



TRIAXYS™ Wave & Current Buoy



TRIAXYS™

The TRIAXYS™ Wave & Current Buoy is a precision instrument incorporating advanced technologies that make it an easy to use, reliable and rugged buoy for accurate measurement of directional waves and three dimensional currents.

FEATURES & BENEFITS

- » Integrated current profiling
- » Reliable operation in extreme weather or geographical locations
- » Solar powered
- » 5 year rechargeable battery life
- » Supports AIS Aid to Navigation
- » Supports any telemetry
- » >2 years of data storage capacity
- » Continuous wave sampling
- » Spin and impact resistant





TRIAXYS™

Wave & Current Buoy

The TRIAXYS™ Wave & Current Buoy measures directional waves and 3D currents accurately and precisely. The buoy can withstand the rigors associated with deployment and recovery operations including, impact shock, spinning and temporary submergence.

The heart of the TRIAXYS™ Wave & Current Buoy is developed from the AXYS WatchMan500™, which integrates sensor systems and provides onboard data processing, data logging, telemetry, and diagnostic/set-up routines.

The current profiler works equally well in typical ocean surface water and in the high sediment suspensions found near the coast or in rivers. A variety of head designs ensures optimal measurement conditions, regardless of deployment surroundings. The current profiler is insensitive to biofouling and has no moving parts. It provides current speed and direction in up to 128 different layers of the water column. The system electronics integrates Doppler velocity with temperature, pressure, tilt, and compass sensors – all standard with each instrument.

The data transmitted from the buoy include wave statistics, HNE (Heave, North and East Displacements), MeanDir (Wave Direction and energy as a function of frequency), directional and non-directional wave spectra, buoy configuration, status data, position, and WatchCircle™ alarm messages.



Specifications

- PHYSICAL DESCRIPTION

Diameter: 1.10m outside bumper

Weight (including batteries): 235 kg

Obstruction Light: Amber LED.

Programmable IALA ODAS flash sequence with three miles visibility.

- MATERIALS

Hull: Stainless steel

Dome: Impact resistant polycarbonate

Solar Panel Assembly: Fibreglass over foam

Clamping ring: Stainless steel

- CURRENT PROFILER

Nortek: Aquadopp 400KHz, 600KHz, 1MHz or 2MHz

Teledyne RD Instruments: Workhorse Monitor 600KHz

- POWER SYSTEM

Batteries: 4 @ 12 Volt, 100 Amp hr/battery

Solar Panels: 10 @ 6 Watt

Maximum Power Point Tracking (MPPT) Regulator

- TELEMETRY OPTIONS

- VHF/UHF

- IsatData Pro

- INMARSAT M2M

- IRIDIUM

- HSPA Cellular (compatible with GPRS)

- AIS Aid to Navigation

Resolution/Accuracy

	RANGE	RESOLUTION	ACCURACY
HEAVE	±20 m	0.01 m	Better than 1%
PERIOD	1.5 to 33 sec	0.1 sec	Better than 1%
DIRECTION	0 to 360°	1°	3°
CURRENTS	0-10 m/s	1 cm/s	±10 cm/s
WATER TEMP.	-5 to +50°C	0.1°C	±0.5°C

