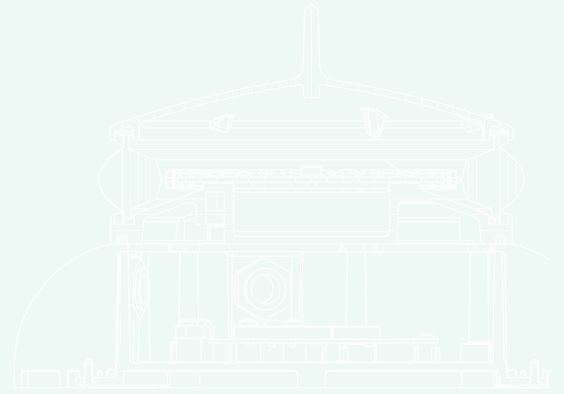




**Vega** *guides the way*



# VLB-36 LED MARINE BEACON

STANDALONE & EMERGENCY WRECK MARKING BEACON



Standalone Beacon

**ENERGY EFFICIENCY AS HIGH AS:**

90 candela per watt at 5NM

3.0NM to 7.0NM at 0.74T

Options of 7° or 10° Vertical Divergence



Emergency Wreck Marking Beacon



ISO 9001

**BUREAU VERITAS**  
Certification



# VLB-36 LED MARINE BEACON

The VLB-36 Beacon forms part of the Vega LED marine beacon family. It is available with two vertical divergence options of 7° and 10°. 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. The beacon is available in 5 colours: red, green, white, yellow and blue (on request). All colours meet the IALA chromaticity recommendation.

The VLB-36 optics have been maximised for buoy applications by shaping the optical performance for higher output across the vertical divergence of the beacon.

The use of high efficient optics and electronics has resulted in energy efficiency as high as 90 candela per watt at 5NM. The low energy need reduce the solar panel and battery requirements for a stand alone application.

All VLB-36 beacons are tested in the Vega zero range light tunnel prior to shipment to ensure the light output meets the required specification.

The VLB-36 beacon comes with a flush mounting marine grade aluminium heat sink containing an O-ring seal. This beacon can be used in this form where suitable mounting is available. Attachment is achieved using six M4 bolts into the base of the beacon.

An optional 3 or 4-hole, 200mm PCD mounting base is available if required.

## EASY PROGRAMMING

Programming of the VLB-36 could not be easier. There are up to 15 programmable effective intensity settings. Once set the VLB-36 provides automatic Schmidt-Clausen correction to increase intensity for the flash character and maintain the effective range of the light. The output intensity cannot exceed the maximum candela output of the beacon.

Programming is done using the Vega IR programmer.

Additional options include:

- Mounting base providing 3 or 4 point mounting with the holes located on a 200mm circle.
- A solar battery charger that fits into the mounting base and controls battery charging from up to 4 solar panels.
- Internal GPS synch to allow the VLB-36 to synchronise with other marine lanterns. Must be factory fitted.
- External GPS sync using the Vega VSU-29 GPS Sync Unit.
- VegaWeb web or SMS based monitoring system interface.

## SPECIFICATIONS

### Optical Performance

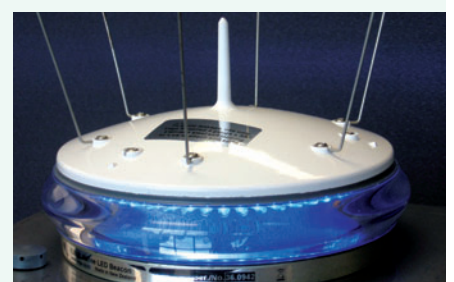
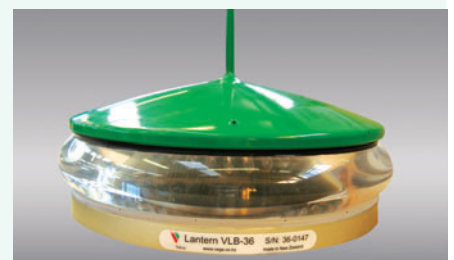
VD	Candela	Red	Green	White	Yellow	Blue
7°	Peak	350	320	510	220	70
	Effective	240	240	290	150	54
10°	Peak	300	220	300	150	40
	Effective	161	150	161	109	39

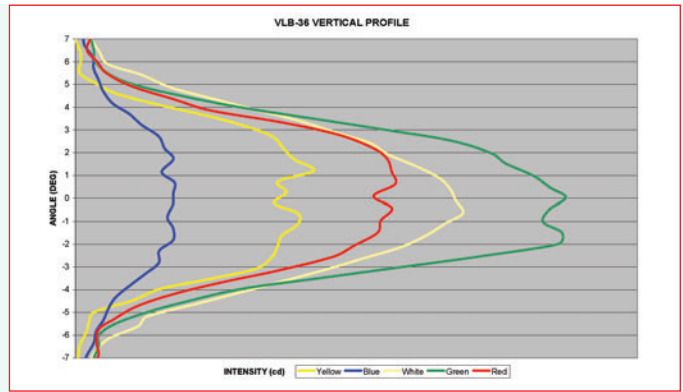
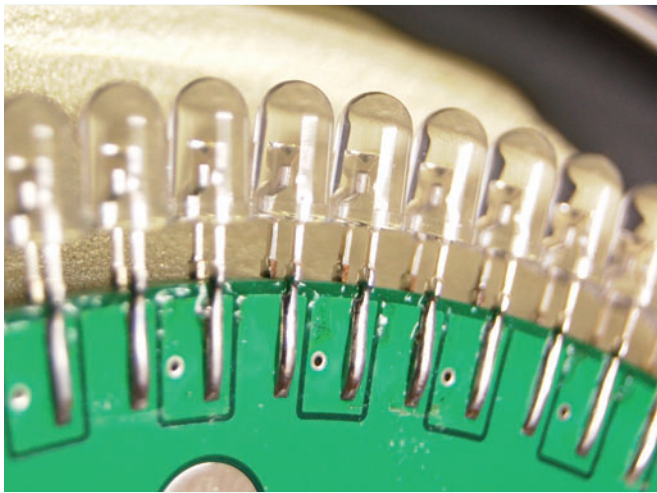
### Functionality

- Up to fifteen effective intensity settings matching common range requirements
- Automatic Schmidt-Clausen intensity correction up to the maximum intensity available
- Colours meet IALA chromaticity requirement
- Vertical divergence of 7° or 10° measured at 50% of peak intensity
- 246 standard flash characters and one programmable custom character
- 20 factory set custom characters
- Calibrated Lux measurement with nine levels to determine day/night transition. IALA recommendation included.
- Hard wire sync with sync delay of up to 9.9 seconds
- Has the ability with the factory fitted GPS sync option to synchronise flash character with other lights using a GPS synch, plus synch delay of up to 9.9 seconds
- Programmable low voltage cutout threshold
- Programmable storage mode
- Optional security code for programming

### Electrical

Voltage	12VDC
Operating Voltage	9 to 18VDC
Protection	Reverse Polarity





**Approved for use as Class A, B, and C lights for artificial island and structures in USCG 8th District under 33 CFR Part 67.**

Typical Current for fixed character at 7°:

Candela	Red (mA)	Green (mA)	White (mA)	Yellow (mA)	Blue (mA)
77 CD (5NM)	110	100	70	210	320 (@4NM)
Peak CD	670	910	710	990	730

Night off Current 4mA  
Day Current 0.5mA

**Emergency Wreck Marking Beacon** meets IALA recommendation O-133 (December 2005). Optional solar regulator and GPS flash synchronisation unit.

Range 4NM at 0.74T.

Vertical Divergence 7° at 50% intensity.

Character Blu 1.0s + 0.5s + Y 1.0s + 0.5s = 3s  
Voltage 12VDC  
Currents 180mA average  
Standby 0.5mA

- For on currents at other intensity settings refer to Appendix A of product manual.
- The GPS module needs 10mA when acquiring satellite information. Acquisition normally takes 2 minutes. Factory setting 3 times per hour.
- VegaWeb Current requirement depends on the frequency monitoring occurs. Refer to VegaWeb technical information.

### Optional Solar Charger

Input Voltage 12 to 18 Volts  
Solar Panels Up to 4 panels Max 15W/panel  
Battery Type Lead GEL/AGM  
Battery/Load Current Max 4 Amps  
Charge Control Reduces charging current at 0° and stops charging at -20°Celsius

### Mechanical & Environment

Temperature -30° to +50° Celsius  
Intrusion rating IP 68, 2 Hours immersion in 1 metre of water  
Cooling Convection only  
Pressure Fully sealed  
Equalisation Salt Continuous exposure saltwater and spray  
Wind Withstand winds to 140kt  
Ice loading 22kg/square metre

Shock/Vibration Shock 75G horizontal and 35G Vertical  
5G Vibration  
EMI Interference Withstands 200V/m 1 to 12 GHz, 10V/m 0.1 to 1 Ghz (without GPS) Withstands 25kV static discharge

### Material for Beacon

Lens Acrylic  
Housing Anodised marine grade aluminium base, ASA plastic top  
Sealing Sikaflex on lens O'ring in base  
Focal Plane 86mm above base  
Dimensions See drawings  
Bird Spikes Stainless steel  
Weight 1 kg  
Mounting 6 holes on 100mm circumference using 4mm bolts

### Material for Optional Base

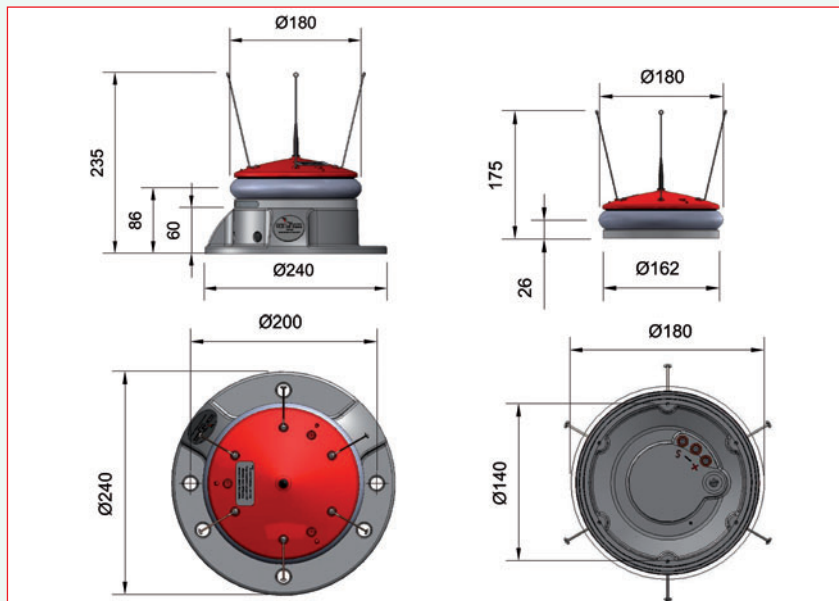
Body Injection moulded UV resistant ASA plastic  
Dimensions See drawings  
Mounting M12 clearance (13.5mm) hole on 200mm PCD allows for 3 or 4 holes mounting  
Service Life 12 years  
Warranty 1 year. Refer Vega warranty conditions.

### Standards

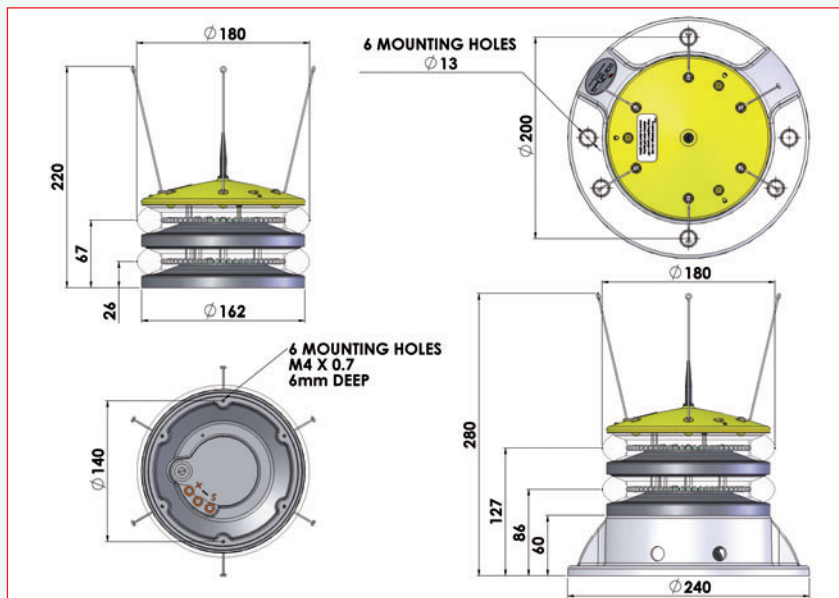
EMI/EMC EN55015 radiated and conducted emissions, EN61000-4-2:1995 Electrostatic Discharge Immunity, EN61000-4-3 Radiation Immunity, EN61000-4-5:1995 Class 3 Surge Immunity  
Optical IALA Recommendation E-122(2001)  
Colour IALA Recommendation E-200-1 part 1  
Daylight IALA Recommendation 1038  
Power supply IEC60945 section 7 normal and peak voltage, and reverse polarity protection  
Ingress IP68 to EN60529  
Humidity MIL-STD-202F Method 103B CondB  
Shock MIL-STD-202F Method 213B CondH  
Vibration MIL-STD-202 Method 204 CondB  
Salt air/sea water IEC60945 section 8.12  
Immersion MIL-STD-202F Method 104B CondB, 1m depth  
Hail and Ice IEC61215

## DIMENSIONS

Stand Alone Beacon



Emergency Wreck Marking Beacon



## PARTS FOR ORDERING

### DESCRIPTION

- VLB-36 Beacon only, IR programmer required
- VLB-36 Beacon Plastic Base Mount, 3+4 hole base
- VLB-36 Wreck Beacon, 3+4 hole base with 200mm PCD
  - with solar regulator
  - with Internal GPS sync option
  - with solar regulator & GPS option
- VLB-36 solar regulator (Max 5 Amp from 4 solar panels)
- Sync signal inverter

**Note:** X is colour (G, R, W, Y, B), DD is vertical divergence (07 or 10)

### CODE

- 136-010-XDD
- VLB-36-XDD
- VLB-36-WRECK
- VLB-36-XDD-SR
- VLB-36-XDD-GS
- VLB-36-XDD-SR-GS
- 136-210
- 136-600

## DISTRIBUTOR

Released on 18 September 2009