

LED Obstruction Lighting Systems



ALS range of Obstruction Lighting Systems includes Low and Medium intensity obstruction lighting fixtures, in compliance with the ICAO standards using high intensity LEDs coupled with high precision lenses.

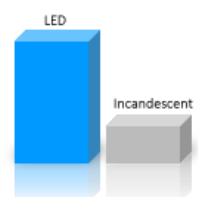
Complete packages including control gear are available.

Please contact us for personalised detailed proposals!

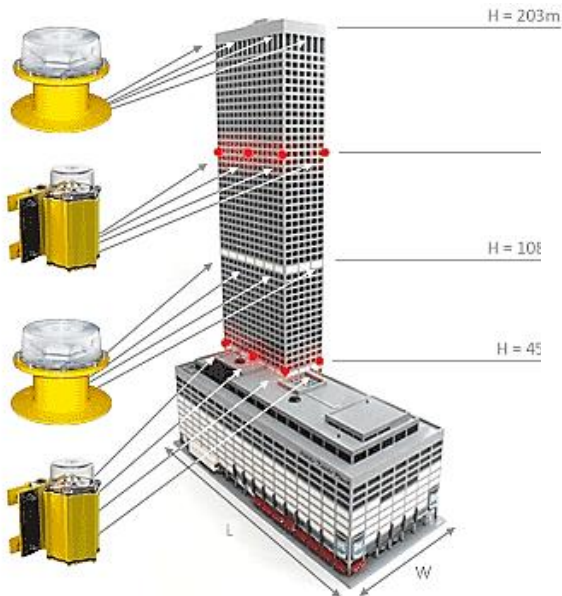


Life span of
50.000
hours

✓ LAB TESTED



Obstruction Lighting Applications



Obstruction Lighting for Buildings

$H < 45\text{m}$
 $45\text{m} < H < 108\text{m}$
 $H = 108\text{m}$
 $H = 45\text{m}$
 $108\text{m} < H < 203\text{m}$

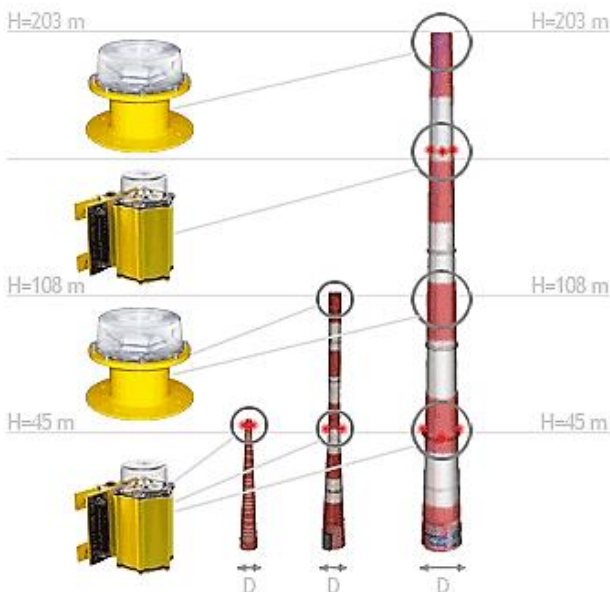
A level of **low intensity** obstruction lights will be used

2 levels of lights will be used: upper level with **medium intensity** obstruction lights, lower level with **low intensity** obstruction lights

4 levels of lights will be used: Levels 1 and 3 with **low intensity**, and Levels 2 and 4 with **medium intensity** (see image)

Obstruction Lighting for Towers and Chimneys

The number of LED obstruction lights recommended per level depends on the diameter of the structure (D):



$D < 6\text{m}$ Use **3 obstruction lights** (120°)

$6\text{m} < D < 31\text{m}$ Use **4 obstruction lights** (90°)

$D > 31\text{m}$ Use **6 obstruction lights** (60°)

$H < 45\text{m}$ Use **low intensity** obstruction lights (see image)

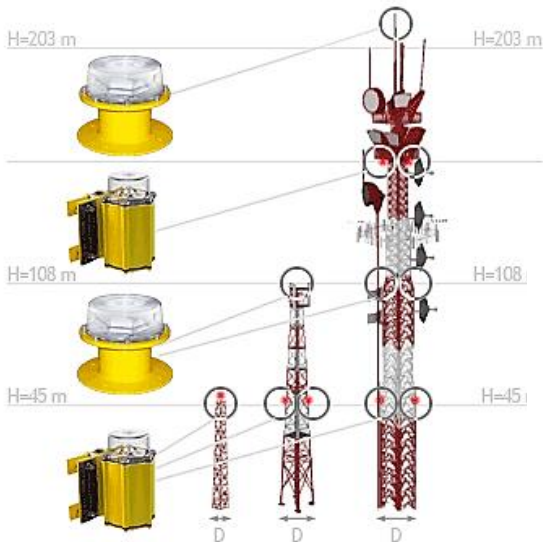
$45\text{m} < H < 108\text{m}$ **2 levels** of obstruction lights will be used: upper level with **medium intensity obstruction lights**, lower level with **low intensity lights** (see image)

$108\text{m} < H < 203\text{m}$ **4 levels** of lights will be used: Levels **1 and 3** with **low intensity** obstruction lights, and Levels **2 and 4** with **medium intensity** obstruction lights (see image)

Obstruction Lighting Applications

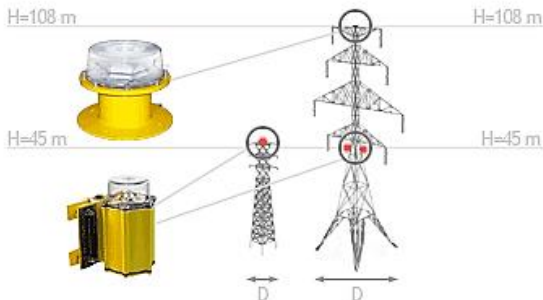
Obstruction Lighting for Telecommunication Towers

The number of LED obstruction lights recommended per level depends on the diameter of the structure (D):



- Always Use **1 beacon LED** Obstruction lights (*see image*)
- D < 6m Use **2 LED** Obstruction lights (at opposite diagonals)
- D > 6m **4 LED** Obstruction lights (per corner)
- H < 45m A level of **low intensity** obstruction lights will be used
- 45m < H < 108m **2 levels of lights** will be used: upper level with **medium intensity** obstruction lights, lower level with **low intensity** obstruction lights
- 108m < H < 203m **4 levels** of lights will be used: Levels 1 and 3 with **low intensity**, and Levels 2 and 4 with **medium intensity** (*see image*)

Obstruction Lighting for High Voltage Lines



- Always Use **1 beacon LED** Obstruction lights (*see image*)
- D < 6m Use **2 LED** Obstruction lights (at opposite diagonals)
- D > 6m **4 LED** Obstruction lights (per corner)
- H < 45m A level of **low intensity** obstruction lights will be used
- 45m < H < 108m **2 levels of lights** will be used: upper level with **medium intensity** obstruction lights, lower level with **low intensity** obstruction lights

Obstruction Lighting for Wind Turbines



The obstruction lighting of Wind Turbines is made using 2 medium intensity LED obstruction lights above the generator cabin.

Both lights will flash simultaneously and will be positioned at the horizontal separation to ensure the visibility of at least one obstruction light from the aircraft in any direction.

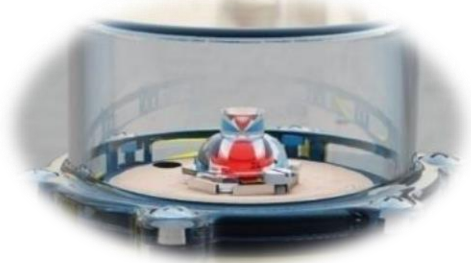
Intermediate levels or other markings may be omitted for these structures.

Low Intensity Obstruction Light PULSAR

ICAO Type A

**ICAO Type A
Dual**

ICAO Type B



Compliance

- ICAO Annex 14, Volume 1,
- Aerodrome Design and Operations, Paragraph 6. Table 6.3 Low intensity obstacle light type A & B.

Features

- Latest LED technology
- Very Long Operating Life, in excess of 100.000 h.
- Low energy consumption
- Low Voltage versions available
- Stabilized light output
- Compact Design, light weight and easy to install
- Extruded Aluminum body with optimal heat management
- Polyester Aviation Yellow painted body
- Scratch free Polycarbonate lens
- IP67 Protection

Application

Low intensity obstacle lights are used for lighting of aeronautical obstacles less than 45 meters high, typically objects and constructions such as buildings, towers, antennae, and airport boarding bridges



PULSAR Type A

CHARACTERISTICS	TYPE A Single	TYPE A Dual	TYPE B
Light intensity	> 10 cd	> 10 cd	> 32 cd
Light colour	red	red	red
Power Supply	12V, 24V, 48V, 110V or 230V	12V, 24V, 48V, 110V or 230V	12V, 24V, 48V, 110V or 230V
Consumption	1.5 W	1,5W or Max. 3 W	4,5 W
Height	144 mm	144 mm	144 mm
Diametre	70 mm	70 mm	70 mm
Protection Degree	IP 67	IP 67	IP 67
LEDs	1	2	3
Stainless Steel Hardware	YES	YES	YES
Polycarbonate Diffuser	YES	YES	YES
Anodized Aluminium body	YES	YES	YES
RAL 1004 painted	YES	YES	YES
2 independent circuits	NO	YES	NO
Warning device	NO [optional]	NO [optional]	NO [optional]

Medium Intensity Obstruction Light QUAZAR



Compliance

- ICAO Annex 14 Volume 1, 6th Edition, July 2013, Chapter 6:
 - Medium-intensity Type A
 - Medium-intensity Type B/C.
 Fulfils the Recommendations Section in Table 6-3.
- FAA Advisory Circular AC 150/5345-43G

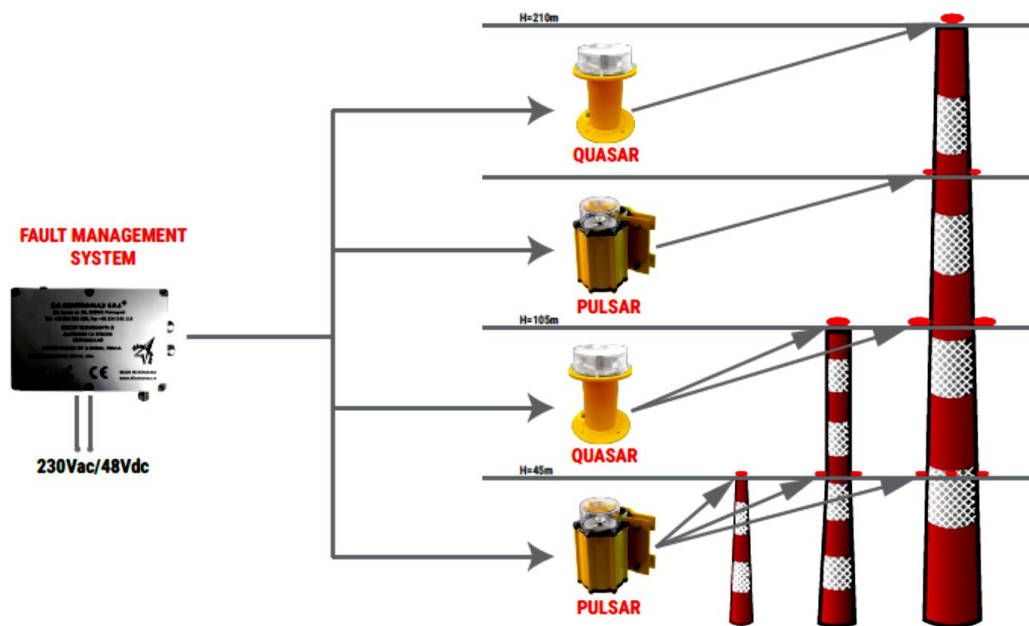
Features

- Low energy consumption
- High power LED technology. Expected Life of LEDs: > 100.000 h. Will not require any replacement for the whole life of the product
- Easy installation
- Low voltage power supply available
- Stable light, not affected by voltage variations
- Equipped with twilight Sensor
- Optional GPS synchronization
- Housing made of extruded aluminium, for proper thermal management
- All external elements are powder-coated in Airport Yellow - RAL 1004.
- Protection Degree: IP65
- Operating temperature: - 40° to + 55° C

Characteristics	M.I. ICAO Type A	M.I. ICAO Type B	M.I. ICAO Type C	M.I. ICAO Type A/C
Beam Colour	White	Red	White	White/Red
Signal Type	Flashing	Flashing	Steady	Flashing/Steady
Vertical Beam Spread	3°	3°	3°	3°
Horizontal Beam Spread	360°	360°	360°	360°
Intensity cd	20 000 ± 25%	2 000 ± 25%	2 000 ± 25%	20 000 ± 25% 2 000 ± 25%
Power Consumption	280 W	45 W	45 W	325 W
Number of LEDs	60	24	24	84

LED Obstruction Lighting Systems

Fault Management System



The fault management system is designed to be used in conjunction with one or two low intensity obstruction lights such as one type A Double or two singles type A or type B fittings.

The integrated photocell automatically turns the lights ON at night.

The system constantly monitors the active obstruction light and in case of failure, it will switch the power to the backup light (to the second LED in the A Double or to the second fitting in other configurations)

At the same time, the system will send an alarm to any existing BMS if available.

All Medium Intensity obstruction lights are equipped with photocells.

For types A, B and C, the photocell acts as an ON/OFF switch, while for the combined A/C type it will switch between daytime running mode (white flashing light) and night time mode (red steady light), depending on the ambient light.



any situation
adequate
answer

