

PEL-6

6 NM by day @ 0.74T

24.8 NM by night @ 0.74T

The PEL-6 is a part of Sabik Marine 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.

- **Market leading boundary definition and sector accuracy**
- **Up to 6 NM range in daylight**
- **Over 21 NM night range in coloured sectors and 25 NM in white**
- **Automatic intensity reduction for night use**
- **Oscillating boundary option provides up to four extra sectors**
- **Rugged construction and sealing – proven life exceeds 20 years in typical harsh marine environment**



Monitoring

- **Using the VegaWeb internet monitoring unit via the data**
- **Using Vega AIS monitoring**
- **Using the optional alarm/monitor connection**

Functionality and Features PEL-6

About the PEL-6

PEL Marine navigation lights were originally invented in 1972 and were the foundation to establish Vega to commercialise the invention.

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 PELs are still in operation after more than 30 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.

The reputation of PEL sector lights is built on numerous installations around the world. Each unit is delivered fully tested and ready to operate

Selecting your sector angles

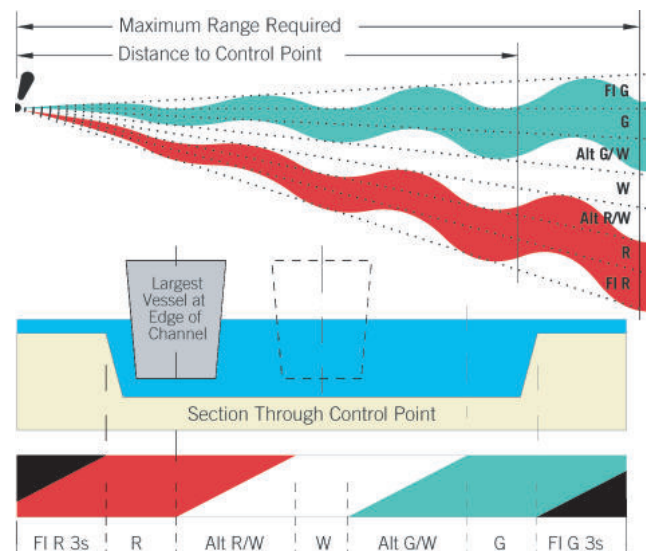
Select a control point which can be any point at which the required width of each sector is defined. This could be a restricted part of the approach, such as the heads at the harbour entrance or the entrance to a narrow channel. At the control point consider the largest vessel on the extreme edge of its safe maneuvering 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.

Oscillating boundary

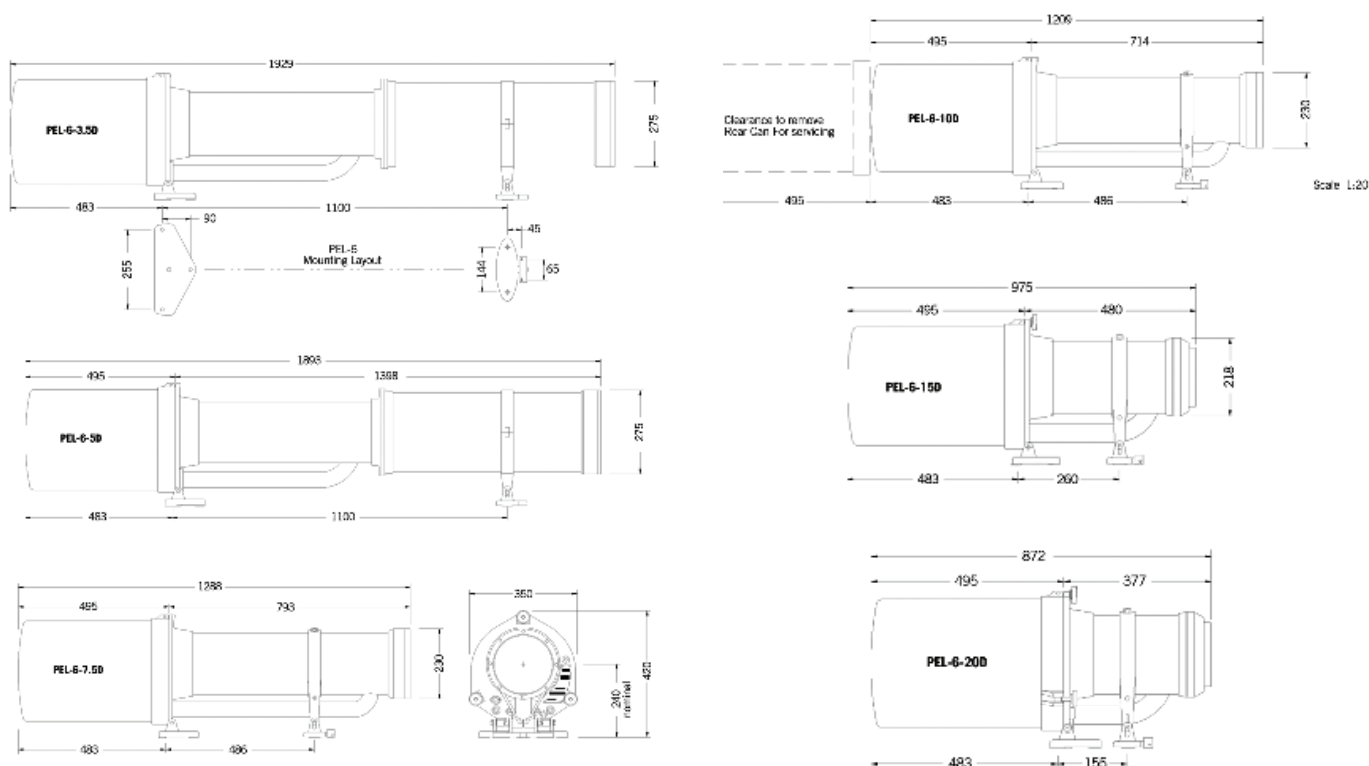
Oscillating Boundaries are a factory-fitted option for any Vega PEL light effectively providing up to four additional sectors. This provides improved early warning of any deviation from the centre line enabling extremely precise navigation, critical for large ships in narrow channels subject to wind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

The signal is easily interpreted by mariners. 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.



Technical Specification PEL-6



Optical Performance

1.0 Peak intensity per subtense

3.5°	196164cd	174368cd	726532cd
5°	96151cd	85468cd	356116cd
7°	37985cd	37985cd	158273cd
10°	24084cd	21408cd	89199cd

Vertical divergence	3.5°:	2.1°
	5°:	3°
	7°:	3.9°
	10°:	4.3°
Primary reflector	First surface spherical aluminium coated	
Night intensity reduction	Night filter + Lamp voltage reduction combined	
Sector colour	Red, White, Green	
Flash character	265 fixed boundary only	
Anti-reflection coatings	Standard on all PEL-6	
Sector Angles	Individual sector custom-made for each light	
Oscillating Boundary	Factory-fitted option	
Condenser type	Spherical + Aspheric, 120° pickup	

Material

Body	Gunmetal, stainless steel, copper tube marine-grade aluminium
Lens	Precision ground glass
Exterior finish	Epoxy primer surfacer, 2-pot polyurethane gloss

Environmental

Degree of Protection	IP66
Temperature	-40°C to 90°C
Cooling	Fan force

Electrical performance

Voltage	24VDC-28VDC, battery float (mains or solar)
Battery protection	Over voltage protection
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 (bipin mounting)

Order Overview PEL-6

Option matrix

VSU-29	GPS Sync unit
FA 600	Extra filter set fixed
OB 600	Extra filter set-oscillating

Product code

Code	Note
PEL-6-D-S-TH250	
D	Horizontal subtense (3.5°, 5°, 7°, 10°)
S	Sector OB = Oscillating boundary FX = Fixed boundary

Product code example: PEL-6-15-OB-TH250