vega
GUIDES THE WAY

ADJUSTABLE LED SECTOR LIGHT
VLS-46 Standard Projectors

15 - 19 NM by night and 1.6 - 3.0 NM by day*

* Depending on projector configuration, 0.74T

The VLS-46 is ideal for harbours with narrow or difficult approaches. The modular design allows up to seven projectors to be placed side by side. This can be used to create unique sector angles, flash patterns and intensities.

The VLS-46 has been designed to take advantage of the latest LED technology. The key features include:

• Peak intensity from 14,800cd**

• Large vertical divergence for visibility by all types of vessels.

The VLS-46 is a great all-round solution. Talk to us today about your requirements.

** White, 5°

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ABOUT THE VLS-46

The VLS-46 sector light brings a new solution to an old problem.

In the past, safe passage was achieved by having two leading lights lined up on top of each other to inform the mariner they were in a safe passage. If the lights were directly aligned above each other, the mariner knew they were on the centre line of their approach. However, adverse marine conditions often pushed the mariner off the centre line to an unknown and hazardous location.

With the VLS-46, the mariner will have precise red, white, green or yellow-coloured sectors (or a combination of two coloured flashes) to guide them through the channel safely.

BENEFITS OF THE VLS-46

1. Only one tower is required, compared with range lights. This reduces the installation and maintenance cost by half.

2. Sectors are adjustable. Each projector can be individually adjusted to the width required for the application, within the limits defined in this brochure and product manual.

3. Energy-efficient LED technology is ideal for solar-powered sites.

4. Maintenance free design (no moving parts) will save money and time.

5. Lightweight marine-grade aluminium construction makes the unit light and easy to handle. For example, three 5º projectors including mounting plate weigh approximately 15.5kg.

HOW IT WORKS

Each sector light can be made up of one to seven projectors. The projectors are set up with their own beam widths, intensity and flash characters.

Alignment Options:
1. Edge to edge for traditional sector light applications.
2. Projectors set to the same angle to increase the range of the sector.
3. Overlapping and alternating beams to simulate oscillating boundaries.
4. Parallel beams to mark a channel that has a constant width. See example below.

VARIANTS

There are two variants of projector (5º and 10º), which shine a horizontal beam that can be adjusted in width (horizontal divergence).

- 5º is the narrow-angle projector and can be adjusted between 0.5º and 5º

- 10º is the wide-angle projector and can be adjusted between 1º and 10º.

Each projector is available in red, white, green or yellow.

COMMON APPLICATIONS

Parallel channel marking can be achieved with 4 projectors installed in two separate locations. This is ideal for channels that do not decrease in widths as the vessel approaches the sector light.

SPECIFICATIONS

OPTICAL SPECIFICATION PER PROJECTOR

Maximum Intensity	5° Projector	10° Projector
- White	14,800cd	3,480cd
- Green	8,300cd	2,140cd
- Red	9,000cd	2,300cd
- Yellow	6,600cd	1,600cd

Vertical Divergence	3.6° at 50% for 5° Projector
	7.2° at 50% for 10° Projector
Accuracy	0.017° for 5° Projector
	0.034° to 0.058º for 10° Projector
Horizontal Adjustment	0.5 to 5° for 5° Projector
	1 to 10° for 10° Projector
Schmitt-Clausen Correction	Selectable effective intensity or peak intensity
Day/Night Control	Automatic, via day/night sensor
Flash Character	Fully programmable to any flash character

MONITORING

- Dataport included
- VegaWeb cloud-based monitoring system
- Hard-wire input/output connection
- AIS - type 1 or 3
- GPS synchronisation.

ENVIRONMENTAL

Intrusion Protection	IP67
Temperature	-30ºC to 50ºC
Salt	Continuous exposure to saltwater and spray
Wind	100+ knots
Acceleration and Shock	5G in all directions

MATERIALS

Housing	Anodised marine-grade aluminium
Lenses	Acrylic and glass

WEIGHT

Item	Weight
5° Projector	2.4kg
10º Projector	2.3kg
2 Projector Mount Plate	5.9kg
3 Projector Mount Plate	8.3kg
5 Projector Mount Plate	13.2kg

ELECTRICAL PERFORMANCE

Nominal Voltage	12/24 VDC (30V Max)
Power* Per Projector	Up to 4.6W (white)
	Up to 4.6W (green)
	Up to 3.3W (red)
	Up to 3.0W (yellow)
Reverse Polarity Protection	Yes
Input/output	Hard-wire sync, alarm, RS-232, hard-wire on/off control, day/night output
Cable Length	1.5m to 5.0m maximum

* Depending on external temperature, effective intensity correction and flash character.

5° Mounting Plate Options

509
193
674
594
⌀ 200 PCD

685
279
692
598
⌀ 200 PCD

902
279
684
598
⌀ 200 PCD

1316
279
770
598
200 PCD
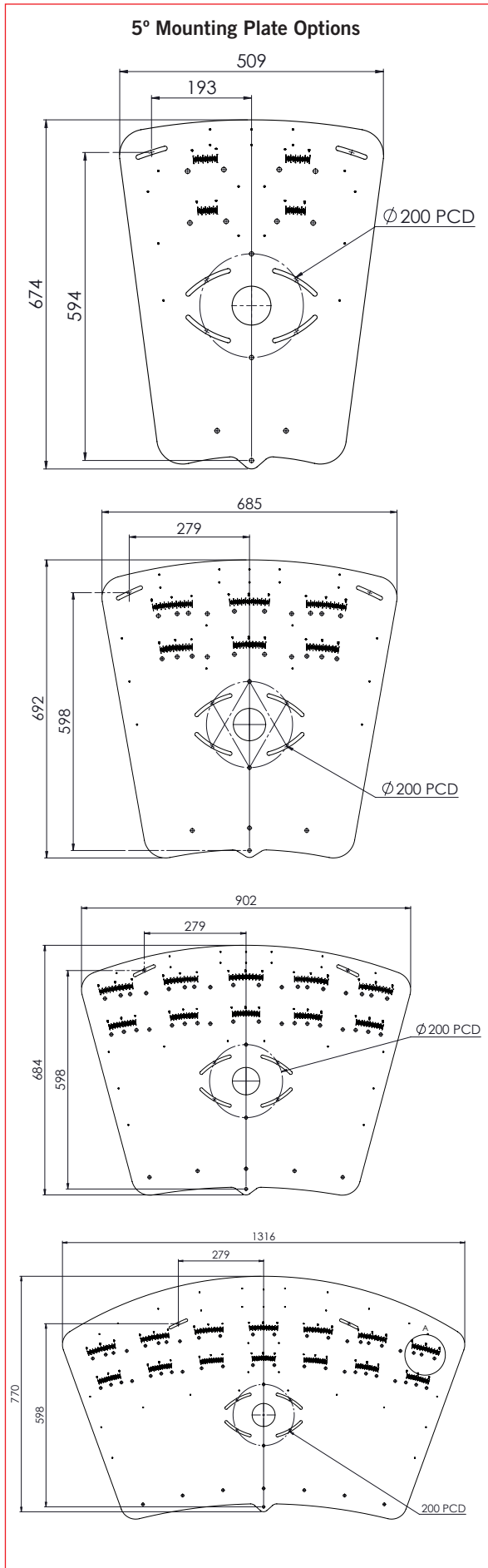
ORDER INFORMATION

Product Name: VLS-46 LED Sector Light

Order Code: VLS-46Z-D-Cc-G-BPY

Z = Standard (no character) or U for Ultra product version
D = Divergence 5° or 10°
C = Colour (R, W, G)
c = Quantity of projectors in that colour (1 to 7)
G = GPS no character or GS to indicate GPS option
BPY = Base plate, size according to the number of projectors
        to be fitted (BP2, 3, 5 or 7)

For example: VLS-46-5-R1-W1-G1-BP3
Standard sector light, 5°, 1 red projector, 1 white and
1 green, on a 3 projector base plate.

The following information is required when enquiring about this product:

1. Do you require the Standard or Ultra model?
2. What horizontal divergence is required 5° or 10°?
3. What number of projectors is required?
4. What colours are required?
5. Is GPS required?

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