

Dissolved oxygen probes

FOR PRECISE MEASUREMENT OF DISSOLVED OXYGEN



Dissolved oxygen (DO) is a measure of the concentration of free oxygen molecules present in water. The concentration of DO is an important indicator of the health of an aquatic ecosystem and fundamental for almost all forms of life. Dissolved oxygen in water comes from two main sources: the atmosphere and photosynthesis. The main factors that affect its concentration are temperature, altitude, salinity and the water's degree of stagnation or movement.

The correct DO level depends on the intended use of the system. In industrial applications, the make-up water must have low DO levels to avoid corrosion and the formation of limescale in the pipes. A high DO level improves the taste of drinking water; however, should this become excessive it can increase corrosion in pipes and transport lines. If the DO level falls too low, for example in aquaculture applications, fish will suffocate. In similar situations, in a purification plant, the bacteria that feed the decomposition process will die and the plant will stop. For these reasons, monitoring the content of dissolved oxygen is important to ensure the efficiency of many processes.

For the measurement of dissolved oxygen, Mytho proposes the following probe:



S423C OPT PVC

Optical measurement using the luminescence method; high precision and short response time; 4-20 mA output. Suitable for wastewater, sludge treatment, fish farming and biological treatments.



Technical features

Measurement range 0 – 20 ppm

Nominal accuracy ± 1%
± 0.2mg/l for DO <5mg/l ;
± 0.3mg/l for DO >5mg/l

Response time 90% of the value in less than 60 seconds

Operating temp 0 – 50°C

Maximum pressure 5 bar

Body material PVC

Electrode material Special glass for optical applications

Mechanical protection IP68 (sensor + cable)

Mechanical connection ¾" BSP (Ø 36 mm)

Power supply 12 – 24 Vdc

Electrical connection 10m cable

Electric output 4 – 20 mA