



H2O Rx

Optical Dissolved Oxygen

This unique submersible probe has been designed to measure dissolved oxygen based on fluorescent technology.

The measuring system consists of:

- Optical device complete of fluorescent material
- Dissolved oxygen and temperature measuring circuit
- 2-wire 4/20 mA analogue output
- RS 485 digital output
- Nozzle for the auto clean by external pressure air

The measuring is provided in ppm or % of air with automatic temperature compensation. Through commands from the Personal Computer hyperterminal, the serial interface allows the dissolved oxygen and temperature data transmission, the ppm or % of air scale selection, the configuration of pressure, salinity and RH compensation, the zero and sensitivity calibration. Thanks to its 4/20 mA isolated output, the probe can be directly connected to a PLC or data logger with no need for any field instrumentation.

Applications:

The most common applications of this probe include:

- water quality monitoring
- municipal and industrial water treatment
- aquaculture

Principle of operation:

A light beam of a specific wavelength is sent to a special fluorescent layer in contact with the sample. The absorbed light energy is partially released as a light pulse with a higher wavelength. This phenomena is called fluorescence. If oxygen molecules are in contact with the sensing layer, the fluorescing is reduced (quenching). By measuring the amount of quenching it is possible to determine the oxygen concentration. The advantages of this measuring method are the absence of electrolyte and membrane, the possibility to measure the oxygen concentration in water or in air, and a good sensitivity in a low oxygen concentration.

H2O Rx

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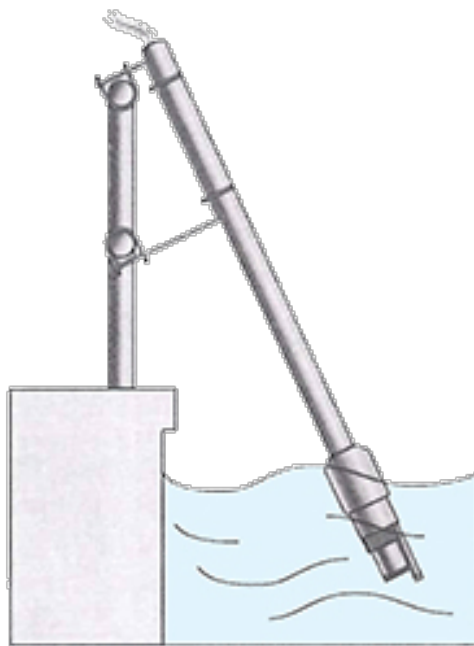
Email: info@h2orx.com.au

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Specifications

Model:	OD8325
Scale:	0-20 ppm - 0-200% air
Sensitivity:	+/- 0.5 % of the scale
Response time:	95% in < 60 seconds
Power supply:	9/36 VDC
Analog output:	4-20 mA isolated current Loop
Load:	600 Ω max. at 24 VDC
Digital output:	RS 485
Temperature compensation:	Automatic
Secondary parameters:	Pressure, salinity, RH
Room temperature:	-5 - 50 °C
Max. pressure:	1 Bar at 25 °C
Autoclean:	By pressure air 3 bar maximum
Dimensions:	L=165 mm total, D= 60 mm
Body:	PVC
Cable:	10 m (100 m max.)
Protection:	IP 68

The technical specifications may be changed without notice



Typical submersible installation

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