

# WQMx

## Water Quality Monitor

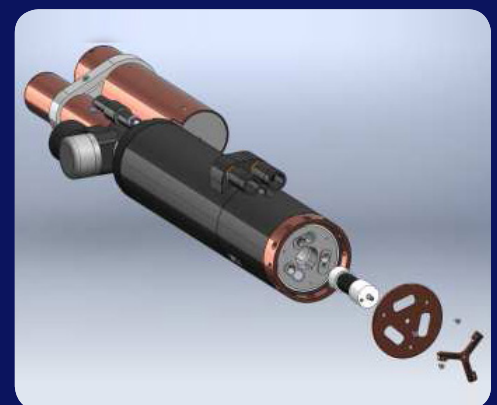
The water quality monitor is designed to deliver core biogeochemical water quality parameters from a single integrated package. Designed for long term deployments the WQMx uses both active and passive anti-fouling measures that allow it to be deployed unattended for up to a year.

### Features

- Three Optical Channels
- External CDOM fluorescence
- User serviceable bio-wiper
- Factory service interval can be extended for up to 2 years
- Lower lifetime cost
- Improved data handling/external USB dataport
- Field check procedures to ensure meter accuracy

### Parameters

- Conductivity
- Temperature
- Depth
- Dissolved Oxygen
- Chlorophyll-a
- Backscattering (Turbidity)
- CDOM Fluorescence or User Optional Optical Channel



## Conductivity

Range	0-9 S/m
Accuracy	0.0003 mS/cm
Resolution	0.0005 mS/m

## Pressure

Range	0-100 or -200 m
Accuracy	0.1% Full Scale
Resolution	0.002% Full Scale

## Electrical

Connector	MCBH-6-MP, MCBH-4-FS
Output	RS-232
Input	9-16 VDC
Sample rate	1 Hz
Current draw	< 50 mA DO Stabilization < 100 mA Sampling 180 mA Peak Sampling 350 mA Peak (BLIS Operation) < 50 $\mu$ A (Sleep)

## Mechanical

Diameter	18.5 cm max OD
Length	69 cm
Weight in air	6.25 kg
Weight in water	1.7 kg
Materials	Acetal copolymer, ABS, PVC, titanium, copper
Depth <sup>a</sup>	200 m

## Temperature

Range	-5 - 35 °C
Accuracy	0.002 °C
Resolution	0.001 °C

## Dissolved Oxygen

Range	120% of saturation (150% upon request)
Accuracy	2% of saturation
Resolution	0.035% of saturation (0.003 ml/l at 0°C, 35 PSU)

## Optical

Scattering wavelength Range—highest gain Sensitivity	700 nm 0-3 m <sup>-1</sup> 0.0015 m <sup>-1</sup>
Chlorophyll EX/EM <sup>b</sup> Range—highest gain Sensitivity	470/695 nm 0-30 $\mu$ g/l 0.015 $\mu$ g/l
CDOM EX/EM Range Sensitivity	370/460 nm 0-375 ppb 0.28 ppb
Linearity	99% R <sup>2</sup>

- a. Depth rating is the lesser of 200 m or the pressure sensor rating.  
b. Chlorophyll fluorescence is created by living organisms and is subject to taxonomical and physiological changes. Field calibration is highly recommended. See user's guide for standard protocols.