

The TIDAL™ 2.60m diameter ocean buoy features a modular design on a robust steel frame with a large watertight tower designed to house batteries and electronics. The short tail tube version with bridle mooring and adjustable ballast provides excellent performance in current.

KEY FEATURES

- Rugged Polyethylene Construction
- Optional battery trays and solar panels
- Bridle mooring and adjustable ballast
- Large visual and radar signature
- 100% Recyclable after a long service life

MANUFACTURED TO LAST

Virgin colour compounded UV-20 polyethylene designed and tested to provide long-lasting colour fade and impact resistance. The lifting / mooring assembly and all fasteners and inserts are 316 grade stainless steel to minimize maintenance.

CONSPICUITY

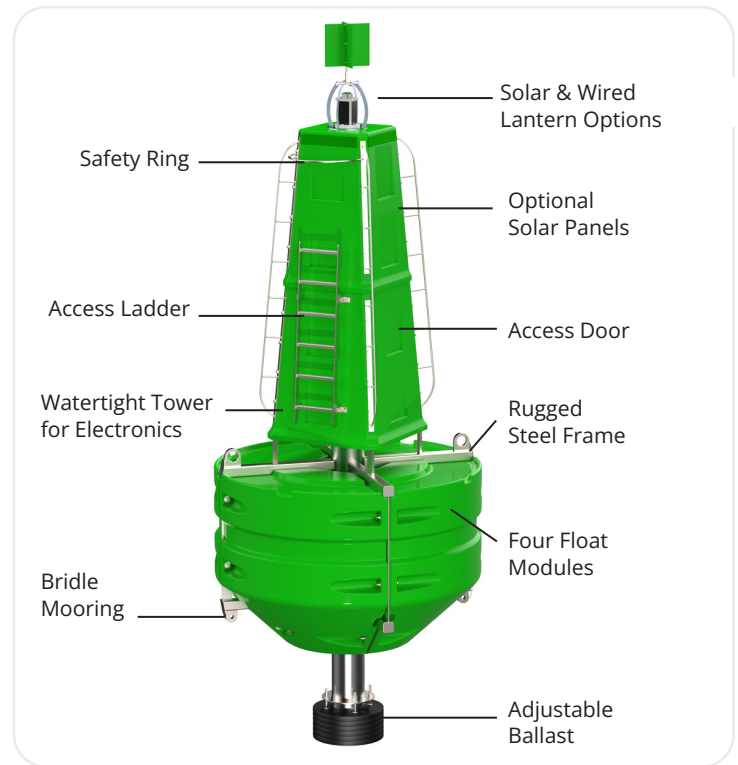
Large superstructure provides excellent visual signature even in poor environmental conditions. Ability to house solar panels and batteries allow for the installation of long range lanterns for nighttime visibility. The 55m² (avg) return radar reflector provides long range detection.

VERSATILE

This buoy can be installed anywhere its high visibility and functionality are required. Its adjustable ballast helps for shallower locations, its high reserve buoyancy for deeper locations and its bridle mooring for strong currents.

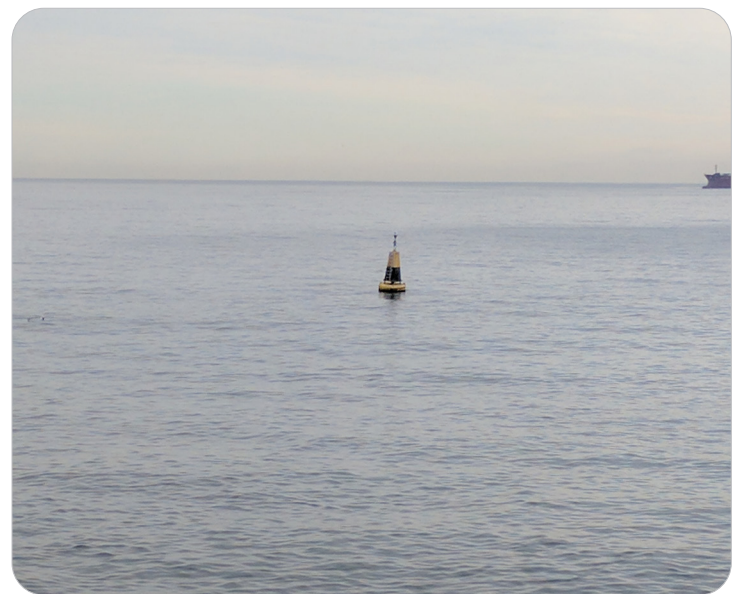
COLOUR CONFIGURATION

Available to meet the requirements of all IALA Colour / Configuration Recommendations with top marks and self-contained lanterns.



RECYCLING AND REUSE

All TIDAL™ buoys are manufactured solely with materials that are readily recyclable; items like the radar reflector are designed and secured so they can be re-used. Call to discuss how you or TIDAL™ can recycle your buoys.



GENERAL SPECIFICATIONS

Diameter	102.4 in	2.60 m
Overall Height	236.9 in	6.02 m
Mass	4,996 lbs	2,266 kg
Hull Floatation Volume	247 ft ³	6.98 m ³
Submergence	300 lbs/in	53.6 kg/cm
Max. Mooring Mass (Air Weight)	4,100 lbs	1,860 kg
Min. Mooring Mass (Air Weight)	840 lbs	381 kg
Draught (at Min. Mooring Mass)	70.5 in	1.79 m
Reserve Buoyancy (at Maximum Mooring Mass)	3,570 lbs	1,619 kg

PERFORMANCE SPECIFICATIONS

Focal Plane Height (at Min. Mooring Mass)	178.5 in	4.53 m
Visible Height (at Min. Mooring Mass)	205.4 in	5.22 m
Visual Area / Surface (at Max Visible Height)	73.7 ft ²	6.85 m ²
Distance of Recognition (at Max. Visible Height)	3.39 NM	6.28 Km
Radar Range	1.75 NM	3.24 Km
Internal Radar Reflector (RCS: Peak / Average over 360°)	230 m ² / 55 m ²	

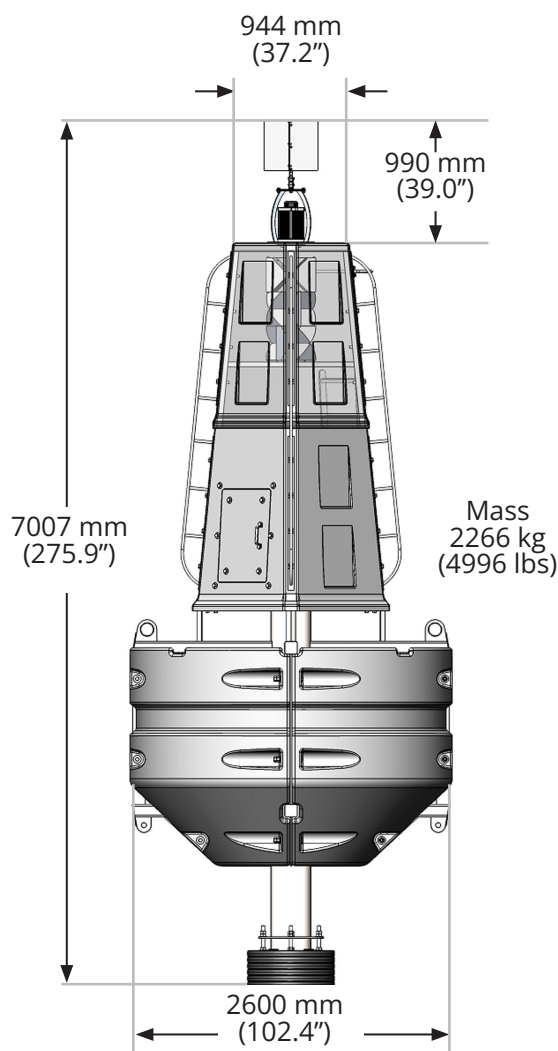
MATERIAL SPECIFICATIONS

Topmark	All Standard Topmarks Available	
Tower Structure	Virgin MDPE with UV20 protection package	
Buoy Hull	Virgin MDPE with UV20 protection package	
Wall Thickness	9/16 in	14 mm
Foam Filling	Closed cell EPS fused in situ block	
Lifting and Mooring Structure	316 stainless steel	
Safe Working Load (SWL)	8,600 lbs	3,900 kg
Colours	Compliance with IALA Recommendation R0108	
IALA Compliance Testing	Independent laboratory test results available	
Colourfastness Test Procedure	Xenon Arc Accelerated Weathering per ASTM D-2565	
Colourfastness Testing	Independent test results available per ASTM D-2244	
Product Life Expectancy	> 20 years	
Warranty	5 years	

Mooring Line Design

- Mooring design to optimize the performance of each buoy.
- Advanced 3D dynamic analysis of the mooring line and buoy.
- Supply of custom mooring lines with proven components.
- Catenary, inverse-catenary, chain, and synthetics.

Our advanced modelling software can perform dynamic analysis of the interaction between the mooring line and the buoy in normal "operating" conditions to assess and optimize buoy performance. Importantly, this dynamic analysis is also used to assess performance across a range of "survival" conditions.



We carry a wide range of self-contained and externally powered lights for navigation buoys from world leaders such as Sabik, Sealite, Ekta, and Vega.

Depending on the size and use of the buoy, we offer options such as AIS Type I or Type II, Remote Monitoring & control, and on-board solar power systems.

PERFORMANCE SUMMARY

