

# LED Buoy Lantern E8233

LED Buoy Lanterns E8233 are intended for use on navigational buoys as smart sources of omnidirectional light signal. An E8233 offers one of the widest vertical divergence profiles in the industry, providing remarkable FWHM and FWTM intensities at moderate power consumption. While the lantern's own cupola provides sufficient protection in applications excluding direct wave action and mechanical contacts, use of a protective cupola is strongly recommended. An E8233 is available with red, green, white or yellow/blue signal.

An E8233 features the latest **TelFiCon™-Flasher E927X** integrating flashing control with AtoN telematics, GPS based positioning and synchronisation, and acceleration measurement functionality. It has full control of the light signal luminous intensity using fast pulse width modulation (PWM), allowing to use frequencies up to 455 Hz that are suitable for implementation of low duty cycle **fixed and flashing (FFI) rhythmic characters**. The lantern is supplied with customer-provided SIM cards in readiness for GSM/GPRS (2G) network based operation within the **TeVinsa™** AtoN telematics framework.

The telematics module is fitted with a triaxial solid state **acceleration sensor** that performs constant monitoring of buoy heel angles and collisions when activated, sending the corresponding alarm messages to the monitoring centre and switching off flashing at excessive heel angles in case of submersion or maintenance. It is suitable for buoy dynamics research by acceleration measurement on demand, and supports full Firmware-over-the-Air re-programming for future software upgrades. The unique telematics server based **Heel Angle Adaptive Luminous Intensity control (HAALI)** functionality increases navigational safety at deep heeling in harsh sea states or heavy currents.

Typical average power supply current draw between communication sessions with heel angle measurement, collision monitoring and GPS (trickle) activated is ~5 mA (light signal off).

## Features

Typical light signal intensity	60 cd to 120 cd
Nominal range (T=0.74, 0.2 µlx)	up to 5 M
Vertical divergence FWHM	26° (W), 20° (R), 26° (G)
Vertical divergence FWTM	60° (W), 32° (R), 70° (G)
Power consumption in flash	4 W (W) to 6 W (R, G)
Operating voltage range	8...24 VDC
Diameter / height	207 mm / 231 mm
Weight	~5.6 kg
Enclosure protection class	IP67



Cupola material: UV-stable PETG  
 Body material: Aluminium with anodized surface, ring powder coated  
 Mounting arrangement: 6 x Ø 9 mm on a circle with diameter of Ø150 mm  
 Operating environment: -30°C to +55°C (-20°C to +55°C for monitoring)

Note: LED current at 100% PWM is configured at the factory for the required nominal range. Lanterns with extended luminous intensity range for HAALI are available upon request.

**Sabik OÜ**  
 Mäealuse 2/1, 12618 Tallinn, ESTONIA  
[www.sabik-marine.com](http://www.sabik-marine.com) e-mail: [ekta@ekta.ee](mailto:ekta@ekta.ee)

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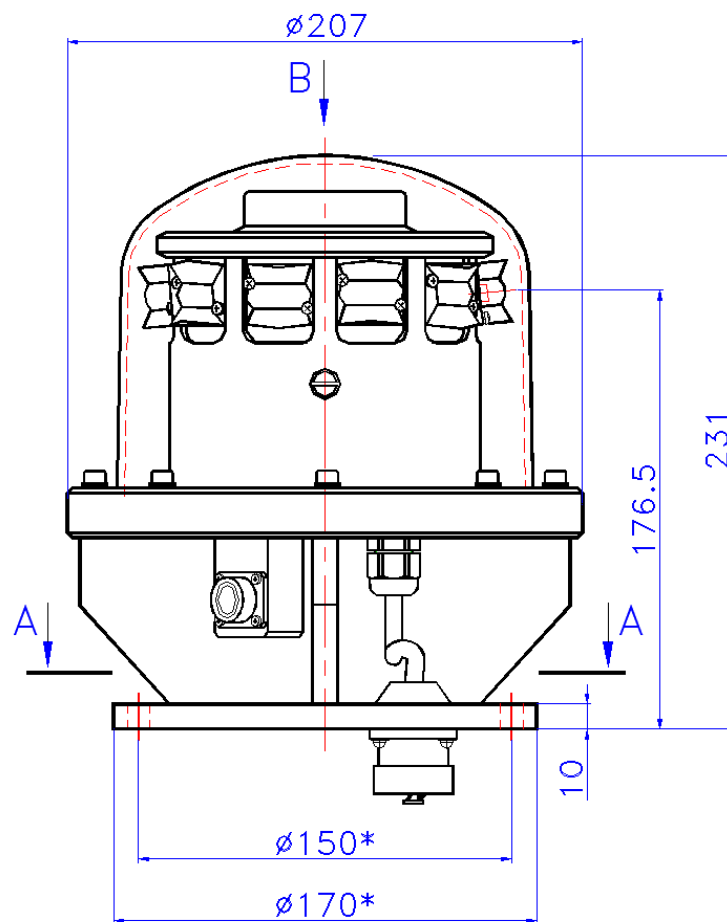


Figure 1. LED Buoy Lantern E8233 dimensions. The Yellow/Blue model for emergency wreck marking is fitted with two rows of LEDs.

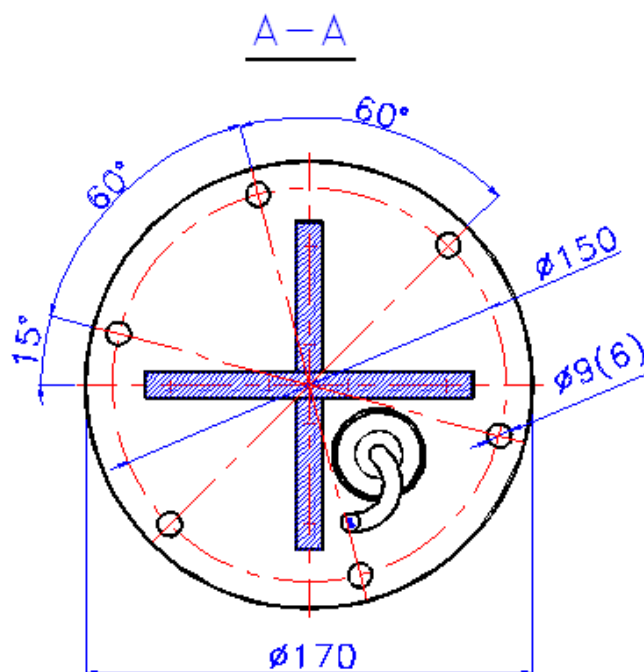


Figure 2. LED Buoy Lantern E8233 bottom view of the mounting flange