

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 ± 5 wavelength outputs from 400 to 730 nm
- 4 nm resolution
- 25 cm pathlength
- Field proven flow-through system



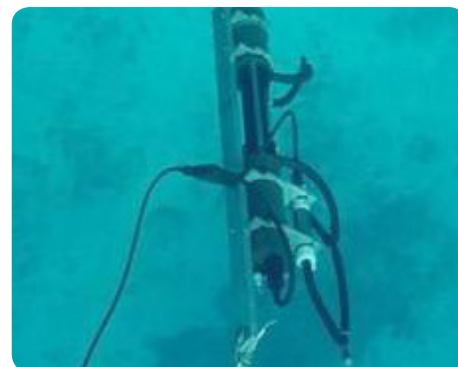
ac-s



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 ± 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