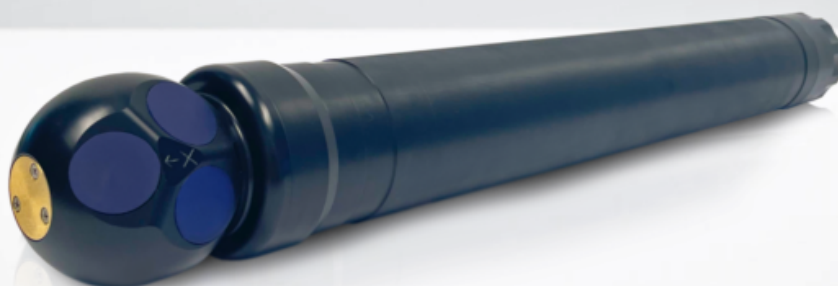


## Aquadopp Profiler 2



**NEW!**



**Petit et compact, pour les applications nécessitant une portée de mesure courte. Mesure de la houle par PUV en option.**

The Aquadopp Profiler is a highly versatile Acoustic Doppler Current Profiler (ADCP) available in four profiling range options, from < 1 m to > 85 m. The 2 MHz version has a current profiling range of up to 10 m. Designed for simple yet powerful operation, this current profiler is packed with features used by engineers and researchers to enable accurate and effective hydrodynamic data collection in a variety of environmental conditions.

## Highlights

- ✓ Up to 10 m current profiling range
- ✓ Optional right-angle head
- ✓ PUV-based directional wave measurements

## Applications

- ✓ Near-bed current profiles with fine vertical resolution
- ✓ Mean flow measurements with high focus on ease of use and simplicity
- ✓ Measurements in flow regimes with strong variations in flow speeds
- ✓ Projects with needs for both high-resolution and normal-range current measurements
- ✓ Measurements of combinations of waves and currents
- ✓ Studies of deep-water currents
- ✓ Studies of tidal currents
- ✓ Mounted on surface buoys
- ✓ Suitable for wave buoys

## Technical specifications

### → Water velocity measurements

Maximum profiling range (depending on scattering conditions)	4-10 m
Cell size	0.1-2 m
Maximum number of cells	200
Minimum blanking	0.2 m
Velocity range (along beam)	$\pm 1$ m/s, $\pm 2.5$ m/s, $\pm 5$ m/s
Accuracy	$\pm 1\%$ of measured value $\pm 0.5$ cm/s
Horizontal velocity precision (consult instrument SW)	Typ. 1cm/s
Maximum sampling rate (output)	2 Hz
Internal sampling rate	4 Hz
Wave measurements	PUV (optional)

### → Echo intensity

Sampling	Same as velocity
Resolution	0.5 dB
Dynamic range	90 dB
Transducer acoustic frequency	2 MHz
Number of beams	3
Beam width	1.7°

### → HR option

Maximum profiling range	4 m
Cell size	0.01-0.13 m
Minimum blanking	0.1 m
Maximum number of cells	200
Range/Velocity limitations	Product of profiling range and velocity should not exceed 0.14 m <sup>2</sup> /s
Accuracy	$\pm 1\%$ of measured value $\pm 0.5$ cm/s
Max. sampling rate	8 Hz

### → Sensors

Temperature:	
Temp. range	-4 to +40 °C
Temp. accuracy/resolution	0.1 °C/0.01 °C
Temp. time response	<1 min
Compass:	
Accuracy/resolution	<2° for tilt <30°/0.01°
Tilt:	
Accuracy/resolution	0.2° for tilt <30°/0.01°

### → Sensors

Maximum tilt	Full 3D
Up or Down	Automatic detect
Pressure:	Piezoresistive
Range	30m / 100m / 500m
Accuracy/precision	0.25% FS / 0.005% of full scale

### → Data recording

Capacity	16 GB
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### → Real-time clock

Accuracy	±1 min/year
Backup in absence of power	4 weeks

### → Data communications

I/O	RS-422
Communication baud rate	9600 Baud-1.2 Mbaud (default 115200 Baud)
User control	Nortek Deployment Software or direct ASCII commands, with binary or ASCII data output

### → Software

Operating system	Agnostic
Functions	Deployment planning, instrument configuration, data retrieval and conversion. Online data display.

### → Power

DC input	9-24 VDC
Absolut maximum DC input	26 VDC
Maximum peak current	4.5 A
Power consumption	Consult Nortek Deployment Software
Sleep current	< 10 uA
Transmit power	0.45-45W, adjustable over 20dB

### → Batteries

Battery capacity	1-3x 50 Wh (Alkaline), 1-3x 165 Wh (Lithium), 1-3x 76Wh (Li-Ion)
Battery weight	430g per 50 Wh (Alkaline), 380g per 165 Wh (Lithium), 300g per 76 Wh (Li-Ion)
New battery voltage	13.5 VDC

### → Environmental

Operating temperature	-5 to +40 °C
Storage temperature	-20 to +60 °C
Shock and vibration	Shock: IEC 60068-2-27, Vibration: IEC 60068-2-64
EMC	EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019
Depth rating	500m

### → Connectors

Bulkhead (impulse)	MCBH-8-FS Brass
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Cable	PMCIL-8-MP on 5m (default) polyurethane cable
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### → Materials

Standard model	POM, Naval Brass, Titanium Gr. 5, Epoxy
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### → Dimensions

Maximum housing diameter	75 mm
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Maximum length	S2VP: 589 mm; S2SP: 634 mm
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### → Weight

Weight in air (without batteries)	S2VP: 2500 g; S2SP: 2710 g
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Weight in water (without batteries)	S2VP: -120g; S2SP: -50g
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### → Arrangements

S2VP	Shallow water, 2MHz, Vertical orientation, Profiler
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S2SP	Shallow water, 2MHz, Side-looking orientation, Profiler
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