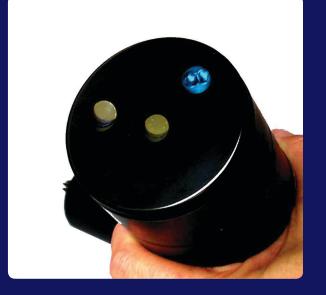


# ECO Triplet Scattering Fluorescence Sensor

The Triplet is a special-order, three optical-sensor instrument available in a user-defined configuration. The Triplet addresses the need for multiple simoultaneous scattering and fluoresence snsors for autonomous and unattended measurement platforms.

### **Features**

- Addresses the need for multiple simultaneous scattering and fluorescence sensors for autonomous and unattended measurement platforms
- Performs a free space measurement and requires no pump. It accommodates a variety of deployment options
- Provides excellent precision, reliability, and overall performance at a fraction of the cost and size of similar instruments
- Ships with WET Labs' ECOView host software for communication and configuration
- Provides multiple measurements in a compact design, making the ECO Triplet unique among insitu fluorometers



## **Options**

Configuration options:

- Three scattering
- Two scattering, one fluorescence
- Three fluorescence
- One scattering, two fluorescence

#### Measurement options:

- Blue scattering
- Green scattering
- Red scattering
- Chlorophyll fluorescence
- CDOM fluorescence
- Phycocyanin fluorescence
- Phycoerythrin fluorescence
- Rhodamine fluorescence

#### **Optical**

Scattering wavelengths	470, 532, 650, or 700 nm
Sensitivity, all	0.003 m <sup>-1</sup>
Range, typical	0–5 m <sup>-1</sup>
Chlorophyll EX/EM	470/695 nm
Sensitivity	0.025 μg/l
Range, typical	0–50 μg/l
CDOM EX/EM	370/460 nm
Sensitivity	0.28 ppb
Range, typical	0–375 ppb
Uranine EX/EM	470/530 nm
Sensitivity	0.15 ppb
Range, typical	0-300 ppb
Rhodamine EX/EM	530/595 nm
Phycocyanin EX/EM	630/680 nm
Phycoerythrin EX/EM	530/595 nm
Sensitivity	0.09 ppb
Range	0–175 ppb
Linearity (all)	99% R2

#### Mechanical

Diameter	6.3 cm
Length	12.7 cm (std)
Weight in air	0.4 kg
Weight in water*	0.02 kg
Materials	Acetal co-polymer

- ECO Triplet Capable of data logging and periodic sampling.
- ECO Triplet B—Provides the capabilities of the Triplet with internal batteries for autonomous operation.

#### **Electrical**

Digital output resolution	12 bit
Internal data logging	Yes
Internal batteries	Optional
Connector	MCBH6M
Input	7–15 VDC
Current, typical	60 mA
Current, sleep	140 μΑ
Data memory	77,000 samples
Sample rate	User selectable to 4 Hz
RS-232 output	19200 baud

#### **Environmental**

Temperature Range	0 - 30 °C
Depth Rating	600 m

\*Backscattering specifications are given in beam  $c_p$  (m-1) based on the regression of the response of the instrument relative to the beam  $c_p$  measured at the coincident wavelength using an ac-s spectrophotometer. Scale factors for backscattering incorporate the target weighting function and the solid angle subtended.

