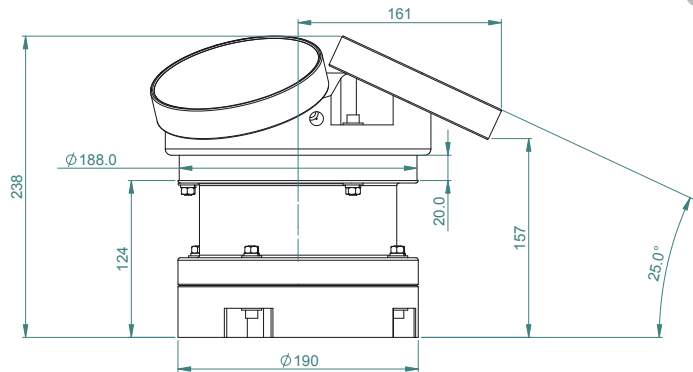
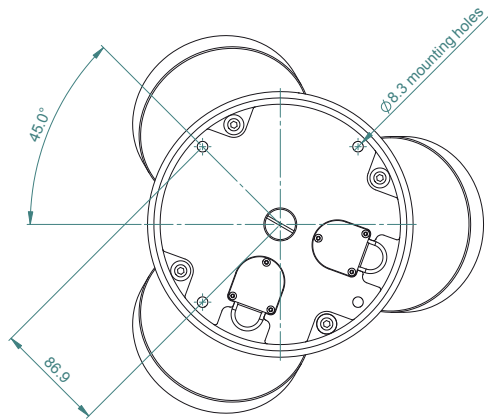


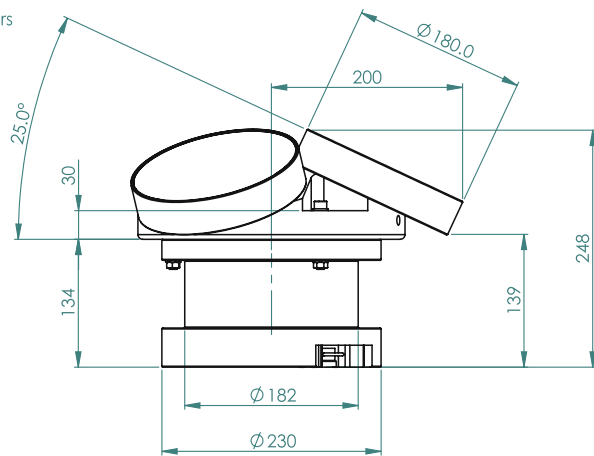
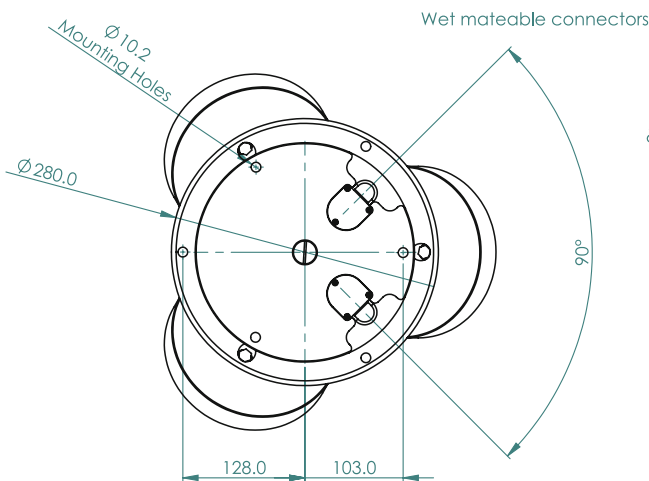
The Continental is a current profiler designed to give you that extra range. Two versions are available: The 190 kHz model which can measure current profiles up to 250 meters in range and the 470 kHz version, which profiles over 100 meters. They are designed for deployment in a variety of ways, including seabed mounting on a mooring line, under a buoy or attached to a fixed structure.

Continental

3D Current Profiler

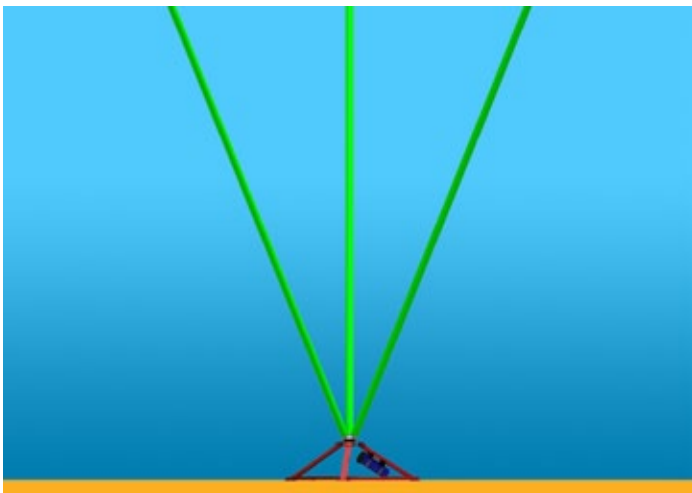


470kHz

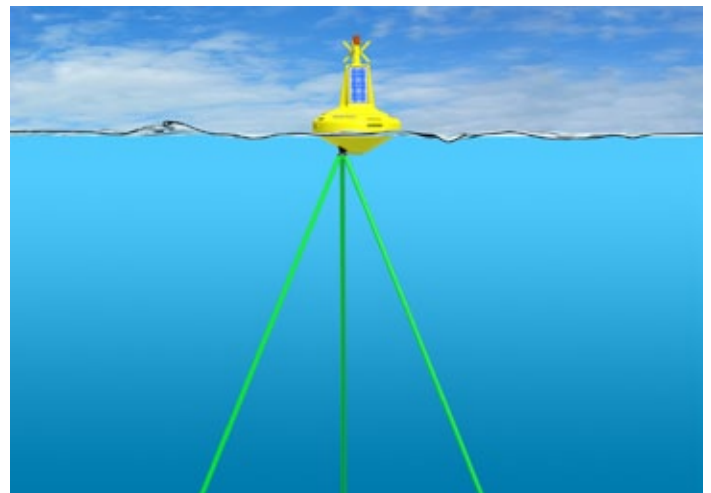


190kHz

All dimensions in mm.



A common deployment method for the Continental 3D is on the seabed where the instruments are mounted facing upwards, profiling the current from the instrument to the surface. The Continental can be configured for seasonal sampling. This means that the measurement interval can vary over the deployment period, which helps optimize the amount of useful data that is collected.



The Continental is used in both online projects and stand-alone applications. In buoy mounted application, the data can be collected in real time and transmitted to a shore station using radio or satellite communication.

CURRENT AND WAVE MEASUREMENTS IN THE OCEAN, LAKE AND LABORATORY



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True innovation makes a difference

Water Velocity Measurement

Profiling range*:	200m (190kHz), 100m (470kHz)
Cell size:	2–20m (190kHz), 1–10m (470kHz)
Min. blanking:	2m (190kHz), 1m (470kHz)
Max. # cells:	128
Velocity range:	±10m/s
Accuracy:	1% of measured value ± 0.5cm/s
Velocity resolution:	0.1cm/s

*) The Continental measures the current profile in a user specified number of cells from the instrument out to a maximum range which depends on the acoustic scattering conditions and the cell size.

Echo Intensity

Sampling:	Same as velocity
Resolution:	0.45dB
Dynamic range:	90dB

Transducer

Acoustic frequency:	193.5kHz or 470.5kHz
No. of beams:	3, slanted at 25°
Beam width:	3.0° (190kHz), 1.6° (470kHz)

Sensors

Temperature:	Thermistor embedded in head
Range:	–4°C to 40°C
Accuracy/Resolution:	0.1°C/0.01°C
Time response:	10 min
Compass:	Magnetometer
Accuracy/Resolution:	2°/0.1° for tilt < 20°
Tilt:	Liquid level
Maximum tilt:	30°
Up or down:	Automatic detect
Pressure:	Piezoresistive
Standard Range:	0–500m, inquire for options
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"> • Battery voltage / 500mA • +5V / 250mA • +12V / 100mA
Voltage Input:	0-5V
Resolution:	16 bit A/D

Data Communication

I/O:	RS-232 or RS-422. 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

Data Recording

Capacity (standard):	2 MB, can add 152MB
Data record:	120 bytes + 9xNcells
Mode:	Stop when full (default) or wrap mode

Software (“Continental”)

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

Power

DC input:	12–18VDC
Max. average consumption at 1Hz:	15W
Typical average consumption:	0.2 - 0.5 W
Sleep Consumption:	0.0013W
Transmit power:	2–120W, 4 adjustable levels

Real Time Clock

Accuracy:	±1 min/year
Backup in absence of power:	15min

Materials

Standard model:	Delrin® and polyurethane plastics with titanium bolts. Titanium transducer cups
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Connectors

Bulkhead (Impulse):	LPMBH-8-FS (bronze) – comm LPMBH-2-FS (bronze) – power
Cable:	PLPMIL-8-MP on 10 m polyurethane cable

Environmental

Operating temperature:	–4°C to 40°C
Storage temperature:	–20°C to 60°C
Shock and vibration:	IEC 721-3-2
Pressure rating:	500m

Dimensions

Dimensions are shown in the drawings on the front page	
Weight in air:	18.7kg(190kHz), 8.5kg(470kHz)
Weight in water:	9.8kg(190Hz), 3.9kg(470Hz)

Options

External Batteries:	The Continental has no internal batteries, but uses external canister with battery packs.
Battery options:	Alkaline, Lithium, Lithium Ion (see battery brochure for details)

