

# VMP 500

Coastal & Upper Ocean Vertical Microstructure Profiler



## DESCRIPTION

The **VMP-500** is a vertical microstructure turbulence profiler for the measurement of dissipation-scale turbulence in oceans and lakes up to 2000 m depth. It is equipped with state-of-art microstructure velocity probes (shear probes), high-resolution temperature sensors (thermistors) and micro-conductivity sensors. Integrated fast-response dissolved oxygen, compound fluorescence/turbidity and high-accuracy SBE3/4 CTD sensors are available as options.



## CONFIGURATION

- Standard sensors**
- 2x Shear Probe,
  - 1x Micro-temperature (FP07),
  - 1x Pressure,
  - 1x Tilt Sensor
- Optional sensors**
- SBE 3F Temperature & 4C Conductivity,
  - Compound Fluorometer-Turbidity Sensor,
  - RINKO Optical Dissolved Oxygen,
  - Micro-Conductivity,
  - Additional Micro-temperature (FP07)

## GENERAL SPECIFICATIONS

- Model Designations**
- **VMP-500-IR** (Internal Data Recording)
  - **VMP-500-RT** (Real-time Data Transmission)
- Depth range** 0 - 1,000 m (2,000 m optional)
- Weight (in air)** 19.5 kg other weights available  
26.7 kg with SBE3/4 sensors
- Length overall** 1.65 m
- Sampling rate** 512 Hz / 64 Hz fast channel / slow channels (up to 2048 Hz available)
- Data acquisition** Internal recording  
(Real-time transmission, optional)

## SENSOR SPECIFICATIONS

Sensors	Range	Accuracy	Resolution	Bandwidth*
<b>Velocity shear probe</b>	0 – 10 s <sup>-1</sup>	5%	10 <sup>-3</sup> s <sup>-1</sup>	0.1 - 100 Hz
<b>Micro temperature (FP07)</b>	-5 – 35 °C	0.005 °C	10 <sup>-5</sup> °C	0 - 25 Hz
<b>Pressure</b>	50 / 100 dbar	0.1 % FS	5 × 10 <sup>-4</sup> bar	0 - 5 Hz
<b>Vibration sensor</b>	±1g	2%	3 × 10 <sup>-5</sup> g	0.1 - 100 Hz
<b>Micro-conductivity (SBE7)</b>	0 - 70 mS/cm	0.005 mS/cm	0.001 mS/cm	0 - 100 Hz
<b>CT sensor</b>	Conductivity	0 - 70 mS/cm	0.001 mS/cm	0 - 16 Hz
	Temperature	-3 - 35 °C	0.001 °C	
<b>FT sensor</b>	Fluorescence	0 - 500 ppb	0.01 ppb	0 - 100 Hz
	Turbidity	0 - 1000 FTU	0.03 FTU	
<b>RINKO-FT Dissolved Oxygen</b>	0 - 425 µmol L <sup>-1</sup> †	±2% of measured value or ± µmol L <sup>-1</sup>	0.01 µmol L <sup>-1</sup>	0 - 100 Hz

All specifications subject to change without notice.

\* other bandwidths available upon request  
† Calculated from air saturation at 25 °C and 34 PSU

**Rockland Scientific International Inc.**  
520 Dupplin Road,  
Victoria BC V8Z 1C1 Canada

tel +1-250-370-1688  
fax +1-250-370-1688  
toll free 1-877-370-1688

email info@RocklandScientific.com  
web www.RocklandScientific.com

Business No.: 82695-5544

