



# 14 NM MARINE BEACON

## VLB-44

MEDIUM RANGE LANTERN 6-14 NM (1-8 TIERS)

2.5°, 5° or 10° Vertical Divergence

The VLB-44 Beacon forms part of the Vega LED marine beacon family. The use of highly efficient optics and electronics has resulted in energy efficiency as high as 175 Candela per Watt (depending on vertical divergence)

This level of efficiency significantly reduce the solar panel and battery requirement in standalone applications.



# OUTSTANDING FUNCTIONALITY AND FEATURES

The beacon comes in 3 models with different vertical divergences to cover fixed and floating based applications:

- VLB-44 10 degree (ideal for buoys)
- VLB-44 5 degree (for land/pole use)
- VLB-44 2.5 degree (for lighthouses)

VLB-44 can be configured from one to eight tiers and can be sized to the range of a particular application. Multiple units can be used to extend the range to 16 Nm. Each tier uses approximately 10 Watts of energy. The available colours are, red, green, white, yellow and blue. All colours meet the IALA chromaticity recommendation.

The unique optical system utilises an acrylic lens to maximise the light capture from the LEDs. The LEDs are precisely graded and placed to produce a light beam with minimum variation in intensity. A switch mode regulator maintains the light output of the LEDs independent of input of voltage and temperature.

All VLB-44 beacons are tested in the Vega zero range light tunnel prior to shipment to ensure the light output meets the required specification.

## MONITORING

Programming is done using Vega IR programmer.

- External GPS sync using the Vega VSU-29 unit.
- VegaWeb monitoring system.

## PROGRAMMING FEATURES (WITH VEGA IR REMOTE PROGRAMMER) INCLUDE

- Up to fifteen effective intensity settings for every tier/colour combination.
- Automatic Schmidt Clausen intensity correction up to the maximum intensity of the tier/colour combination
- Colours meet the IALA chromaticity requirement
- Vertical divergence options of 2.5°, 5° and 10°
- Fully programmable flash characters
- 20 factory-set custom flash characters
- Flash sync delay from master up to 9.9 seconds
- Nine Lux levels to determine day/night transition, IALA recommendation included
- Can operate as a master or slave
- Sync delay up to 9.9 seconds
- Programmable low voltage cut-out threshold
- Optional security code for programming

The VLB-44 can be purchased with an extended Input/output capability. This includes serial interface, on/off control, flash or fixed control, beacon on output and health status output. To purchase simply add the correct product code (see page 4).

## MAXIMUM CANDELA (SINGLE TIER)

	10°	5°	2.5°
Red	670	1040	1810
Green	440	720	1510
White	520	1060	1740
Yellow	380	590	1204
Blue	140	220	



# SPECIFICATIONS

## OPTICAL SPECIFICATION

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<b>Light Source</b>	High-Intensity LEDs
<b>Colours Available</b>	Red, Green, White, Yellow and Blue (Meet IALA requirements)
<b>Peak Intensity</b>	See page 2 chart
<b>Horizontal Divergence</b>	360° fan beam, tolerance $\pm 15\%$ mean
<b>Flash Characters</b>	Fully programmable (including presets)
<b>Vertical Divergence</b>	2.5° @ 50% peak 5° @ 50% peak 10° @ 50% peak
<b>Temperature control</b>	LEDs monitored for excess temperature

## ENVIRONMENTAL

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<b>Temperature</b>	-30° to 50° Celsius
<b>Intrusion Protection</b>	IP68, 1.5m for 60 minutes
<b>Cooling</b>	Convection cooling heat sink
<b>Salt</b>	Continuous exposure to saltwater and spray
<b>Wind</b>	100KT
<b>Cooling</b>	Natural radiation only
<b>Ice</b>	22 kg/m <sup>2</sup>

## MATERIALS

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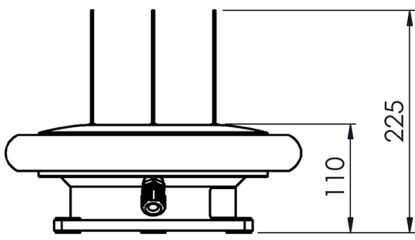
<b>Lens</b>	Machined cast acrylic; UV-protected
<b>Base</b>	Marine grade aluminium
<b>Paint Finish</b>	Epoxy primer; 2-part polyurethane gloss on exterior
<b>Bird Spikes</b>	Stainless steel

## ELECTRICAL PERFORMANCE

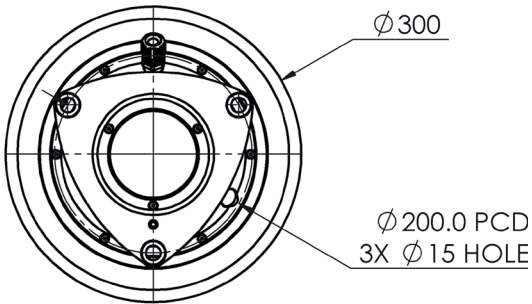
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<b>Voltage</b>	12 VDC (10-18 VDC)
<b>Battery Protection</b>	Programmable low voltage cutoff Reverse polarity protected
<b>Day/Night Transition</b>	Adjustable levels
<b>Active Off Current</b>	4 mA
<b>Standby Current</b>	0.5 mA
<b>Synch input/output</b>	Ground pulse 10ms wide at start of character

# DIMENSIONS & WEIGHTS

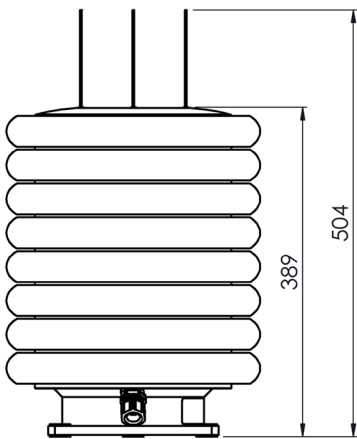


SIDE VIEW

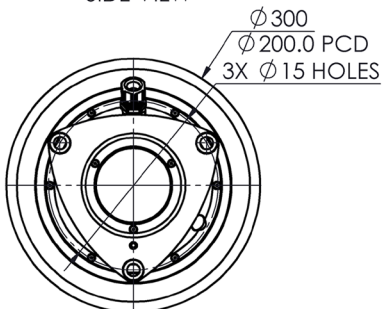


BOTTOM VIEW

## VLB-44 1 Tier



SIDE VIEW



BOTTOM VIEW

## VLB-44 8 Tier

# PARTS FOR ORDERING

## DESCRIPTION

VLB-44 LED Marine Beacon

## PRODUCT CODE FORMAT

VLB-44-C-V-T-3H

Where V is Vertical Divergence

= 2.5°, 5° or 10°

Where C is colour

= Red, Green, Blue, White or Yellow

Where T is Tiers

= 1, 2, 3, 4, 5, 6, 7 or 8

## OPTIONAL EXTRAS

GPS synchronization	<b>GS</b>
Extra Infrared Remote	<b>Remote -02</b>
Extended IO	<b>VLB44E</b>

Vega prides itself on a long history of leading edge optical innovation. To enquire about customised options please email the sales team at [sales@vega.co.nz](mailto:sales@vega.co.nz).

For other factory options check out our website, [www.vega.co.nz](http://www.vega.co.nz).



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