Vega guides the way

hydrosphere

VLB-36
LED OBSTACLE LIGHT

MEETS REQUIREMENTS OF TYPE B ICAO OBSTACLE LIGHTS

CAN BE USED IN MARINE APPLICATION

Where wide asymmetrical vertical diversion is required such as for bridge marking.

SOLAR POWER BODIES

Available with VPP-66 Solar Power Pack 3 different sizes.

IALA AISM

ISO 9001

BUREAU VERITAS Certification

BUREAU VERITAS 1828

VLB-36 LED OBSTACLE LIGHT

The obstacle light is an extension of the Vega VLB-36 LED Beacon range for applications where a wide asymmetrical vertical profile is required. This profile meets the requirements of the International Civil Aviation Organisation (ICAO) for Type A and Type B obstacle lights.

- Beacon spread at 50% peak intensity is 10°.
- Peak intensity at 8° above horizontal.
- Has minimum intensity of 32 Candela required for Type B obstacle light at 6° and 10° above the horizontal.
- Has conspicuity between 0 and 50° above the horizontal.

The VLB-36 Obstacle Light has marine applications where an asymmetrical vertical profile would be useful in marking bridges and other hazards. In these applications, the VLB-36 Obstacle Light can be mounted upside down to beam the light downwards from the horizontal.

The obstacle light is available in 5 colours: red, green, white, yellow, and blue. Red would be used for aviation applications. All colours meet IALA chromaticity recommendation.

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

The VLB-36 beacon comes with a flush mounting marine grade aluminium heat sink containing an O-ring seal. This form can be used where a suitable mounting is available.

Optional mounting options include:

- A 3 or 4-hole 200mm PCD mounting base.
- One of 3 different sized solar power packs. Suitability of the solar power packs depends on the available solar radiation where the beacon will be used.

Solar pack options

SIZE	SOLAR PANEL (W)	BATTERY (Ah)	AUTONOMY ICAO TYPE B OBSTACLE LIGHTS*
Small	7.8	12	5.5 days
Medium	15	12/18/35	8.3 days
XLarge	30	12/18/35	16.1 days

* Based on 12-hour night.

EASY PROGRAMMING

The performance of the VLB-36 Obstacle Light is programmable and allows the unit to be set up for specific applications. The programmable functions include:

- Up to 15 intensity settings matching common range requirements
- Up to 246 different flash characters and one custom character. A fixed character is used for aviation obstacle lights. There is automatic Schmidt-Clausen intensity correction for each flash character.
- Nine day/night transition settings

Programming is done using the Vega IR Programmer.

Additional Options:

- Internal GPS synchronization to allow the VLB-36 to synchronize with other beacons
- VegaWeb or SMS based monitoring

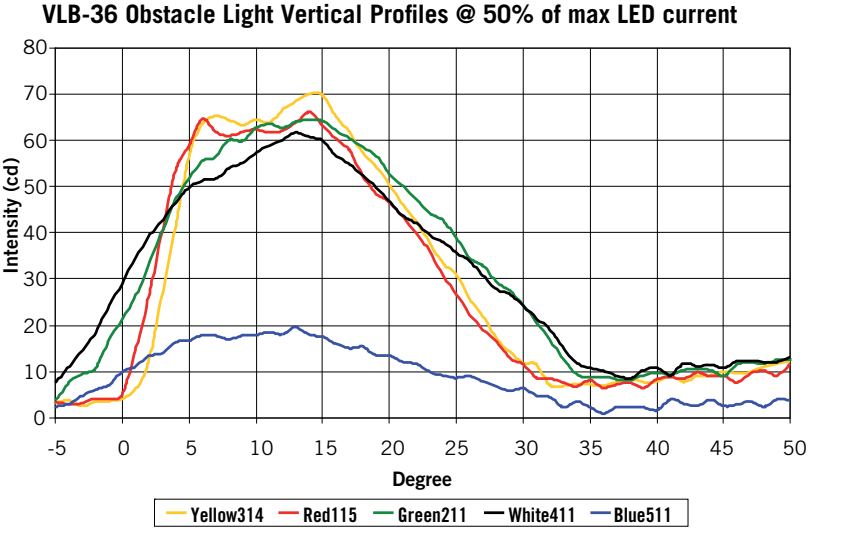
SPECIFICATIONS

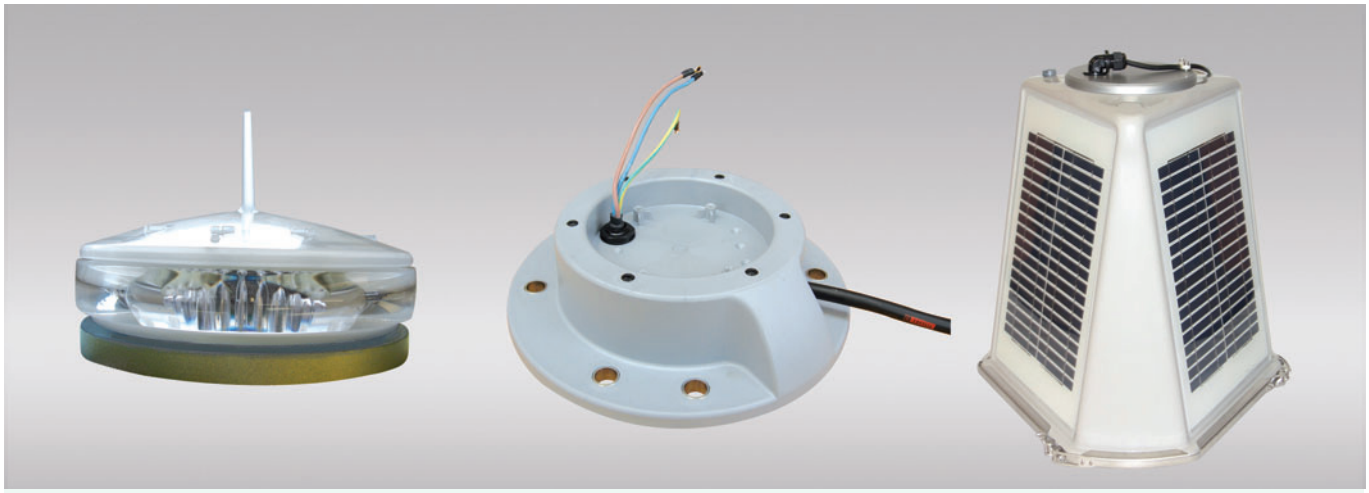
Optical Performance

At +6° and 10° from horizontal

Candela	Red	Green	White	Yellow	Blue
Peak	100	80	80	90	22
Effective	66	54	54	54	15

- 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
- Peak intensity at 8° above horizontal
- Vertical divergence 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 GPS sync option fitted to synchronise flash character with other lights using a GPS sync, plus sync 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

Current for fixed character:

mA	Red	Green	White	Yellow	Blue
3NM	80	60	90	80	320
4NM	210	200	250	220	-
4.5NM	310	320	360	320	-
Type B ICAO	170	150	190	180	-
Peak CD	770	620	580	600	560

Night off Current	4mA
Day Current	0.5mA

- For on currents at other intensity settings refer to Appendix A of the 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.

Mechanical & Environment

Temperature	-30° to +50° Celsius
Intrusion rating	IP 68, 2 Hours immersion in 1 metre of water
Cooling	Convection only
Pressure Equalisation	Fully sealed
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 12GHz, 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	1kg
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

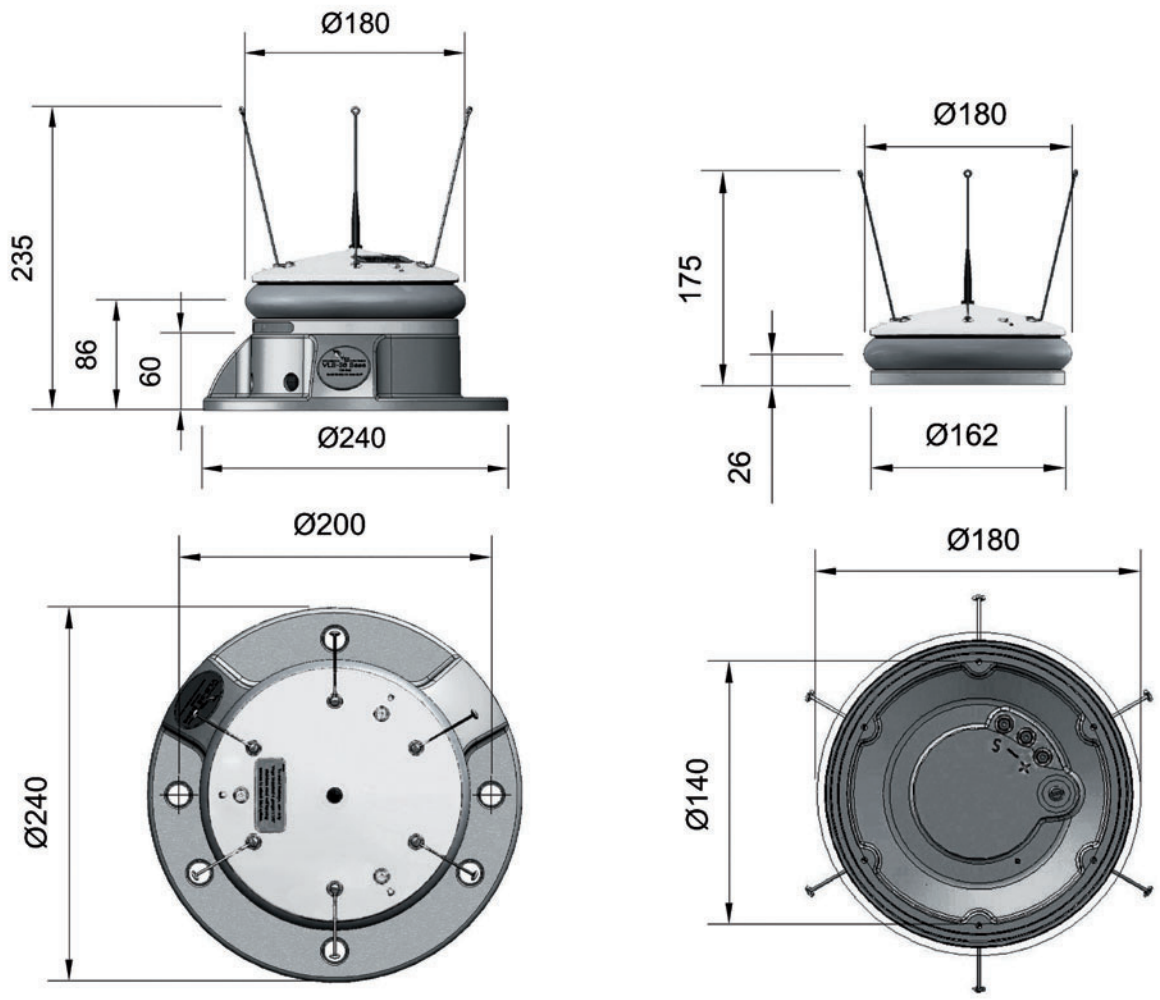
Warranty

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



PARTS FOR ORDERING

DESCRIPTION	CODE
VLB-36 Obstacle Light only	136-010-OBC
VLB-36 Obstacle Light	
• with plastic base mount	VLB-36-OBC
• with small solar body	VLB-36-OBC-SM-BY
• with medium solar body	VLB-36-OBC-MD-BY
• with x-large solar body	VLB-36-OBC-XL-BY
For internal GPS add GS to part number	-GS
IR Programmer	Remote-02

Note: C is colour (G, R, W, Y, B)

Head Office
Units C&D, West End Centre
Colthouse Lane, Upper Froyle
Hampshire, GU34 4JR
Tel: 01420 520374
Fax: 01420 520373
sales@hydrosphere.co.uk

hydrosphere
www.hydrosphere.co.uk

Scottish Office
Fife Renewables Innovation Centre
Ajax Way, Methil
Fife, KY8 3RS
Tel: 01333 422000
sales@hydrosphere.co.uk