

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


- Blue Green Algae
 - Phycoerythrin (marine)
 - Phycocyanin (freshwater)
- CDOM/FDOM
- Chlorophyll *in vivo*
 - Blue excitation
 - Red excitation
- Fluorescent Dye Tracing
 - Fluorescein
 - PTSA
 - Rhodamine
- Hydrocarbons
 - Crude Oil
 - Refined Fuels
- Turbidity
- Wastewater Monitoring
 - Optical Brighteners
 - Tryptophan


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 60,000 Data Lines!
- 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>			Length	23 cm; 9.1 in
Blue excitation	0.025 µg/L	0-500 µg/L	Diameter	10 cm; 3.9 in
Red excitation	0.5 µg/L	>500 µg/L	Material	Delrin Plastic
Fluorescein Dye	0.01 ppb	0-500 ppb	Temperature	-2 to 50 degrees C.
Oil - Crude	0.2 ppb***	0-2700 ppb***	Depth	0 to 600 meters
Oil - Fine	10 ppb* 10 ppm****	>10,000 ppb* >100ppm****	C3 Electrical Specifications	
Optical Brighteners	0.6 ppb***	0-15,000 ppb***	Output	Digital (ASCII); Analog (0 - 5 volt)- optional
Phycocyanin	2 ppb ^{PC}	0-40,000 ppb ^{PC}	Interface	RS232 Interface
Phycocerythrin	0.15 ppb ^{PE}	0-750 ppb ^{PE}	Minimum Sample Interval	1 Second
PTSA Dye	0.1 ppb***	0-650 ppb***	Minimum Power Supply	8 - 30 volts; 5 watts
Rhodamine Dye	0.01 ppb	0-1000 ppb	Maximum Current Draw @ 12 volts	
Tryptophan	3 ppb	>20,000 ppb	- operational	200 mA
Turbidity	0.05 NTU	0-3000 NTU	- sleep mode	3 mA

* 1,5 Naphthalene Disulfonic Disodium Salt
 ** Quinine Sulfate
 *** PTSA (1,3, 6, 8 - Pyrenetetrasulfonic Acid Tetrasodium Salt)
 **** BTEX (Benzene, Toluene, Ethylbenzene, Xylenes)
^{PC} Phycocyanin pigment from Prozyme diluted in Deionized water
^{PE} Phycocerythrin pigment from Prozyme diluted in Deionized water

Ordering Information

INSTRUMENT	PART NUMBER	AVAILABLE FACTORY-INSTALLED OPTICS	PART NUMBER
C3 Submersible Fluorometer	2300-000	Blue Green Algae - Phycoerythrin	2300-230
C3 ACCESSORIES	PART NUMBER	Blue Green Algae - Phycocyanin	2300-231
3-Brush Mechanical Wiper	2300-450	CDOM/FDOM	2300-251
Pressure Sensor	2300-360	Chlorophyll <i>in vivo</i> (Blue excitation)	2300-200
Antifouling Copper Tape (15)	2300-506	Chlorophyll <i>in vivo</i> (Red excitation)	2300-203
Analog Output Adapter	2300-480	Crude Oil	2300-253
Submersible Battery Pack	2200-601	Fluorescein Dye	2300-220
Battery Pack Bracket	2300-603	Optical Brighteners	2300-252
Flow Cap	2300-700	PTSA Dye	2300-250
Shade Cap (Recommended for most deployments)	2300-500	Refined Fuels	2300-255
Shade Cap Weight	2300-510	Rhodamine Dye	2300-210
C-ray Shade Cap	2300-502	Tryptophan	2300-256
C-ray Towed Deployment Body	2300-750	Turbidity	2300-240
Solid Secondary Standard	2300-901	<i>Contact us for Custom Optics</i>	
UV Solid Secondary Standard	2300-902	OIL SPILL RESPONSE FOR SMART PROTOCOL	PART NUMBER
0.6 Meter Pigtail Interface Cable w/ Locking Sleeve	2200-170	SMART Firmware	2200-201
Communication and Integration Cable	2300-115	C-ray Shade Cap	2300-502
Boosters (Set of 2)*	2200-900	C-ray Deployment Body	2300-750
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

Contact Us

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