

The Triplet, one of the popular *Environmental Characterization Optics (ECO)* series tools, is a special-order, three optical-sensor instrument available in a user-defined configuration.

Configuration options:

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

Measurement options:

- Blue scattering
- Green scattering
- Red scattering
- Chlorophyll fluorescence
- CDOM fluorescence
- Phycocyanin or Phycoerythrin fluorescence
- Rhodamine fluorescence
- Uranine (fluorescein) fluorescence

Triplet—

- 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 *in-situ* fluorometers.



Specifications

ECO Triplet—Capable of data logging and periodic sampling.

ECO Triplet B—Provides the capabilities of the Triplet with internal batteries for autonomous operation.

Optical		Mechanical	
Scattering wavelengths	470, 532, 660 nm	Diameter	6.3 cm
<i>Sensitivity, 470 nm</i>	$1.2 \times 10^{-5} \text{ m}^{-1} \text{ sr}^{-1}$	Length	12.7 cm (std)
<i>Sensitivity, 532 nm</i>	$7.7 \times 10^{-6} \text{ m}^{-1} \text{ sr}^{-1}$	Weight in air	0.4 kg (std)
<i>Sensitivity, 660 nm</i>	$3.8 \times 10^{-6} \text{ m}^{-1} \text{ sr}^{-1}$	Weight in water	0.02 kg (std)
<i>Range, typical</i>	$\sim 0.0024\text{--}5 \text{ m}^{-1}$	Pressure housing	Acetal copolymer
Chlorophyll EX/EM	470/695 nm	Electrical	
<i>Sensitivity</i>	0.01 µg/l	Digital output resolution	12 bit
<i>Range, typical</i>	0.01–50 µg/l	RS-232 output	19200 baud
CDOM EX/EM	370/460 nm	Sample rate	To 4 Hz
<i>Sensitivity</i>	0.18 ppb	Internal data logging	Yes
<i>Range, typical</i>	0.18–375 ppb	Internal batteries	Optional
Uranine EX/EM	470/530 nm	Connector	MCBH6M
<i>Sensitivity</i>	0.22 ppb	Input	7–15 VDC
<i>Range, typical</i>	0.22–175 ppb	Current, typical	90 mA
Rhodamine EX/EM	540/570 nm	Current, sleep	85 µA
<i>Sensitivity</i>	0.04 ppb	Data memory	50,000 samples
<i>Range, typical</i>	0.04–175 ppb	Environmental	
Phycocyanin EX/EM	630/680 nm	Pressure/temperature sensor	Optional
<i>Sensitivity</i>	0.15 ppt	Temperature range	0–30 deg C
<i>Range, typical</i>	0.15–300 ppt	Depth rating	600 m (std)
Phycoerythrin EX/EM	540/570 nm		
<i>Sensitivity</i>	0.04 ppb		
<i>Range, typical</i>	0.04–175 ppb		
Linearity (all)	99% R ²		

Specifications subject to change without notice.