

## ac-s In-Situ Spectrophotometer

Based on the highly successful ac-9, the ac-spectra (ac-s) offers almost an order of magnitude increase in spectral resolution of *in-situ* absorption and beam attenuation coefficients. The ac-s features a proven flow-through system, compact size, and excellent stability.

The ac-s 5000 retains the same performance as the ac-s in a titanium housing deployable to 5000 meters.

### Features

- Advanced user protocols developed by the scientific community
- $80 \pm 5$  wavelength outputs from 400 to 730 nm
- 4 nm resolution
- 25 cm pathlength
- Field proven flow-through system



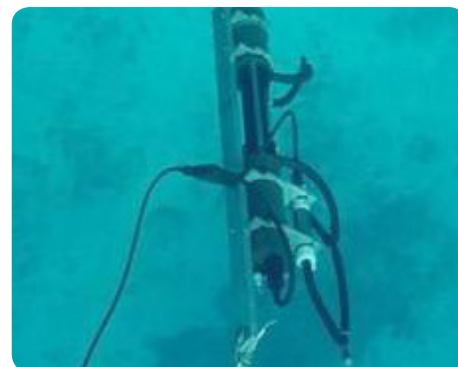
**ac-s**



**ac-s 5000**

## Optical

Spectral range	400 - 730 nm
Bandpass	15 nm/channel
Pathlength	10 (ac-s) or 25 cm
Beam cross-section	8 mm dia. (nominal)
Linearity	$\geq 99\% R^2$
Output wavelengths	$80 \pm 5$ (nominal)
Resolution	4 nm
Precision (400–449 nm)	+/-0.005 $m^{-1}$ typ., 0.012 $m^{-1}$ max @ 4 Hz +/-0.000 $m^{-1}$ typ., 0.006 $m^{-1}$ max @ 1 Hz
(450–730 nm)	+/-0.001 $m^{-1}$ typ., 0.003 $m^{-1}$ max @ 4 Hz +/-0.005 $m^{-1}$ typ., 0.0015 $m^{-1}$ max @ 1 Hz
Accuracy	+/-0.01 $m^{-1}$
Dynamic Range	0.001-10 $m^{-1}$



## Electrical

Input	10 - 35 VDC
Current draw	0.83 A @ 12 V nominal
Serial output	RS-232, -422, or -485
Connector	MCBH6M
Sample rate	4 scans/sec., nominal

## Mechanical

Diameter	10.4 cm 9.9 cm (5000)
Length	77 cm 75.8 cm (5000)
Weight in air	5.9 kg 10.3 (5000)
Weight in water	0.8 kg 5.3 kg (5000)

## Environmental

Temperature range	0 - 30 °C
Depth Rating	500 m   5000 m