



MPS-PAR with BioCLEAR

MICRO-CLASS PROFILING RADIOMETER

MPE (M (MICRO) P (Profiling) S(Scalar) PAR Sensor) is the-state-of-art upgrade to our Single-Channel Radiometers. Despite its smaller size, the MPS offers increased dynamic range and rapid sampling options, ensuring enhanced detection in any environment.



The proven quality of the MPS-PAR is now available with **BioCLEAR Biofouling mitigation technology** built directly into the sensor optics. Nine orders of magnitude of dynamic range and a NIST-traceable calibration that stays optically clear for months in the water.

~**9** Orders
DYNAMIC RANGE

Up to 12 months
FOULING FREE
PROFILING

2000m
DEPTH RATING

130 mW
LOW POWER @ 12 VDC

Long endurance
deployments.
The housing fouls.
The optics don't.



BGC-Argo & Profiling Floats

Autonomous Gliders

Long-term moorings & buoys

CTD Profiling

Primary Productivity Studies

OEM & Custom Configuration

www.biospherical.com

MPS Specifications

Optical Specifications

Irradiance Collector: Solid Teflon Scalar Sphere
Sphere Dia.: 1.9 cm (3/4")

Directional Response:

< ± 3% up to 90°

< ± 10% up to 125°

Antifouling: BioCLEAR integrated using user programmable duty cycle

Physical Specifications

Housing: Black Ultem 1000

Dimensions

Housing Tube: 2.0 in diameter
9.0 in length

Weight: 1.0 lb in air

Connector: MCBH4M

Depth Rating: 1,000m

Temperature Range: -2 to 35°C

Electronic Specifications

Power Requirement: 8-30 VDC Input.

At 12 VDC: 75 mW continuous, 605 mW peak,
130 mW average at 10% duty cycle

Supported Data Rates: 9,600 - 115,00 baud

Communication Interface: RS-232

Data Output: Digital Output

Data Format Options: ASCII text, binary or
hexadecimal

Modes: Free-running or polled

Microradiometer Specifications

Detectors: High-reliability silicon photodiode designed for precision radiometry.

Photocurrent-to-Voltage Conversion: 3 Gain stage amplifier—1, 200, and 40,000.

Time Constant: Exponential change with a time constant of < 0.1s. Time required for a gain change is < 0.1s.

Dynamic Range: ~ 9 orders of magnitude

Detection limit: $3.8 \times 10^{-8} \mu\text{E cm}^{-2} \text{s}^{-1}$.

Saturation: none in sunlight

Calibration & Software

Calibration: NIST-traceable FEL Standard

Recalibration: Annual recommendation

Software: uLoggerLight / any serial terminal

Platform: Argo, gliders, NKE, OEM Systems

Accessories

Waterproof cables available in custom lengths up to 100m; USB to Serial Power Booster.

REQUEST A QUOTE OR SPEC CONSULT



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