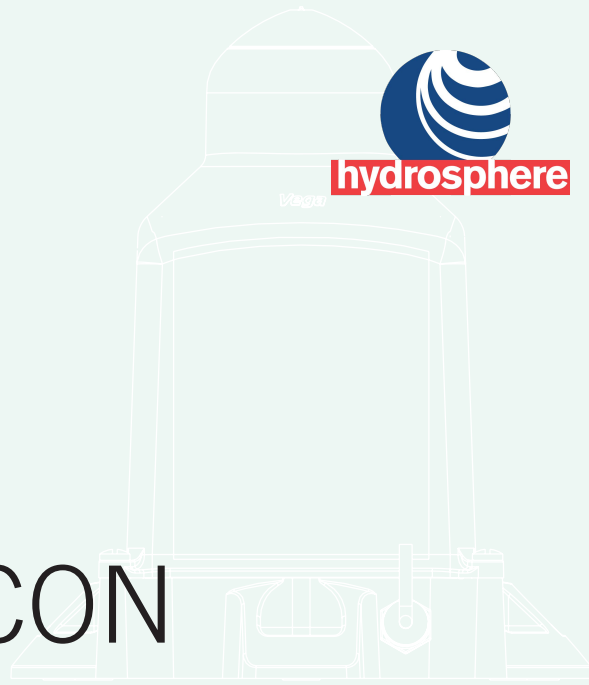




Vega guides the way



VLB-2 LED MARINE BEACON

1-2NM @ 0.74T



Standalone Beacon

The VLB-2 is a high capacity marine beacon designed to provide 2NM performance and long battery autonomy in high latitude applications. The Self Contained unit can be supplied with 1 x 9AH battery for standard applications or 2 x 9AH batteries for extended autonomy. A product selector is available for the VLB-2 beacon on the Vega website under the **Calculators** Menu. The selector program will show what combination of flash character, colour and range will work for the VLB-2 at a particular location.

The VLB-2 beacon forms part of the Vega LED marine beacon family and is designed for applications requiring a 1 to 2NM range at 0.74T. The beacon is available in 5 colours: red, green, white, yellow and blue. All colours meet the IALA chromaticity requirements.



Self Contained Beacon
* 3.2 Watt solar panel
* 9 or 18 Ah battery

The use of high efficiency optics and electronics has resulted in a high energy efficiency beacon. The low energy need reduces the solar panel and battery requirements in the overall design. Vertical divergence of the lens at 50% of the peak intensity is better than 7°.

The VLB-2 LED beacon is available in 3 models:

Model	Solar	Battery
SA: Standalone	N/A	N/A
SS: Self Contained (standard capacity)	3.2W	9AH
ES: Self Contained (extended capacity)	3.2W	18AH

The second 9AH battery in the ES model increases the level of battery autonomy.

These are additional options that can be included at time of order:

- GPS synchronisation
- External charging plug and hardwired sync wire for Self Contained model (hardwired sync is standard on Standalone model).

The design life of the VLB-2 LED beacon is 12 years. Features include:

- 3 or 4-hole mounting on a 150mm PCD
- Waterproof to IP68
- The ability to replace batteries on the Self Contained units.

The 9AH battery is a long life GEL lead acid capable of charging down to -20° Celsius.

The base contains a waterproof cavity that can be used to extend the functionality of the beacon. On the Standalone unit this space allows the fitting of a power supply to create a mains powered beacon (Base will take a Traco AC/DC converter, component part # TMS 15105F or TMS 10105F)

EASY PROGRAMMING

There are two methods of programming the VLB-2 LED marine beacon:

1. Using the Vega TVIR programmer (Remote-02). This allows the beacon to be programmed one feature at a time. Settings are confirmed by flashing the programming code back to the user.
2. Using a computer and the IRDA interface (Prog-01). This allows all the settings to be displayed on a screen and downloaded or retrieved in a single action.

The VLB-2 LED marine beacon supports the standard features found on Vega marine LED beacons.

- Multiple effective intensity settings equivalent to 0.25NM increments
- Day/night transition level settings
- 246 flash characters
- One programmable custom character
- Synchronisation control including master/slave options and sync delay
- Programmable sleep and test modes
- Programmable transport mode so that the VLB-2 can be programmed before deployment
- Calendar control allowing the beacon to be turned off for winter.
- Low battery voltage cut out
- Control of the IRDA for computer programming
- Optional security codes
- Read battery voltage
- Serial number, LED type etc. are stored in beacon.



Approved for use as Class C lights for artificial island and structures in USCG 8th District under CFR 33 Part 67. USCG compliant under CFR 33 Part 66 for 1 and 2 mile private navigation aids.

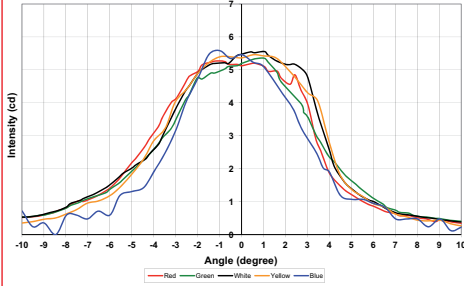
SPECIFICATIONS

Optical Performance

Candela	Red	Green	White	Yellow	Blue
Peak	10.9	22.6	20.0	9.1	4.6
Effective	5.0	5.0	5.0	5.0	2.4

- Vertical divergence at 50% intensity better than 7°
- Colours meet IALA chromaticity requirements
- LEDs temperature monitored for control intensity
- Automatic Schmidt-Clausen intensity correction

VLB-2 VERTICAL PROFILE



Electrical Performance

Standalone Voltage	3.5-16VDC
Self Contained Voltage	3.5-5.5VDC
Reverse Polarity	Protected
Gel Battery	9Ah or 18Ah (2x9Ah)
Battery Life	6 years expected
Charging	Stops at -20°C
Solar Panels	Mono-crystalline
Solar Panel Orientation	Vertical; 4 panels 90° in azimuth

Current for fixed character:

mA	Red	Green	White	Yellow	Blue
1NM	10	9	9	9	20
2NM	29	23	24	33	-
Peak CD on Flash Character	57	84	80	57	79

- Night off Current 0.09mA
- Day Current 0.18mA
- For specific current usage refer to the product manual or Vega website
- GPS Current
Average current when operating is 0.7mA
60mA when acquiring signal. 0mA when not acquiring signal. Nominally acquires for 14 seconds every 20 minutes.

Environmental

Temperature	-30° to +50° Celsius
Cooling	Convection
Pressure	
Equalisation	Membrane in solar body
Salt	Continuous exposure saltwater and spray
Wind	140Kt

Ice Loading 22kg/m²
Shock/Vibration 75g shock in all directions;
5g vibration in all directions

Material for Beacon

Lens Moulded acrylic (PMMA)
Bird Spike Stainless steel centre spike

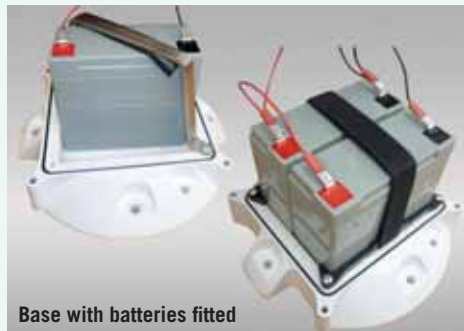
Material for Solar Power Pack and Base

Body UV stabilised transparent Nylon
Base UV stabilised Nylon with 30% mineral fill
Top Cap UV stabilised ASA
Sealing O-ring
Mounting 3 or 4-hole on 150mm PCD
Service Life 12 years excluding battery
Warranty 1 year. Refer to Vega warranty conditions

Standards

EMI/EMC EN55015:2006 +A1:2007, +A2:2009 radiated and conducted emissions;
EN61000-4-2:2008 Electrostatic Discharge; Immunity Level 4 (10KV air 6KV contact)
EN61000-4-3:2006 +A1:2007, +A2:2010 Radiation Immunity Class 1 (10V/m)
EN61000-4-5:2005 Class 3 Surge Immunity, 0.5KV lead to lead
EN61000-4-6:2008 conducted susceptibility
EN61547:2009 FCC Part 15
Optical Test IALA Recommendation E-122 (2001) and E-200-3 Part 3 (2008)
Colour IALA Recommendation E-200-1 Part 1
Daylight Power Supply IALA Recommendation 1038
IEC60945 Section 7 normal and peak voltage, and reverse polarity protection

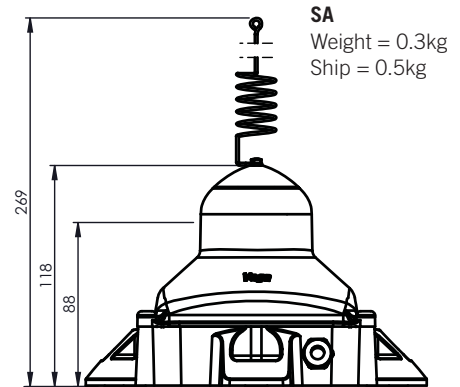
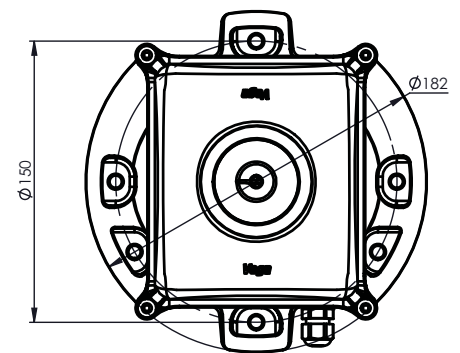
Ingress & Immersion IP68 1.5m depth immersion for 1 hour
Shock MIL-STD-202G Method 213B Cond H
Vibration MIL-STD-202G Method 204D Cond B
Hail N/A. Solar panels are internal to body



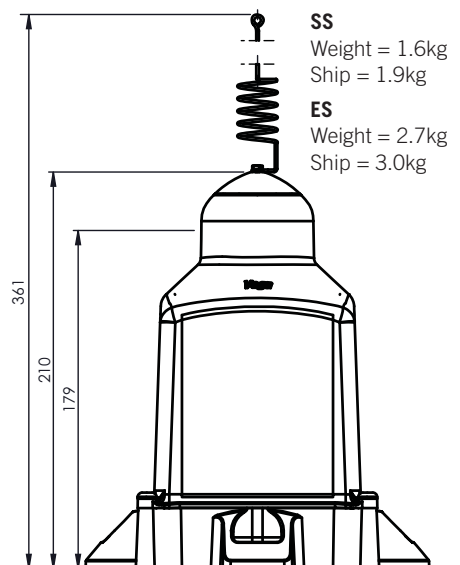
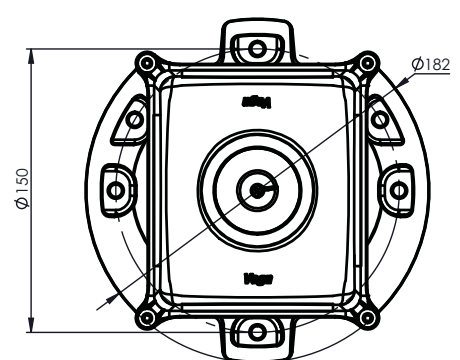
Base with batteries fitted

DIMENSIONS & WEIGHTS

Standalone Beacon



Self Contained Beacon



PARTS FOR ORDERING

DESCRIPTION

VLB-2 LED Marine Beacon

- External charge and sync wire on SS and ES Self Contained models
- Replacement battery
- Battery holder to convert from 1 to 2 batteries
- Sync Signal Converter (receive only)
- Vega TVIR Programmer
- Computer Programmer

Note: c is colour (G, R, W, Y, B), YY is size: SA (Standalone), SS (Standard 9AH Battery Solar Capacity), ES (Extended 18AH Battery Solar Capacity).

CODE

VLB-2-c07-YY
add "-CP/SW"
EBAT-HZY4-9
VLB-2-K01
136-600
Remote-02
Prog-01

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