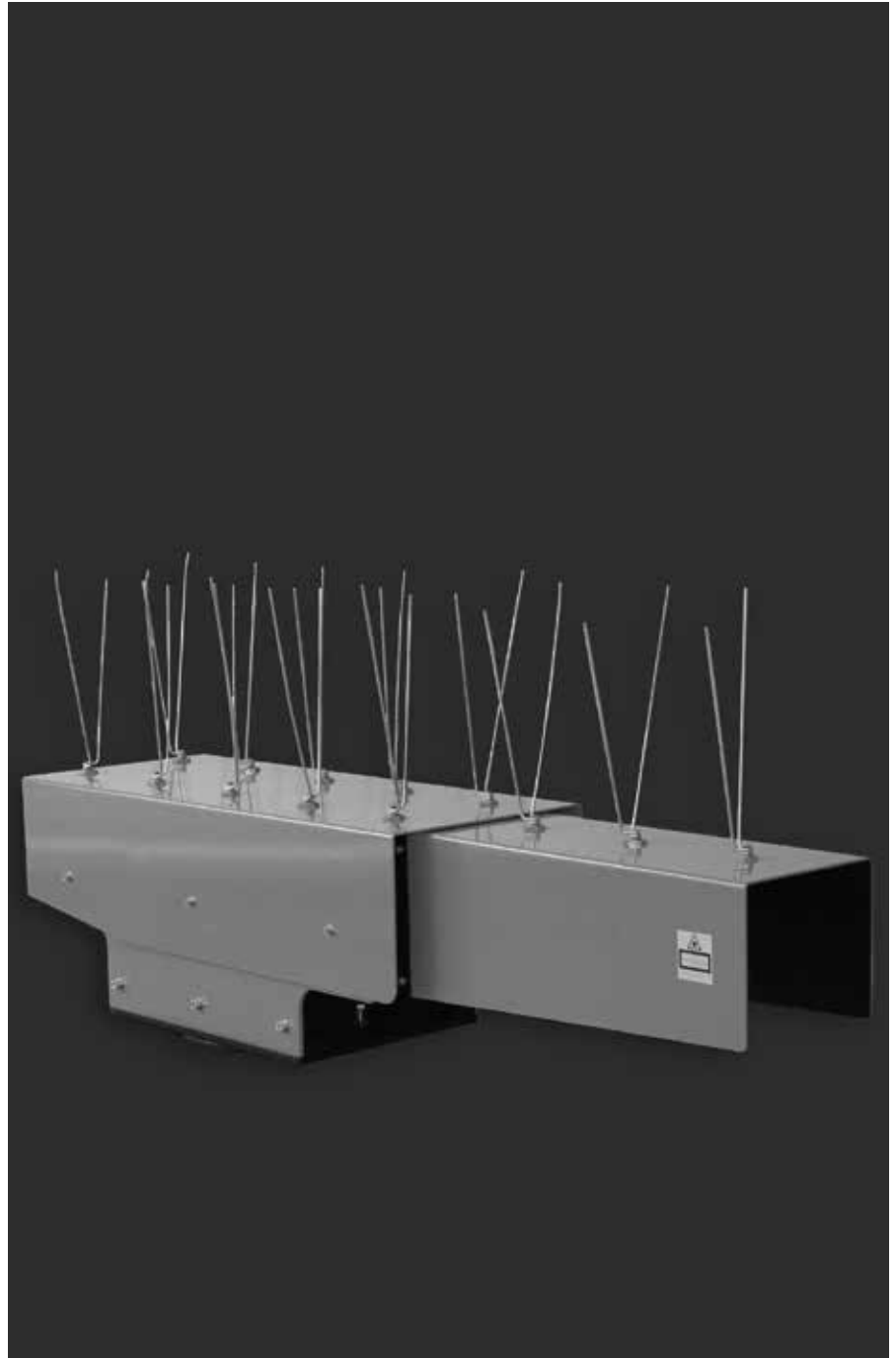


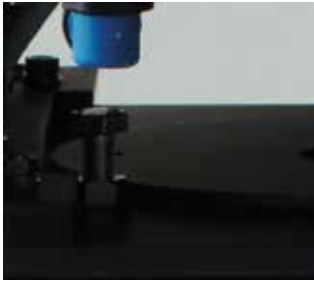
## E8593

LED Projector sector light signal, up to 21 M / 4 M daytime range

The E8593 is a high-performance, power efficient medium intensity marine LED Projector sector lantern with beam configuration tailored to customer requirements at the factory. All E859X Lanterns feature factory configured Day and Night mode luminous intensity selectable by a single digital input, supporting fast PWM control necessary for generating navigational signals at reduced intensities, as well as for utilizing Fixed-and-Flashing (FFL) rhythmic characters or Slow Flash Front (SFF). The field proven E8593 design can be offered with optional Opposite-Isophase sector signal control for producing rhythmic characters reducing the latency of spatial awareness update for the mariners: the white sector signal is active during the eclipse of coloured sectors and vice versa, resulting in immediate awareness about leaving the white sector without the usual delay caused by the common eclipse. A two-tiered design with two additional sectors providing alternating flashing on sector boundaries is available as E8595.



- Power efficient Day/Night light signalling system for port entry lights or leading line systems replacement
- IALA colours Red, Green, White with application-specific luminous intensities nearly uniform up to 250 kcd
- Factory-customized sector configuration with precision of  $\leq 0.05^\circ$  (3')
- Sector width up to  $2.5^\circ$  with total subtense of approximately  $7.5^\circ$
- Vertical divergence either  $1.2^\circ$  or  $2.5^\circ$
- Boundary resolution typically better than 8'
- Robust light signal unit that can be equipped with a Sabik SMC Flasher or with external Ekta control and monitoring system
- Day and Night mode luminous intensities configured in hardware as required - down to 10% by current and further by implementing PWM
- Internal optical LED performance diagnostics with condition output
- Available with optional Opposite-Isophase sector signal control



**Vertical beam tilting arrangement**  
The Lantern can be tilted within the limits of  $\pm 2^\circ$  by adjusting the three levelling bolts on the pedestal.



**Lens hood**  
Supplied detached to minimize the shipping volume.



**Rifle sights**  
Mechanical parts fitted permanently to the right side of the bottom plate.



**Mounting arrangement**  
Three Ø16 mm mounting holes on a 200 mm circle.



**Standard power/signal connector**  
Most ekta™ lights use similar 7-pole receptacle.



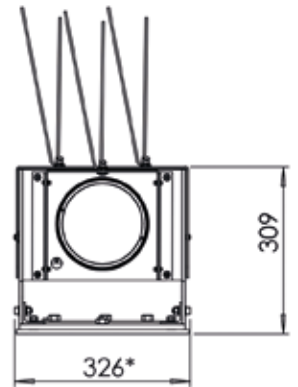
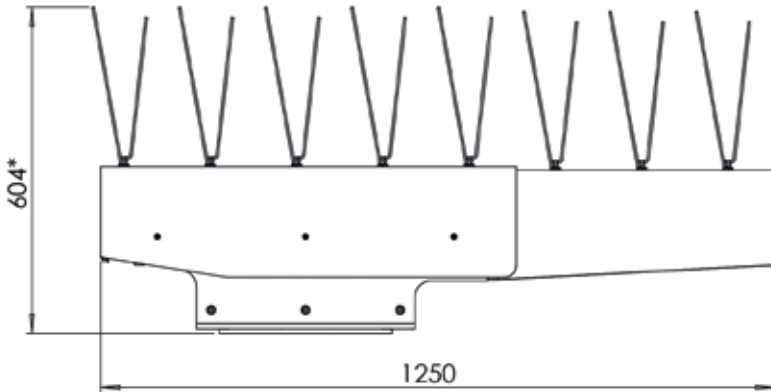
**Cable termination**  
The power/signal cable wires are crimped at the free flying end.



**Optional integrated flasher**  
Equipment from simple flashers to programmable TelFiCon™ - Flashers can be integrated on the back side.

- **Optionally available in "smart" version with externally integrated flasher and telematics controller with triaxial acceleration sensor integrated on the Lantern for Structural Health Monitoring of the AtoN mast**
- **Easy to install – requires only simple procedures for aiming the composite beam vertically**
- **No maintenance needed where sprinkling of the lens by wave particles or dirt can be avoided**

## Technical Specification E8593



### Optical performance

Number of sectors	3 (R, W, G)		
Typical luminous intensity of the light signal per colour	250,000 cd		
Nominal range, Night / Day (T=0.74)	up to 21 M / 4 M		
Subtense angle per sector (total approximately 7.5°)	≤ 1.2°	≤ 1.2°	≤ 2.5°
Vertical divergence angle	1.2°	2.5°	1.2°
Power consumption in flash	≤ 45 W	≤ 90 W	≤ 90 W
Achievable boundary resolution	~ 0.1° (6'... 9')		
Beam direction adjustment in field conditions, Hor/Vert	± 180° / ± 2°		

### Main technical specification

Light source	High Power Light Emitting Diode (LED) clusters
Vertical divergence	1.2° or 2.5° (FWHM)
Lens material	optical glass
Enclosure material	polycarbonate optical unit potted in resin on aluminium bottom plate, marine grade aluminium sides and protective cover, painted steel mounting plate
Weight	< 50 kg
Operating environment	-40 °C to +55 °C
Power supply voltage	12 VDC (10 ... 24 V)
Power consumption in flash	up to 90 W depending on configuration
Degree of ingress protection	IP 67
Overall height (excl. bird deterrents)	309 mm, width 326 mm, depth 1250 mm
Focal plane height	205 mm
Installation	3 x 14mm on 200 mm circle

## Order Overview E8593

### Option matrix

Sector lights for IALA Region A	E8593.RWG
Sector lights for IALA Region B	E8593.GWR

### Accessories

Bird deterrent rod set (incl. screws)	8264.050
Cable Connector, 90deg, female 6 + PE-position	C016 30F006 100 10
Programmable Flasher, integrated	E8672
Programmable Flasher with GPS, integrated	E8672.G
TelFiCon™-Flasher for complete AtoN telematics, integrated	E9272

### Product codes

Since this product is usually ordered in AtoN site specific configuration, simple ordering codes covering all possible alternatives are not available.

### Product code example: E8593.GWR.F2.G1

- Projector sector light for IALA Region B with integrated Flasher E8672 and GPS capability