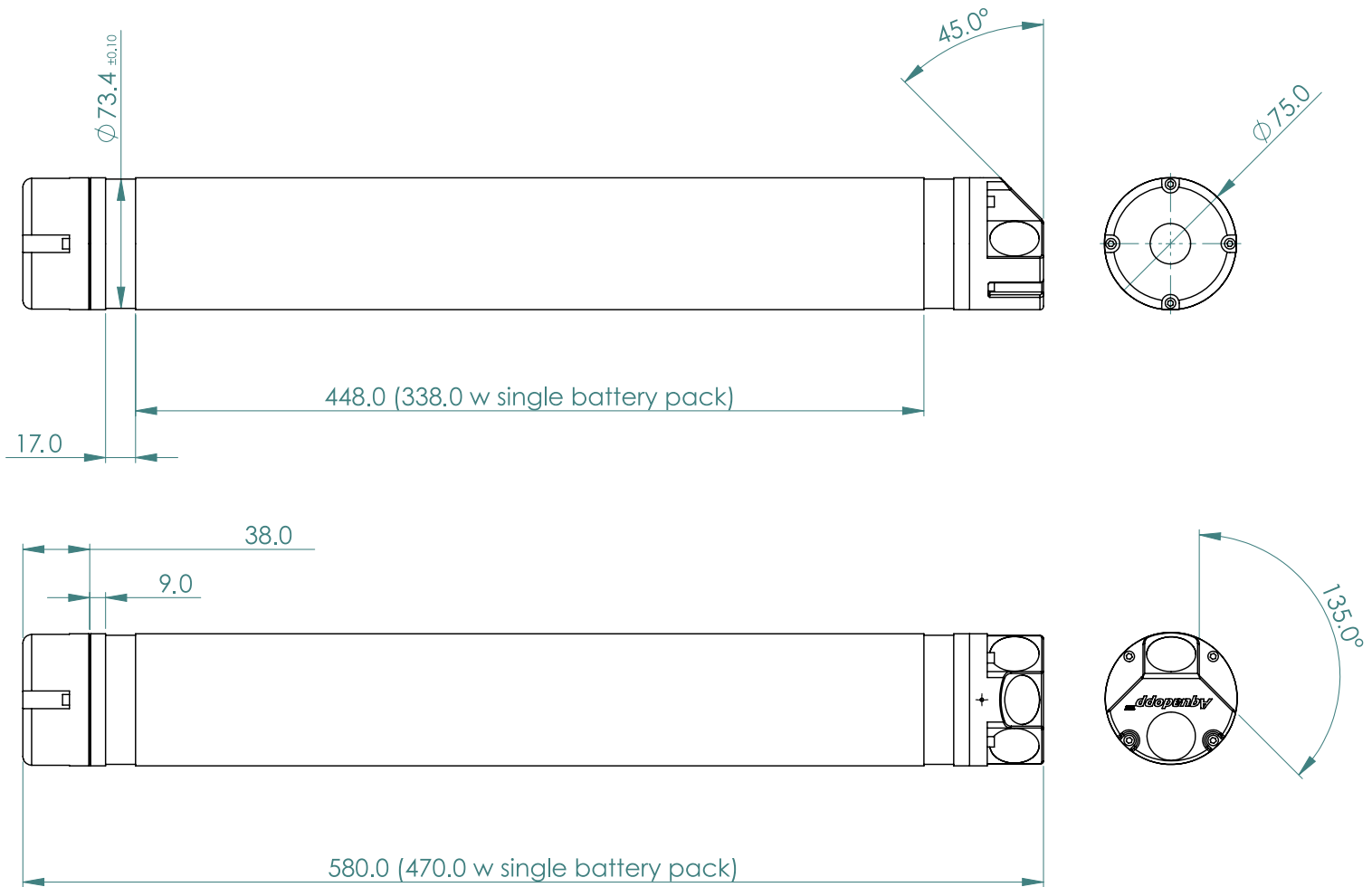
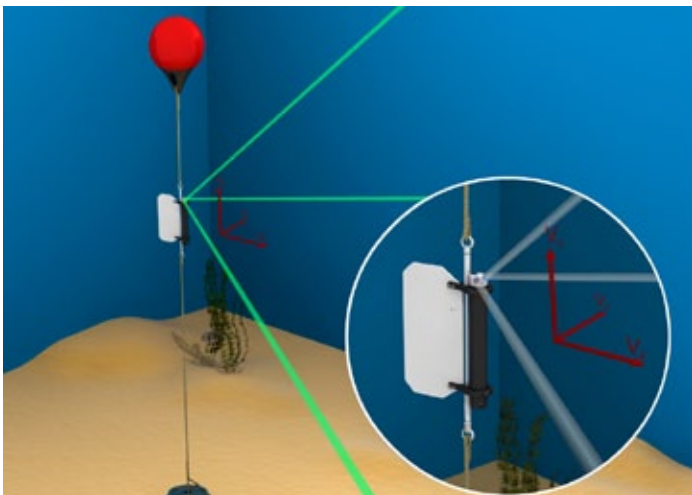


The Aquadopp current meter is designed for any body of water, whether ocean, lake or river. Current meters measure the water current velocity in a single volume. The Aquadopp current meter is small in size but an extremely powerful sampling system, that allows it to be used in a variety of applications.

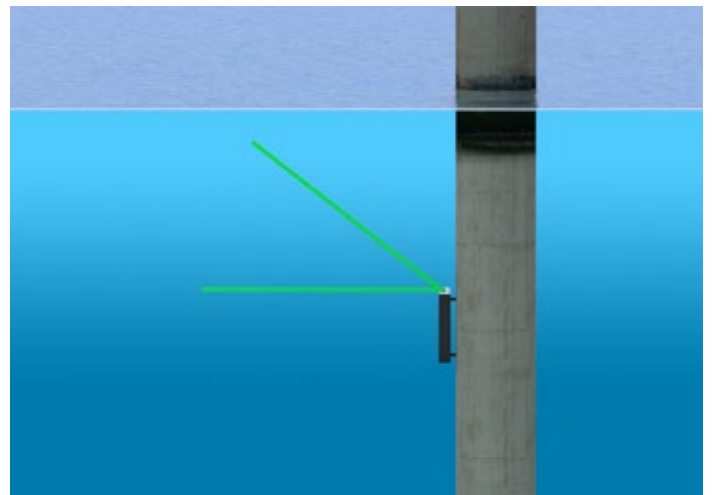
# Aquadopp<sup>®</sup> Current Meter 300m



All dimensions in mm.



The Aquadopp<sup>®</sup> measures the Doppler shift occurring, when transmitting and receiving sound pulses transmitted along two or more narrow acoustic beams. This shift is proportional to the velocity component along those beams. By combining this information with the exact beam geometry, either 2D (2 beams) or 3D (3 beams) velocity is calculated.



The Aquadopp can be used in a variety of applications. Many Aquadopps are fixed mounted, either on surface buoys, on pilings, or on bottom frames. In harbors, the Aquadopp can be side-mounted on the wall or a fixed structure.

CURRENT AND WAVE MEASUREMENTS IN THE OCEAN, LAKE AND LABORATORY



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## Water Velocity Measurement

Range:	± 5m/s (inquire for higher ranges)
Accuracy:	1% of measured value ± 0.5 cm/s
Maximum sampling rate (output):	1Hz, 4Hz on request
Internal sampling rate:	23Hz

## Measurement Area

Measurement cell size:	0.75m
Measurement cell position:	0.35–5.0m(user selectable)
Default position (along beam):	0.35–1.85m

## Doppler Uncertainty (noise)

Typical uncertainty for default configurations:	0.5–1.0cm/s
Uncertainty in U,V at 1Hz sampling rate:	1.5cm/s

## Echo Intensity

Acoustic frequency:	2MHz
Resolution:	0.45dB
Dynamic range:	90dB

## Sensors

<b>Temperature:</b>	Thermistor embedded in head
Range:	–4°C to 40°C
Accuracy/Resolution:	0.1°C/0.01°C
Time response:	10 min
<b>Compass:</b>	Magnetometer
Accuracy/Resolution:	2°/0.1° for tilt < 20°
<b>Tilt:</b>	Liquid level
Accuracy/Resolution:	0.2°/0.1°
Maximum tilt:	30°
Up or down:	Automatic detect
<b>Pressure:</b>	Piezoresistive
Range:	300m
Accuracy/Resolution:	0.5% / Better than 0.005% of full scale per sample

## Analog Inputs

Number of channels:	2
Supply voltage to analog output devices:	Three options selectable through firmware commands: <ul style="list-style-type: none"> <li>● Battery voltage / 500mA</li> <li>● +5V / 250mA</li> <li>● +12V / 100mA</li> </ul>
Voltage input:	0–5V
Resolution:	16 bit A/D

## Data Communication

I/O:	RS 232, analog input, RS 422 or analog output. Software supports most commercially available USB–RS232 converters
Communication Baud rate:	300–115200 Baud
Recorder download baud rate:	600/1200 kBaud for both RS232 and RS422
User control:	Handled via Win32® software, ActiveX® function calls, or direct commands with binary or ASCII data output

## Software (“Aquadopp DW”)

Operating system:	Windows®XP, Windows®7
Functions:	Deployment planning, start with alarm, data retrieval, ASCII conversion. Online data collection and graphical display. Test modes

## Data Recording

Capacity(standard):	9 MB, can add 32/176/352/MB
Data record:	40 bytes
Diagnostic record:	40 bytes

## Power

DC input:	9–15VDC
Peak current:	3A at 12VDC (user adjustable)
Max consumption 1Hz:	0.2–1.4 W
Avg. consumption:	0.1W (0.02Hz), 0.01W (0.002Hz)
Sleep consumption:	0.0013 W
Transmitt power:	0.3–20W, 3 adjustable levels
Battery capacity:	50 Wh
New battery voltage:	13.5 Vdc
Data collection (alkaline):	6 months at 10-min, ±1.5cm/s noise
Data collection (lithium):	18 months at 10-min, ±1.5cm/s noise

## Real time clock

Accuracy:	+/- 1min/year
Backup in absence of power:	4 weeks

## Connectors

Bulkhead (Impulse):	MCB8-8-FS
Cable:	PLPMIL-8-MP on 10m polyurethane cable

## Materials

Standard model:	Delrin® and titanium
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## Environmental

Operating temperature:	–4°C to 40°C
Storage temperature:	–20°C to 60°C
Shock and vibration:	IEC 721-3-2
Pressure rating:	0–300m

## Antifouling Paint

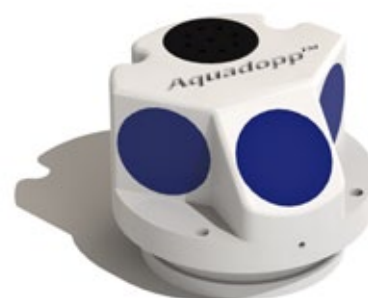
May be applied to all surfaces


## Dimensions

Cylinder:	see dimensional drawings
Approx. weight in air:	2.3kg
Approx. weight in water:	Neutral


## Options

Battery:	Lithium or lithium Ion
External batteries:	Alkaline, Lithium or Lithium Ion (see battery brochure for details)
Head configuration:	Inquire



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