

# SediMeter™ SM4 Specifications

<i>Parameter</i>	<i>Specifications</i>
Length	80 cm
Mass	280 g
Diameter	20 mm turbidimeter and battery house, 15 mm SediMeter sensor
<b>Data</b>	
Data output	Bottom level (cm) NIR backscatter, 945 nm, at 36 levels (FBU) NIR sidescatter, 945 nm, at 35 levels Turbidity 90° nephelometric, 850 nm (ISO 7027-type; FNU) Turbidity 90° nephelometric, white light (EPA-type; NTU) Fluorescence 90° (UVA 367 nm, measures white light; FFU) Light level (lux) Background NIR light Temperature (cK) Acceleration 3D, 10 Hz, 30 values per measurement Battery voltage (mV) 1 FTU, 1 FNU, 1 NTU, 1 FFU, 1 lux
Optical sensors resolution	0.01 mm
Bottom level resolution	0.1 mm
Sedimentation detection threshold	1 mm
Bottom level linearity	0.01°C, calibrated to ±0.2°C
Thermometer resolution	100 s
Thermometer time constant	±2 g, 10 Hz, 0.016g resolution, 30 values per measurement
Accelerometer 3D, default	0.001 g resolution. Filtering, frequency, and range can also be customized.
Accelerometer options	Excitation 367 nm, FWHP 15 nm. Emission 570 nm, range λ10% 400...900 nm
Fluorescence meter	All optical sensors including backscatter are corrected for ambient light
Background light correction	
<b>Logger</b>	
Measurement interval	User selectable from 1 second to 24 hours
Memory	32,768 measurements (records of 264 bytes each)
Conditions-based monitoring	The accelerometer is programmed to trigger extra measurements so as to capture the strongest vibration event in each deployment
<b>Communication</b>	
Computer interface	RS-485
Baud rates	9600 baud; 115,200 baud (N, 8, 1)
Network	Up to 255 units in a daisy-chained cable
Protocol	LogDator Communication Protocol ver. 3.0
<b>Power</b>	
Input voltage range	5 to 15 V, <500 mA
Lithium Battery Size	AA rechargeable, can also use primary cells and both simultaneously
Battery Compartment	Separate compartment allows for battery change by qualified personnel
Battery Duration, max	6 months
Recharge Time, ca	3 hours
<b>User interface</b>	
Indicator LEDs	Blue for power connected, red for charging, green for full, yellow for receiving, green for transmitting Using PC software and USB cable; Reset with magnet
Control	
<b>Anti-fouling</b>	
UVA light	2 UV LEDs in the ISO/EPA turbidimeter window, automatic
Copper	Ships with copper tape for user to apply on rear side
Vibrator	In top end (for shaking off bubbles and adhered particles)
<b>Environmental</b>	
Depth rating	Tested 1 to 50 m. Deeper rating on request.
Temperature	From 0°C to 50°C. Avoid strong sunlight.





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Specifications subject to change without prior notice.