



ac-9

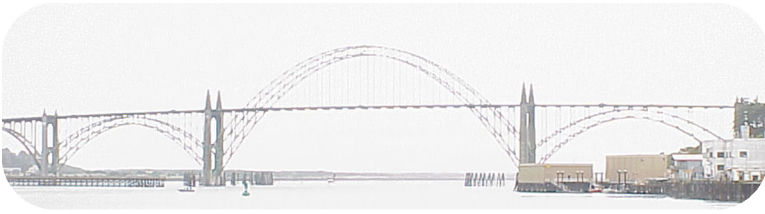
The ac-9 simultaneously determines the spectral transmittance and spectral absorption of water over nine wavelengths. The unit offers compact size, high precision, and excellent stability in providing a method for determining the absorption ($a(\lambda)$) and beam attenuation ($c(\lambda)$) coefficients. 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		Optical	
<i>Diameter</i>	4.1 in (10.4 cm)	<i>Spectral range</i>	412–715 nm
<i>Length</i>	27.1 (69 cm)	<i>Bandpass</i>	10 nm/channel
<i>Weight in air</i>	13 lbs (5.9 kg) acetal copolymer; 16 lbs (8 kg) aluminum	<i>Pathlength</i>	10 or 25 cm
<i>Weight in water</i>	2.5 lbs (1.1 kg) acetal copolymer; 7 lbs (3.2 kg) aluminum	<i>Beam cross-section</i>	8 mm dia. (nominal)
Electrical		<i>Linearity</i>	$\geq 99\% R^2$
<i>Input</i>	10–18 VDC	<i>Output wavelengths</i>	9
<i>Current draw</i>	0.75 A @ 12V nominal	<i>Accuracy</i>	$\pm 0.01 \text{ m}^{-1}$
<i>Serial output</i>	RS-232 or 485	<i>Precision</i>	$\pm 0.003 \text{ m}^{-1}$ @ 6 Hz; $\pm 0.001 \text{ m}^{-1}$ @ 1 Hz
<i>Connector</i>	MCBH6M	<i>Dynamic range</i>	0.001– 10 m^{-1}
<i>Sample rate</i>	6 scans/sec., nominal	Environmental	
		<i>Temperature range</i>	0–30 deg C
		<i>Depth rating</i>	500 or 5,000 m
		<i>Pressure sensor</i>	optional

Specifications are subject to change without notice.



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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