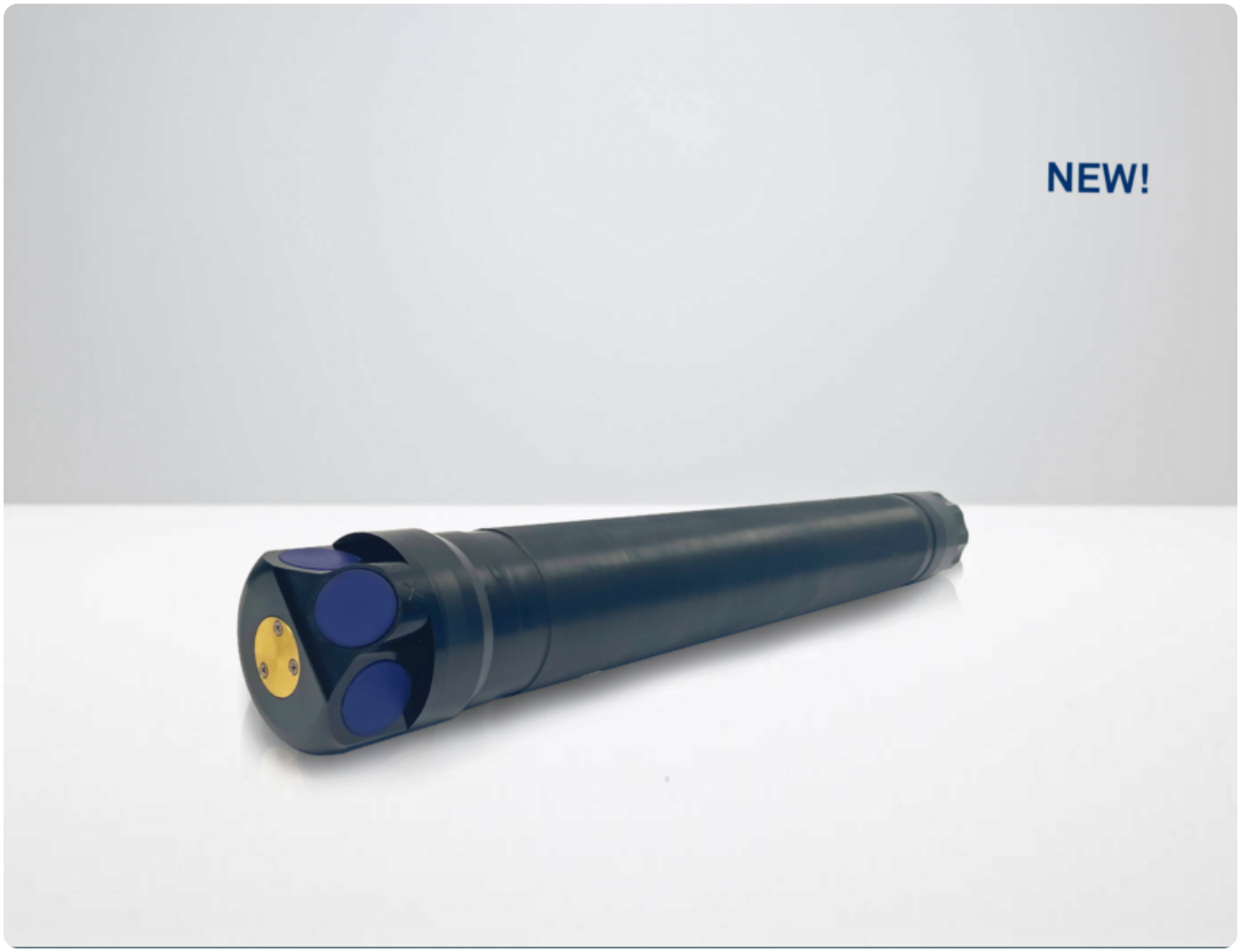
Aquadopp 2 - 500 m



Courantomètre ponctuel polyvalent avec en option mesure de la houle PUV

The Aquadopp 300 m is a compact, accurate and affordable single-point current meter for applications where a current profile is not needed. Designed for use in a number of deployment scenarios from mooring lines to bottom-mounted structures, it comes with PUV-based directional wave measurement capability as standard, making it the best value in the industry.

Raw magnetometer data can be stored for post calibration of compass when used without the inductive modem option.

Highlights

- Single-point current meter
- Perfect for mooring lines
- PUV-based directional wave measurements

Applications

- Attached to mooring lines
- In conjunction with riser monitoring systems
- Measurements of unaffected currents from physical structures
- Shallow-water wave and current measurements
- Alternative to mechanical current meters with errors due to fouling
- Near-surface current measurements from surface buoys
- Studies of tidal currents
- Suitable for wave buoys

Technical specifications

→ Water velocity measurements	
Cell size	0.75 m
Maximum number of cells	1
Distance to measurement	1.0-6.0 m (user-selectable)
Velocity range	±1 m/s, ±2.5 m/s, ±5 m/s
Accuracy	±1% of measured value ±0.5 cm/s
Horizontal velocity precision (consult instrument SW)	Typ. 1 cm/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°
→ Sensors	
Temperature:	
Temp. range	-4 to +40 °C
Temp. accuracy/resolution	0.1 °C/0.01 °C
Temp. time response	<1 min
Compass:	Solid State Magnetometer
Accuracy/resolution	<2° for tilt <30°/0.01°
Tilt:	Solid State Accelerometer
Accuracy/resolution	0.2° for tilt <30°/0.01°
Maximum tilt	Full 3D
Up or Down	Automatic detect
Pressure:	Piezoresistive
Range	30 m/100 m/500 m
Accuracy/precision	0.25% FS / 0.005% of full scale
→ Digital inputs	
No. of channels	1
Digital input format	MicroCat CTD
→ Data recording	
Capacity	16 GB

→ 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
Absolute maximum DC input	26 VDC
Maximum peak current	4.5 A
Power consumption	Consult Nortek Deployment Software
Sleep current	< 10 uA
Transmit power	0.45-45 W, adjustable over 20 dB
→ Batteries	
Internal battery capacity	1-3 x 50 Wh (Alkaline), 1-3 x 165 Wh (Lithium), 1-3 x 76 Wh (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	500 m
→ Connectors	
Bulkhead (Impulse)	MCBH-8-FS Brass
Cable	PMCIL-8-MP on 5 m (default) polyurethane cable
→ Materials	
Standard model	POM, Naval Brass, Titanium Gr.5, Epoxy
→ Dimensions (see drawings for details)	
Maximum housing diameter	75 mm
Maximum length	S2VC: 593 mm, S2SC: 634 mm

→ Weight	
Weight in air (without batteries)	S2VC: 2480g, S2SC: 2710g
Weight in water (without batteries)	S2VC: -150g, S2SC: -50g
→ Arrangements	
S2VC	Shallow water, 2MHz, Vertical orientation, Current meter
S2SC	Shallow water, 2MHz, Side-looking orientation, Current meter