

ac-9 Plus

The ac-9 Plus combines the power of the standard ac-9 dual path absorption and attenuation meter with the added capability of accepting and integrating data from the WET Labs' ECO-VSF sensors as well as a CTD. The data from these ancillary sensors is incorporated into the serial (RS-232) data stream. WETView, our host data collection and real-time display program, records and displays in real-time the data from the ac-9 Plus, as well as conductivity, water temperature, depth and optical backscattering. This powerful new tool will allow researchers to simultaneously collect the data needed to describe inherent optical property measurements of natural waters for effects such as salinity and temperature with one integrated package. It will also provide important information about the Volume Scattering Function (VSF). The ac-9 Plus is available in several standard configurations: the ac-9 Plus + CTD, ac-9 Plus + ECO-VSF + CTD, and ac-9 Plus + CTD + ECO-VSF 3. It supports many popular CTDs including the SBE 19, 25, and 37, as well as CTDs from other manufacturers. Upgrades are available for existing ac-9 sensors.



- Memory 128 Mb standard (up to 192 Mb available)
- Host Interface Windows 95 and up graphical

Specifications

Mechanical

<i>Diameter</i>	4.1 in (10.4 cm)
<i>Length</i>	30.1 (76.5 cm)
<i>Weight in air</i>	14.5 lbs (6.6 kg)
<i>Weight in water</i>	4.5 lbs (2.0 kg)
<i>Pressure housing</i>	Acetal copolymer

Electrical

<i>Input</i>	10–16 VDC
	0.85 A @12V nominal;
<i>Current draw</i>	50 mA logger standby
<i>Serial output</i>	RS-232 or 485
<i>Connector</i>	MCBH6M
<i>Sample rate</i>	6 scans/sec., nominal

Optical

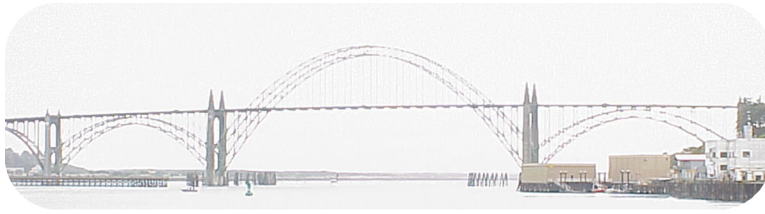
<i>Spectral range</i>	410–715 nm
<i>Band pass</i>	10 nm/channel
<i>Pathlength</i>	10 or 25 cm
<i>Beam cross-section</i>	8 mm dia. (nominal)
<i>Linearity</i>	≥ 99% R ²
<i>Output wavelengths</i>	9
<i>Accuracy</i>	+/-0.01 m ⁻¹
	+/-0.003 m ⁻¹ @ 6 Hz; +/-0.001 m ⁻¹ @ 1 Hz
<i>Precision</i>	+/-0.005 m ⁻¹ typ., 0.0012 m ⁻¹ max @ 4 Hz

<i>Dynamic range</i>	0.001–10 m ⁻¹
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Environmental

<i>Temperature range</i>	0–30 deg C
<i>Depth rating</i>	500 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	02/28/00	Begin revision control	H. Van Zee
B	10/02/00	Update photo (DCR 59)	H. Van Zee
C	01/09/02	Add deep unit weight (DCR 176)	A. Derr
D	12/12/02	Correct specs (DCR 264)	D. Stahlke, H. Van Zee
E	01/06/03	Reduce top pressure housing length (DCR 268)	A. Derr
F	01/29/03	Correct CTD model number (DCR 271)	H. Van Zee
G	6/29/04	Update specs, move to new template (DCR 401)	H. Van Zee, I. Walsh