
<b>pH range</b>	4.0 ... 11.0 Ozone stability range
<b>Cross sensitivity</b>	Chlorine dioxide
<b>Temperature</b>	5 ... 40 °C
<b>Max. pressure</b>	1.0 bar
<b>Intake flow</b>	30...60 l/h (in DGM or DLG III)
<b>Supply voltage</b>	16...24 V DC (two-wire technology)
<b>Output signal</b>	4...20 mA ≈ measuring range, temperature-compensated, uncalibrated, not electrically isolated
<b>Selectivity</b>	Ozone as against free chlorine, combined chlorine, hydrogen peroxide
<b>Installation</b>	Bypass: open sample water outlet
<b>Sensor fitting</b>	DGM, DLG III
<b>Measuring and control equipment</b>	D1C
<b>Typical applications</b>	Potable water and swimming pool water.
<b>Resistance to</b>	Salts, acids, alkalis. Not surfactants
<b>Measuring principle, technology</b>	Amperometric, 2 electrodes, membrane-covered

	Measuring range	Order no.
<b>OZE 3-mA-2 ppm</b>	0.02...2.0 mg/l	792957

Ozone sensor complete with 100 ml of electrolyte.

**Note:** A mounting kit (order no. 815079) is required for initial fitting of the ozone sensors in the in-line probe housing DLG III.

# DULCOTEST® Sensors for Ozone

Reliable online measurement of ozone – with DULCOTEST® sensors.

## Ozone sensor OZR 1-mA

Sensor for measuring and monitoring the absence of ozone, also suitable for use in contaminated water. For operation on controllers with 4-20 mA input

### Your benefits

- Measured variable: Ozone, without cross sensitivity to chlorine, hydrogen peroxide
- Diaphragm-covered sensor (encapsulated) minimises faults caused by changing flow or ingredients in the water
- Suitable also for monitoring the absence of ozone (rupture monitoring on filters) and for discontinuous ozone treatment processes
- Resistance to films of dirt by pore-free diaphragm

<b>Measured variable</b>	Ozone (O <sub>3</sub> )
<b>Reference method</b>	DPD4
<b>pH range</b>	4.0 ... 11.0 Stability range of ozone
<b>Cross sensitivity</b>	chlorine dioxide, peracetic acid, bromine, bromamine
<b>Temperature</b>	5 ... 40 °C
<b>Max. pressure</b>	1.0 bar
<b>Intake flow</b>	30...60 l/h (in the DGM or DLG III)
<b>Supply voltage</b>	16...24 V DC (two-wire system)
<b>Output signal</b>	4...20 mA ≈ Measuring range, temperature-compensated, uncalibrated, not electrically isolated
<b>Response time t<sub>90</sub> after 1 month with 0.00 ppm ozone</b>	<210s
<b>Selectivity</b>	Non-selective
<b>Installation</b>	Bypass: open sample water outlet
<b>Sensor fitting</b>	DGM, DLG III
<b>Measuring and control equipment</b>	D1C
<b>Typical applications</b>	Potable water, swimming pool water, process, service or cooling water, monitoring the ozone breakdown of filters.
<b>Resistance to</b>	Salts, acids, alkalis, surfactants, dirt films
<b>Measuring principle, technology</b>	Amperometric, 2 electrodes, membrane-covered

	Measuring range	Order no.
OZR 1-mA-2 ppm	0.02...2.0 mg/l	1051647

**Important note:** A mounting kit (order no. 815079) is required for initial fitting of the ozone sensors in the in-line probe housing DLG III.