

Oxygen (dissolved)

Luminescent Dissolved Oxygen Meter

The unique Hach HQ10 and HQ20 LDO meter measure the quantity of dissolved oxygen using a method based on fluorescence quenching. Blue light is directed onto a membrane in which colour molecules are embedded. The intensity of the fluorescent red light emitted by these molecules depends on the concentration of oxygen in the sample and is measured with a photodiode.

LDO yields extremely reliable results for all applications for which the conventional electrochemical method has been used until now. Measuring range, resolution and accuracy are virtually identical and, of course, temperature and air pressure compensation are fully automatic.

Features:

- Simple handling – no calibration necessary
- Ready for use – new technology needs no polarisation time
- Virtually maintenance free – only one membrane change per year, no electrolyte solution needed
- Simple measuring procedure - no flow around the electrode, no agitation needed
- Fast response time – measured value is stable within seconds
- Also suitable for BOD
- Wide range of applications – no matrix interferences, no sensitivity to H₂S

How the LDO works

High energy light from a blue diode is directed onto a membrane with embedded colour molecules. The molecules are briefly excited by the light, when they return to their normal state they emit low energy red light. This light is referred to as fluorescent radiation.

Oxygen in the membrane quenches some of the emitted light. The residual light intensity is measured in the photodiode in the top part of the sensor. It is proportional to the oxygen concentration in the sample.

SPECIFICATIONS

Measuring range:	0 – 20mg/l Oxygen, 0 – 200% saturation, 0 - 50°C.
Resolution:	Oxygen 0.1mg/l, 0.1% saturation.
Accuracy:	Oxygen +/- 1% of measured value over total range, temperature +/- 0.1°C

HQ10 Portable DO Meter with LDO probe (1m cable)

Reference: HH/51815-01 £890.00

HQ10 Portable DO Meter with LDO probe (3m cable)

Reference: HH/51815-03 £890.00

HQ10 Portable DO Meter with LDO probe (5m cable)

Reference: HH/51815-05 £910.00

HQ10 Portable DO Meter with LDO probe (15m cable)

Reference: HH/51815-15 £940.00



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