

VLB-44

Medium range lantern
6-14 NM (1-8 tiers)

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.

- Comes in 3 models with different vertical divergences to cover fixed and floating based applications: 10° (ideal for buoys), 5° (for land/pole use), 2.5° (for lighthouses)
- 1 to 8 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.



Monitoring

Programming is done using Vega IR programmer

- External GPS sync using VSU-29
- VegaWeb monitoring system

Functionality and Features VLB-44

Programming features

- 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

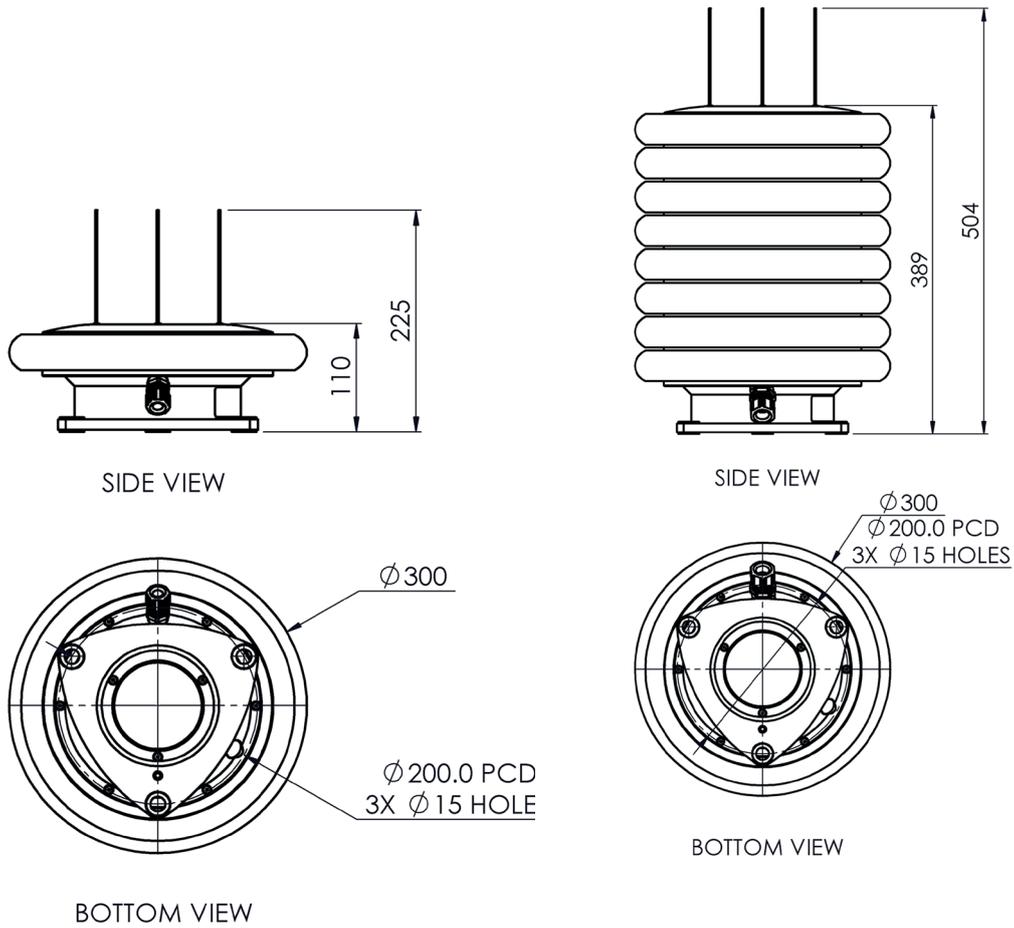


The VLB-44 can be purchased with an extended Input/output capability. This includes serial interface, on/off control, flash or fixed control, beacon on output and health status output.

Technical Specification VLB-44

Optical Performance

Maximum intensity (Single tier)					
10°	670cd	440cd	380cd	520cd	140cd
5°	1040cd	720cd	590cd	1060cd	220cd
2.5°	1810	1510cd	1204cd	1740cd	



Optical specification

Light source	High-Intensity LEDs
Colours available	Red, Green, White, Yellow and Blue (Meet IALA requirements)
Horizontal divergence	360° fan beam, tolerance $\pm 15\%$ mean
Flash character	Fully programmable (including presets)
Vertical divergence	2.5° @ 50% peak 5° @ 50% peak 10° @ 50% peak
Temperature control	LEDs monitored for excess temperature

Environmental specification

Intrusion protection	MIL-STD-202G Method 104A, Cond A P68, 1.5m for 60 minutes
Cooling	Convection cooling heat sink
Temperature	-30°C to 50°C
Salt	Continuous exposure to saltwater and spray
Wind	100 KT
Ice	22 kg/m ²

Materials

Lens	Machined cast acrylic; UV-protected
Base	Marine grade aluminium
Paint finish	Epoxy primer; 2-part polyurethane gloss on exterior
Bird spikes	Stainless steel

Electrical specification

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

Order Overview VLB-44

Option matrix

GS	GPS synchronization
Remote-02	Extra Infrared Remote
VLB44E	Extended IO

Product code

Code	Note
VLB-44-C-V-T	
C	Colour (G, R, W, Y, B)
V	Vertical divergence
Tiers	1 to 8