LATEST RELEASE

vega
GUIDES THE WAY

6 NM PRECISION PEL

PEL-6

Up to 6 Nm by Day & 24.8 Nm by night at 0.74T

Between 3.5° to 20° Horizontal Divergence

The PEL-6 is part of Vega's flagship precision sector light offering. It combines modern optical design techniques with decades of experience to provide very sharp sector boundaries and impressive range day or night.

OUTSTANDING FUNCTIONALITY AND FEATURES

PEL Marine navigation lights were originally invented in 1972 by Norman Rumsey, acclaimed international optical designer, in his role at the Physics and Engineering Laboratory, part of the Department of Scientific and Industrial Research in New Zealand. Vega was created as a private company to commercialise the invention.

The PEL-6 is visible from up to 6 Nm during the day and up to 24.8 Nm at night.

With the ability to easily modify the subtense angles, change lamp types and sizes, flash characters and other operating modes, the design provides the capability to customise the light to suit the exact requirements of any sector light application in any environment.

With a sealed enclosure, built from gunmetal (marine-grade bronze) and stainless steel, the PEL-6 will survive use in rugged marine environments without further protection. A number of older model Vega PELs are still in operation after more than 20 years in continuous service.

The optical system is designed to maximise the amount of light available from the lamp, ensuring optimal energy efficiency. This together with a six lamp auto changer ensure that the PEL-6 can operate with minimal maintenance.

Suitable for solar power, (the PEL-6 operates from 24VDC), the light can be flashed to further reduce power consumption.

Vega has built its reputation on PEL sector lights with many installations around the world. Each unit is delivered fully tested and ready to operate

OSCILLATING BOUNDARY

Oscillating Boundaries are a factory-fitted option for any Vega PEL light effectively providing up to four additional sectors.This provides improved early warning of any deviation from the centre line enabling extremely precise navigation, critical for large ships in narrow channels subject to wind and tide effects.

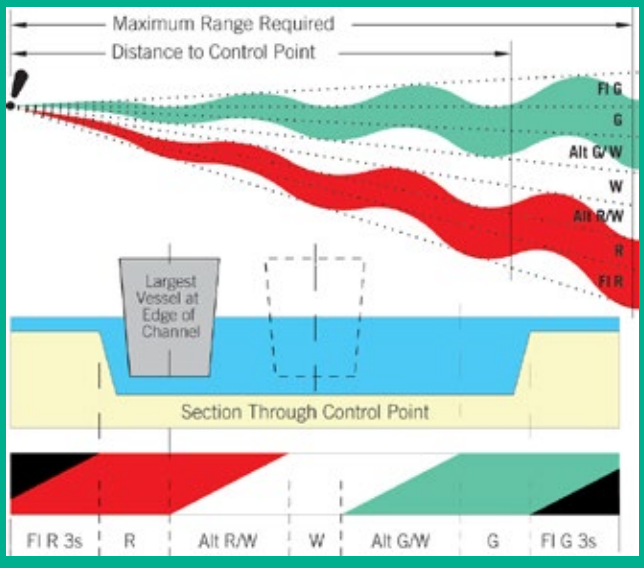
The oscillation is seen by an observer within the sector as an abrupt change of colour from red to white (for example), and back to red. The period of time that one colour is invisible (relative to the other colour) is a measure of the proximity of the fixed sector of that colour.

The signal is easily and intuitively grasped by the mariner. A longer red flash and a shorter white flash means that the vessel is closer to the red sector, and vice versa. Judging the proportion of time in which each colour is displayed is straightforward, and the cycle repeats every three seconds.

The Oscillating Boundary signal does not change when viewed through binoculars. It is a time-based digital signal, rather than one based on relative lateral displacement.

SELECTING YOUR SECTOR ANGLES

Select a control point which can be any point at which the required width of each sector is defined. This could be a restricted part of the approach, such as the heads at the harbour entrance or the entrance to a narrow channel. At the control point consider the largest vessel on the extreme edge of its safe manoeuvring area. Take the centre-line of the vessel at this point, and set the outer edge of the oscillating sector. When the mariner encounters the fixed red or green sectors (while standing at the centre of the vessel) he has reached the limit of his safe manoeuvring space.



SPECIFICATIONS

OPTICAL SPECIFICATION

Light Source	250 Watt tungsten-halogen lamp
Colours Available	Red, White and Green
Night Intensity Reduction	Night Filter + Lamp Voltage Reduction combined
Flash Characters	265 Fixed boundary only
Vertical Divergence	See figure 1.0
Peak Intensity	See figure 1.0

1.0 Peak Intensity per Subtense

	3.5°	5°	7°	10°
White (cd)	726,532	356,116	158,273	89,199
Red (cd)	196,164	96,151	42,733	24,084
Green (cd)	174,368	85,468	37,985	21,408
VD	2.1°	3°	3.9°	4.3°

For vertical divergence options of 15° and 20° please contact Vega's Solution Engineers.

Primary Reflector	First-surface spherical aluminium coated
Condenser Type	Two element (spherical+aspheric), 120° pickup
Anti-Reflection Coatings	Standard on all PEL-6 Sector Lights
Sector Angles	Individual sectors custom-made for each light
Oscillating Boundary	Factory-fitted option for PEL-6 Sector Lights

ENVIRONMENTAL

Temperature	-40° to 90°
Intrusion Protection	IP 66
Cooling	Fan forced

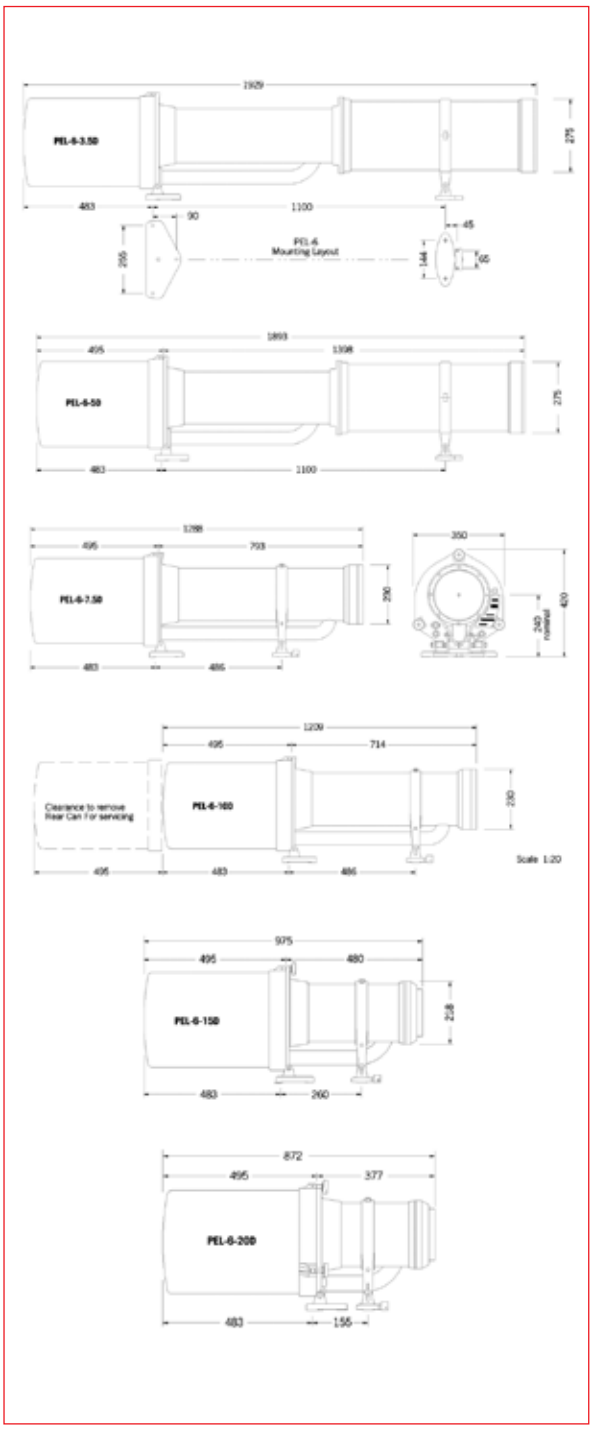
MATERIALS

Lens	Precision ground glass
Body	Gunmetal, stainless steel, copper tube
Mounting	See dimension page
Exterior finish	Epoxy primer surfacer, 2-pot polyurethane gloss

ELECTRICAL PERFORMANCE

Voltage	24-28VDC, battery float (mains or solar)
Battery Protection	Over voltage protection
Day/Night Transition	Automatic
Lamp Power Regulation	Pulse-width-modulation regulates power to lamp
Flasher/controller	CALC-2001 computer-assisted light controller
Lamp changer	Vega 6-position, VLC-152A (bi-pin mounting)

DIMENSIONS & WEIGHTS



PARTS FOR ORDERING

DESCRIPTION

PEL-6 Precision Sector Light

PRODUCT CODE FORMAT

PEL-6-D-S-TH100

Where D (Horizontal subtense) is

= 3.5°, 5°, 7°, 10°, 15°, 20°

Where S (Sector) is

= OB - Oscilating boundary

= FX - Fixed boundary

Example - PEL-6-15-OB-TH100

OPTIONAL EXTRAS

GPS Synchronization	**GS**
Extra Infrared Remote	**Remote -02**
Extra Filter Set Fixed	**FA 600**
Extra Filter Set Oscillating	**OB 600**

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.

For other factory options check out our website, www.vega.co.nz.

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