



CHEMICAL SUPPORT SYSTEMS

DESIGN / ENGINEER / MANUFACTURE / INSTALL

Dissolved Oxygen Meter

Our online dissolved oxygen meters utilise the very latest and best optical DO sensor available in the world today. It is an optical luminescent device which is extremely resistant to abrasion, extremely stable, has greatly reduced maintenance and whole life costs.

- No chemicals or moving parts
- Optional self-cleaning sensors and self-verification
- Stable and reliable – excellent process controller
- Suitable for all Dissolved Oxygen applications
- Up to 12 months between DO maintenance
- Up to 12 months between DO calibration

To be used in combination with CSS Analyser



The sensing element (lumiphore) is activated, or excited when illuminated with a blue light. When activated, the lumiphore then emits blue lights in an intensity that is inversely proportional to the amount of oxygen present in the water. There is also a time delay between the peak emission of blue light and peak response of fluorescent red light. This time delay can be expressed as a phase shift between the wave patterns of incident blue light and fluorescent red light. This is in turn reported by the electronics into a ppm or mg/l reading of Dissolved Oxygen. The advantages of this technology are that it is more stable than traditional electromechanical devices and far more resistant to abrasion. By using the state of the art sensor and electronics together the reliability, accuracy and flexibility of the DO meter is far superior to that of its competitors.

Specification

RDO® Rugged Dissolved Oxygen Sensor

Type

Lumiphore Optical Dissolved Oxygen

Measurand

Dissolved Oxygen

Range

0-20mg/l or 0-450% saturation

Resolution

0.01mg/l

Accuracy and precision

±0.1mg/l from 0-8mg/l (1.25%) and ±0.2mg/l from 8-20mg/l

Stability

Better than 1% per month (without calibration)

Temperature range

>0 to 50°C

pH range

pH2 to pH10

Salinity range

0-42ppt

Temperature compensation

Automatically by an integrated thermistor

Permissible overpressure

0.5 Bar

Typical response limited

>25mg/l

Response time

T90=30s T95=37s

Zero-point adjustment

Not necessary

Calibration

Manual using water saturated air

Material of construction

PVC, Silicone, Polycarbonate, Stainless Steel

Dimensions

Diameter Approx 43.7 OD, Length 203mm

Maintenance intervals

Manual Calibration 3-12 months, Lumiphore

Warranty

The shorter of 24 months from day of purchase or 12 months from date of first use

Interferences

High levels of hypochlorite

