

# ARES CHLOROPHYLL-A SENSOR

XEOS OPTICAL WATER QUALITY SENSORS

The Ares Chlorophyll-A Sensor features state-of-the-art technology for measuring chlorophyll concentrations for environmental water quality monitoring, oceanographic research, marine operations and aquaculture monitoring. The Ares is based on the optical measurement principle, using ultra bright energy-efficient blue LEDs as an excitation source and detectors with filtering to measure the red light produced via fluorescence by chlorophyll-a contained in algal cells. These digital optical sensors are programmed with a calibrated response to a fluorescence standard.

## Key Features

- Ultra bright energy-efficient blue LEDs
- Fiber optics to improve efficiency and size
- Individually calibrated with laboratory standards
- Gain switching to maximize resolution
- Digital and analog output
- Anti-biofouling faceplate

The Ares is backed by a fully comprehensive warranty and committed support. To arrange a demonstration or to learn more about our products, please contact us at the numbers below.



**Xeos** *Technologies Inc*  
**Data Telemetry Specialists**

Xeos Technologies Inc. Tel: 902.444.7650  
36 Topple Drive Fax: 902.444.7651  
Dartmouth, NS, Canada sales@xeostech.com  
B3B 1L6 www.xeostech.com



ARES

## APPLICATIONS:

Environmental water quality  
Oceanography & limnology  
Aquaculture operations  
Autonomous vehicle surveys  
Offshore renewable energy projects

# ARES CHLOROPHYLL-A SENSOR

## TECHNICAL SPECIFICATIONS\*

| <b>ARES</b>   |  |
|---|--|
| <b>General</b>  |  |
| <i>Resolution</i>                                       | 0.1 µg/L (0-250 range)                                       |
| <i>Range</i>  | Analog: Either 0-25 or 0-250<br>Digital: Both 0-25 and 0-250 |
| <i>Operating Temperature</i>                            | 0° C to + 40° C  |
| <i>Depth Rating</i>                                     | 500 m  |
| <b>Optical</b>  |  |
| <i>Peak Excitation Wavelength</i>                       | 460 nm   |
| <i>Excitation Bandwidth</i>                             | 18 nm  |
| <i>Detection Wavelength</i>                             | > 665 nm   |
| <b>Electrical</b>                                       |  |
| <i>Supply Voltage Range</i>                             | + 6-18 VDC   |
| <i>Power Supply</i>                                     | External power required                                      |
| <i>Current Draw @12 V (analog sensor)</i>               | 20 mA  |
| <i>Current Draw @12 V (digital &amp; analog sensor)</i> | 22 mA  |
| <i>Analog Voltage Out (nominal)</i>                     | 0-5 V  |
| <i>Baud Rate</i>  | 9600-115200 (38400 default)                                  |
| <i>Serial Configuration</i>                             | 8 bits, no parity, 1 stop bit, no flow control               |
| <b>Mechanical</b>                                       |  |
| <i>Material</i>   | Acetal Plastic With Copper-Nickel Faceplate                  |
| <i>Length (excluding connector)</i>                     | 10.50 cm (4.13 in.)  |
| <i>Diameter</i>   | 3.175 cm (1.25 in.)  |
| <i>Weight</i>   | 148 g  |

\*Specifications subject to change without notice

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