



BIOSPHERICAL INSTRUMENTS

BioCLEAR

Controlled Long Exposure AntiFouling Regulator

Keep CLEAR: Biofouling begins within hours of deployment. Even a thin biofilm can shift spectral data, attenuate signal, and ruin long-term deployments. BioCLEAR mounts easily to cylindrical housings to keep optical sensors, cameras and windows clear.

Customizable
LED ARRAY

Up to 12 months
FOULING FREE
OPERATION

500m
DEPTH RATING

158 mW
LOW POWER @ 12 VDC

Autonomous
Duty Cycle

9-28V
VARIABLE POWER



MicroCLEAR Modules deliver a clear picture in a tiny package.



Scales to your instrument. The BioCLEAR System is built from integrated MicroCLEAR modules. Up to 6 LEDs cover commonly sized instrument apertures. The collar resizes with the LED count for full window protection.

Set it and forget. Run BioCLEAR on an automated duty cycle. Once the system is installed, no additional configuration or persistent cleaning of your instrument aperture is required.

Want more control? An override signal lets you pause LEDs during measurements and then return to automated protection; full manual control is optional.

Cameras

Long-term Deployments

Scientific Instruments

Wildlife Observations

www.biospherical.com

BioCLEAR Specifications

Physical and Performance Specifications

Nominal System Dimensions (Based on 3 LED System for a 2.2" (5.6 cm) diameter housing):

Diameter: 4.5" (11.4 cm)

MicroCLEAR Height: 3.75" (9.5 cm)

Total Height: 5.5" (14 cm) (Top of MicroCLEAR to bottom of aggregator)

Weight in Air: approx. 1 lb (0.5 kg)

Depth Rating: 500 m

Electronic Specifications

Power Requirement: 9-28 V DC

Power Consumption:

12 V input:

Peak power: ~1.58 W

Average power @ 10% Duty Cycle : ~0.20 W

Average power @ 50% Duty Cycle : ~0.82 W

24 V input:

Peak power: ~1.68 W

Average power @ 10% Duty Cycle : ~0.25 W

Average power @ 50% Duty Cycle : ~0.89 W

Features

Automated Duty Cycles:

10% [20 seconds on, 180 seconds off]

50% [100 seconds on, 100 seconds off]

100% [Always on]

User override or custom control: Optional override line included to force the LEDs off when desired. Full manual user control mode is also available.

Wide Coverage LED Protection: Each LED output field is augmented with a custom diffuser to increase spatial coverage across the instrument aperture.

Scalable Size: The collar and LED arrays can grow or shrink to your needs. As the collar expands you can choose up to 6 LEDs for maximum coverage. Or downsize to 1 for a slim design.

REQUEST A QUOTE OR CONSULTATION

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Learn More At www.biospherical.com

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