



ECO Combination Fluorometer and Turbidity Sensor (FLNTU)

WET Labs, Inc. introduces a new sensor to the *Environmental Characterization Optics (ECO)* series. The FLNTU is a dual-wavelength, single-angle sensor for determination of both chlorophyll fluorescence and turbidity.

The FLNTU—

- Combines the unparalleled sensitivity of the *ECO* fluorometer with an optical scattering measurement at 700 nm for simultaneous determination of turbidity.
- Provides turbidity measurement data that is not affected by CDOM concentration, unlike instruments that attempt to measure turbidity by using blue wavelengths.
- Allows for turbidity correction of fluorescence and rapid assessment of changes in the particle field.
- Is configurable with an optional dual analog output for easy integration into CTD packages.
- Provides excellent precision, reliability and overall performance at a fraction of the cost and size of similar instruments.
- Is available with an optional integrated *bio-wiper*™ to prevent optical fouling.

**New
Product!**



Now available with ranges up to 1000 NTU.



ECO FLNTU Specifications

ECO FLNTU(RT)— Provides analog and RS-232 serial output with 4,000-count range. This unit provides continuous operation when power is supplied.

ECO FLNTU—(Standard configuration) Provides the capabilities of the FLNTU(RT) with periodic sampling.

ECO FLNTUB—Provides the capabilities of the FLNTU with internal batteries for autonomous operation.

ECO FLNTUS—Provides the capabilities of the FLNTU with an integrated anti-fouling *bio-wiper*™.

ECO FLNTUSB—Provides the capabilities of the FLNTUS with internal batteries for autonomous operation.

Specifications subject to change without notice.

Mechanical

<i>Diameter</i>	2.48 in (6.3 cm)
<i>Length</i>	5.0 in (12.7 cm) (standard)
<i>Weight in air</i>	0.9 lbs (0.4 kg) (standard)
<i>Weight in water</i>	0.05 lbs (0.02 kg) (standard)
<i>Pressure housing</i>	Acetal copolymer

Optical (Turbidity)

<i>Wavelength</i>	700 nm
<i>Sensitivity</i>	0.01 NTU
<i>Range</i>	0–25 NTU

Optical (Fluorescence)

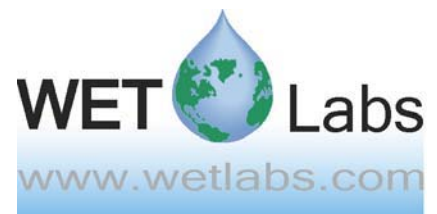
<i>Wavelength</i>	ex/em 470/695 nm
<i>Sensitivity</i>	0.02 µg/l
<i>Range</i>	0.02–60 µg/l
<i>Linearity (both)</i>	99% R ²

Electrical

<i>Digital output resolution</i>	12 bit
<i>RS-232 output</i>	19200 baud
<i>Analog output signal</i>	0–5 V
<i>Internal data logging</i>	optional
<i>Internal batteries</i>	optional
<i>Connector</i>	MCBH6M
<i>Input</i>	7–15 VDC
<i>Current, typical</i>	80 mA
<i>Current, sleep</i>	85 µA
<i>Data memory</i>	65,000 samples
<i>Sample rate</i>	to 8 Hz
<i>Anti-fouling bio-wiper</i> ™	optional
<i>Bio-wiper</i> ™ cycle	optional

Environmental

<i>Temperature range</i>	0–30 deg C
<i>Depth rating</i>	600 m (standard)
<i>Pressure/temperature sensor</i>	optional



ECO FLNTU

Specifications Sheet

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Revision History

Revision	Date	Revision Description	Originator
A	02/21/03	New Product	I. Walsh
B	02/24/03	Change "shutter" to "bio-wiper™" (DCR 280)	H. Van Zee
C	5/19/03	Change range to 25 NTU (DCR 301)	I. Walsh
C1	9/10/03	Update specifications	H. Van Zee
D	11/24/03	Finalize updated specifications (DCR 338)	H. Van Zee
D1	6/8/04	Update specifications	I. Walsh
E	6/29/04	Updates approved (DCR 400)	H. Van Zee, I. Walsh