

# 1.1 Amperometric Sensors DULCOTEST®

## Dissolved Oxygen Sensor DO 2-mA

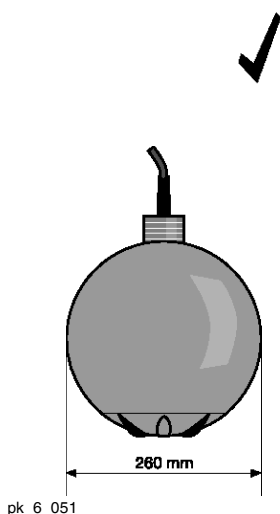
Sensor for the measurement of dissolved oxygen, specifically optimised for control of oxygen concentrations in the aeration tank of clarification plants. Integrated in a floating ball with a Venturi cleaning function.

### Your benefits

- Measured variable: Dissolved oxygen, no interference by turbidity or discolouration by the amperometric measuring principle
- Integration of the encapsulated transducer into a specially shaped float ball, creating a Venturi flow, which helps to clean the sensor membrane
- Diaphragm-covered sensor minimises faults caused by changing flow or ingredients in the water
- Minimal maintenance and long service life due to encapsulated transducer (easily replaceable thanks to bayonet fitting)
- Measuring electrodes protected by pore-free, dirt-repellent diaphragm
- Long service life of the electrolyte at low to medium oxygen concentrations, as occur in the aeration tanks of clarification plants, by means of optimised membrane thickness
- Stable zero point by means of large diaphragm-covered electrodes

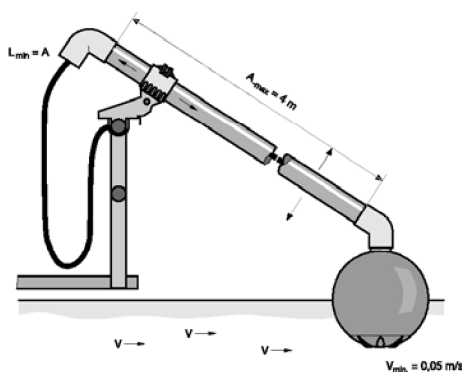
<b>Measured variable</b>	Dissolved oxygen
<b>Calibration</b>	either in atmospheric oxygen or by reference measurement
<b>Measuring accuracy</b>	±0.05 mg/l
<b>Response time sensor <math>t_{90}</math></b>	22 s
<b>Temperature</b>	0 ... 50 °C
<b>Max. pressure</b>	1.0 bar
<b>Intake flow</b>	Minimum: 0.05 m/s
<b>Supply voltage</b>	12...30 V DC
<b>Electrical connection</b>	Fixed lead, 10 m
<b>Output signal</b>	4...20 mA measuring range calibrated, temperature-corrected and electrically isolated
<b>Enclosure rating</b>	IP 68
<b>Process integration</b>	As a float with venturi grooves to increase the flow of sample water for the self-cleaning of the sensor part. Supplied with adapter for connection to PVC pipes with outside diameter: 50 mm and railing bracket, also for PVC pipes with outside diameter: 50 mm (see accessories). The customer must provide the straight PVC tube and a 45 ° standard elbow for gluing to PVC pipes (outside diameter 50 mm).
<b>Measuring and control equipment</b>	D1Cb, DAC
<b>Typical applications</b>	Control of oxygen input into the aeration tank (clarification plant)
<b>Resistance to</b>	Contaminated water
<b>Interference by</b>	Oxidant (e.g. chlorine, chlorine dioxide, ozone) and many organic solvents (e.g. chloroform, toluene, acetone) and hydrogen sulfide
<b>Measuring principle, technology</b>	Amperometric, 2 electrodes, membrane-covered, encapsulated transducer integrated in ball float

For further information: Installation Fittings / Adapters see page → 1-126



pk\_6\_051

	Measuring range	Order no.
DO 2-mA-10 ppm	0.05...10.0 mg/l	1020533



pk\_6\_012

