Absorption & Attenuation Meter

WET Labs

ac-9

The ac-9 simultaneously determines the spectral transmittance and spectral absorption of water over nine wavelengths. The unit offers compact size, high precision, and excellent stability in providing a method for determining the absorption ($a(\lambda)$) and beam attenuation ($\mathbf{c}(\lambda)$) coefficients. The ac-9 employs a 25-cm pathlength for effective measurement of the cleanest natural waters. The unit is also available in a 10-cm pathlength configuration.

Specifications

Mechanical

Diameter	4.1 in (10.4 cm)
Length	27.1 (69 cm)
Weight in air	13 lbs (5.9 kg) acetal copolymer; 16 lbs (8 kg) aluminum
Weight in water	2.5 lbs (1.1 kg) acetal copolymer; 7 lbs (3.2 kg) aluminum

Electrical

Input	10–18 VDC
Current draw	0.75 A @ 12V nominal
Serial output	RS-232 or 485
Connector	MCBH6M
Sample rate	6 scans/sec., nominal

Optical

Spectral range	412–715 nm
Bandpass	10 nm/channel
Pathlength	10 or 25 cm
Beam cross-section	8 mm dia. (nominal)
Linearity	$\geq$ 99% R^2
Output wavelengths	9
Accuracy	+/-0.01 m^{-1}
Precision	+/-0.003 m^{-1} @ 6 Hz; +/-0.001 m^{-1} @ 1 Hz
Dynamic range	0.001–10m^{-1}

Environmental

Temperature range	0–30 deg C
Depth rating	500 or 5,000 m
Pressure sensor	optional

Specifications are subject to change without notice.

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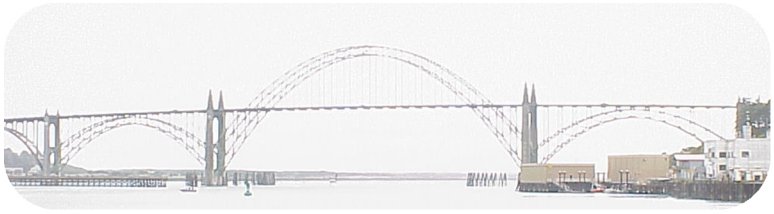
Rev E 6/29/04



ac-9

Specifications Sheet

Revision History

Revision	Date	Revision Description	Originator
A	12/01/99	Begin revision control	H. Van Zee
B	10/2/00	Update photo (DCR 58)	H. Van Zee
C	10/9/00	Add deep unit (DCR 62)	H. Van Zee
D	01/10/03	Correct depth and optics specs (DCR 265)	H. Van Zee
D1	6/17/04	Move to new template	H. Van Zee
E	6/29/04	Approve specs (DCR 401)	H. Van Zee, I. Walsh