



FLNTU

WET Labs offers the *Environmental Characterization Optics (ECO)* series of meters that incorporate a common set of options with a single basic design to make them ideal for a wide variety of deployments. 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 assessment of fluorescence and turbidity variability and interactions.
- 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.



Mechanical

Diameter	2.48 in (6.3 cm)
Length	5.0 in (12.7 cm) (standard) 10.1 in (25.6 cm) (deep)
Weight in air	0.9 lbs (0.4 kg) (standard) 2.86 lbs (1.3 kg) (deep)
Weight in water	0.05 lbs (0.02 kg) (standard) 1.6 lbs (0.75 kg) (deep)
Pressure housing	Acetal copolymer (standard) Titanium (deep)

Optical (Turbidity)

Wavelength	700 nm
Sensitivity	0.01 NTU
Range	0–25 NTU (others available)

Optical (Fluorescence)

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

Electrical

Digital output resolution	12 bit
RS-232 output	19200 baud
Analog output signal	0–5 V
Internal data logging	optional
Internal batteries	optional
Connector	MCBH6M
Input	7–15 VDC
Current, typical	80 mA
Current, sleep	85 µA
Data memory	65,000 samples
Sample rate	to 8 Hz
Anti-fouling bio-wiper™	optional
Bio-wiper™ cycle	110 mA

Environmental

Temperature range	0–30 deg C
Depth rating	600 m (standard) 6000 m (deep)
Pressure/temperature sensor	optional

FLNTU(RT)— Analog and RS-232 serial output with 4,000-count range. This unit operates continuously when power is supplied.

FLNTU—The capabilities of the FLNTU(RT) with periodic sampling.

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

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

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

Specifications subject to change without notice.



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
E1	5/19/05	Include specs for "deep" meter (draft)	H. Van Zee
F	1/23/06	Finalize "deep" specs, update description DCR 483)	H. Van Zee