

C3 Submersible Fluorometer



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The C3 Submersible Fluorometer can be configured with one, two or three optical sensors ranging from the deep ultraviolet to the infrared spectrum. Internal memory storage capacity combined with an external submersible lithium ion battery allows the C3 to run during extended or short-term deployments. Each C3 comes with a factory-installed temperature sensor. Optional factory-installed depth sensors and mechanical wipers are also available. The durable delrin housing is highly resistant to harsh environments. Antifouling copper tape pieces are included for placement on the C3 optical head to reduce bio-fouling on and around the sensors. C-Soft Windows™ based software allows for intuitive calibration, datalogging set-up and file management capabilities as well as digital or analog data integration.

Customized Optical Sensors

Choose up to three optical sensors to be factory installed for a variety of applications.

Available Optical Sensors


- Turbidity
- Chlorophyll *in vivo*
- Blue Green Algae - Phycocyanin
- Blue Green Algae - Phycoerythrin
- Fluorescein Dye
- Rhodamine Dye
- PTSA Dye
- CDOM/FDOM
- Optical Brighteners for Wastewater Treatment
- Crude Oil
- Refined Fuels


Contact Us for Custom Optics


Highlights of the C3


- One, Two or Three Optical Sensors
- Temperature Sensor Included
- Optional Depth Sensor
- Optional 3-Brush Mechanical Wiper
- All Plastic Housing
- Robust Memory – Over 480,000 Data Points!
- Easy to Use Software with Data Management Capabilities
- Optional C-ray Deployment Body Enables Horizontal Towing



 Digital or Analog integration with a CTD profiler or third party platform

 Extended Deployments in the Self-Contained Mode with Submersible Battery

 Reduced Bio-Fouling with Antifouling Copper Tape

 Solid Secondary Standard used to check signal stability or correlate to a primary standard

Reliable Instruments for an Unreliable World



Submersible Fluorometer



Application	Minimum Detection Limit	Dynamic Range	C3 Physical Specifications	
CDOM/FDOM	0.15 ppb** 0.5 ppb***	0-1250 ppb** 0-5000 ppb***	Weight in Air	1.64 kg; 3.6 lbs
Chlorophyll <i>in vivo</i>	0.025 µg/L	0-500 µg/L	Length	23 cm; 9.1 in
Fluorescein Dye	0.01 ppb	0-500 ppb	Diameter	10 cm; 3.9 in
Oil - Crude	0.2 ppb***	0-2700 ppb***	Material	Delrin Plastic
Oil - Fine	2 ppb* 2 ppm****	0-10,000 ppb* >100ppm****	Temperature	-2 to 50 degrees C.
Optical Brighteners	0.6 ppb***	0-15,000 ppb***	Depth	0 to 600 meters
Phycocyanin	2 ppb ^{PC}	0-40,000 ppb ^{PC}	C3 Electrical Specifications	
Phycoerythrin	0.15 ppb ^{PE}	0-750 ppb ^{PE}	Output	Digital (ASCII); Analog (0 - 5 volt)- optional
PTSA Dye	0.1 ppb***	0-650 ppb***	Interface	RS232 Interface
Rhodamine Dye	0.01 ppb	0-1000 ppb	Minimum Sample Interval	1 Second
Turbidity	0.05 NTU	0-3000 NTU	DC Power Required	8 - 30 volts; 2.2 amperes
* 1,5 Naphthalene Disulfonic Disodium Salt			Maximum Current Draw @ 12 volts	
** Quinine Sulfate			- operational	200 mA
*** PTSA (1,3, 6, 8 - Pyrenetetrasulfonic Acid Tetrasodium Salt)			- sleep mode	3 mA
**** BTEX (Benzene, Toluene, Ethylbenzene, Xylenes)				
^{PC} Phycocyanin pigment from Prozyme diluted in Deionized water				
^{PE} Phycoerythrin pigment from Prozyme diluted in Deionized water				

Ordering Information

INSTRUMENT	PART NUMBER
C3 Submersible Fluorometer	2300-000
C3 ACCESSORIES	PART NUMBER
3-Brush Mechanical Wiper	2300-450
Pressure Sensor	2300-360
Antifouling Copper Tape (15)	2300-506
Analog Output Adapter	2300-480
Submersible Battery Pack	2200-601
Battery Pack Bracket	2300-603
Flow Cap	2300-700
Shade Cap	2300-500
Shade Cap Weight	2300-510
C-ray Shade Cap	2300-502
C-ray Towed Deployment Body	2300-750
Solid Secondary Standard	2300-901
UV Solid Secondary Standard	2300-902
24" Pigtail Interface Cable w/ Locking Sleeve	2200-170
Integration/Interface Adapter Cable	2300-115
Boosters (Set of 2)*	2200-900
10 Meter Extender Cable	105-2595
25 Meter Extender Cable*	105-2596
50 Meter Extender Cable*	105-2597

*Boosters are required for cable lengths greater than 10 meters

AVAILABLE FACTORY-INSTALLED OPTICS	PART NUMBER
Turbidity	2300-240
Chlorophyll <i>in vivo</i>	2300-200
Blue Green Algae - Phycocyanin	2300-231
Blue Green Algae - Phycoerythrin	2300-230
Fluorescein Dye	2300-220
Rhodamine Dye	2300-210
PTSA Dye	2300-250
CDOM/FDOM	2300-251
Optical Brighteners for Wastewater Treatment	2300-252
Crude Oil	2300-253
Refined Fuels	2300-255
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OIL SPILL RESPONSE FOR SMART PROTOCOL	PART NUMBER
SMART Firmware	2200-201
C-ray Shade Cap	2300-502
C-ray Deployment Body	2300-750

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