Catalogue – Edition 4

Contents

IMT®

IMT® – Technical Innovation – Optimised Solutions – Proven Reliability

For over 30 years IMT have been at the forefront of developing innovative lighting and signalisation products and systems for the Oil & Gas and Petrochemical industries world-wide.

From the headquarters in Culemborg, The Netherlands, all aspects of R&D, manufacturing, engineering, delivery, consulting and service are carried out with further sales and technical support provided by IMT subsidiary companies in the UK, Germany and Singapore.

Along with a world-wide network of distributors and supplier partners, this means that companies and governments around the globe can rely on IMT with confidence for:

- **Helideck Signalisation and Lighting Control Systems**
- **Marine Navigation Aid Systems**
- **Obstruction Warning Lighting**
- **General Lighting**
- **Offshore Wind Farm Lighting and Signalisation**

Designed and built to be capable of withstanding the harshest of environments, in demanding and safety critical applications, IMT's philosophy of designing and manufacturing sealed unit products, utilising the highest grade materials and components ensures the longest possible operating time – with minimal maintenance procedures, which means improved and increased safety along with significantly reduced maintenance costs.

Our Product Trademarks

IQL®

IMT's unique sealed unit Induction Light technology, providing unparalleled light output lifetime.

ILED®

Tried, tested and trusted ILED technology - the heart of IMT's complete solution for optimum helideck safety signalisation.

CIRCLE-H®

Highest Specified – Lowest Profile
The only fully certified system of its type
Optimised Safety – Without Compromise

SigMare®

A total solution for Marine Navigation Aid Systems

ClearSky®

A whole new perspective on lighting and the environment

Industry Standards and Regulations

ATEX (ATmosphere EXplosive)

As of July 2003, organizations in EU must follow the directives to protect employees from explosion risk in areas with an explosive atmosphere. There are two ATEX directives (one for the manufacturer and one for the user of the equipment):

- the ATEX 95 equipment directive 94/9/EC, Equipment and protective systems intended for use in potentially explosive atmospheres;
- the ATEX 137 workplace directive 99/92/EC, Minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.

Employers must classify areas where hazardous explosive atmospheres may occur into zones.
The classification given to a particular zone, and its size and location, depends on the chance of an explosive atmosphere occurring and its persistence if it does. Areas classified into zones (0, 1, 2 for gas-vapour-mist and 20, 21, 22 for dust) must be protected from effective sources of ignition. Equipment and protective systems intended to be used in zoned areas must meet the requirements of the directive. Zone 0 and 20 require Category 1 marked equipment, zone 1 and 21 require Category 2 marked equipment and zone 2 and 22 require Category 3 marked equipment. Zone 0 and 20 are the zones with the highest risk of an explosive atmosphere being present.

IECEx

Modern day industrial automation has increased the need for electric equipment in hazardous areas. These are places where flammable liquids, vapors, gases or combustible dusts could present a fire or explosion hazard. They are also called “Hazardous Locations” or “Explosive Atmospheres” or Ex Areas. The use of equipment, especially electrical, in these areas is generally highly regulated. It is in the interest of industry and governments to ensure that Ex Areas and the personnel working in them are as safe as possible. The IECEx has put in place a number of Conformity Assessment Schemes which provide assurance that equipment and systems are manufactured and operated according to the highest International Standards of safety.

Ingress Protection (IP)

First Figure		Second Figure	
0	No protection	0	No protection
1	Protected against a solid object 50 mm or greater	1	Protected against vertically dripping water
2	Protected against a sollid object 12 mm or greater	2	Protected against vertically dripping water,l when tilted 15°
3	Protected against a sollid object 2.5 mm or greater	3	Protected against water spraying at an angle up to 60°
4	Protected against a sollid object 1 mm or greater	4	Protected against water splashing from any direction
5	Dust protected	5	Protected against jets of water from any direction
6	Dust tight	6	Protected against powerful jets of water from any direction
		7	Protected against immersion between a depth of 150 mm and 1000 mm
		8	Protected against submersion

Zones, ATEX and EPL (Equipment Protections Level)

EN 60079-0			Directive 94-9-EC Product dierective (ATEX 100)		EN60079-10X	Directive 99/92/EC User directive (ATEX 137)	
EPL	Group	Level of protection	Equipment group	Equipment category	Zones	Hazardous quantities	Extent of protective measure (Risk)
Ma	I	Very high	I	M1	N/A	Without specific methane concentration	Safe with 2 faults, rare and foreseen
Mb		High		M2		With specific methane concentration	Safe with 1 fault, foreseen
Ga	II	Very High	II	1G	0	Often/longer periods	Safe with 2 faults, rare and foreseen
Gb		High		2G	1	Occasionally	Safe with 1 fault, forseen
Gc		Enhanced		3G	2	Rear/most likely never	Normal
Da	III	Very high		1D	20	Often/longer periods	Safe with 2 faults, rare and foreseen
Db		High		2D	21	Occasionally	Safe with 1 fault, foreseen
Dc		Enhanced		3D	22	Rear/most likey never	Normal

Industry Standards and Regulations

ICAO

The International Civil Aviation Organization (ICAO) is a UN specialised agency, created in 1944 upon the signing of the Convention on International Civil Aviation (Chicago Convention). ICAO works with the Convention's 191 Signatory States and global industry and aviation organizations to develop international Standards and Recommended Practices (SARPs) which are then used by States when they develop their legally-binding national civil aviation regulations. There are currently over 10,000 SARPs reflected in the 19 Annexes to the Chicago Convention which ICAO oversees, and it is through these SARPs and ICAO's complementary policy, auditing and capacity-building efforts that today's global air transport network is able to operate over 100,000 daily flights, safely, efficiently and securely in every region of the world.

CAA/CAP 437

The CAA is the UK's independent specialist aviation regulator. The CAA publishes the CAP 437. The CAP 437 is a publication which gives guidance on the criteria applied by the CAA in assessing the standards of helicopter offshore landing areas for worldwide use by helicopters registered in the United Kingdom. The 6th Edition has been extensively revised to incorporate valuable experience gained from CAA funded research projects conducted with the support of the UK offshore industry. It also brings together revised requirements harmonised amongst North Sea States as a result of initiatives taken by the GASR Helideck Working Group. This publication provides the criteria applied by the CAA in assessing the standards of offshore helicopter landing areas for worldwide use by helicopters registered in the United Kingdom. The 7th Edition has been revised to incorporate the full and final specification for the helideck lighting scheme comprising perimeter lights, lit Touchdown/Positioning Marking "Circle" and lit Heliport Identification "H" Marking. It also includes new ICAO Standards and Recommended Practices relating to offshore helidecks and shipboard heliports that are due to be adopted in March 2013. For the first time requirements were included in the 6th Edition for the design of winching area arrangements located on wind turbine platforms. With the benefit of lessons learned through various industry forums attended since 2008 these sections have been reviewed and updated to represent current best practice.

IALA

IALA is a non profit, international technical association. Established in 1957, it gathers together marine aids to navigation authorities, manufacturers, consultants, and, scientific and training institutes from all parts of the world and offers them the opportunity to exchange and compare their experiences and achievements. IALA encourages its members to work together in a common effort to harmonise aids to navigation worldwide and to ensure that the movements of vessels are safe, expeditious and cost effective while protecting the environment.The work of the committees is aimed at developing common best practice standards through publication of IALA Recommendations and Guidelines. This work ensures that mariners have aids to navigation which will meet their needs both now and in the future. Thus IALA contributes to a reduction of marine accidents, increased safety of life and property at sea, as well as the protection of the marine environment. IALA also encourages cooperation between nations to assist developing nations in establishing aids to navigation networks in accordance with the degree of risk for the waterway concerned.

IMO

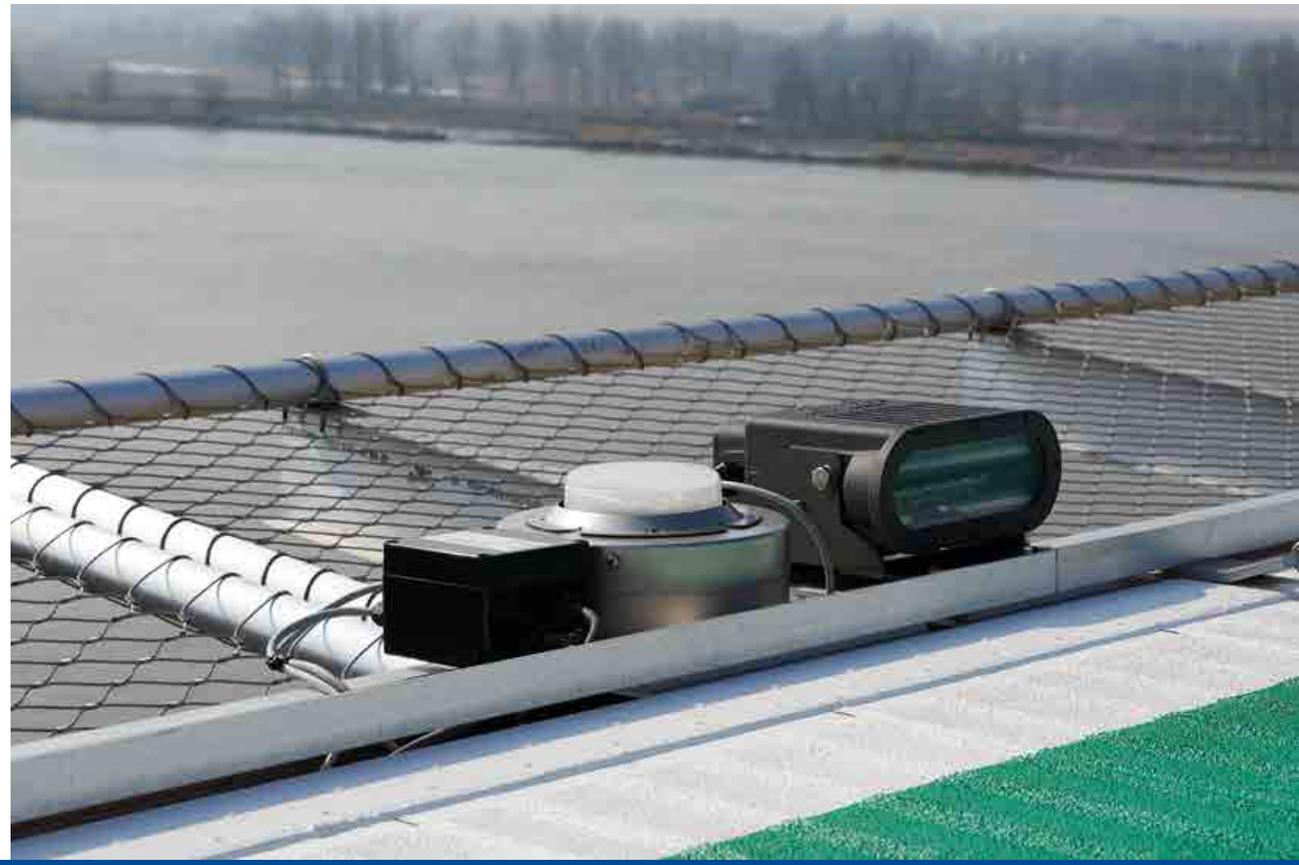
IMO – the International Maritime Organization – is the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships. As a specialized agency of the United Nations, IMO is the global standard-setting authority for the safety, security and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented. The world relies on a safe, secure and efficient international shipping industry – and this is provided by the regulatory framework developed and maintained by IMO. IMO measures cover all aspects of international shipping – including ship design, construction, equipment, manning, operation and disposal – to ensure that this vital sector for remains safe, environmentally sound, energy efficient and secure. Energy efficiency, new technology and innovation, maritime education and training, maritime security, maritime traffic management and the development of the maritime infrastructure: the development and implementation, through IMO, of global standards covering these and other issues will underpin IMO's commitment to provide the institutional framework necessary for a Green and sustainable global maritime transportation system.

ABS

The responsibility of the classification society is to verify that marine vessels and offshore structures comply with Rules that the society has established for design, construction and periodic survey. The classification process includes: the development of standards, known as Rules; technical plan review and design analysis; surveys during construction; source inspection of materials, equipment and machinery; acceptance by the Classification Committee; subsequent periodic surveys for maintenance of class; survey of damage, repairs and modifications.

Offering Practical Solutions

ABS recognizes that the classification world is changing with more emphasis on complex structures, life cycle management, unified standards and safety equivalencies. At ABS, we are dedicated to providing leadership in the development of new technologies intended to improve the safety standards for the marine and offshore industries.



ILED® Helideck Lighting Systems

ILED® Aquarius CIRCLE-H® Helideck Lighting

Designed and built to be capable of withstanding the harshest of environments, in demanding and safety critical applications.

Why CIRCLE-H®?

Helicopter deck signalisation lighting has now taken off into a new direction with the IMT ILED® CIRCLE-H® Lighting System.

Throughout the industry, it is now fully agreed and accepted that the old method of illuminating the TD/PM Circle and H with floodlights results in the common dangerous problem of creating the disorientating "black hole" effect and at the same time being a source of glare to the helicopter pilots.

Developed with close guidance from the CAA and in full accordance with the requirements of CAP 437, IMT's CIRCLE-H® TD/PM Lighting System provides the optimum solution to these problems.

Cleanly and clearly indicating the TD/PM Circle and H, the IMT CIRCLE-H® is the only fully certified system of its type – providing optimised safety – without compromise.

The unique integrated mounting plate is able to be customised to suit specific requirements and with a choice of fixing and installation methods to suit all deck types, the CIRCLE-H® can be installed as a stand-alone system or as a fully integrated total helideck lighting and status light safety system solution.

- DEKRA Certification
- Low maintenance
- Sealed unit
- Shock and vibration resistant
- According to CAP 437

System

Fully according to CAP 437 guidance (7th edition, appendix C), the construction height of the light is less than 25 mm – even with the mounting plate!

IMT understand and fully appreciate that it is not merely about the CIRCLE-H® system – but just as – if not more importantly – that it is installed correctly and proficiently.

Therefore, IMT have teamed up with selected partners so as to be able to carry out pre installation surveys of helidecks – these surveys and inspections are carried out by fully certified and competent personnel.

As an absolute minimum, our survey and install teams have the following base skill sets:

- CompEx
- BOSIET
- MIST
- Offshore medical
- IMT approved installer status
- Mechanical fixings approved installer status
- IRATA rope access accreditation lead by a level 3 accredited team member
- Helideck landing area awareness

In preparation for installation and to ensure that all issues relating to correct compliance of CAP 437 are covered and adhered to, IMT offer a comprehensive and extensive on-site helideck survey and report service. If you would like further information and advice as to how we can help in the process of pre qualifying and preparing for CIRCLE-H® installation, then please contact us.

The light characteristics of the CIRCLE-H® system are designed in compliance with CAP 437 so that the location of the helideck on the platform is easier to establish and increases its conspicuity. In line with CAP 437 requirements, our CIRCLE-H® system has being independently tested and certified – by DEKRA – Attestation of Conformity No: 2168390.01 AOC.

IMTs CIRCLE-H® system is less than 25 mm high, even with the mounting plate. The system is comprised of just 4 main parts. The light unit is easily connected by an Ex-certified, patented plug system. Only cables and conduits are variable – to the D-Value of the helideck.

IMT's CIRCLE-H® system is manufactured from marine grade aluminium – which is by far and away the best material for marine applications and for temperature management control. The one-piece mounting plate is designed so that it can easily be adapted to suit all types of deck construction.

Low profile

Less than 25 mm

Special anti-slip coating

Precision machined

Unique Technical Points

- Fitted in place – including mounting plate – less than 25 mm
- DEKRA LIGHT CERTIFICATE
- Certified to IP67
- Ambient Temperature Range of -30 °C up to +55 °C
- Machined Marine Grade Aluminium – no mixing of plastic and steel materials
- Unique “interlock” design to withstand impact shear forces
- Light intensity adjustable –full control by communication
- Can be fully integrated with Helideck Status Light Systems
- Only 4 parts, only variable parts are cable covers and cables
- Easy connection by plug system
- Different fixing methods – to suit all helideck types
- Easy to replace fixtures
- ATEX and IECEx Zone 1 certified
- Low power consumption
- Special anti-slip coating

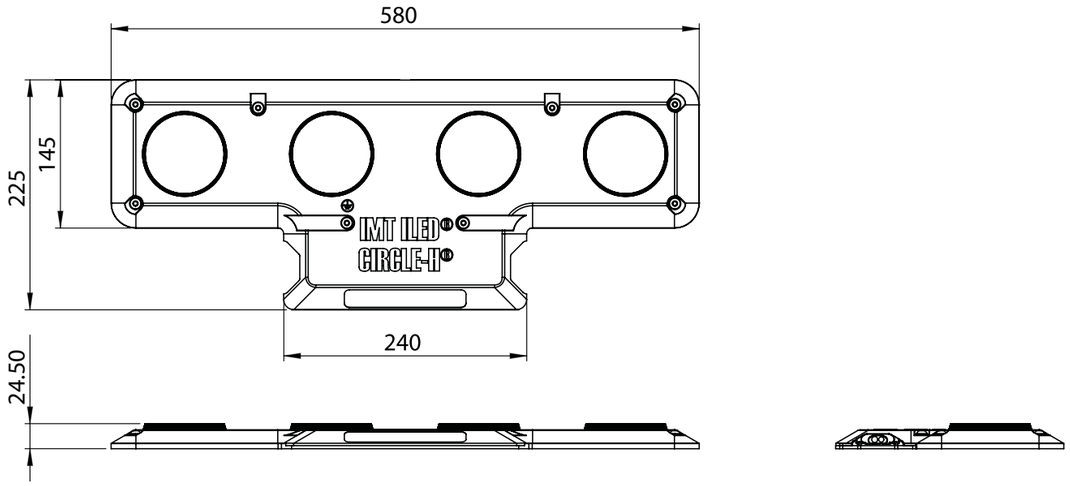
Technical Details

Light source	LED
Luminous intensity	Standard and bright setting
Average power for a complete system	Approx. 175 W in bright setting (Depending on size D-value/system requirements)
Light colour	Green and Amber
Horizontal Emission	According to CAP 437
Ambient temperature	-30 °C up to +55 °C
Burning position	Base down
(Re)ignition	Immediate
Voltage range system	24 Vdc ± 10 % and 90 – 255 Vac
IP Rating	IP67
IEC protection classes	Class 1
Lens	PC protected against UV light
Housing	Marine Grade Aluminium with a special anti-slip coating RAL 9003 Signal White or RAL BS 4800 – 10.E.53 Sun Flower Yellow
Weight of the light fitting	± 3 kg
Package weight per piece	Dependant on system type and configuration
Package dimensions	Dependant on system type and configuration
Connection	Special explosion proof plug system

Certificates

ATEX classification	Group II, Category 2, Gas
Area classification	Category 2 (Zone 1)
ATEX Certificate (DEKRA)	DEKRA 13ATEX0173
IECEx Certificate (DEKRA)	IECEx DEK 13.0059
Light Distribution Attestation (DEKRA)	2168390 AOC
Marking (ATEX)	Ex II 2 G Ex e mb IIB T4 Gb
Marking (IECEx)	Ex e mb IIB T4 Gb
CE	Yes

Technical Drawings



Article Code	Version		Weight
ELHA1GA0A254	Unit Green	Single Unit	± 3 kg
ELHA1NA0A254	Unit Amber	Single Unit	± 3 kg

ILED® Dorado Helideck Status Light/Marine Lantern

Overview

The ILED Dorado is hermetically sealed, so as to ensure that environmental conditions do not affect the functionality of the light.

The housing is manufactured from marine grade aluminium alloy – making the product extremely resistant to seawater.

A special and unique thermal management system ensures that the cooling fins of the ILED Dorado provide for highly efficient cooling – even at high ambient temperatures. With no moving parts or mechanisms the light has an extremely high shock and vibration resistance and low maintanance.

The lens is made out of toughened borosilicate glass – which is especially shock resistant and break proof. In utilising the highest quality LEDs, the ILED Dorado has a low maintenance long operating lifetime.

The electronics and IP66 rated junction box are located in the base, the sealing and packing of which is made from highly weather and seawater resistant material, thus ensuring the light is impermeable to moisture.

The ILED Dorado is available either as an Ex-hazardous Area or Industrial Safe Area-version – and both with the option of a bird deterrent spike.

Technical Details

Model	ILED® Dorado Marine Lantern 10 NM	ILED® Dorado Marine Lantern 15 NM	ILED® Dorado Status Light
Light source	LED	LED	LED
Luminous intensity	10 NM (>1,400 cd)	15 NM (>12,000 cd)	2 – 10° 700 cd min. 0 – 90° 176 cd min.
Luminous intensity dimmed	--	--	60 cd max.
Flash frequency	Morse Code – "U"	Morse Code – "U"	2 Hz
Average power	9 W	65 W	80 W
Light colour	White	White	Red
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C	-40 °C up to +55 °C
Burning position	Base Down	Base Down	Base Down
(Re)ignition	Immediate	Immediate	Immediate
Voltage range	24 Vdc ± 10 %	230 Vac ± 5 %	24 Vdc ± 10 %
IP Rating	IP66	IP66	IP66
Horizontal Emission	360°	360°	360°
IEC protection classes	Class 1	Class 1	Class 1
Lens	Toughened borosilicate glass	Toughened borosilicate glass	Toughened borosilicate glass
Housing	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized
Weight of the light fitting	16 kg	25 kg	16 kg
Package weight per piece	17 kg	26 kg	17 kg
Package dimensions	400x400x380 mm LxWxH	400x400x600 mm LxWxH	400x400x380 mm LxWxH
Standard version	Ex e junction box with 3x M25 entries	Ex e junction box with 3x M25 entries	Ex e junction box with 3x M25 entries
Information	Control, monitoring and Synchronization from NavAid Central Control Panel Automatic operation via central photocell from NavAid Central Control panel	Control, monitoring and Synchronization from NavAid Central Control Panel Automatic operation via central photocell from NavAid Central Control panel	--

Certificate Details

ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (IECEx)	IECEx SIR 11.0031X	IECEx SIR 11.0031X	IECEx SIR 11.0031X
Certificate (ATEX)	SIRA 11ATEX3053X	SIRA 11ATEX3053X	SIRA 11ATEX3053X
Marking	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66
CE	Yes	Yes	Yes
According regulations	IALA	IALA	ICAO Annex 14, CAA CAP 437 & IMO Modu code 2001
ABS Rules PDA Certificate	14-LD1100054C-PDA	14-LD1100054C-PDA	14-LD1100054C-PDA

Characteristics

- Low maintenance
- Sealed unit
- Shock and vibration resistant
- No moving parts
- Special heat management system
- According to IALA regulation

Optional

Voltage / Power	**Status Light** 115 Vac ± 5 %/100 W 230 Vac ± 5 %/100 W	**10 NM** 12 Vdc -10 %/+20 %/10.0 W 115 Vac ± 5 %/13.5 W 230 Vac ± 5 %/13.5 W	
Cable	On request		
Facility for synchronisation through GPS	On request		
Bird spike	On request		
Mounting	On request		
Pedestal	On request		

The ILED® Dorado Marine Lantern produces an extraordinary light output of 10 nautical miles with a power consumption of only 9 watts.

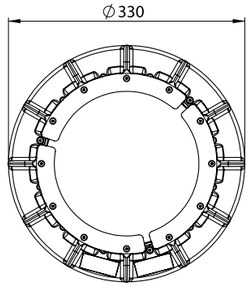
Fresnel Lens, Borosilicate Glass

IMT® ILED® Technology

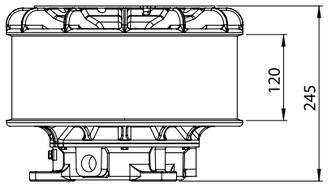
Efficient Cooling

Marine Lantern System

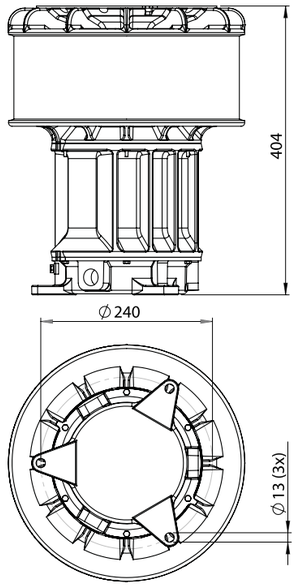
ILED® Dorado



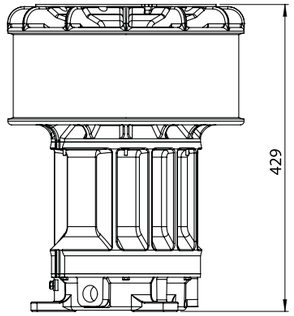
24 Vdc



115 Vac and 230 Vac



12 Vdc



Articel Code	Version	Wattage	Voltage	Connection	Weight
ELUA1JAFA243	10 NM – Ex	9.0 W	24 Vdc	Ex e junction box with 3x M25 entries	17 kg
ELUAFJAFA243	10 NM – Ex	13.5 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELUA4JAFA243	10 NM – Ex	13.5 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg
ELUAGJAFA243	10 NM – Ex	10.0 W	12 Vdc	Ex e junction box with 3x M25 entries	25 kg
ELUA4JAGA243	15 NM – Ex	65.0 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg
ELWA1HAJA243	Status Light – Ex	80.0 W	24 Vdc	Ex e junction box with 3x M25 entries	17 kg
ELWAFHAJA243	Status Light – Ex	100.0 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELWA4HAJA243	Status Light – Ex	100.0 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg

Accessories

Article Code	Version	Weight
CDI0200	Pedestal for Dorado Lantern	1.36 kg

ILED® Aquarius Helideck Floodlight

Overview

The ILED Aquarius Helideck Floodlight is made with an anodized, marine grade aluminium casting, making it highly resistant to seawater environments and therefore perfectly suitable for marine applications. The integral mounting bracket allows the unit to be easily fixed and the direction of the beam in the horizontal to be adjusted.

The light cover is made of clear toughened glass which is extremely shock resistant and break proof with a Fresnel (PMMA) lens. The high Power LEDs in combination with the fresnel lens produce a superior light output.

A special design feature of this product is in the heat management – the ILED Aquarius Floodlight has a series of cooling fins with air ducts to dissipate the heat generated from the LEDs, which means that even in conditions of direct sunlight and high temperatures, the light unit continues to be cooled.

The connection box is integral to the aluminium main housing and is manufactured with two cable entries for M25 cable glands.

The ILED Aquarius Floodlight is available as either an Ex-hazardous Area or Industrial Safe Area-version.

Charateristics

- Low maintenance
- Sealed unit
- Shock and vibration resistant
- According to ICAO Annex 14, CAA CAP 437 and IMO Modu Code 2009, helideck as per § 13.3.2

Technical Details

Model	ILED® Aquarius Helideck Floodlight
Light source	LED
Luminous intensity	15,000 cd
Average power	40 W
Light colour	White
Ambient temperature	-40 °C up to +55 °C
Burning position	Universal
(Re)ignition	Immediate
Voltage range	95 – 250 Vac
Power factor/Cos φ	>0.90
IP Rating	IP66
IEC protection classes	Class 1
Lens	Toughened glass with internal fresnel lens (PMMA)
Housing	Marine Grade Aluminium Anodized
Weight of the light fitting	11 kg
Package weight per piece	12 kg
Package dimensions	400x400x380 mm LxWxH
Standard version	Ex e junction box 2x M25x1.5 entries Terminals suitable for max. 4 mm² Suitable for through wiring

Certificate Details

Model	ILED® Aquarius Helideck Floodlight
ATEX classification	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)
Certificate (IECEx)	IECEx SIR 11.0142X
Certificate (ATEX)	SIRA 11ATEX3295X
Marking	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 °C Db IP66
ABS Rules PDA Certificate	14-LD1100054A-PDA
CE	Yes

Optional

Voltage range	24 Vdc ± 10 % – 40 W
Lens	Without Fresnel Lens
Cable	On request
Mounting	On request

Either with the power options of multi-voltage or 24 Vdc, bright and precise light output – with a power consumption of just 40 watts.

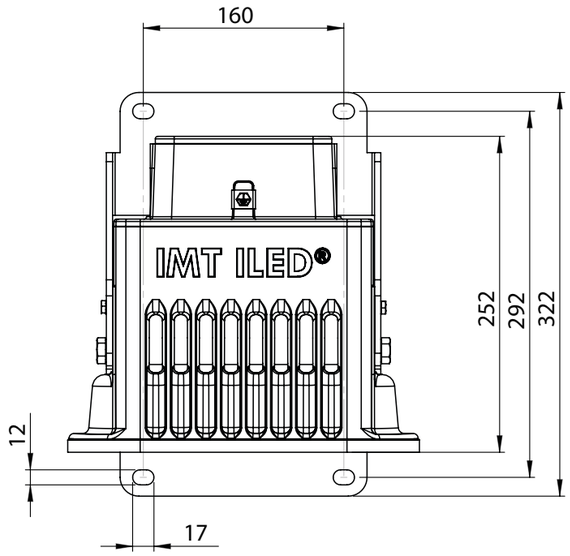
Special Beam Patterns

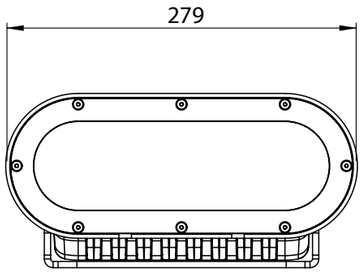
Adjustable Mounting Bracket

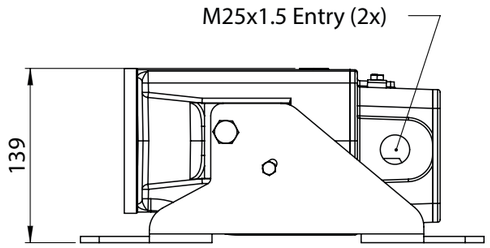
Heat Management

IMT® ILED®

ILED® Aquarius Helideck Floodlight







Article Code	Version	Wattage	Voltage	Connection	Weight
ELFA1KZ0A243	Ex	40 W	24 Vdc	Ex e junction box with 2x M25x1.5 entries	11 kg
ELFA1KZ0A443	Safe Area	40 W	24 Vdc	Junction box with 2x M25x1.5 entries	11 kg
ELFA5KZ0A243	Ex	40 W	95 – 250 Vac	Ex e junction box with 2x M25x1.5 entries	11 kg
ELFA5KZ0A443	Safe Area	40 W	95 – 250 Vac	Junction box with 2x M25x1.5 entries	11 kg

ILED® Aquarius Perimeter/Repeater/Signal Light

Overview

The ILED Aquarius – in all its variants – is manufactured with a toughened soda lime glass lens that has a high impact and fracture resistance and utilises the highest quality of high power LEDs – in the colours of Green, Red, Blue, Amber, and White.

The output intensity of the LED lights is that as required according to CAA and ICAO guidelines and requirements.

The main housing, mounting plate and fastenings are made of high quality stainless steel AISI 316L. The IP66 rated junction box is protected by a sealing and packing which is made from highly weather and seawater resistant material, thus ensuring the unit is impermeable to moisture.

The ILED Aquarius is available as either an Ex-hazardous Area or Industrial Safe Area-version.

Charateristics

- Low maintenance
- Sealed unit
- Shock and vibration resistant

Technical Details

Model	ILED® Aquarius Perimeter Light	ILED® Aquarius Bi-colour Perim.	ILED® Aquarius Repeater Light	ILED® Aquarius Signal Light
Light source	LED	LED	LED	LED
Luminous intensity	According to CAP 437	--	16 – 60 cd	Depends on light distribution
Average power	9 W	--	5 W	12 W max.
Light colour	Green	Green/Yellow 10 W max. Green/Blue 20 W max.	Red	White
Flash frequency	--	--	1 Hz or 2 Hz, sync possible	--
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C	-40 °C up to +55 °C	-40 °C up to +55 °C
Burning position	Universal	Universal	Universal	Universal
(Re)ignition	Immediate	Immediate	Immediate	Immediate
Voltage range	95 – 255 Vac	100 – 240 Vac	24 Vdc ± 10 %	95 – 255 Vac
Power factor/Cos φ	>0.90	>0.90	--	>0.90
IP Rating	IP66	IP66	IP66	IP66
IEC protection classes	Class 1	Class 1	Class 1	Class 1
Light distribution	--	--	--	Side emitting
Lens	Toughened soda lime glass	Toughened soda lime glass	Toughened soda lime glass	Toughened soda lime glass
Housing	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L	Stainless steel AISI 316L
Weight of the light fitting	9 kg	9 kg	9 kg	9 kg
Package weight per piece	10 kg	10 kg	10 kg	10 kg
Package dimensions	390x260x240 mm LxWxH	390x260x240 mm LxWxH	390x260x240 mm LxWxH	390x260x240 mm LxWxH
Flash frequency	--	--	1 Hz or 2 Hz – Sync. possible	--
Standard version	Standard Ex e junction box 3x M20 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Standard Ex e junction box 3x M20 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Standard Ex e junction box 3x M20 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Standard Ex e junction box 3x M20 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring

Certificate Details

	ILED® Aquarius Perimeter Light	ILED® Aquarius Bi-colour Perim.	ILED® Aquarius Repeater Light	ILED® Aquarius Signal Light
ATEX classification	Group II, Category 2, Gas and Dust	--	Group II, Category 2, Gas & Dust	Group II, Category 2, Gas & Dust
Area classification	Category 2 (Zone 1 and 21)	--	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (ATEX)	KEMA 08ATEX0158X	--	KEMA 08ATEX0158X	KEMA 08ATEX0158X
Marking	Ex II 2 G Ex e mb II T4 Ex II 2 D Ex tD A21 IP66 T100 °C	--	Ex II 2 G Ex e mb II T4 Ex II 2 D Ex tD A21 IP66 T100 °C	Ex II 2 G Ex e mb II T4 Ex II 2 D Ex tD A21 IP66 T100 °C
According	ICAO (Annex 14), CAA CAP 437 and IMO Modu Code 2009, helideck as per § 13.3.2	--	ICAO (Annex 14), CAA CAP 437 and IMO Modu Code 2009, helideck as per § 13.3.2	--
ABS Rules PDA Certificate	14-LD1100054B-PDA	--	14-LD1100054B-PDA	14-LD1100054B-PDA
CE	Yes	Yes	Yes	Yes

Optional

Light colour	**ILED® Aquarius Perimeter & Signal Light** Natural White/Warm White/Green/Blue/Royal Blue/Red/Amber
Voltage range	**ILED® Aquarius Perimeter Light** 24 Vdc ± 10 % – 4 W **ILED® Aquarius Signal Light** 130 – 360 Vdc – max. 12 W 24 Vdc ± 10 % – max. 10 W
Cable	On request
Mounting	On request
Entries	**ILED® Aquarius Perimeter –** 3x M25 entries
Light distribution	**ILED® Aquarius Signal Light –** Lambertian
Flash frequency	On request
Version	**ILED® Aquarius Repeater Light** Stand-alone-version – No synchronization possible

The ILED® Aquarius Perimeter light has the required light distribution according CAP 437 – but with a power consumption of just 9 watts.

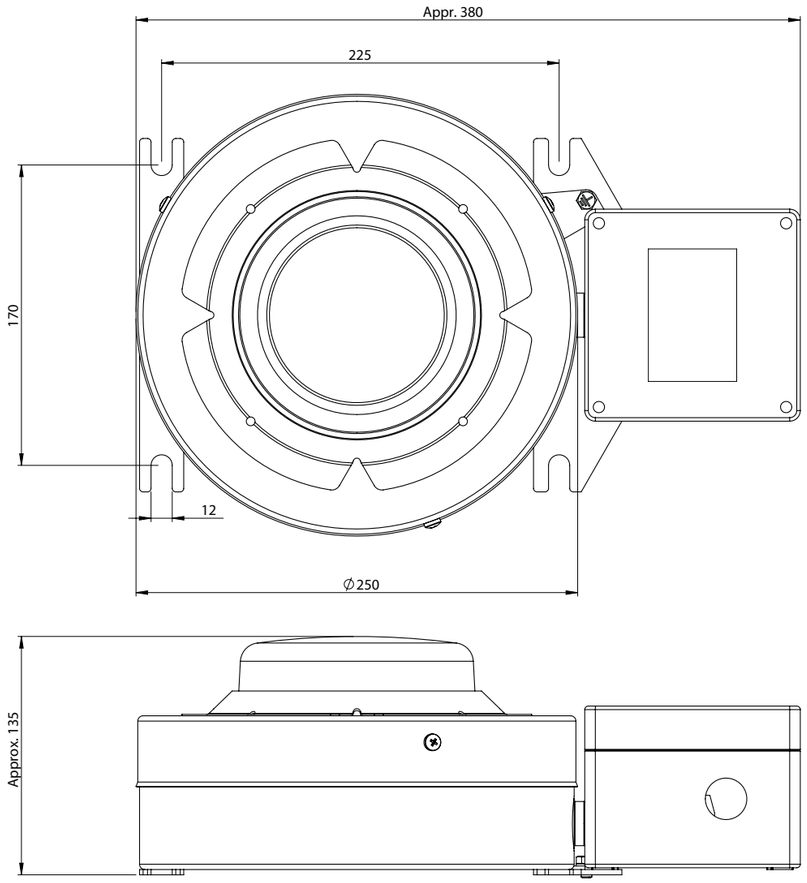
CAP 437 Repeater Light

Sealed unit

Stainless steel AISI 316L Housing

GRP Junction Box

ILED® Aquarius Perimeter/Repeater/Signal Light



Article Code		Version	Wattage	Voltage	Connection	Weight
ELPZ5AP0E243	Perimeter	Ex	9 W	95 – 255 Vac	Ex e junction box with 3x M20 entries	9 kg
ELPZ5AP0C243	Perimeter	Ex	9 W	95 – 255 Vac	Ex e junction box with 3x M25 entries	9 kg
ELPZ5AP0E443	Perimeter	Safe Area	9 W	95 – 255 Vac	Standard junction box with 3x M20 entries	9 kg
ELPZ5AP0C443	Perimeter	Safe Area	9 W	95 – 255 Vac	Standard junction box with 3x M25 entries	9 kg
ELPZ1AP0E243	Perimeter	Ex	4 W	24 Vdc	Ex e junction box with 3x M20 entries	9 kg
ELPZ1AP0C243	Perimeter	Ex	4 W	24 Vdc	Ex e junction box with 3x M25 entries	9 kg
ELPZ1AP0E443	Perimeter	Safe Area	4 W	24 Vdc	Standard junction box with 3x M20 entries	9 kg
ELPZ1AP0C443	Perimeter	Safe Area	4 W	24 Vdc	Standard junction box with 3x M25 entries	9 kg
ELPZ5PP0S443	Bi-colour Perimeter	Safe Area – Green/Blue	20 W	100 – 240 Vac	Standard junction box with 3x M25 entries	9 kg
ELPZ5QP0S443	Bi-colour Perimeter	Safe Area – Green/Yellow	10 W	100 – 240 Vac	Standard junction box with 3x M25 entries	9 kg
ELRZ1AP0E443	Repeater	Safe Area – System	5 W	24 Vdc	Standard junction box with 3x M20 entries	9 kg
ELRZ1AP0E243	Repeater	Ex – System	5 W	24 Vdc	Ex e junction box with 3x M20 entries	9 kg
ELRZHAP0E243	Repeater	Ex – Stand-alone flashing	5 W	24 Vdc	Ex e junction box with 3x M20 entries	9 kg
ELSX5FP0E443	Signal	Safe Area – Blue	20 W	95 – 255 Vac	Standard junction box with 3x M20 entries	9 kg
ELSX5FP0E243	Signal	Ex – Blue	20 W	95 – 255 Vac	Ex e junction box with 3x M20 entries	9 kg

ILED® & IQL® Aquarius Illuminated Windsock

Overview

The ILED Aquarius Illuminated Windsock provides pilots with an indication of the wind direction as required by IMO Modu Code, CAA CAP 437 and ICAO Annex 14. These regulations require the presence of at least one windsock, which, if the helideck is intended for use at night, must be illuminated. Utilising IMT's ILED technology, the windsock is illuminated internally, thereby minimising glare and thus increasing safety.

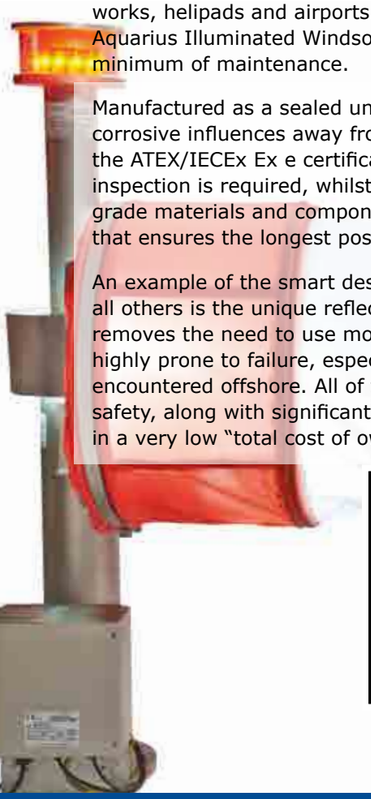
The ILED Aquarius Illuminated Windsock is just one of the products in IMT's complete range of ILED helideck signalisation and lighting solutions, which includes the CIRCLE-H® and Helideck Status Light (Wave-Off) Systems as well as perimeter lights, obstruction warning lights and floodlights.

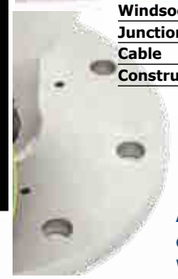
The ILED Aquarius Illuminated Windsock is manufactured out of corrosion resistant materials. All exposed material, with the exception of the lighting fixture itself, is Stainless steel AISI 316L. For the lighting fixture aluminium was chosen because of its excellent thermal conductivity, ensuring that the LEDs have the longest possible service life. The alloy used is extremely corrosion resistant and recommended for offshore use.

Also available as an optional extra is an integral Red obstruction light – which also uses IMT's ILED technology. Available as either certified to ATEX Zone 1, or as an industrial Safe Area-version – the windsock system is also ideal for onshore installations such as petro-chemical works, helipads and airports. As with all IMT products, the ILED Aquarius Illuminated Windsock is designed to require an absolute minimum of maintenance.

Manufactured as a sealed unit, which keeps all contaminants and corrosive influences away from sensitive electronics, combined with the ATEX/IECEx Ex e certification means that only a periodic visual inspection is required, whilst smart design and the use of the highest grade materials and components enables excellent heat management that ensures the longest possible operating life.

An example of the smart desitgn that sets the windsock apart from all others is the unique reflector mechanism which completely removes the need to use moving electrical parts – such parts being highly prone to failure, especially in the corrosive environment encountered offshore. All of this means improved and increased safety, along with significantly reduced maintenance costs resulting in a very low "total cost of ownership".





Adapter Flange for conversion from existing Windsock systems

Technical Details

Model	ILED® Aquarius Windsock	IQL® Aquarius Windsock
Light source	LED	QL (Induction)
Luminous flux (light source)	--	6,200 lm
Luminous flux (light source) lm/w	--	73 lm/W
Lamp lumen depreciation	--	30 % loss after 60,000 hours
System power	± 35 W (without top light)	85 W
Light colour	White	Standard White (colour 830)
Colour rendering	--	Ra>80
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +40 °C
Burning position	--	Windsock illuminated from below
(Re)ignition	Immediate	Immediate
Voltage range	90 – 250 Vac	200 – 277 Vac/dc ± 6 %
Power factor/Cos φ	>0.90	>0.98
IP Rating	IP66	IP66
IEC protection classes	Class 1	Class 1
Lens	Toughened borosilicate glass	Borosilicate glass
Mercury level	--	5.0 mg
Housing	Marine Grade Aluminium Anodized	Stainless steel AISI 316L
Reflector	--	275 mm shield – stainless steel AISI 316L
Construction	--	Galvanised steel
Construction height	2.58 m	2.55 m
Base pole height	1.67 m	1.00 m
Windsock size	Ø 50 cm, length 150 cm	Ø 50 cm, length 150 cm
Weight of construction	45 kg	70 kg
Mounting flange size	Ø 220 mm	Ø 220 mm
Mounting holes	8 x 18, Ø 180 mm	8 x 18, Ø 180 mm
Standard version	Standard Ex e junction box 1x M20 entry (stainless steel) Terminals suitable for max. 4 mm²	Standard Ex e junction box 3x M25 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring

Certificate Details

Model	ILED® Aquarius Windsock	IQL® Aquarius Windsock
ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (GOST)	--	POCC NL.HO06.B00732
Certificate (IECEx)	IECEx SIR 11.0046X	--
Certificate (ATEX)	SIRA 11ATEX3101X	KEMA 02ATEX1257X
Marking	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 °C Db IP66	Ex II 2 GD EEx me II T4 T135 °C
ABS Rules PDA Certificate	14-LD1100054-PDA	--
CE	Yes	Yes

Optional

Voltage Range	24 Vdc ± 10 % – 35 W	100 – 120 Vac/dc +6 %
Top Obstruction Light (Red)	5 W, type A & B acc. to ICAO annex 14 and Group A acc. to CAP 168 & CAP 437	--
Construction height (incl. top light)	2.80 m	--
Dividable Base Pole	Height 2 x 83.5 cm	--
Mounting	Weldable flange, Ø 220 mm, 8 x M16	--
Windsock size	Ø 60 cm, length 240 cm	--
Windsock colour options	Red/White, Orange	Red/White
Junction Box	--	Stainless steel AISI 316L
Cable	On request	On request
Construction	--	Stainless steel AISI 316L

- Sealed unit
- Shock and vibration resistant
- Patented construction
- According to ICAO Annex 14, CAA CAP 437 & 168 and IMO Modu Code 2009, helideck as per § 13.3.2

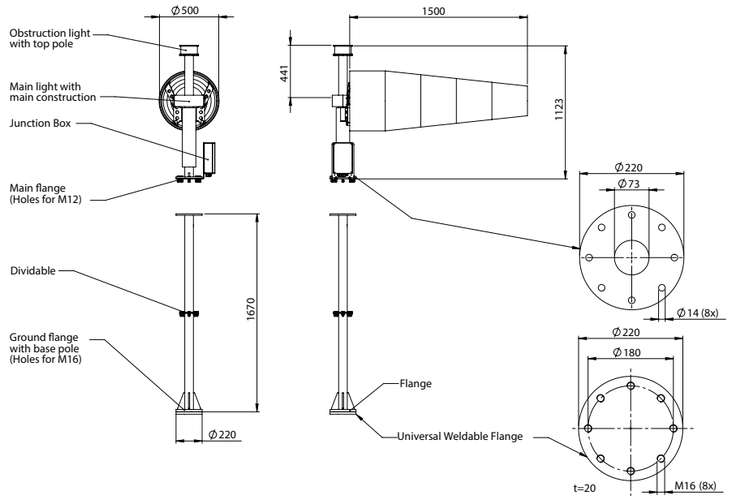
Unique Reflector Mechanism

ILED® Obstruction Light

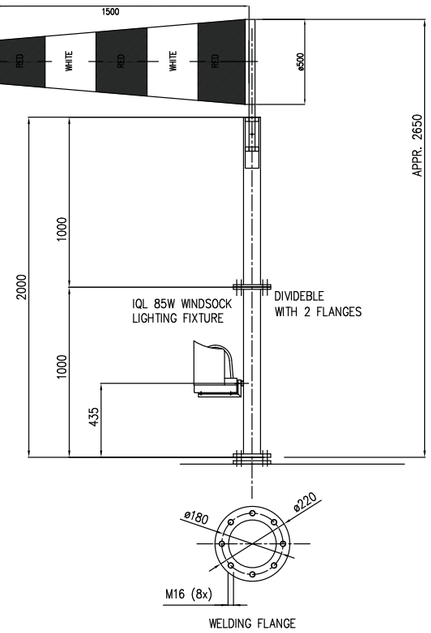
Interchangeable Windsock

Fully stainless steel

ILED® Aquarius Windsock



IQL® Aquarius Windsock



Articel Code	Version	Wattage	Voltage	Connection	Weight
EDIWIND-GALVDLB	IQL – Ex	85 W	230 Vac	Ex e junction box with 3x M25 entries	70 kg
EWSA5JA0V243	ILED – Ex	35 W	90 – 250 Vac	Ex e stainless steel AISI 316L junction box	31 kg
EWSA5JA0V443	ILED – Safe Area	35 W	90 – 250 Vac	Stainless steel AISI 316L junction box	31 kg
EWSA1JA0V243	ILED – Ex	35 W	24 Vdc	Ex e stainless steel AISI 316L junction box	31 kg
EWSA1JA0V443	ILED – Safe Area	35 W	24 Vdc	Stainless steel AISI 316L junction box	31 kg

Spares

Articel Code	Version	Description	Dimensions	Weight
CDI0002	IQL Spare Windsock	Red/White Striped	Ø 50 cm, Length 150 cm, Ø 25 cm	--
CDI0181	ILED Spare Windsock	Red/White Striped	Ø 50 cm, Length 150 cm, Ø 25 cm	--
CDI0204	ILED Spare Windsock	Orange	Ø 50 cm, Length 150 cm, Ø 25 cm	--
EABASEPOLE	ILED Basepole	Stainless Steel AISI 316L + flange	2 x 83.5 cm – divisible	27 kg
EWOA0HA0A243	Obstruction Light	Aluminium – IP66 Ex		8 kg

SigMare® NavAid Systems

ILED® Dorado Marine Lantern

Overview

The ILED Dorado is hermetically sealed, so as to ensure that environmental conditions do not affect the functionality of the light.

The housing is manufactured from marine grade aluminium alloy – making the product extremely resistant to seawater.

A special and unique thermal management system ensures that the cooling fins of the ILED Dorado provide for highly efficient cooling – even at high ambient temperatures. With no moving parts or mechanisms the light has an extremely high shock and vibration resistance and low maintanance.

The lens is made out of toughened borosilicate glass – which is especially shock resistant and break proof. In utilising the highest quality LEDs, the ILED Dorado has a low maintenance, long operating lifetime.

The electronics and IP66 rated junction box are located in the base, the sealing and packing of which is made from highly weather and seawater resistant material, thus ensuring the light is impermeable to moisture.

The ILED Dorado is available either as an Ex-hazardous Area or Industrial Safe Area-version – and both with the option of a bird deterrent spike.

Characteristics

- Low maintenance
- Sealed unit
- Shock and vibration resistant
- No moving parts
- Special heat management system
- According to IALA regulation

Technical Details

Model	ILED® Dorado Marine Lantern 10 NM	ILED® Dorado Marine Lantern 15 NM
Light source	LED	LED
Luminous intensity	10 NM (>1,400 cd)	15 NM (>12,000 cd)
Flash frequency	Morse Code – "U"	Morse Code – "U"
Average power	9 W	65 W
Light colour	White	White
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C
Burning position	Base Down	Base Down
(Re)ignition	Immediate	Immediate
Voltage range	24 Vdc ± 10 %	230 Vdc ± 5 %
IP Rating	IP66	IP66
Horizontal Emission	360°	360°
IEC protection classes	Class 1	Class 1
Lens	Toughened borosilicate glass	Toughened borosilicate glass
Housing	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized
Weight of the light fitting	16 kg	25 kg
Package weight per piece	17 kg	26 kg
Package dimensions	400x400x380 mm LxWxH	400x400x600 mm LxWxH
Standard version	Ex e junction box with 3x M25 entries	Ex e junction box with 3x M25 entries
Information	Control, monitoring and Synchronization from NavAid Central Control panel Automatic operation via central photocell from NavAid Central Control panel	Control, monitoring and Synchronization from NavAid Central Control panel Automatic operation via central photocell from NavAid Central Control panel

Certificate Details

ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (IECEx)	IECEx SIR 11.0031X	IECEx SIR 11.0031X
Certificate (ATEX)	SIRA 11ATEX3053X	SIRA 11ATEX3053X
Marking	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66
CE	Yes	Yes
According regulations	IALA	IALA
ABS Rules PDA Certificate	14-LD1100054C-PDA	14-LD1100054C-PDA

Optional

Voltage / Power	**10 NM** 12 Vdc – 10 %/+20 %/10.0 W
Cable	On request
Facility for synchronisation through GPS	On request
Bird spike	On request
Mounting	On request
Pedestal	On request

The ILED® Dorado Marine Lantern produces an extraordinary light output of 10 nautical miles with a power consumption of only 9 watts.

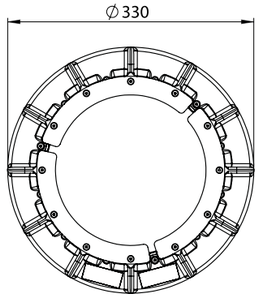
Fresnel Lens, Borosilicate Glass

... with Bird Spike

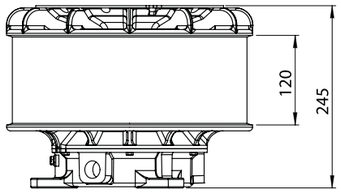
Efficient Cooling

Marine Lantern System

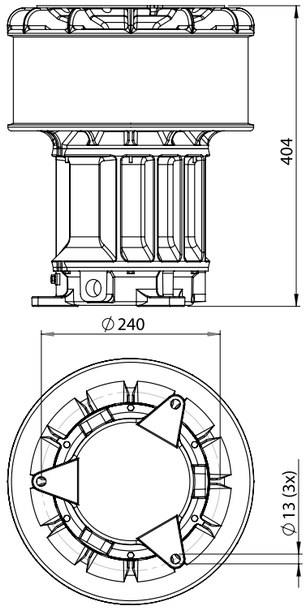
ILED® Dorado



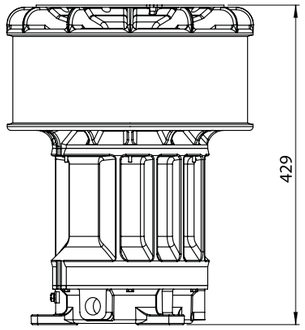
24 Vdc



115 Vac and 230 Vac



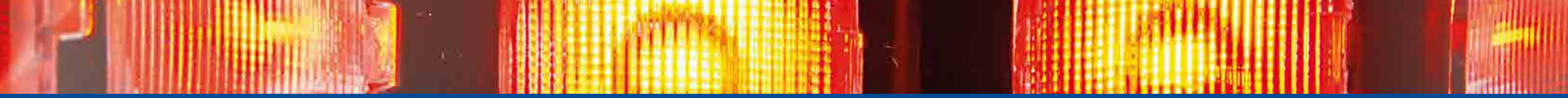
12 Vdc



Articel Code	Version	Wattage	Voltage	Connection	Weight
ELUA1JAFA243	10 NM – Ex	9.0 W	24 Vdc	Ex e junction box with 3x M25 entries	17 kg
ELUAFJAFA243	10 NM – Ex	13.5 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELUA4JAFA243	10 NM – Ex	13.5 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg
ELUAGJAFA243	10 NM – Ex	10.0 W	12 Vdc	Ex e junction box with 3x M25 entries	25 kg
ELUA1JAGA243	15 NM – Ex	51.0 W	24 Vdc	Ex e junction box with 3x M25 entries	17 kg
ELUA4JAGA243	15 NM – Ex	65.0 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg
ELWA1HAJA243	Status Light – Ex	80.0 W	24 Vdc	Ex e junction box with 3x M25 entries	17 kg
ELWAFHAJA243	Status Light – Ex	100.0 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELWA4HAJA243	Status Light – Ex	100.0 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg

Accessories

Article Code	Version	Mounting	Weight
CDI0200	Pedestal	for Mounting Dorado	1.36 kg



ILED® Lyra U-Code 3/5 NM Lantern/Obstruction Light

Overview

The ILED Lyra is used as a subsidiary marine obstruction light as required by IALA's O-139 and DECC (UK Department of Energy and Climate Change) regulations, amongst others. Both IALA and DECC regulations require the use of subsidiary lights to mark the extremities of (fixed) obstructions at sea that could pose a threat to navigation. To that end the Lyra is used as an addition to the ILED Dorado Main & Secondary lights and completes IMT's portfolio of NavAid products. The ATEX/ IECEx certified LED driver can be programmed to deliver the required light-output and Morse Code – "U" making the Lyra a very versatile solution that can be adapted to almost any set of regulations and conditions.

The ILED Lyra has been designed to withstand the harsh conditions of a marine environment. The body is made of a very corrosion resistant anodized aluminium alloy (marine grade). The excellent thermal conductivity of aluminium allows for efficient heat management of the LEDs ensuring the longest possible service life. The lens is made of toughened borosilicate glass, while the driver is housed in a glass fiber reinforced polyester junction box. The assembly is mounted on a stainless steel AISI 316L mounting bracket.

As with all IMT products, the ILED Lyra was designed to require an absolute minimum of maintenance and manufactured as a sealed unit, which keeps all contaminants and corrosive influences away from sensitive electronics, combined with the ATEX/IECEx Ex e certification mean that only an occasional visual inspection is required, while smart design, excellent heat management and the use of highest grade materials and components ensure the longest possible life expectancy. The result is lower maintenance costs, increased safety and a very low total cost of ownership.

The ILED Lyra with the flash frequency morse code – "U" integrates seamlessly with an IMT NavAid system and is fully compatible with the Master Control Card. The Master Control Card allows for synchronization with the other marine lanterns with the morse code – "U" in the system (as required by regulations) but also communicates with the lanterns and receives feedback on their current status. The intelligent circuits in the LED driver keep track of the number of hours the fixture has been operating and automatically adjust for the gradual degradation over time that all LEDs are subject to, maintaining a constant light output over its full service life.

Technical Details

Model	ILED® Lyra Obstruction Light	ILED® Lyra 3 NM	ILED® Lyra 5 NM
Light source	LED	LED	LED
Luminous intensity	200 cd	3 NM (>25 cd)	5 NM (>100 cd)
Flash frequency	Steady burning	Morse Code – "U"	Morse Code – "U"
Average power	16 W	4 W	5 W
Light colour	White	Red	Red
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C	-40 °C up to +55 °C
Burning position	Base down	Base down	Base down
(Re)ignition	Immediate	Immediate	Immediate
Voltage range	90 – 250 Vac	90 – 250 Vac	90 – 250 Vac
Power factor/Cos φ	>0.90	>0.90	>0.90
IP Rating	IP66	IP66	IP66
Horizontal emission	360°	360°	360°
IEC protection classes	Class 1	Class 1	Class 1
Lens	Toughened borosilicate glass	Toughened borosilicate glass	Toughened borosilicate glass
Housing	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized
Weight of the light fitting	14 kg	14 kg	14 kg
Package weight per piece	15 kg	15 kg	15 kg
Package dimensions	400x300x300 mm LxWxH	400x300x300 mm LxWxH	400x300x300 mm LxWxH
Standard version	Standard Ex e junction box with 1x M25 entry (GRP) Terminals suitable for max. 4 mm²	Standard Ex e junction box with 1x M25 entry (GRP) Terminals suitable for max. 4 mm²	Standard Ex e junction box with 1x M25 entry (GRP) Terminals suitable for max. 4 mm²
Information	--	Control, monitoring and synchronization from NavAid central control panel Automatic operation via central photocell from NavAid central control panel	Control, monitoring and synchronization from NavAid central control panel Automatic operation via central photocell from NavAid central control panel

Certificate Details

Model	ILED® Lyra Obstruction Light	ILED® Lyra U-Code 3 NM	ILED® Lyra U-Code 5 NM
ATEX classification	Group II, Gas and Dust	Group II, Gas and Dust	Group II, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (IECEx)	IECEx SIR 11.0046X	IECEx SIR 11.0046X	IECEx SIR 11.0046X
Certificate (ATEX)	SIRA 11ATEX3101X	SIRA 11ATEX3101X	SIRA 11ATEX3101X
Marking	Ex 2 II G Ex e mb IIC T4 Gb Ex 2 II D Ex tb IIIC T135 Db IP66	Ex 2 II G Ex e mb IIC T4 Gb Ex 2 II D Ex tb IIIC T135 Db IP66	Ex 2 II G Ex e mb IIC T4 Gb Ex 2 II D Ex tb IIIC T135 Db IP66
ABS Rules PDA Certificate	--	14-LD1100054-PDA	14-LD1100054-PDA
CE	Yes	Yes	Yes

Optional

Voltage	dc ± 10 % – 4 W	24 Vdc ± 10 % – 4 W	24 Vdc ± 10 % – 5 W
Cable	On request	On request	On request
Facility for synchronisation through GPS	On request	On request	On request
Bird spike	On request	On request	On request
Mounting	On request	On request	On request

Characteristics

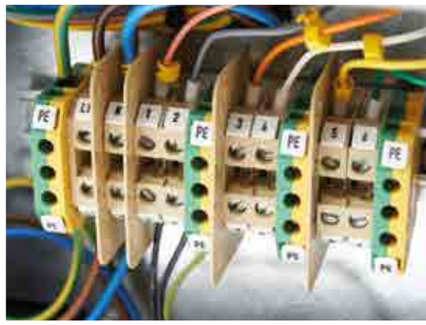
- Low maintenance
- Sealed unit
- Shock and vibration resistant
- No moving parts
- According to IALA regulation

Seamless integration in an IMT® NavAid system.
Designed to withstand the harsh conditions.
Stainless steel AISI 316L mounting bracket.

IMT® ILED® Technology

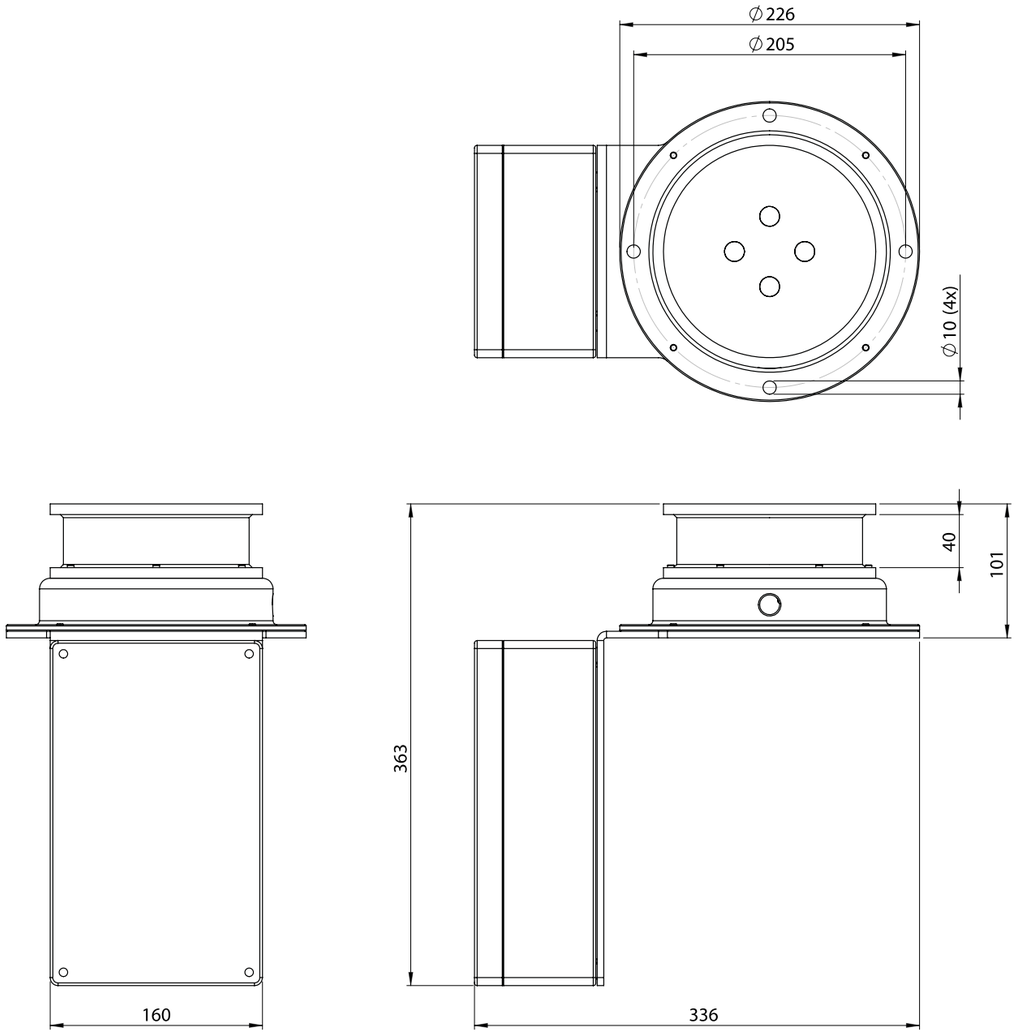
Marine Grade Aluminium

Lyra with Junction Box



Ex e Junction Box

ILED® Lyra



Article Code	Version	Wattage	Voltage	Connection	Weight
ELUA5HACU243	3 NM Ex – Morse Code – "U"	4 W	90 – 250 Vac	Ex e junction box with 1x M20 entry	14 kg
ELUA1HACU243	3 NM Ex – Morse Code – "U"	4 W	24 Vdc	Ex e junction box with 1x M20 entry	14 kg
ELUA5HADU243	5 NM Ex – Morse Code – "U"	5 W	90 – 250 Vac	Ex e junction box with 1x M20 entry	14 kg
ELUA1HADU243	5 NM Ex – Morse Code – "U"	5 W	24 Vdc	Ex e junction box with 1x M20 entry	14 kg
ELUA5JAGU243	200 cd	16 W	90 – 250 Vac	Ex e junction box with 1x M20 entry	14 kg

Foghorn 2 NV-V3

Characteristics

This durable, low maintenance foghorn, is suitable for Zone 1 and 2. An efficient design using special amplifiers only require 3 stacked emitter to achieve the range of 2 NM. At the base of the horn the oscillator and termination panel is positioned, to provide an optimal sonorous output.

Technical Details

Construction	Marine Grade Aluminium
Control panel	Marine Grade Aluminium
Support frame	Stainless steel AISI 316
Construction colour	RAL 7000
Audible range	2 NM
Frequency	± 780 Hz
Sound character	Morse Code – "U" (IALA), others on request
Ambient Temperature	-40 °C up to +55 °C
IP Rating	IP56
Operating voltage	24 Vdc or 230 Vac
Power consumption	90 W
Dimensions	385x385x2,100 mm WxLxH
Weight	250 kg

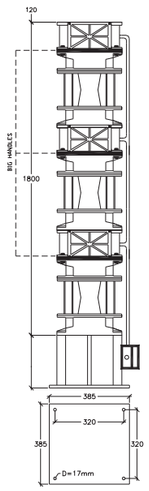
Certification Details

Area Classification	Category 2 (Zone 1 and 2)
Certificate	INERIS 02ATEX0073
Marking	Ex II 2 GD EExd IIB T5

Options

Extensions	redundant execution; 2 NM + 0.5 NM (type NV-V4) Birdspike Sound baffles

Technical Drawings



Articlecode	Voltage	Dimensions	Weight
E_FOGHN_NV3_24	24 Vdc	385x385x2,100 mm	250 kg
E_FOGHN_NV3_230	230 Vac	385x385x2,100 mm	250 kg

Foghorn 2+0.5 NV-V4

Characteristics

This durable, low maintenance foghorn, is suitable for installation in a Zone 1 hazardous Area. An efficient design using special amplifiers only require 3 stacked emitter to achieve the range of 2 NM.

A 4th ermitter and amplifer set provide the required secondary 0.5 nautical miles fog signal. This horn is completely independently operated and controlled, but integrated into one design.

At the base of the horn the oscillator and termination panel is positioned, to provide an optimal sonorous output.

Technical Details

Construction	Marine Grade Aluminium
Control panel	Marine Grade Aluminium
Support frame	Stainless steel AISI 316
Construction colour	RAL 7000
Audible range	2 NM as main 0.5 NM as secondary
Frequency	± 780 Hz
Ambient Temperature	-40 °C up to +55 °C
IP Rating	IP56
Operating voltage	24 Vdc
Power consumption	90 W as main 25 W as secondary
Dimensions	385x385x2,700 mm WxLxH
Weight	310 kg

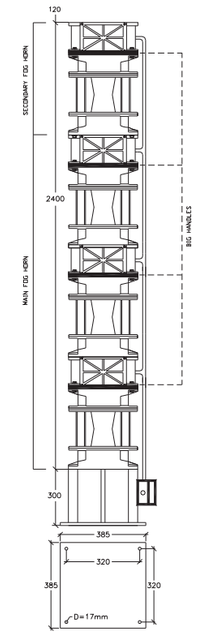
Certification Details

ATEX Classification	Ex II 2 GD EExd IIB T5
Area Classification	Category 2 (Zone 1 and 21)
Certificate	INERIS 02ATEX0073
Marking	EXII 2 GD Eex d-IIB-T5

Options

Voltage	230 Vac
Extensions	Bird Spike Sound baffles

Technical Drawings



Articlecode	Voltage	Dimensions	Weight
E_FOGHN_NV4_24	24 V	385x385x2,700 mm	310 kg
E_FOGHN_NV4_230	230 V	385x385x2,700 mm	310 kg

Safe Area Visibility/Fog Detector

Characteristics

Measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles (smoke, dust, haze, exhaust fumes) in the air that pass through the optical sample volume. A 42° forward scatter angle is used to ensure performance over a wide range of particle sizes. MOR is calculated by converting the received signal strength (extinction coefficient, σ) using Koschmeider's formula, MOR (Km) = 3/σ.

Performance in all weather conditions is achieved with an integrated sensor design that keeps all sensor cabling internal to the sensor for complete Protection against dust and water intrusion. Based on the proven field experience, the sensor uses a "look down" geometry to reduce window contamination. The optical windows have continuous duty anti-dew heaters. All power and signal lines to the Visibility/Fog detector are protected with surge and EMI filtering to help guarantee uninterrupted service for the life of the sensor.

- Optimal tunnel measurement range
- Road & rail tunnel applications
- Proven 42° forward scatter angle
- Preferred "look down" geometry
- Compact, light weight package
- Simple installation & maintenance

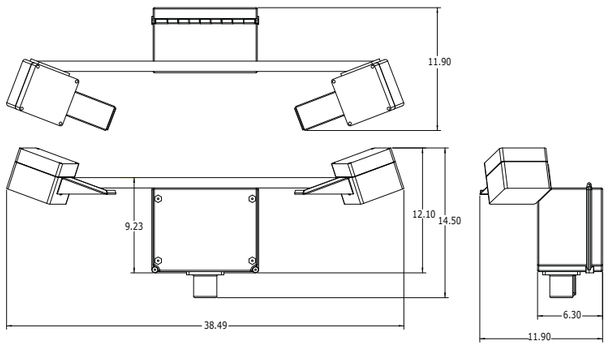
Technical Details

Measurement range	15 – 0.03 km-1 Extinction (EXCO) 200 m – 100 km Visibility
AC-version	100 – 240V, 24V A Nominal
DC-version	10 – 36V, 6V A Nominal
Operating Temperature	-40 °C up to +60 °C
Time Constant	60 sec
Scatter Angle	42° nominal
Source	880 NM LED
Operating Humidity	0 up to 100 %
Output	4 – 20 mA single ended output standard
IP Rating	IP66 (NEMA-4X)
Dimensions	889x292x305 mm WxHxD
Weight	8 kg
Mounting	Nominal 40 mm ISO pipe, 48 mm OD max.
Material	UV-resistant fiberglass

Options

Output	4 – 20 mA isolated output
Relays	Control (up to 2) Diagnostic

Technical Drawings



Articlecode	Dimensions	Weight
E-FOGDETECT IP	889x292x305 mm	8 kg

Visibility/Fog Detector

Characteristics

Measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles (smoke, dust, haze, fog, rain, & snow) in the air that passes through the sample volume. A 42° forward scatter angle is used to ensure performance over a wide range of particle sizes. MOR is calculated by the user by converting the received signal strength (extinction coefficient, σ) using Koschmeider's formula, MOR (Km) = 3/σ.

Performance in all weather conditions was a design prerequisite for this Fog Detector. The sensor uses ATEX rated EEx housings and offshore marine grade sheathed cables to ensure all weather, Zone 1, IP66 certified performance. A sturdy aluminum frame painted with durable powder-coat paint is used to mount the housings and provide mounting to a customer supplied mounting pipe. Power and signal lines are protected with surge and EMI filtering to help guarantee uninterrupted service for the life of the sensor.

Technical Details

RX-TX heads	GUB-type aluminium enclosures
Electronis Housing	EJB-type aluminium enclosure
Measurement range	15 to 8,000 m
Accuracy	± 10 RMSE
Scatter Angle	42° nominal
Source	880 NM LED
Ambient temperature	-40 °C up to +60 °C
Temperature Humidity	0 up to 100 % RH
IP Rating	IP66
Operating voltage	12 Vdc, 24 Vdc or 230 Vdc
Power consumption	10V A
Dimensions	1,170x915x760 mm WxHxD (excluding pole)
Weight	40 kg
Mounting	Supplied ready to mount onto 122 mm OD and 5 mm wall thickness pipe

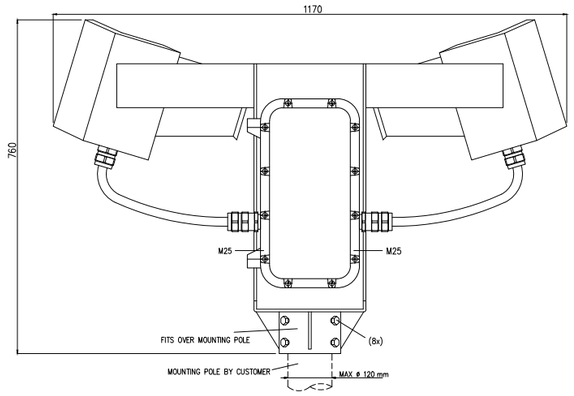
Certification Details

ATEX Classifikation	ATEX Ex II 2GD EEx d IIB T5/T6
Certificate	CESI ATEX 036 & CESI ATEX 027

Options

Heating	Hood mounted heaters for low "icing" temperature areas (Safe Area only)
Kits	Calibration Kit

Technical Drawings



Articlecode	Dimensions	Weight
E-FOGDETECT EX	1,170x915x760 mm	40 kg

Safe Area Visibility/Fog Detector

Characteristics

The visibility detector will be installed on the railing on a side of the deck. It measures atmospheric visibility (meteorological optical range) by determining the amount of light scattered by particles (smoke, dust, haze, fog, rain, & snow) in the air that passes through the sample volume.

When the air is clear, very little light is scattered, resulting in a small signal received. More particles, result in more scattering, hence higher received signal.

The detector has a visibility range of 10 m up to 20.000 m. LED transmitter projects light in a forward direction into the air between the heads and the light scattered is collected by the receiver on the opposite head. The resulting signal strength is converted to a visibility range.

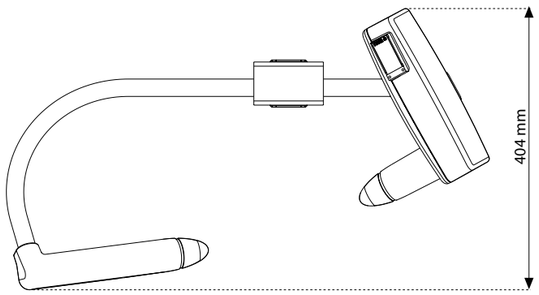
Technical Details

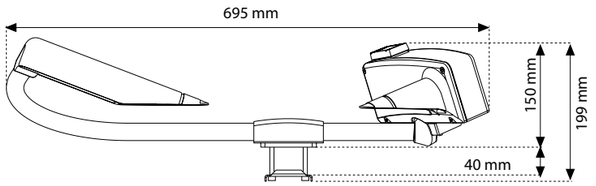
Type	PWD20
Measurement range	10 up to 20,000 m
Power Supply	12 Vdc up to 50 Vdc (electronics) 24 Vac or 24 Vdc for heater option
Operating Temperature	-40 °C up to +60 °C
Operating principle	Forward scatter measurement
Accuracy	± 10 %, range 10 up to 10,000 m ± 15 %, range 10 up to 20,000 m
Power supply	12 Vdc up to 50 Vdc (electronics) 24 Vac or 24 Vdc for heater option
Power consumption	3 W (electronics with dew heater @12 Vdc)
IP Rating	IP66
Dimensions	404x695x199 mm WxLxH
Weight	3 kg

Options

Power	2 W (luminance sensor with dew heater) 65 W (heater option)

Technical Drawings





Articlecode	Dimensions	Weight
E-FOGDETECT IP	440x695x199 mm	3 kg

Photo Cell/Sun Switch

Characteristics

The sun switch/photo cell measures the illumination level (lux) and when this reaches a pre-set value it will activate or deactivate the lighting fixture(s).

The input from the (external) photo cell will be led into a light dependent relay, which is installed in the central control panel, which is adjustable between 1 and 100 lx.

The photo cell is housed in a small separate Ex d box or as part of the Control Panel.

Technical Details

Type	SMH
Housing	Aluminium enclosure with hardened glass window
Finish	RAL 7005
Ambient temperature	-20 up to +60 °C
IP Rating	IP67
Operating voltage	24 Vdc for light relays in control panel
Power consumption	0.03A for light relays in control panel
Dimensions	137x146x123 mm LxWxH
Weight	2.1 kg
Entries	2 x M25

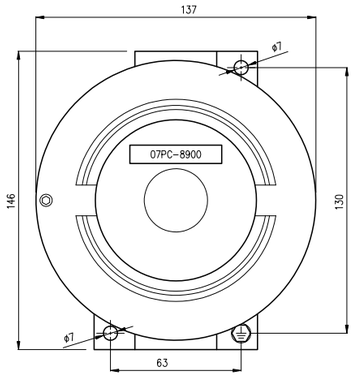
Certification Details

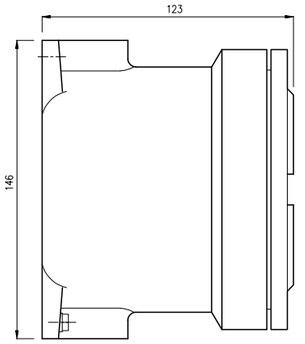
ATEX Classification	ATEX Ex II 2GD EEx d IIC-T6
ATEX Certificate	INERIS 01ATEX0023

Options

Version	Safe Area

Technical Drawings





Articlecode	Dimensions	Weight
E-PHOTOCELL EX	137x146x123 mm	2.1 kg

Safe Area Battery Sets

Characteristics

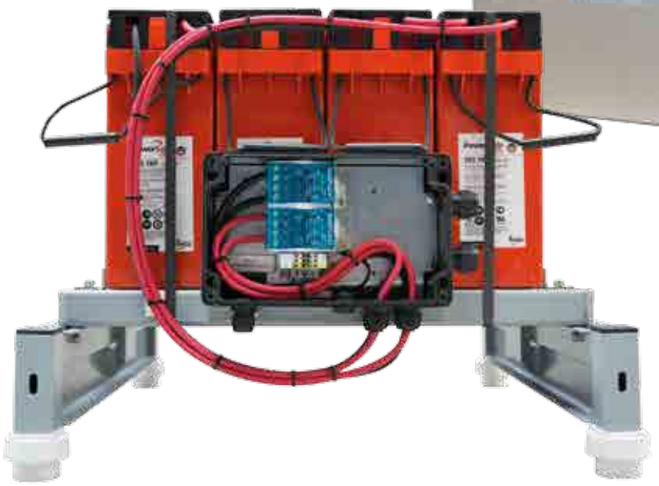
IMT works with batteries from reputable manufactures, specifically chosen for their durability and low maintenance operation.

The rugged and compact design of this battery pack ensures minimum space requirements.

During system engineering we take into account the required 96 hours of autonomy as well as various aging and compensation factors.

Options

- Rack
- Enclosure



No articlecode available – all Battery Packs/Charger are Custom made.

Ni-Cad and Lead Acid Battery Packs

Characteristics

IMT works with batteries from reputable manufactures, specifically chosen for their durability and low maintenance operation.

The rugged and compact design of this Zone 1 certified battery box ensures minimum space requirements and allows the unit to be installed on deck or inside the building. The durable battery box is top opening and constructed from Stainless steel AISI 316.

No articlecode available – all Battery Packs/Charger are Custom made.

Technical Details

Type	Ni-Cad Batteries	VRLA Batteries
Housing	Stainless steel AISI 316	Stainless steel AISI 316
IP Rating	IP56	IP56
Number of Cells	10	2
Power Data	95 Ah @ 24 Vdc/cell	230 Ah @ 12 Vdc 115 Ah @ 24 Vdc
Size	Approx. 650x600x650 mm WxHxD	Approx. 452x502x526 mm WxHxD
Weight	205 kg	85 kg
Number of Cells	10	4
Power Data	238 Ah @ 24 Vdc/cell	460 Ah @ 12 Vdc 230 Ah @24 Vdc
Size	Approx. 1,050x600x675 mm WxHxD	Approx. 747x452x449 mm WxHxD
Weight	400 kg	160 kg

Other versions on request

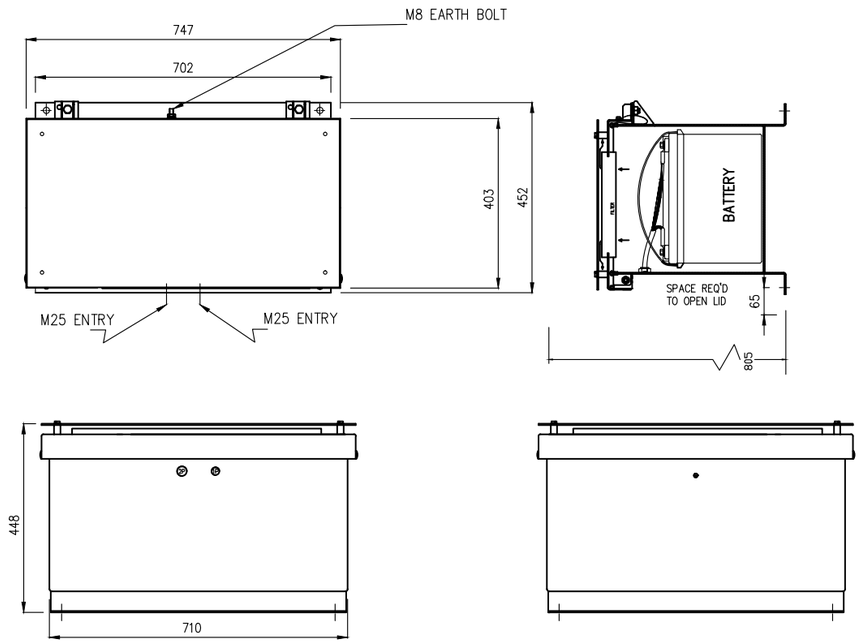
Certification Details

Type	Ni-Cad Batteries	VRLA Batteries
Area classification	Zone 1	Zone 1
Ex protection	Ex e II T6	Ex e II T6

Disclaimer:

Technical details can be changed by Manufacturer, during its continues process of increasing quality of products and production.

Technical Drawings



No articlecode available – all Battery Packs/Charger are Custom made.

Battery Circuit Breaker

Characteristics

Isolator switches can be used to manually isolate batteries, photovoltaic panels, wind turbines and/ or other power sources. Unit can be locked in Isolated position.

Technical Details

Type	Gub 4A
Housing	Ex d
Ambient temperature	-50 °C up to +40 °C
IP Rating	IP65
Dimensions	450x526x235 mm LxWxH
Weight	6.5 kg
Entries	2 x M25

Other versions on request

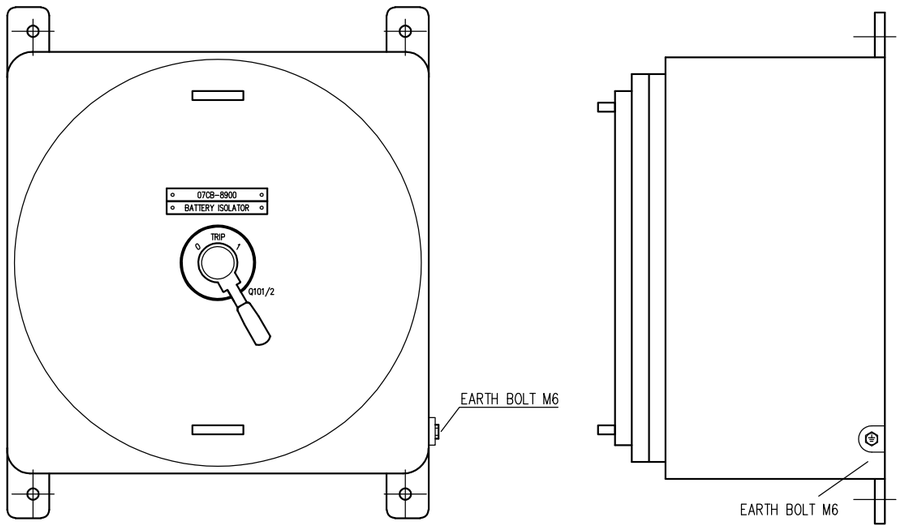
Certification Details

ATEX classification	ATEX Ex II GD Ex d IIC T6
ATEX Certificate	Ineris I0ATEX0036

Options

Version	Safe Area
Isolation	Manual and Remote

Technical Drawings



Articlecode	Dimensions	Weight
E-ISOLATORSW EX	271x271x275 mm	6.5 kg

Lead Acid Battery Charger

Characteristics

IMT works with battery chargers from reputable manufactures, specifically chosen for their durability and low maintenance operation.

The chargers are build into the NavAid Central Control Panel, either an Ex-version or Safe Area-version.

Sizing of the During design we take into account.

During system engineering we take into account the size of the batteries, total system load as well as various aging and compensation factors and work with a standard of 8 to 10 hours to recharge to full battery capacity.

Technical Details

Type	BenningADCIIImodule
Input	110 up to 230 Vac
Output	12 & 20 Amp @ 24 Vdc
Ambient temperature	-5 °C up to +50 °C
Dimensions	280x70x170 mm WxHxD
Weight	2.3 kg

Solar Photovoltaic Panels

Characteristics

The photovoltaic Solar Panel 130A is a 12V, Zone 1 certified product and the photovoltaic Solar Panels 260 and 230 are, 12Vac suitable for Zone 2.

The cells of the panel are encapsulated between a tempered glass cover and EVA pottant with analuminium polyester protected back sheet to provide maximum protection in the most extreme environmental conditions.

Technical Details

Type	Solar Panel, Zone 1, 130A	Solar Panel, Zone 2, 230	Solar Panel, Zone 2, 260
Housing	Aluminium mounting frame	Aluminium mounting frame	Aluminium mounting frame
Cells per module	36 square 156x156 mm	36 square 156x156 mm	54 square 156x156 mm
Cell technology	Polycrystalline	Polycrystalline	Polycrystalline
IP Rating	IP66	IP66	IP66
Termination	GRP terminal enclosure with 2 Ex e ATEX M25 entries	GRP terminal enclosure with 2 Ex e ATEX M25 entries	GRP terminal enclosure with 2 Ex e ATEX M25 entries
Dimensions	1.500x670x136 mm LxWxD	1.500x670x136 mm LxWxD	1.500x990x46 mm LxWxD
Weight	14 kg	14 kg	18 kg

Electrical performance

Maximum power	135 W (@ 1kW/m² STC)	135 W (@ 1kW/m² STC)	210 W (@ 1kW/m² STC)
Maximum System Voltage	17.7 Vdc	17.7 Vdc	26.6 Vdc
Maximum System Current	7.63 Amp	7.63 Amp	7.9 Amp
NOCT	49 °C	49 °C	45 °C

Ex Classification

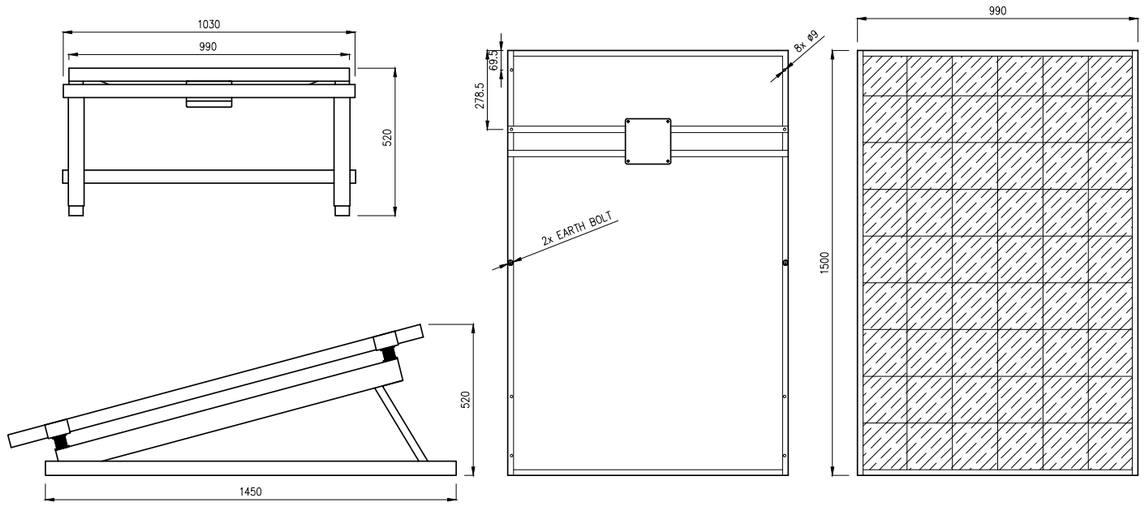
Ex Protection	Ex mbe II T5	Ex nAc II T5	Ex nAc II T5
Certificate Nr.	ISSep08ATEX052X	--	--
Ex Classification	ATEX Group II Category 2, Gas	ATEX Group II Catergory 3 Gas	ATEX Group II Catergory 3 Gas
Zone	Zone 1	Zone 2	Zone 2

Technical details can be changed by Manufacturer,during its continues process of increasing quality of products and production.

Options

Voltage	On request
Wattage	On request
Area Classification	Zone 1, Zone 2, Safe Area

Technical Drawings



ILED® & IQL® Obstruction Warning Lighting

ILED® Taurus Obstruction Warning Light – Low Intensity

Overview

The ILED Taurus Obstruction Warning Light is manufactured as a sealed unit, with a toughened soda-lime glass lens that has a high impact and fracture resistance and utilises the highest quality LEDs.

The output intensity of the LED lights is that as required according to CAA and ICAO guidelines and requirements. Complying to the ICAO and CAA regulations, ensures that clear identification of obstacles is assured during the night and in reduced visibility.

The main housing, mounting plate and fastenings are made of high quality stainless steel AISI 316L.

The IP66 rated junction box is protected by a sealing and packing which is made from highly weather and seawater resistant material, thus ensuring the unit is impermeable to moisture – making the ILED Taurus ideal for any environment.

Available either as a multi-voltage or 24 Vdc – the ILED Taurus Obstruction Warning Light is available as either an Ex-hazardous Area or Industrial Safe Area-version.

Characteristics

- Low maintenance
- Sealed unit
- Shock and vibration resistant
- According to ICAO Annex 14 and CAA CAP 437/CAP 168
- Low Intensity Group A, Type A & B

Technical Details

Model	ILED® Taurus Obstruction Light
Light source	LED
Luminous intensity	Group A, Type A & B
Average power	10 W
Light colour	Red
Ambient temperature	-40 °C up to +55 °C
Burning position	Universal
(Re)ignition	Immediate
Voltage range	95 – 255 Vac
Power factor/Cos φ	>0.90
IP Rating	IP66
Horizontal emission	360°
IEC protection classes	Class 1
Lens	Toughened soda lime glass
Housing	Stainless steel AISI 316L
Weight of the light fitting	9 kg
Package weight per piece	10 kg
Package dimensions	LxWxH 400x250x350 mm
Standard version	Standard Ex e junction box with 3x M20 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring Strain Relief Kit

Certificate Details

Model	ILED® Taurus Obstruction Light
ATEX classification	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)
Certificate (ATEX)	KEMA 08ATEX0158X
Marking	Ex II 2 G Ex e mb II T4 Ex II 2 D Ex tD A21 IP66 T100 °C
ABS Rules PDA Certificate	14-LD1100054B-PDA
CE	Yes

Optional

Voltage range	130 – 360 Vdc/10 W 24 Vdc – 7.5 W
Cable	On request
Mounting brackets	On request
Entries	3x M25 entries

The ILED® Taurus Aircraft Obstruction Light complies with ICAO and CAA regulations with a power consumption of just 10 watts.

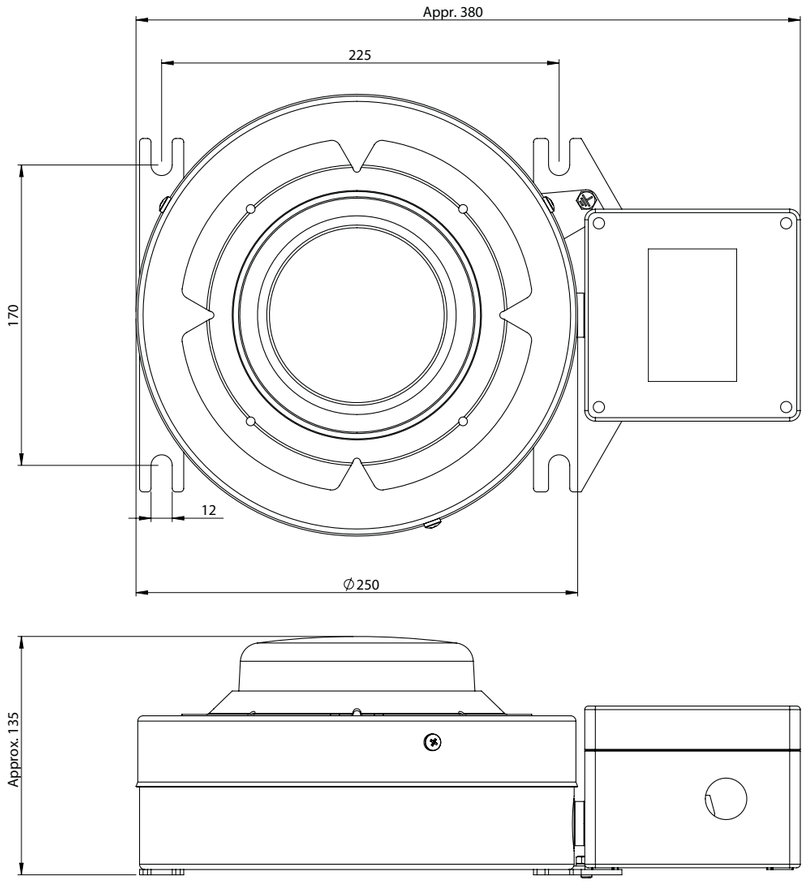
GRP junction box

Simple Mounting

Sealed unit

Stainless steel

ILED® Taurus



Article Code	Version	Wattage	Voltage	Connection	Weight
ELOZ5AP0C243	Ex	10.0 W	95 – 255 Vac	Ex e junction box with 3 x M25 entries	9 kg
ELOZ5AP0E243	Ex	10.0 W	95 – 255 Vac	Ex e junction box with 3 x M20 entries	9 kg
ELOZ5AP0C443	Safe Area	10.0 W	95 – 255 Vac	Standard junction box with 3 x M25 entries	9 kg
ELOZ5AP0E443	Safe Area	10.0 W	95 – 255 Vac	Standard junction box with 3 x M20 entries	9 kg
ELOZ1AP0C243	Ex	7.5 W	24 Vdc	Ex e junction box with 3 x M25 entries	9 kg
ELOZ1AP0E243	Ex	7.5 W	24 Vdc	Ex e junction box with 3 x M20 entries	9 kg
ELOZ1AP0C443	Safe Area	7.5 W	24 Vdc	Standard junction box with 3 x M25 entries	9 kg
ELOZ1AP0E443	Safe Area	7.5 W	24 Vdc	Standard junction box with 3 x M20 entries	9 kg

Accessories

Article Code	Version	Weight
EDISTRAINLOW	for ILED Taurus	1.3 kg

ILED® Dorado Obstruction Light – Medium Intensity

Overview

The ILED Dorado is hermetically sealed, so as to ensure that environmental conditions do not affect the functionality of the obstruction light. The housing is manufactured from marine grade aluminium alloy – making the product extremely resistant to seawater.

A special and unique thermal management system ensures that the cooling fins of the ILED Dorado provide for highly efficient cooling – even at high ambient temperatures. With no moving parts or mechanisms the light has an extremely high shock and vibration resistance.

The lens is made out of toughened borosilicate glass – which is especially shock resistant and break proof. In utilising the highest quality LEDs, the ILED Dorado has a low maintenance, long operating lifetime.

With the type B variant, the flashing frequency is in accordance with the ICAO Guidelines, i.e. 1 and 2 seconds – with 2,000 candela Red light. This serves as a night light for the marking of high obstacles in air traffic. It is possible to synchronize the obstacle lights with a GPS module.

The electronics and terminal blocks are located in the base. The sealing and packing is made from highly weather and seawater resistant material, thus ensuring the light is impermeable to moisture.

The ILED Dorado is available either as an Ex-hazardous Area or Industrial Safe Area-version – and both with the option of a bird deterrent spike.

Charateristics

- Sealed unit
- No moving parts
- Shock and vibration resistant
- Special heat management system
- Low maintenance
- According to ICAO Annex 14

Technical Details

Model	ILED® Dorado – Type B	ILED® Dorado – Type C
Light source	LED	LED
Luminous intensitiy	>2,000 cd according to ICAO	>2,000 cd according to ICAO
Flash frequency	1 sec. on, 2 sec. off	--
Average power	15 W	31 W
Light colour	Red	Red
Ambient temperature	-40 °C up to +55 °C	-40 °C up to +55 °C
Burning position	Base Down	Base Down
(Re)ignition	Immediate	Immediate
Voltage range	24 Vdc ± 10 %	24 Vdc ± 10 %
IP Rating	IP66	IP66
Horizontal Emission	360°	360°
IEC protection classes	Class 1	Class 1
Lens	Toughened borosilicate glass	Toughened borosilicate glass
Housing	Marine Grade Aluminium Anodized	Marine Grade Aluminium Anodized
Weight of the light fitting	16 kg	16 kg
Package weight per piece	17 kg	17 kg
Package dimensions	400x400x380 mm LxWxH	400x400x380 mm LxWxH
Standard version	Ex e junction box with 3x M25 entries	Ex e junction box with 3x M25 entries

Certificate Details

Model	ILED® Dorado – Type B	ILED® Dorado – Type C
ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (IECEx)	IECEx SIR 11.0031X	IECEx SIR 11.0031X
Certificate (ATEX)	SIRA 11ATEX3053X	SIRA 11ATEX3053X
Marking	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66	Ex II 2 G Ex e mb IIC T4 Gb Ex II 2 D Ex tb IIIC T135 Db IP66
ABS Rules PDA Certificate	14-LD1100054C-PDA	14-LD1100054C-PDA
CE	Yes	Yes

Optional

Voltage / Power	**Type B** 230 Vac ± 5 % / 20 W 115 Vac ± 5 % / 20 W **Type C** 230 Vac ± 5 % / 40 W 115 Vac ± 5 % / 40 W
Cable	On request
Facility for synchronisation through GPS	On request
Bird spike	On request
Mounting	On request

The ILED® Dorado Obstruction Warning Light produces a precise, high quality light output – for a long lifetime – but with a power consumption rating of only 15 watts.

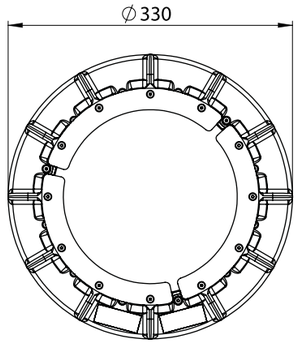
... with Bird Spike

Fresnel Lens, Borosilicate Glass

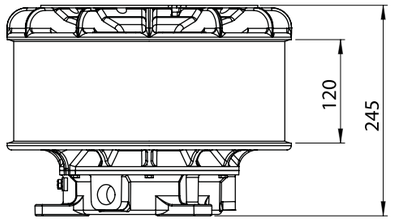
Efficient Cooling

Easy Access for Connection

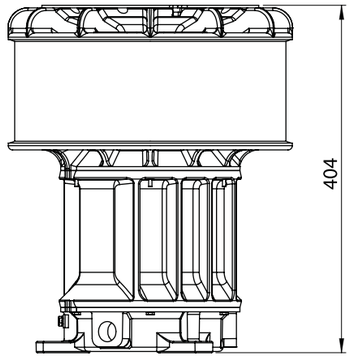
ILED® Dorado Obstruction Light

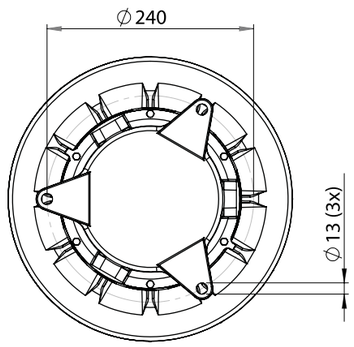


24 Vdc



115 Vac and 230 Vac





Article Code	Version	Wattage	Voltage	Connection	Weight
ELOA1HAHA243	Type B – Ex	15 W	24 Vdc	Ex e junction box with 3x M25 entries	16 kg
ELOA3HAHA243	Type B – Ex	20 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELOA4HAHA243	Type B – Ex	20 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg
ELOA1HAIA243	Type C – Ex	31 W	24 Vdc	Ex e junction box with 3x M25 entries	16 kg
ELOA3HAIA243	Type C – Ex	40 W	115 Vac	Ex e junction box with 3x M25 entries	25 kg
ELOA4HAIA243	Type C – Ex	40 W	230 Vac	Ex e junction box with 3x M25 entries	25 kg

IQL® Taurus Obstruction Warning Light – Low Intensity

Overview

The IQL Taurus Obstruction Warning Light is hermetically sealed, so as to ensure that environmental conditions do not affect its functionality.

The lens is made out of Red coloured borosilicate glass – which is especially shock resistant and break proof.

IQL Taurus 85 PE-version is sealed without the use of screw fixings on the housing.

IQL Taurus 85 R-version is designed for applications where extremely harsh radiation conditions may occur, such as on medium wave transmitter, radio towers and antenna masts. The special shielding of the light with the Faraday cage prevents an effect of radiation on the functionality. With a wear-free design and long service intervals it is ideal for use on high, hard to reach points where maintenance duties are particularly very costly.

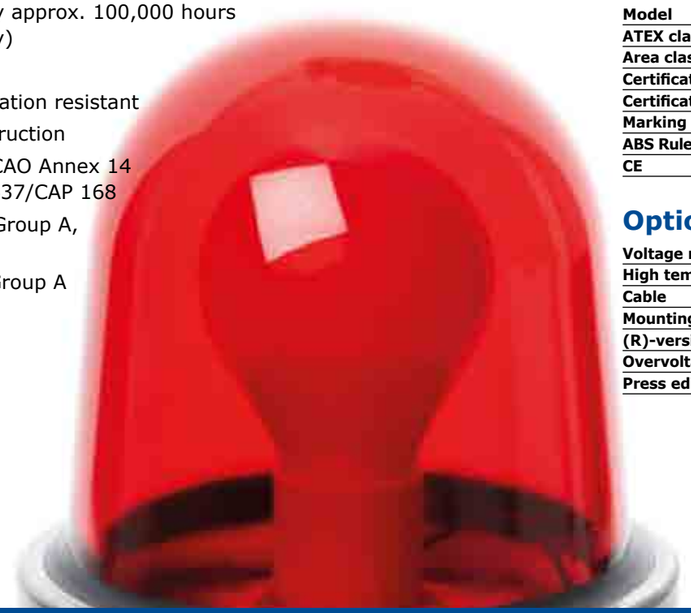
IQL Taurus 85 EM-version with LED emergency light has a replaceable external battery pack, which supplies a 3-hour emergency power source. The battery pack is connected to the fixture with a 250 mm long Ex-link cable. The emergency lighting unit which comprises of 6 power LEDs is subjected every 50 days to an automatic test to check system functionality. In order to further reduce impact on the environment, the battery pack has no nickel-cadmium.

In addition to the standard Ex e terminal block in the GRP junction box (IP66) there is the option for a surge protector to be installed, in order to protect against power fluctuations, lightning, etc.

The IQL Taurus Obstruction Warning Light is available either as an Ex-hazardous Area or Industrial Safe Area-version.

Characteristics

- Life expectancy approx. 100,000 hours (not for battery)
- Sealed unit
- Shock and vibration resistant
- Patented construction
- According to ICAO Annex 14 and CAA CAP 437/CAP 168
- Low Intensity Group A, Type A & B
- LEDs on only Group A and Type A



Technical Details

Model	IQL® Taurus 85	IQL® Taurus 85 EM
Light source	QL (Induction)	QL (Induction)
Luminous flux (light source)	6,200 lm	6,200 lm
Luminous intensity	Group A, Type A & B	Group A, Type A & B
Luminous flux (light source) lm/w	73 lm/W	73 lm/W
Lamp lumen depreciation	30 % loss after 60,000 hours	30 % loss after 60,000 hours
System power	85 W	85 W
Efficiency	0.90	0.90
Light colour	Red	Red
Ambient temperature	-40 °C up to +40 °C	-20 °C up to +40 °C
Burning position	Universal	Universal
(Re)ignition	Immediate	Immediate
Voltage range	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %
Power factor/Cos φ	>0.98	>0.98
IP Rating	IP66	IP66
IEC protection classes	Class 1	Class 1
Lens	Red borosilicate glass	Red borosilicate glass
Mercury level	5.0 mg	5.0 mg
Housing	Stainless steel AISI 316L	Stainless steel AISI 316L
Weight of the light fitting	11.4 kg	18 kg
Package weight per piece	12.35 kg	19 kg
Package dimensions	400x250x350 mm LxWxH	550x250x350 mm LxWxH
Standard version	Standard Ex e junction box with 3x M25 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Standard Ex e junction box with 3x M25 entries (GRP) Terminals suitable for max. 4 mm²
Emergency Light	--	6 power LED Red (18 W)
Battery	--	Environmentally friendly (no nickel-cadmium), 3 hours battery back-up, Batteries charged within 24 hours, LED Status Indication Automatic test function with indication lights – approx. every 50 days, Fixture with 250 mm cable with Ex plug, Battery pack with Stainless Steel AISI 316L mounting, plate with female Ex connector

Certificate Details

Model	IQL® Taurus 85	IQL® Taurus 85 EM
ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (ATEX)	KEMA 02ATEX1257X	KEMA 06ATEX0261
Certificate (GOST)	POCC NL.HO06.B00732	POCC NL.HO06.B00732
Marking	Ex II 2 GD EEx me II T4 T135 °C	Ex II 2 GD Ex d e mb IIC T4 T135 °C IP66
ABS Rules PDA Certificate	14-LD1100054D-PDA	14-LD1100054D-PDA
CE	Yes	Yes

Optional

Voltage range	100 – 120 Vac/dc ± 6 %	--
High temperature	Up to +55 °C Ambient	--
Cable	On request	On request
Mounting brackets	On request	On request
(R)-version	Faraday cage	--
Overvoltage protection	On request	--
Press edition	On request	On request

The IQL® Taurus Obstruction Warning Light with an excellent light output of up to 6,200 lumens and a power consumption of only 85 watts.

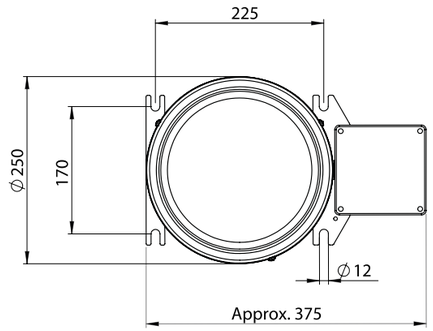
GRP junction box

Faraday cage

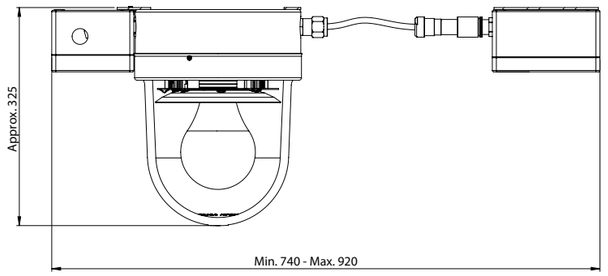
Replaceable external battery pack

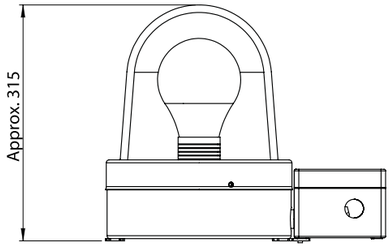
Strain Relief Kit

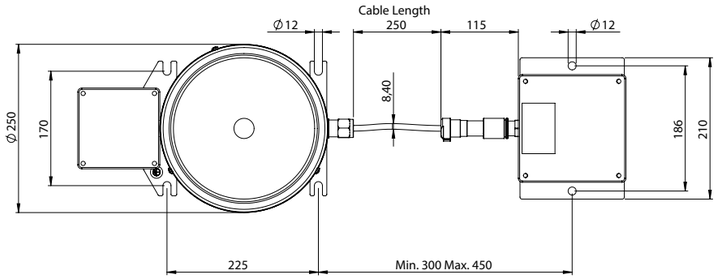
IQL® Taurus 85



IQL® Taurus 85 EM





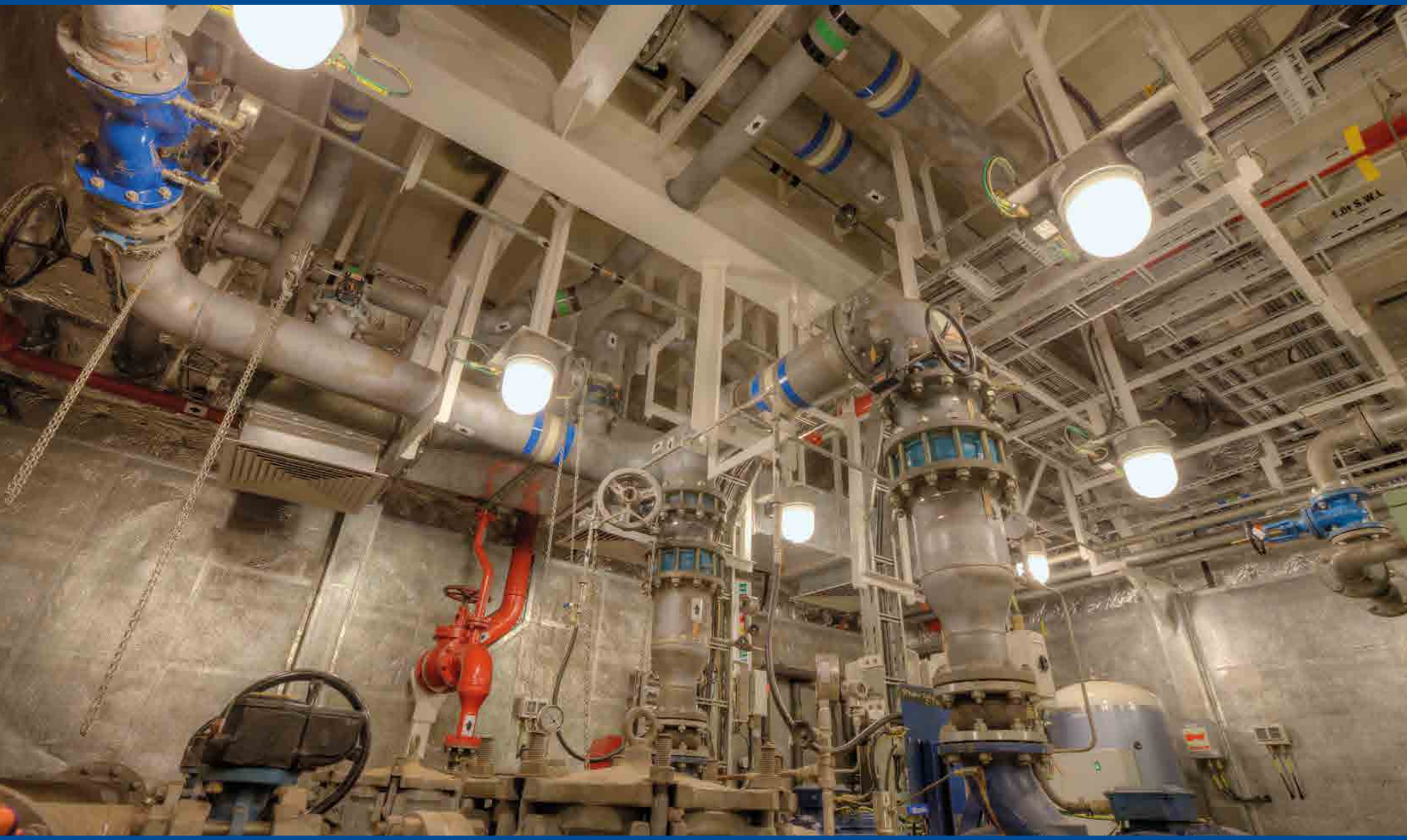


Article Code	Version	Wattage	Voltage	Connection	Weight
EQNI4BG0C241	Ex	85 W	230 Vac	Ex e junction box with 3x M25 entries	11.4 kg
EQNI4BG0C441	Safe Area	85 W	230 Vac	Standard junction box with 3x M25 entries	11.4 kg
EQNI4BG0E241	Ex	85 W	230 Vac	Ex e junction box with 3x M20 entries	11.4 kg
EQNI4BG0E441	Safe Area	85 W	230 Vac	Standard junction box with 3x M20 entries	11.4 kg
EQRI4BG0C242	Ex	85 W	230 Vac	Ex e junction box – 3x M25 entries with Emergency battery backup	18 kg
EQRI4BG0C442	Safe Area	85 W	230 Vac	Standard junction box – 3x M25 entries with Emergency battery backup	18 kg

Accessories

Article Code	Version	Weight
EDISTRAINKIT	Strain Relief Kit for IQL Taurus	1.1 kg

IQL® General Lighting




MAIN HOOK
W.L.L.2x500 T
AUX. HOOK
W.L.L. 50 T
S/No. 1651

IQL® Centaur Multi Purpose General Light

Overview

With its robust design and a power consumption of just 85 watts, yet with an impressive light output of 6,200 lumens, the IQL Centaur is an absolutely ideal all-round luminaire for industrial applications – both indoors and outdoors. The IQL Centaur is hermetically sealed, so as to ensure that environmental conditions do not affect the functionality of the luminaire.

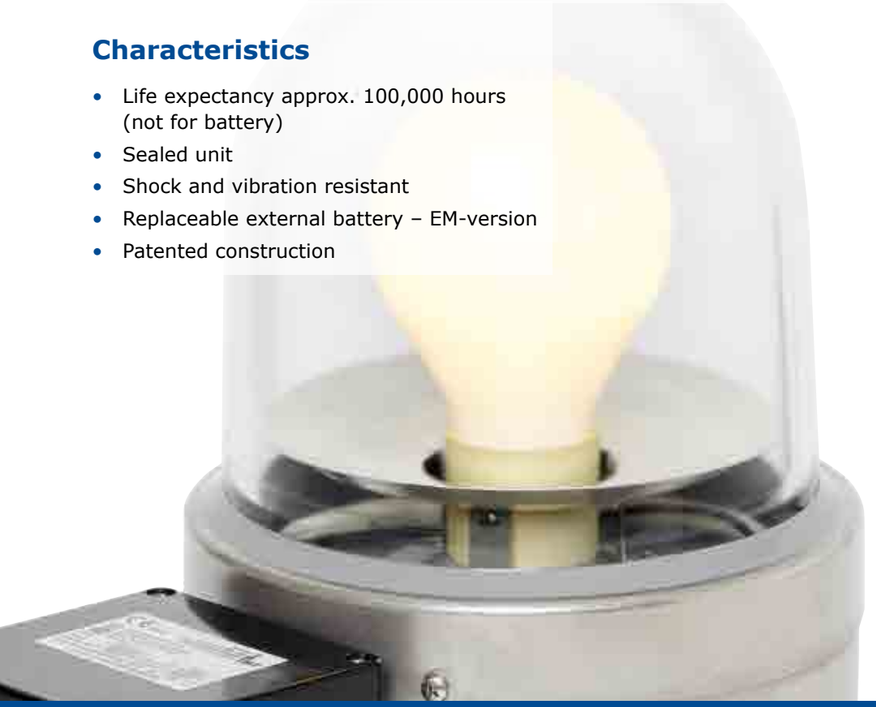
The main housing, mounting plate and fastenings are made of high quality stainless steel AISI 316L. The IP66 rated junction box is protected by a sealing and packing which is made from highly weather and seawater resistant material, thus ensuring the unit is impermeable to moisture – making the IQL Centaur ideal for general lighting in any environment – be it chemical plants, power stations, sewers and water treatment facilities as well as offshore oil, gas and wind farm facilities.

The lens is made out of borosilicate glass – which is especially shock resistant and break proof – available in either clear or frosted finish. The IQL Centaur when fitted with the frosted lens is especially ideal for use in the work Area, where a high level of illumination without glare is required. In terms of light colour, it is possible to choose between; Standard White (colour 830), Warm White (colour 827), Cool White (colour 840) and ClearSky (colour 290).

The IQL Centaur 85 EM-version with LED emergency light has a replaceable external battery pack, which supplies a 3-hour emergency power source. The battery pack is connected to the fixture with a 250 mm long Ex-link cable. The emergency lighting unit which comprises of 6 power LEDs is subjected every 50 days to an automatic test to check system functionality. In order to further reduce impact on the environment, the battery pack has no nickel-cadmium.

Characteristics

- Life expectancy approx. 100,000 hours (not for battery)
- Sealed unit
- Shock and vibration resistant
- Replaceable external battery – EM-version
- Patented construction



Technical Details

Model	IQL® Centaur 85	IQL® Centaur 85 EM
Light source	QL (Induction)	QL (Induction)
Luminous flux (light source)	6,200 lm	6,200 lm
Luminous flux (light source) lm/W	73 lm/W	73 lm/W
Lamp lumen depreciation	30 % loss after 60,000 hours	30 % loss after 60,000 hours
System power	85 W	85 W
Light colour	Standard White (colour 830)	Standard White (colour 830)
Colour rendering	Ra>80	Ra>80
Ambient temperature	-40 °C up to +40 °C	-20 °C up to +40 °C
Burning position	Universal	Universal
(Re)ignition	Immediate	Immediate
Voltage range	200 – 277 Vac ± 6 %	200 – 277 Vac ± 6 %
Power factor/Cos φ	>0.98	>0.98
IP Rating	IP66	IP66
IEC protection classes	Class 1	Class 1
Lens	Clear borosilicate glass	Clear borosilicate glass
Mercury level	5.0 mg	5.0 mg
Housing	Stainless steel AISI 316L	Stainless steel AISI 316L
Weight of the light source	12 kg	18 kg
Package weight per piece	13 kg	19 kg
Package dimensions	250x400x350 mm LxWxH	550x250x350 mm LxWxH
Standard version	Ex e junction box 3x M25 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Ex e junction box 3x M25 entries (GRP) Terminals suitable for max. 4 mm²
Emergency Light	--	6 power LED (18 W) White
Battery	--	Environmentally friendly (no nickel-cadmium); +3 Hours battery back-up – Batteries charged within 24 hours; LED Status Indication; Automatic function test with indication lights – approx. every 50 days; Fixture with 250 mm cable with Ex plug; battery pack with Stainless Steel AISI 316L mounting plate; with female Ex connector

Certificate Details

Model	IQL® Centaur 85	IQL® Centaur 85 EM
ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21)	Category 2 (Zone 1 and 21)
Certificate (ATEX)	KEMA 02ATEX1257X	KEMA 06ATEX0261
Certificate (GOST)	POCC NL.HO06.B00732	POCC NL.HO06.B00732
Marking	Ex II 2 GD EEx me II T4 T135 °C	Ex II 2 GD Ex d e mb IIC T4 T135 °C IP66
CE	Yes	Yes

Optional

Light colour	Warm White (colour 827), Cool White (colour 840), ClearSky® (colour 290)	Warm White (colour 827), Cool White (colour 840), ClearSky® (colour 290)
Entries	3x M20 entries	3x M20 entries
Voltage range	100 – 120 Vac/dc ± 6 %	--
Lens	Frosted borosilicate glass	Frosted borosilicate glass
External reflector	Narrow or wide beam	Narrow or wide beam
High temperature	Up to +55 °C Ambient	--
Mounting brackets	On request	On request
IP68	On request	--
Cable	On request	On request
Glare Deflector	275, 375 and 475 mm shield – 3 positions, stainless steel AISI 316L	--

The IQL® 85 Centaur Multi Purpose Light with excellent light output of up to 6,200 lumens is consuming only 85 watts power, and has a life expectancy up to 100,000 hours.

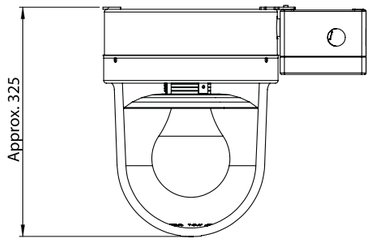
Integrated Reflector

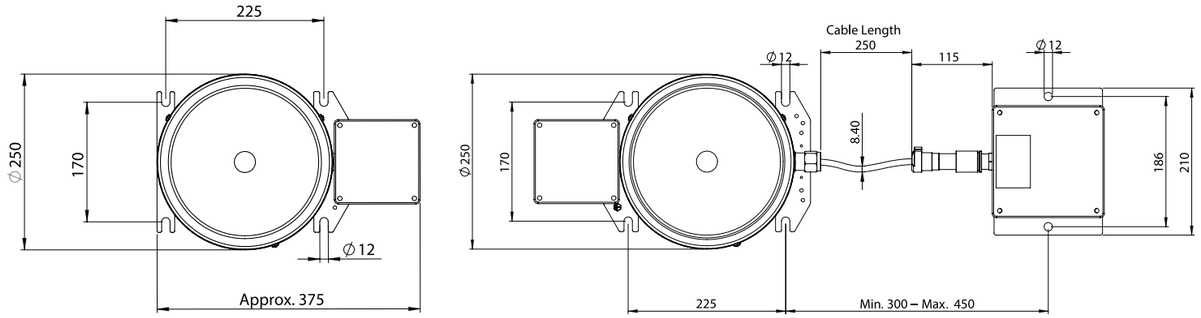
Sealed unit

Replaceable external battery

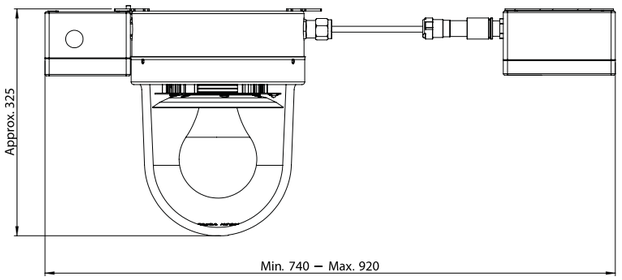
Frosted Glass Version

IQL® Centaur 85

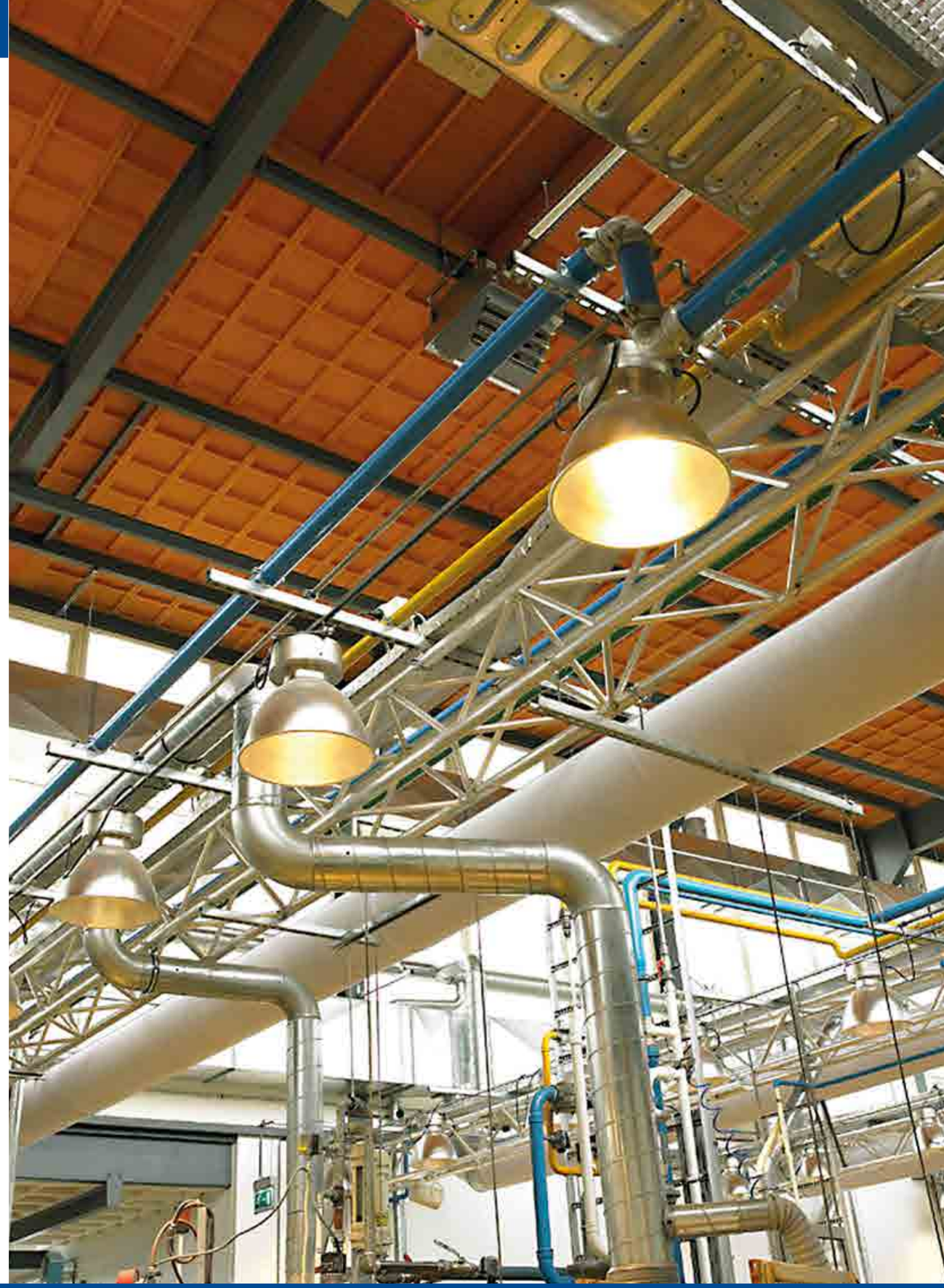




IQL® Cenaur 85 EM



Article Code	Version	Wattage	Voltage	Connection	Weight
EQNI4BC0C241	Ex (Clear)	85 W	230 Vac	Ex e junction box with 3x M25 entries	12 kg
EQNI4BC0E241	Ex (Clear)	85 W	230 Vac	Ex e junction box with 3x M20 entries	12 kg
EQNI4BC0C441	Safe Area (Clear)	85 W	230 Vac	Standard junction box with 3x M25 entries	12 kg
EQNI4BC0E441	Safe Area (Clear)	85 W	230 Vac	Standard junction box with 3x M20 entries	12 kg
EQNI4BE0C241	Ex (Frosted)	85 W	230 Vac	Ex e junction box with 3x M25 entries	12 kg
EQNI4BE0E241	Ex (Frosted)	85 W	230 Vac	Ex e junction box with 3x M20 entries	12 kg
EQNI4BE0C441	Safe Area (Frosted)	85 W	230 Vac	Standard junction box with 3x M25 entries	12 kg
EQNI4BE0E441	Safe Area (Frosted)	85 W	230 Vac	Standard junction box with 3x M20 entries	12 kg
EQRI4BC0C242	Ex (Clear)	85 W	230 Vac	Ex e junction box – 3x M25 entries with Emergency battery backup	18 kg
EQRI4BC0E242	Ex (Clear)	85 W	230 Vac	Ex e junction box – 3x M20 entries with Emergency battery backup	18 kg
EQRI4BE0C242	Ex (Frosted)	85 W	230 Vac	Ex e junction box – 3x M25 entries with Emergency battery backup	18 kg
EQRI4BE0E242	Ex (Frosted)	85 W	230 Vac	Ex e junction box – 3x M20 entries with Emergency battery backup	18 kg



IQL® Centaur Down Light

Overview

The IQL Centaur Down Light is available with either a wide or narrow beam – rated at IP20 and IP54 depending on the configuration required. It is also available certified for use in Ex-hazardous Areas and as an Industrial Safe Area IP66 rated version.

The main application of this luminaire is for the illumination rooms, halls, warehousing magazines, industrial facilities, parking and stairs.

Because of the large reflector radius of the luminaire it is possible to achieve a uniformly lit area to a high lighting level with a reduced number of fixtures.

The IQL Centaur Down Light in the spot beam variant is ideal for when precise illumination with high light output is required.

Charateristics

- IQL® 85 – Life expectancy approx. 100,000 hours
- IQL® 165 – Life expectancy approx. 60,000 hours
- Sealed unit
- Shock and vibration resistant
- Patented construction

Technical Details

Model	IQL® Centaur 85 Down Light	IQL® Centaur 165 Down Light
Light source	QL (Induction)	QL (Induction)
Luminous flux (light source)	6,200 lm	12,000 lm
Luminous flux (light source) lm/W	73 lm/W	73 lm/W
Lamp lumen depreciation	30 % loss after 60,000 hours	30 % loss after 60,000 hours
System power	85 W	165 W
Light colour	Standard White (colour 830)	Standard White (colour 830)
Colour rendering	Ra>80	Ra>80
Ambient temperature	-40 °C up to +40 °C	-40 °C up to +40 °C
Burning position	Universal	Universal
(Re)ignition	Immediate	Immediate
Voltage range	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %
Power factor/Cos φ	>0.98	>0.98
IP Rating	IP66	IP20
IEC protection classes	Class 1	Class 1
Lens	Clear borosilicate glass	--
External Reflector	Aluminum	Aluminum
Mercury level	5.0 mg	7.0 mg
Housing	Stainless steel AISI 316L	Stainless steel AISI 316L
Weight of the light source	13 kg	13 kg
Package weight per piece	14 kg	14 kg
Package dimensions	500x500x480 mm (N) LxWxH 550x550x550 mm (W) LxWxH	500x500x480 mm (N) LxWxH 550x550x550 mm (W) LxWxH
Standard version	Ex e junction box 3x M25 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring	Standard junction box 3x M25 entries (GRP) Terminals suitable for max. 4 mm² Suitable for through wiring

Certificate Details

Model	IQL® Centaur 85 Down Light	IQL® Centaur 165 Down Light
ATEX classification	Group II, Category 2, Gas and Dust	--
Area classification	Category 2 (Zone 1 and 21)	--
Certificate (ATEX)	KEMA 02ATEX1257X	--
Certificate (GOST)	POCC NL.HO06.B00732	--
Marking	Ex II 2 GD EEx me II T4 T135 °C	--
CE	Yes	Yes

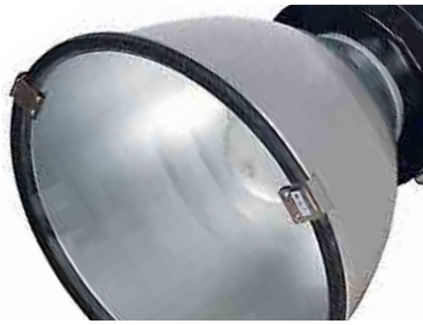
Optional

Light colour	Warm White (colour 827), Cool White (colour 840), ClearSky® (colour 290)	Warm White (colour 827), Cool White (colour 840), ClearSky® (colour 290)
Voltage range	100 – 120 Vac/dc ± 6 %	100 – 120 Vac/dc ± 6 %
High temperature	Up to +55 °C Ambient	--
Beam	Wide or narrow	Wide or narrow
Coversheet	Frosted polycarbonat Frosted borosilicate glass Clear polycarbonat Clear borosilicate glass	Frosted polycarbonat Frosted borosilicate glass Clear polycarbonat Clear borosilicate glass
Mounting brackets	On request	On request
Industrial version – non-ex	IP20 – without coversheet IP54 – with coversheet	IP54 – with coversheet
Cable	On request	On request

The IQL® Centaur Down Light with its exceptional light output of up to 6,200 lumens and a power consumption of just 85 watts, has a life expectancy of up to 100,000 hours.

Narrow Beam – IQL® Centaur 85

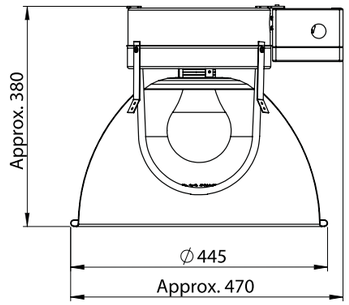
Wide Beam – IQL® Centaur 85

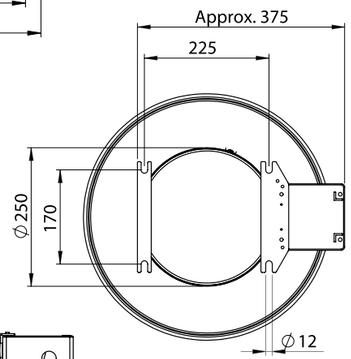


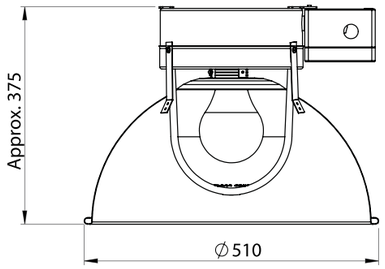
IP54-version – IQL® Centaur 165

Aluminium Reflector

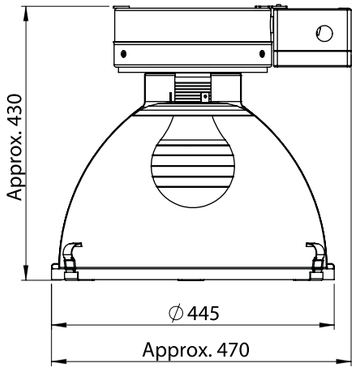
IQL® Centaur 85 Down Light

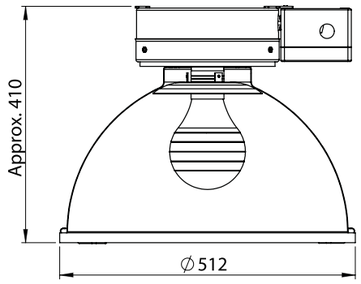






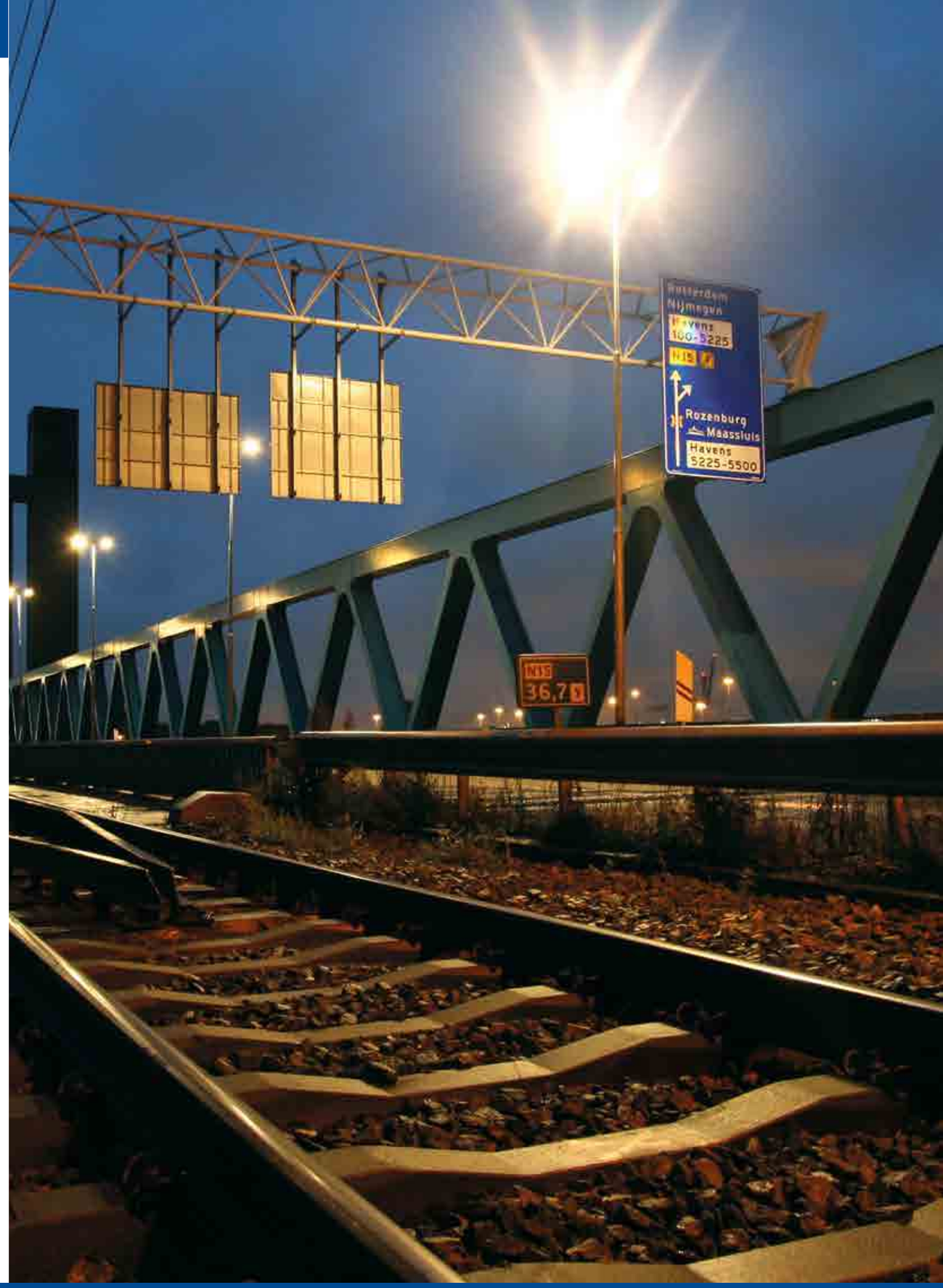
IQL® Centaur 165 Down Light





Article Code	Version	Wattage	Voltage	Connection	Weight
EQNI4BC1C241	Narrow beam – Ex	85 W	230 Vac	Ex e junction box with 3x M25 entries	13 kg
EQNI4BC1C441	Narrow beam – IP66	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNI4BL1C421	Narrow beam – IP54	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNI4BA1C411	Narrow beam – IP20	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNJ4BL1C421	Narrow beam – IP54	165 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNJ4BA1C411	Narrow beam – IP20	165 W	230 Vac	Standard junction box with 3x M25 entries	13 kg

Article Code	Version	Wattage	Voltage	Connection	Weight
EQNI4BC2C241	Wide beam – Ex	85 W	230 Vac	Ex e junction box with 3x M25 entries	13 kg
EQNI4BC2C441	Wide beam – IP66	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNI4BL2C421	Wide beam – IP54	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNI4BA2C411	Wide beam – IP20	85 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNJ4BL2C421	Wide beam – IP54	165 W	230 Vac	Standard junction box with 3x M25 entries	13 kg
EQNJ4BA2C411	Wide beam – IP20	165 W	230 Vac	Standard junction box with 3x M25 entries	13 kg



IQL® Albireo Floodlight

Overview

Robust yet light in weight, the IQL Albireo Floodlight is a proven alternative to other light sources.

The IQL Albireo is available as either an Ex-hazardous Area or Industrial Safe Area version – both of which are manufactured as sealed units.

The GRP Ex e junction box contains sealing material which is highly resistant to weather and seawater.

Characteristics

- IQL® Albireo 55/85 – Life expectancy approx. 100,000 hours
- IQL® Albireo 165 – Life expectancy approx. 60,000 hours
- Sealed unit
- Shock and vibration resistant
- Patented construction
- Lightweight

Technical Details

Model	IQL® Albireo 55	IQL® Albireo 85	IQL® Albireo 165
Light source	QL (Induction)	QL (Induction)	QL (Induction)
Luminous flux (light source)	3,650 lm	6,200 lm	12,000 lm
Luminous flux (light source) lm/w	66 lm/W	73 lm/W	73 lm/W
Lamp lumen depreciation	30 % loss after 60,000 hours	30 % loss after 60,000 hours	30 % loss after 60,000 hours
System power	55 W	85 W	165 W
Light colour	Standard White (colour 830)	Standard White (colour 830)	Standard White (colour 830)
Colour rendering	Ra>80	Ra>80	Ra>80
Ambient temperature	-40 °C up to +40 °C	-40 °C up to +40 °C	-40 °C up to +40 °C
Burning position	Universal	Universal	Universal
(Re)ignition	Immediate	Immediate	Immediate
Voltage range	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %
Power factor/Cos φ	>0.98	>0.98	>0.98
IP Rating	IP66	IP66	IP66
IEC protection classes	Class 1	Class 1	Class 1
Lens	Toughened glass	Toughened glass	Toughened glass
Mercury level	5.0 mg	5.0 mg	7.0 mg
Housing	Aluminium seawater resistant	Aluminium seawater resistant	Aluminium seawater resistant
Housing colour	RAL 7032 (grey)	RAL 7032 (grey)	RAL 7032 (grey)
Weight of the light fitting	10.6 kg	10.6 kg	15 kg
Package weight	12.3 kg	12.3 kg	17 kg
Package dimensions	400x400x620 mm LxWxH	400x400x620 mm LxWxH	LxWxH 400x400x620 mm
Standard version	Ex e junction box with 1x M25 entries (GRP) Terminals suitable for max. 4 mm²	Ex e junction box with 1x M25 entries (GRP) Terminals suitable for max. 4 mm²	Ex e junction box with 1x M25 entries (GRP) Terminals suitable for max. 4 mm²

Certificate Details

Model	IQL® Albireo 55	IQL® Albireo 85	IQL® Albireo 165
ATEX classification	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust	Group II, Category 2, Gas and Dust
Area classification	Category 2 (Zone 1 and 21, 2 and 22)	Category 2 (Zone 1 and 21, 2 and 22)	Category 2 (Zone 1 and 21, 2 and 22)
Certificate (ATEX)	KEMA 02ATEX1257X	KEMA 02ATEX1257X	KEMA 02ATEX1257X
Certificate (GOST)	POCC NL.HO06.B00732	POCC NL.HO06.B00732	POCC NL.HO06.B00732
Marking	Ex II 2 GD Ex e mb T4 T135 °C	Ex II 2 GD Ex e mb T4 T135 °C	Ex II 2 GD Ex e mb T3 T160 °C
CE	Yes	Yes	Yes

Optional

Light colour	Warm White (colour 827) Cool White (colour 840) ClearSky® (colour 290)
Voltage range	100 – 120 Vac/dc ± 6 %
Cable	On request
Mounting	Stainless steel AISI 316L mounting bracket

The IQL® Albireo Floodlight with an excellent light output up to 12,000 lumen and a life expectancy up to 100,000 hours.

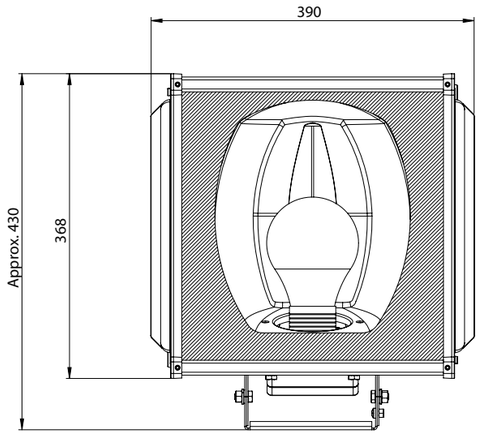
Sealed unit

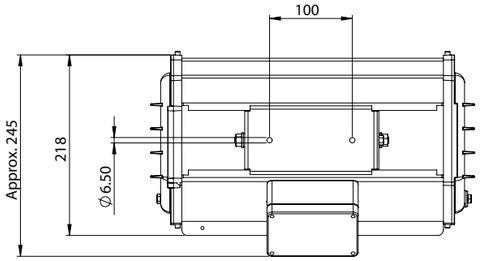
Marine Grade Aluminium

Bracket – Stainless steel

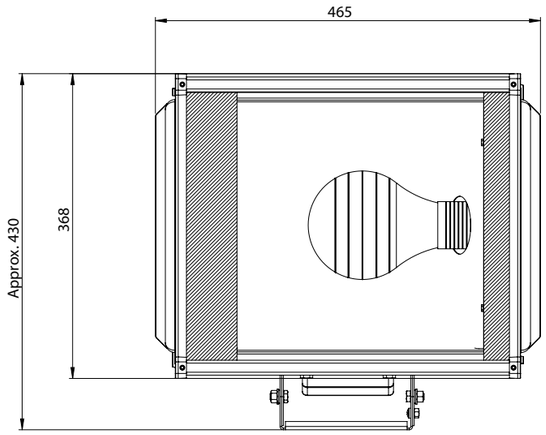
Ex e junction box

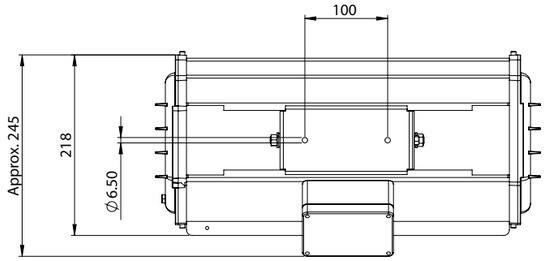
IQL® Albireo 55/85



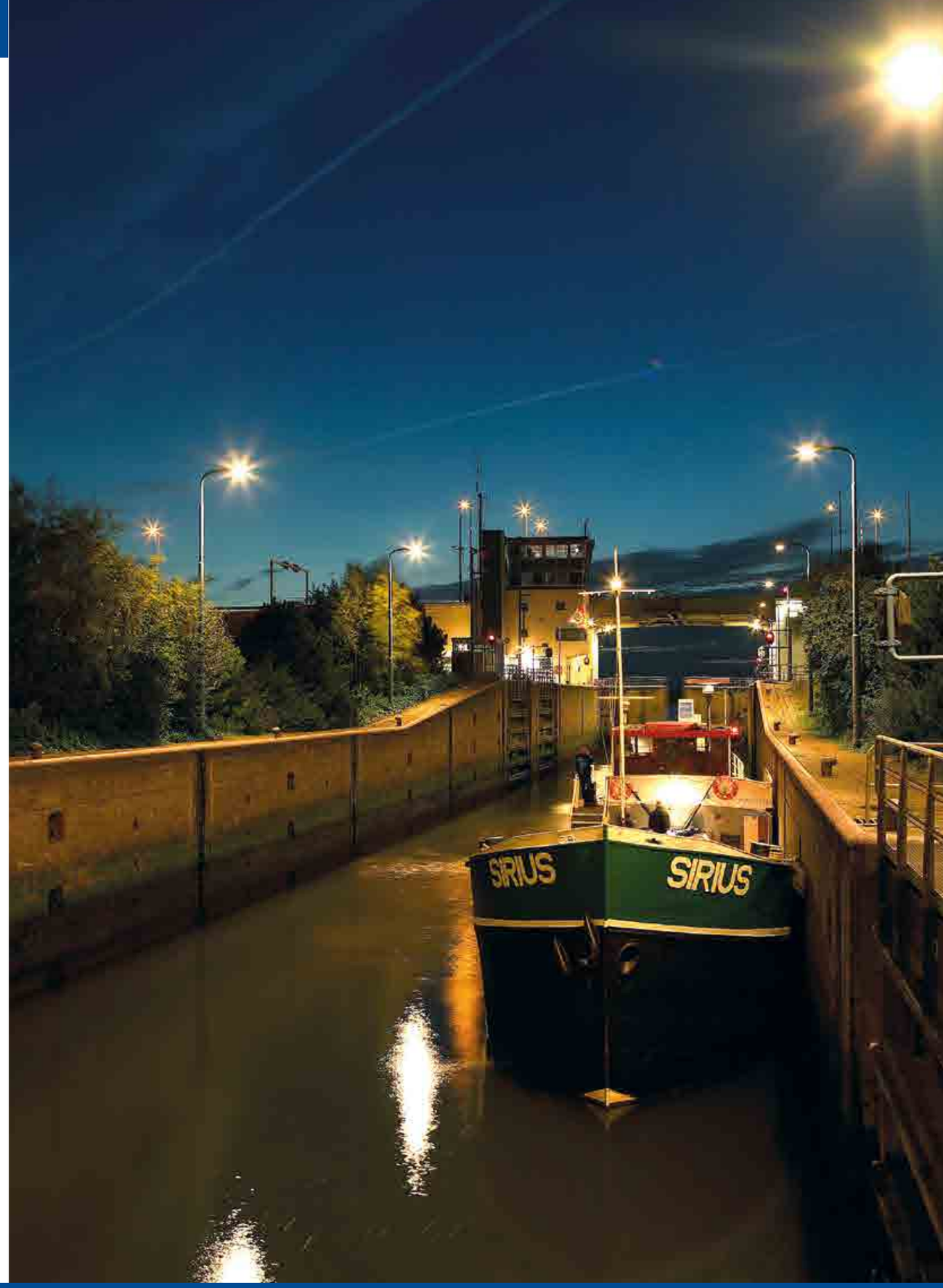


IQL® Albireo 165





Article Code	Version	Wattage	Voltage	Connection	Weight
EQFH4BA0B241	Ex	55 W	230 Vac	Ex e junction box with 2 x M25 x1.5 entries	10.6 kg
EQFH4BA0B441	Safe Area	55 W	230 Vac	Standard junction box with 2 x M25 x1.5 entries	10.6 kg
EQFI4BA0B241	Ex	85 W	230 Vac	Ex e junction box with 2 x M25 x1.5 entries	10.6 kg
EQFI4BA0B441	Safe Area	85 W	230 Vac	Standard junction box with 2 x M25 x1.5 entries	10.6 kg
EQFJ4BA0B241	Ex	165 W	230 Vac	Ex e junction box with 2 x M25 x1.5 entries	15.0 kg
EQFJ4BA0B441	Safe Area	165 W	230 Vac	Standard junction box with 2 x M25 x1.5 entries	15.0 kg



IQL® Helios Street Light

Overview

The IQL Helios Street Light is designed so it can be wall or pole mounted – either from underside or rear. The individual cable management facilitates the installation of the luminaire when mounted on the pole. The cooling fins, which are integrated in the cover of the housing, provide for a more efficient thermal management. The hinges of the lens cover are integrated into the housing without the use of screw fixings and therefore make it more weatherproof and ensure ease of opening for inspection and cleaning purposes.

Due to the special angle of the internal reflector, the light output from the IQL Helios is precisely directed, so minimising light pollution and environmental impact. As well as the standard "Warm White" lamp, there is also the option to fit the ClearSky lamp – a colour rendering light output that is a proven design for further reduction of light pollution and disturbance of wildlife.

Certified to protection class 2, the IQL Helios is provided with a corrosion-resistant snap closure. The closure is designed for single hand operation and so has the addition of a safety strain cable to retain the cover. Customers appreciate the wear-free design of the IQL Helios, with the extremely long operating lifetime and low maintenance.

Characteristics

- IQL® Helios 55/85 – Life expectancy approx. 100,000 hours
- IQL® Helios 165 – Life expectancy approx. 60,000 hours
- Sealed unit electronics
- Shock and vibration resistant
- Patented construction

Technical Details

Model	IQL® Helios 55	IQL® Helios 85	IQL® Helios 165
Light source	QL (Induction)	QL (Induction)	QL (Induction)
Luminous flux (light source)	3,650 lm	6,200 lm	12,000 lm
Luminous flux (light source) lm/w	66 lm/W	73 lm/W	73 lm/W
Lamp lumen depreciation	30 % loss after 60,000 hours	30 % loss after 60,000 hours	30 % loss after 60,000 hours
System power	55 W	85 W	165 W
Light colour	Standard White (colour 830)	Standard White (colour 830)	Standard White (colour 830)
Colour rendering	Ra>80	Ra>80	Ra>80
Ambient temperature	-40 °C up to +40 °C	-40 °C up to +40 °C	-40 °C up to +40 °C
Burning position	Universal	Universal	Universal
(Re)ignition	Immediate	Immediate	Immediate
Voltage range	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %	200 – 277 Vac/dc ± 6 %
Power factor/Cos φ	>0.98	>0.98	>0.98
IP Rating	IP66	IP66	IP66
IEC protection classes	Class 1	Class 1	Class 1
Lens	Toughened glass	Toughened glass	Toughened glass
Mercury level	5.0 mg	5.0 mg	7.0 mg
Housing	Aluminium	Aluminium	Aluminium
Housing colour	Grey RAL 7015 & White RAL 9010	Grey RAL 7015 & White RAL 9010	Grey RAL 7015 & White RAL 9010
Wind load	0.094 m²	0.094 m²	0.143 m²
Weight of the light fitting	8.1 kg	8.1 kg	11.4 kg
Package weight per piece	9.0 kg	9.0 kg	12.5 kg
Package dimensions	700x445x395 mm LxWxH (2 pieces in 1 box)	700x445x395 mm LxWxH (2 pieces in 1 box)	870x515x415 mm LxWxH (2 pieces in 1 box)
Connection non Ex	Standard-3 pole terminal block for max. 2.5 mm²	Standard-3 pole terminal block for max. 2.5 mm²	Standard-3 pole terminal block for max. 2.5 mm²
Pole top	Ø 48 – 60 mm	Ø 48 – 60 mm	Ø 48 – 60 mm

Certificate Details

Model	IQL® Helios 55	IQL® Helios 85	IQL® Helios 165
ATEX classification	Group II, Category 3, Gas and Dust	Group II, Category 3, Gas and Dust	Group II, Category 3, Gas and Dust
Area classification	Category 3 (Zone 2 and 22)	Category 3 (Zone 2 and 22)	Category 3 (Zone 2 and 22)
Certificate (ATEX)	PHX04ATEX1001X	PHX04ATEX1001X	PHX04ATEX1001X
Elexon Charge Code	--	2500853001100	2501653001100
Marking	Ex II 3 GD EEx nA II T4 T135 °C	Ex II 3 GD EEx nA II T4 T135 °C	Ex II 3 GD EEx nA II T3 T160 °C
CE	Yes	Yes	Yes

Optional

Light colour	Warm White (colour 827), Cool White (colour 840), ClearSky® (colour 290)
Voltage range	100 – 120 Vac/dc ± 6 %
(Mounting) angle of inclination	IQL® 55/85 – Horizontally or vertically IQL® 165 – Pole adapter with horizontal scale adjustment (0-5-10-15°) Horizontally or Vertically
Galvanized reducing adapter	For reducing the pole top. From 80 mm to 60 mm Ø.
Connection Ex Zone 2	Standard – 12 m flying lead Type RMcL H07RN-F 3x 2.5 mm²

The IQL® Helios Street Light produces a high light output up to 6200 lumens with a power consumption of just 85 watts – for a life expectancy of up to 100,000 hours.

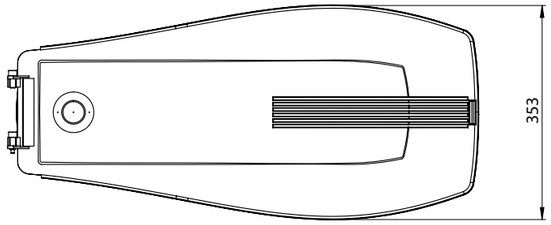
Individual cable management

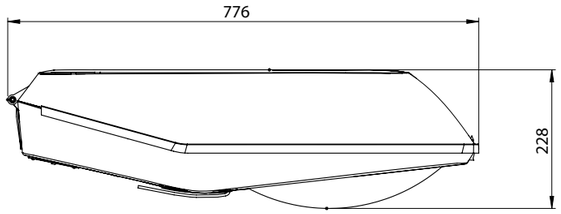
Fully encapsulated electronics

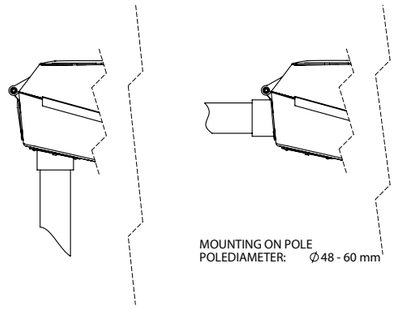
Corrosion-resistant snap closure

Connection protection

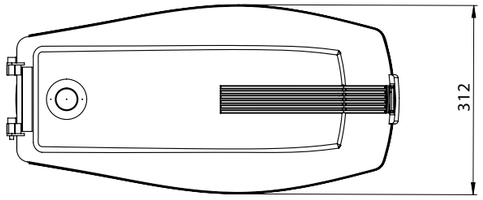
IQL® Helios 55/85

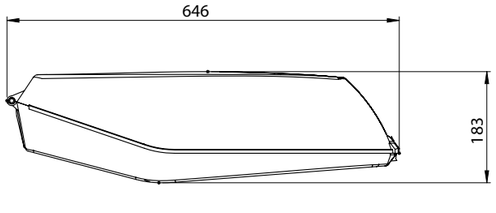


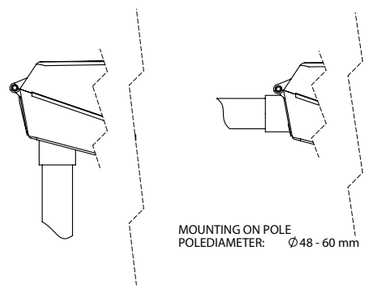




IQL® Helios 165







Article code	Version	Wattage	Voltage	Connection	Weight
EQJH4BA0F341	Ex (Zone 2)	55 W	230 Vac	Standard – 12 m cable	10.5 kg
EQJH4BAI441	Safe Area	55 W	230 Vac	Standard – 3 pole terminal block	8.1 kg
EQJI4BA0F341	Ex (Zone 2)	85 W	230 Vac	Standard – 12 m cable	10.5 kg
EQJI4BA0I441	Safe Area	85 W	230 Vac	Standard – 3 pole terminal block	8.1 kg
EQJJ4BA0F341	Ex (Zone 2)	165 W	230 Vac	Standard – 12 m cable	13.8 kg
EQJJ4BA0I441	Safe Area	165 W	230 Vac	Standard – 3 pole terminal block	11.4 kg

Spares

Article Code	Version	Description	Weight
CDI0015	Pole adapter	IQL Helios 165 – Pole adapter with horizontal scale adjustment	0.5 kg
CDI0167	Reducing pole adapter	Custom made, for reducing the pole top	2.7 kg

IQL® Retro-fit Street Light

Procedure

Existing luminaires are inspected and evaluated to determine the best possible solution for having the IQL® retro-fitted.

A complete refurbishment service is also available.

Characteristics

- 100,000 operational hours low maintenance
- Sealed unit electronics
- Shock and vibration resistant
- Patented construction

Technical Details

Housing	Existing lighting fixture
Colour Rendering	RA>80
Lamp Colour	Standard White (colour 830)
IP Rating electronics	IP67
Voltage Range	200 – 277 Vac/dc 50/60 Hz ± 6 % or 100 – 120 Vac/dc ±6 %
(Re)ignition	Instant
Ambient Temperature	-40 °C up to +40 °C
Power Factor/Cos φ	>0.98
Connection	As requested

Optional

Lamp Colour	Warm White (colour 827) Cool White (colour 840) ClearSky® (colour 290)
Wattage	55 W, 85 W and 165 W
Reflector	Adapted to circumstances
Assembly/disassembly	On request

No articlecode available – all Retro-fits are Custom made.

Examples of IQL® Retro-fit Solutions:

No articlecode available – all Retro-fits are Custom made.

SigMare® Offshore Wind

SigMare® AL-LED Floodlight Series

Overview

The AL Series is suitable for lighting objects that cannot be easily located, such as offshore wind farms. The light source comes in two versions (100 or 30 degrees beam angle). The LEDs are powered by an automatic regulating current source with reverse polarity protection. LEDs and electronics are moulded in an epoxy compound.

Light output can be factory set. The floodlight can be supplied with integrated daylight sensor:

- Turning on the light at dusk and off at dawn
- Low power consumption means the floodlight is suitable for solar powered systems
- No lamp changes are required
- Maintenance costs are a fraction compared to lamp based floodlights

Characteristics

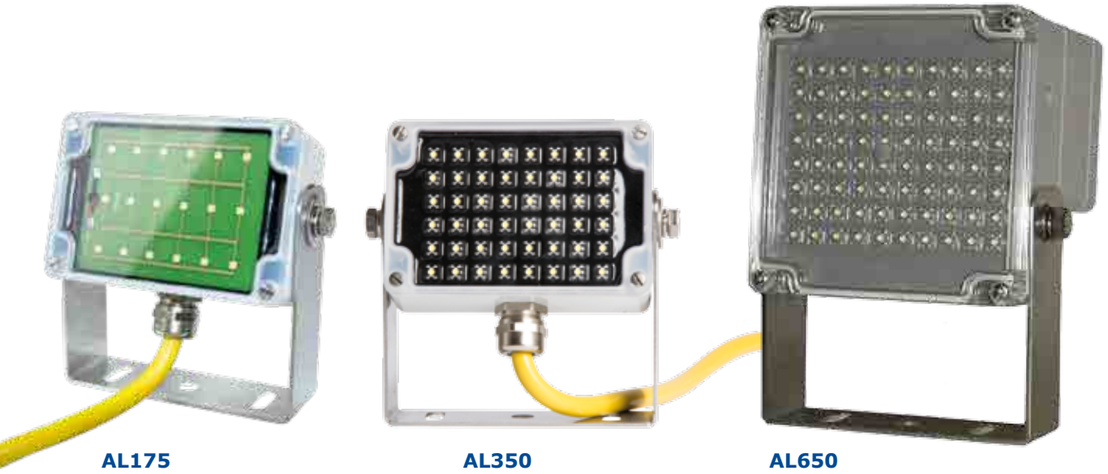
- Extremely saltwater-resistant housing
- Electronic components completely tech moulded
- Very low power consumption
- Small wind load
- Extremely long life LED's

Technical Details

Model	SigMare® AL175 LED Floodlight	SigMare® AL350 LED Floodlight	SigMare® AL650 LED Floodlight	SigMare® ALD650 LED Floodlight
Light source	LED	LED	LED	LED
Light output	190 lm	309 lm	> 1,000 lm	1,000 lm
Light colour	White	White	White	White
Horizontal emission	100° (wide beam)	100° (wide beam)	30° (narrow beam)	30° (narrow beam)
Housing	ABS (Acrylnitril-butadien-styrol)	ABS (Acrylnitril-butadien-styrol)	ABS (Acrylnitril-butadien-styrol)	ABS (Acrylnitril-butadien-styrol)
IP Rating	IP68	IP68	IP68	IP68
Ambient temperature	-30 °C up to + 45 °C	-30 °C up to + 45 °C	-30 °C up to + 45 °C	-30 °C up to + 45 °C
Voltage range	12 – 30 Vdc	12 – 30 Vdc	12 – 30 Vdc	12 – 30 Vdc
Systempower	approx. 1.6 W	approx. 4 W	approx. 12 W	approx. 12 W
Mounting	Stainless steel handle, fully adjustable	Stainless steel handle, fully adjustable	Stainless steel handle, fully adjustable	Stainless steel handle, fully adjustable
Connection	PG 13.5 cable gland; Polyurethane power supply cable, 6 m standard length	PG 13.5 cable gland; Polyurethane power supply cable, 6 m standard length	PG 13.5 cable gland; Polyurethane power supply cable, 6 m standard length	PG 13.5 cable gland; Polyurethane power supply cable, 6 m standard length
Weight	0. kg	0.45 kg	0.9 kg	approx. 1.4 kg

Optional

Light options	--	Integrated daylight sensor	Integrated daylight sensor	--
Light distribution	30°	30°	100°	100°
Voltage/Power	230 Vac	230 Vac	230 Vac	--

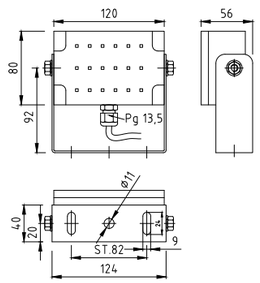


AL175 AL350 AL650

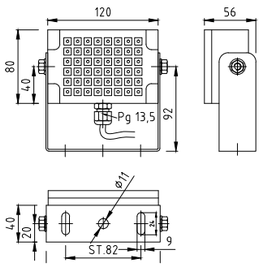
ALD650 (redundant)

Technical Drawings

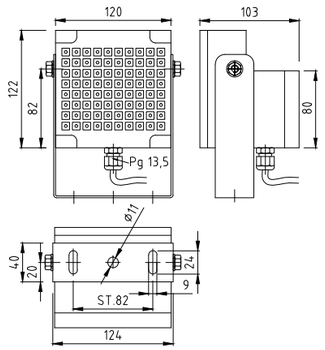
AL175



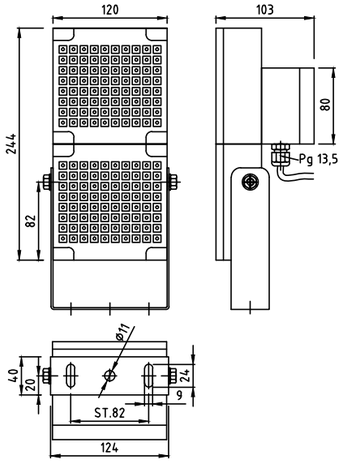
AL350



AL650



ALD650



AL200 2-5 NM LED Beacon

Overview

The AL200 is a superb LED beacon with advanced specifications. Provided with a horizontal scattering lens, it provides consistent horizontal divergence. The light source is formed through horizontally placed, high intensity LEDs. The base is made of rugged polyurethane, while the top of the lantern is marine grade aluminium, coated with two layers of high impact epoxy coating. The colour is the same as the emitted light.

A membrane is incorporated for air pressure equalisation and for blocking moisture from entering the casing. For synchronising with other lanterns, the flasher has a hard-wired input/output connection. The lantern can also synchronise with the sync GPS receiver.

Technical Details

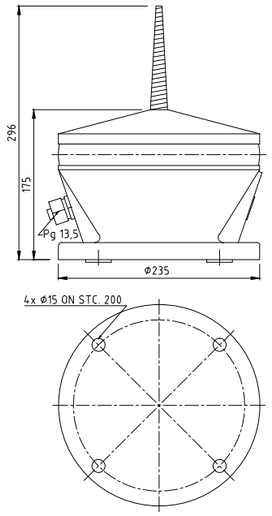
Voltage	12 – 30 Vdc
Lanternbase	Polyuretane
Lantern top	Painted marine grade aluminium
LED type	High intensity, optionally Red, Green, Yellow or White
Horizontal spread	360° optionally 94°, 124° or 184° vertical divergence according to IALA und WSD guidelines
Dimensions in mm	235x296 mm (diameter x hight)
Weight	3.8 kg
Mode of Protection	IP66
Power consumption	Approx. 4 W
Ambient temperature	-30 °C up to + 45 °C
Connection	Sealed with a solid 12 m cable or junction boxon request

Characteristics

- Electronic and optical components completely shed
- Very low power consumption
- Small wind load
- Premium long life LED's

Robust sealed unit Sealantern with LED signals. The Sealantern for offshore-platforms and buoys in sea conditions.

Technical Drawings



Articlecode	Dimensions	Weight
ELM42OA0A46A	235x296 mm (diameter x high)	3.8 kg

ALD200 2-5 NM LED Beacon

Overview

The ALD200 is a superb LED beacon with advanced specifications. Provided with a horizontal scattering lens, it provides consistent horizontal divergence. The light source is formed through horizontally placed, high intensity LEDs. The base is made of rugged polyurethane, while the top of the lantern is marine grade aluminium, coated with two layers of high impact epoxy coating. The colour is the same as the emitted light.

A membrane is incorporated for air pressure equalisation and for blocking moisture from entering the casing. For synchronising with other lanterns, the flasher has a hard-wired input/output connection. The lantern can also synchronise with the sync GPS receiver.

Technical Details

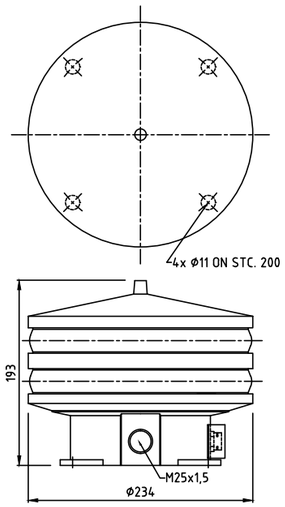
Voltage	12 – 30 Vdc
Housing	Bronze
LED type	High intensity, optionally Red, Green, Yellow or White
Horizontal spread	360° optionally 94°, 124° or 184° vertical divergence according to IALA und WSD guidelines
Dimensions in mm	234x193 mm (diameter x hight)
Weight	10.8 kg
Mode of Protection	IP66
Power consumption	Approx. 4 W
Ambient temperature	-30 °C up to + 45 °C
Connection	Sealed with a solid 12 m cable or junction boxon request

Characteristics

- Electronic and optical components completely shed
- Very low power consumption
- Small wind load
- Premium long lofe LED's

Robust sealed unit Sealantern with LED signals. The Sealantern for offshore-platforms and buoys in sea conditions.

Technical Drawings



Articlecode	Dimensions	Weight
ELM32OADA46A	134x193 mm (diameter x high)	10.8 kg

SKA 3–5 Solar powered LED Beacon

Overview

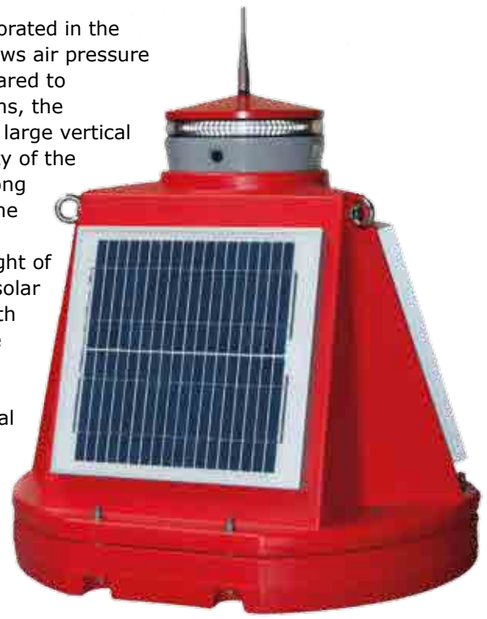
A versatile compact, self contained solar powered 5 NM LED beacon available in Red, Green, Amber, and White colour. Colour chromacity of the emitted light meets IALA specifications.

The light source is formed through horizontally placed LEDs of high intensity and depending on which visibility is needed the light output can be programmed accordingly.Electronics include: charge regulator functions and with the optional infrared remote control any of the 256 pre-programmed IALA flash codes and daylight sensor setpoints can be field programmed. Electrical parameters as battery voltage, and day/night switching point can be read.

As a option the beacon can synchronize by means of the sync GPS receiver. The beacon is designed and constructed to operate without servicing or maintenance for up to 5 years. The electrical system can be equipped with a 38 or 100 Amph. battery The integral battery is charged by 3 integrated 12 watt mono cristallyne solar generators.

Charge characteristics in overcast conditions are superb and due to the well dimensioned battery pack this beacon is specially suited for regions with low sun irradiations. The beacon is made of self coloured polyethelene and is provided with 3 mounting holes on a 550 mm. circle to enable easy mounting on buoys or stancions.

A membrane incorporated in the lantern housing allows air pressure equalization. Compared to conventional lanterns, the advantages are the large vertical divergence, intensity of the emitted light, the long life expectancy of the LEDs, and the very high reliability. Weight of this self contained solar powered beacon with a 38 Amph. storage battery is 25 kg, maximum diameter is 700 mm. The focal plane of the light source is 640 mm.



Technical Details

Housing	Polyethelene
Colour	Red, Green or White
Solar panels	3 x 12 W g
Battery	100 AH
Dimensions in mm	700x575 mm (ØxH) (without lantern) 700x902 mm (ØxH) (with lantern)

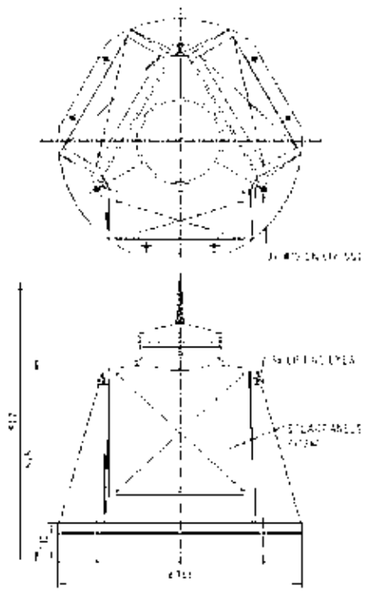
Technical Details LED – 5 NM Lantern

Voltage	8 – 30V
Housing	PUR / Seawater resistant aluminum
Dimensions in mm	235x290 mm (Diameter x Hight)
Weight	3.8 kg
IP Rating	IP68
Light Output	5 NM, Morse Code – "U" every 15 seconds Alternative 5 NM, Yellow Flash frequency of 4s or Ubr. (3) 16s
Input	Approx. 4 W
Ambient temperature	-30 °C up to +45 °C
Connection	Permanently sealed cable in SKA

Options

Infrared-remote control	for each of the 256 preprogrammed IALA flash codes 256
Colours	Green, Yellow or White
Battery	100 Amph
Sync	GPS

Technical Drawings



LED Marking Sign

Overview

ILED Illuminated marking sign for the marking of offshore structures.

Technical Details

Material Housing	Stainless steel AISI 316L
Material inlet	UV-Proof PMMA
IP Rating	IP66
Dimensions	Approx. 793xWx70 HxWxL (width depending on number and type of characters)
Weight	Approx. 10 kg/character
Installation	Rail mounting
Number of characters per sign	1 – 4
Character height	650 mm
Character width	555 mm (depending on character)
Font	DIN 1451 (Sans serif)
Light colour	Yellow (592nM)
Light output	0 – 10 cd/m², adjustable
Light source	LED
Visibility distance	500 m
Voltage range	24 Vdc
Power consumption	Approx. 1.5 W/character
Ambient temperature	-30 °C up to +45 °C
Electrical connection	Flying lead (Length on customers request)
Regulations	BSH (Germany)

Articlecode	Number of characters	Nominal voltage	Connection	Weight
SigMare LT10 Invers	1	24 Vdc	Flying lead	10 kg
SigMare LT10 Invers 2	2	24 Vdc	Flying lead	20 kg
SigMare LT10 Invers 3	3	24 Vdc	Flying lead	30 kg
SigMare LT10 Invers 4	4	24 Vdc	Flying lead	40 kg

GPS Module and Antenna

Overview

A GPS time-controlled synchronisation pulse harmonised to UTC 00:00:00. With an astronomical clock for day/night light control and external GPS antenna, the SigMare GPS can synchronise all SigMare Navigation Lights and is suitable for mounting on din rails.

Affording low power consumption and designed for low power battery operation, it is plug and play and easy to maintain.

Technical Details Modul

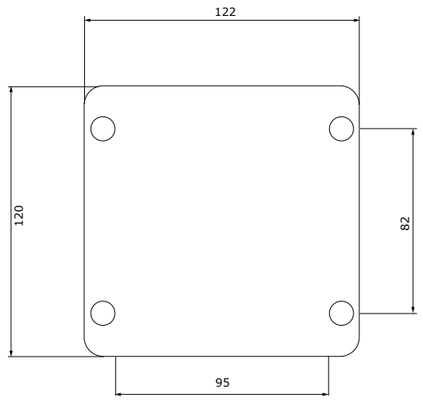
Application	GPS synchronisation
Power supply	9 – 30 Vdc (12 Vdc nominal)
Power consumption	<0.2 W nominal
GPS Antenna connector	BNC Female
Dimensions	85x35x60 mm LxWxH
Weight	150 g
Mounting	Din Rail, or stainless steel cabinet for outdoor use

Technical Details Antenna

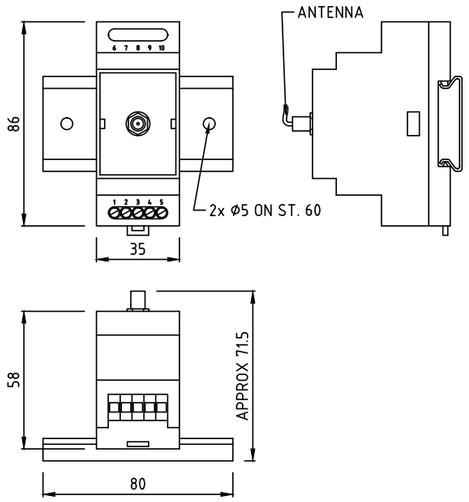
Housing	GRP
Gasket	EPDM
Dimensions	120x122x90 mm
IP Rating	IP66
Colour	RAL 7001
Electrical insulation	Totally insulated
Ambient temperature	-40 °C up to +80 °C
DC Levels Consumption	3.0 V ± 0.3 V 20 mA max
Output Impendance	50 Ω
LNA Noise Figure	1.5 dB max. (25 °C) 2.2 dB max. (85 °C)
Mounting	SMA connectors
Frequency range	1,575.42 MHz
Gain	Up to 28 dBi @ 25 °C
Active GPS antenna	Low noise amplifier

Technical Drawings

Antenna



Modul



Articlecode	Version	Weight
CSM0936	GPS Modul and Antenna with 9 m cable	3.22 kg

Control Panels

Control Panels – CIRCLE-H® Ex

Overview

IMT's sustainable philosophy ia also to be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

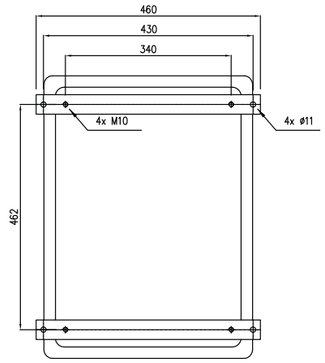
Ambient temperature	-0 °C up to +100 °C or -50 °C up to +50°C
IP Rating	IP66 IP67 on request
Enclosure type*	EJB 15A
Dimensions*	580x428x273 mm
Material	Seawater resistant aluminium Stainless Steel 304/316 on request
Finish	Polyester powder coating RAL 7005
Control voltage	24 Vdc
Incoming voltage	24 Vdc or 110 – 230 Vac
Indication lamps on cover	Power on System on Common system alarm
Entries	M20/M25
Operator buttons on cover	Lamp test System on/off
Stadard system inputs	System on
Standard system volt free outputs	System on Common system alarm

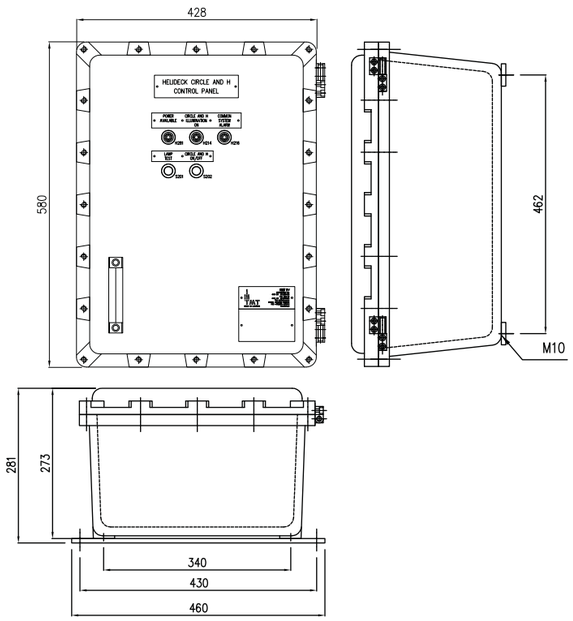
Certification Details

ATEX classification	Group II, Category 2, Gas and Dust
Area Classification	Category 2 (Zone 1 and 21)
Certificate	INERIS 10ATEX0035
Marking	Ex II 2GD Ex d IIB, Ex tD A21 Ex d [id Gb] IIB T6 Gb Ex tb [ibD] IIIC T85° C Db

*Photos and dimensions may differ from reality.

Technical Drawings





No articlecode available – all Control Panels are Custom made.

Control Panels – CIRCLE-H® Safe Area

Overview

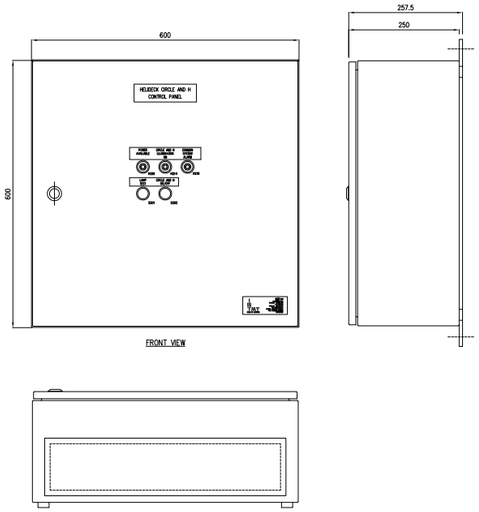
IMT's sustainable philosophy ia also to be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

Housing	Sheet Steel
Ambient temperature	0 °C up to +40 °C
IP Rating	IP66
Dimensions*	600x600x250 mm
Material	Stainless Steel 304, Stainless Steel AISI 316 on request
Finish	Coating RAL 7035
Incoming Voltage	24 Vdc or 110 – 230 Vac
Indication lamps on cover	Power on System on Common system alarm
Entries	M20/M25
Operator buttons on cover	Lamp test System on/off
Stadard system inputs	System on
Standard system volt free outputs	System on Common system alarm

Photos and dimensions may differ from reality

Technical Drawings



No articlecode available – all Control Panels are Custom made.

Control Panels – Helideck HSLS Ex

Overview

Combined control and distribution panel for the helideck lighting and the Helideck Status Light or Wave Off System as per CAP 437 and IMO Modu Code.

IMT's sustainable philosophy ia also to be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

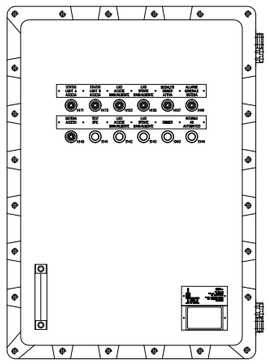
Ambient temperature	-20 °C up to +40 °C -50 °C up to +55 °C on request
IP Rating	IP66 IP67 on request
Enclosure type*	EJB 18A
Dimensions*	735x535x281 mm
Material	Seawater resistant aluminium Stainless Steel 304/316 on request
Finish	Polyester powder coating RAL 7005
Incoming voltage	24 Vdc 24 Vdc or 110 – 230 Vac
Indication lamps on cover	Power on Lights on manually Lights off manually Dimmer mode active Common system alarm Main light A on Main light B on*² Repeater light A on*² Repeater light B on*²
Entries	M20/M25
Operator buttons on cover	Lamp test Dimmer Lights on manually Lights off manually Reset/return to auto
Standard system inputs	FSG input (on/off switching of the system) Dimmer input (for remote dimming facility) ESD input (for immediate off switching of the system in case of an ESD)
Standard system volt free outputs	System on Dimmer on Common system alarm

Certification Details

ATEX classification	Group II, Category 2, Gas
Area Classification	Category 2 (Zone 1 and 21)
Certificate	INERIS 10ATEX0035
Marking	Ex II 2GD Ex d IIB, Ex tD A21

*Photos and dimensions may differ from reality.
*²depending on configuration

Technical Drawings



No articlecode available – all Control Panels are Custom made.

Control Panels – Helideck HSLS Safe Area

Overview

Combined control and distribution panel for the helideck lighting and the Helideck Status Light or Wave Off System as per CAP 437 and IMO Modu Code.

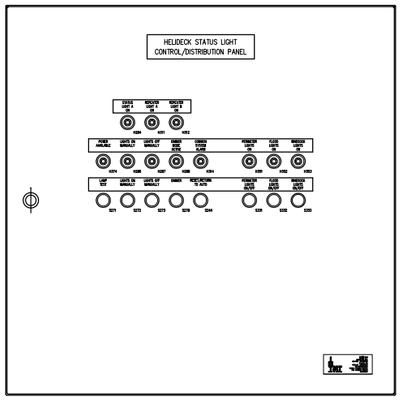
IMT's sustainable philosophy ia also to be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

Housing	Sheet Steel 304/316
Finish	0 °C up to +40 °C
IP Rating	IP66
Ambient temperature	Coating RAL 7035
Incoming voltage	24 Vdc or 100 – 230 Vac
Control voltage	24 Vdc
Distributed voltage	24 Vdc to HSLS lighting 110Vac or 230Vac to helideck lighting
Indication lights	Perimeter lights on Floodlights on Windsock on*² Obstruction lights on*²
Operator buttons on cover	Perimeters on/off Floodlights on/off- wind sock on/off Obstruction lights on/off
Standard system inputs	FSG input (on/off switching of the system) Dimmer input (for remote dimming facility) ESD input (for immediate off switching of the system in case of an ESD)
Standard system volt free outputs	System on Dimmer on Common system alarm

Photos and dimensions may differ based from reality
*² - depending on configuration

Technical Drawings



No articlecode available – all Control Panels are Custom made.

Control Panels – NavAid Ex

Overview

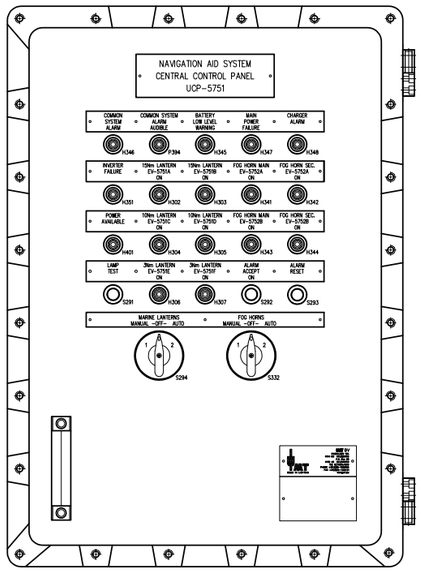
Control, distribution and charger panel for a marine navigation aid system.

IMT's sustainable philosophy can be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

Housing	Marine Grade Cast Aluminium
Finish	Coating RAL 7005
IP Rating	IP66
Ambient temperature	-20 °C up to +40 °C -50 °C up to +55 °C on request
Incoming voltage	24 Vdc or 100 – 230 Vac
Control voltage	24 Vdc
Distributed voltage	24 Vdc or 230 Vac
Indications & Controls	Main light(s) on/off and or manual/remote Secondary light(s) on/off and or manual/remote Subsidiary light(s) on/off and or manual/remote Main foghorn(s) on/off and or manual/remote Secondary foghorn(s) on/off and or manual/remote Main power failure Charger failure Low battery Common alarm
Housing includes	Monitoring of equipment Power conversion and distribution to field equipment Synchronization of lanterns/horns Photocell control Visibility detector control Battery Charger
External inputs	Remote on/off switching of the lanterns/horns As per customer requirement

Technical Drawings



Certification Details

Explosion Proof	ATEX II GD EEx d-IIB-T4

Options

Housing	Frame for free standing Cabinet heater Stainless steel cabinet Ex e termination

*Photos and dimensions may differ from reality.
*[2] Sizing for other configurations on request.

No articlecode available – all Control Panels are Custom made.

Control Panels – NavAid Safe Area

Overview

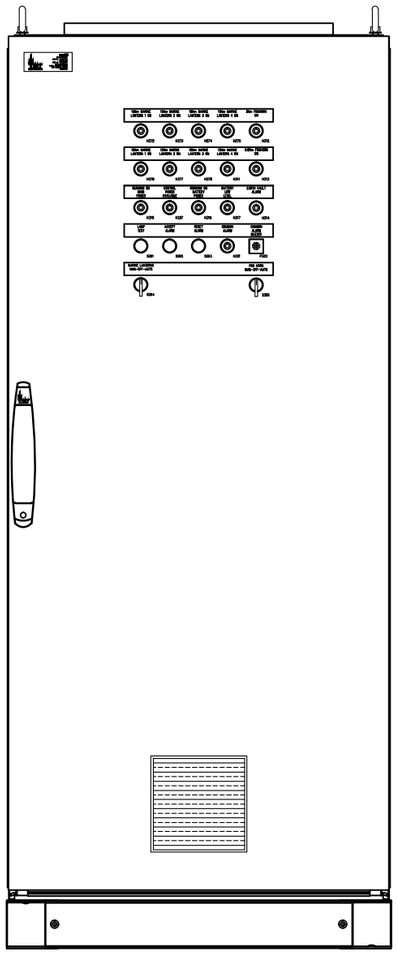
Control, distribution and charger panel for a marine navigation aid system.

IMT's sustainable philosophy can be found in our in-house designed and assembled control panels, by making use of durable materials and fail safe design. Maximum flexibility is achieved by using PLC based controls.

Technical Details

Housing	Sheet steel
Finish	Coating RAL 7035
IP Rating	IP66
Ambient temperature	0 °C up to +40 °C
Dimensions*[2]	800x800x2,000 mm
Incoming voltage	24 Vdc or 100 – 230 Vac
Control voltage	24 Vdc
Distributed voltage	24 Vdc or 230 Vac
Indications & Controls	Main light(s) on/off and or manual/remote Secondary light(s) on/off and or manual/remote Subsidiary light(s) on/off and or manual/remote Main foghorn(s) on/off and or manual/remote Secondary foghorn(s) on/off and or manual/remote Main power failure Charger failure Low battery Common alarm
Housing includes	Monitoring of equipment Power conversion and distribution to field equipment Synchronization of lanterns/horns Photocell control Visibility detector control Battery Charger
External inputs	Remote on/off switching of the lanterns/horns As per customer requirement

Technical Drawings



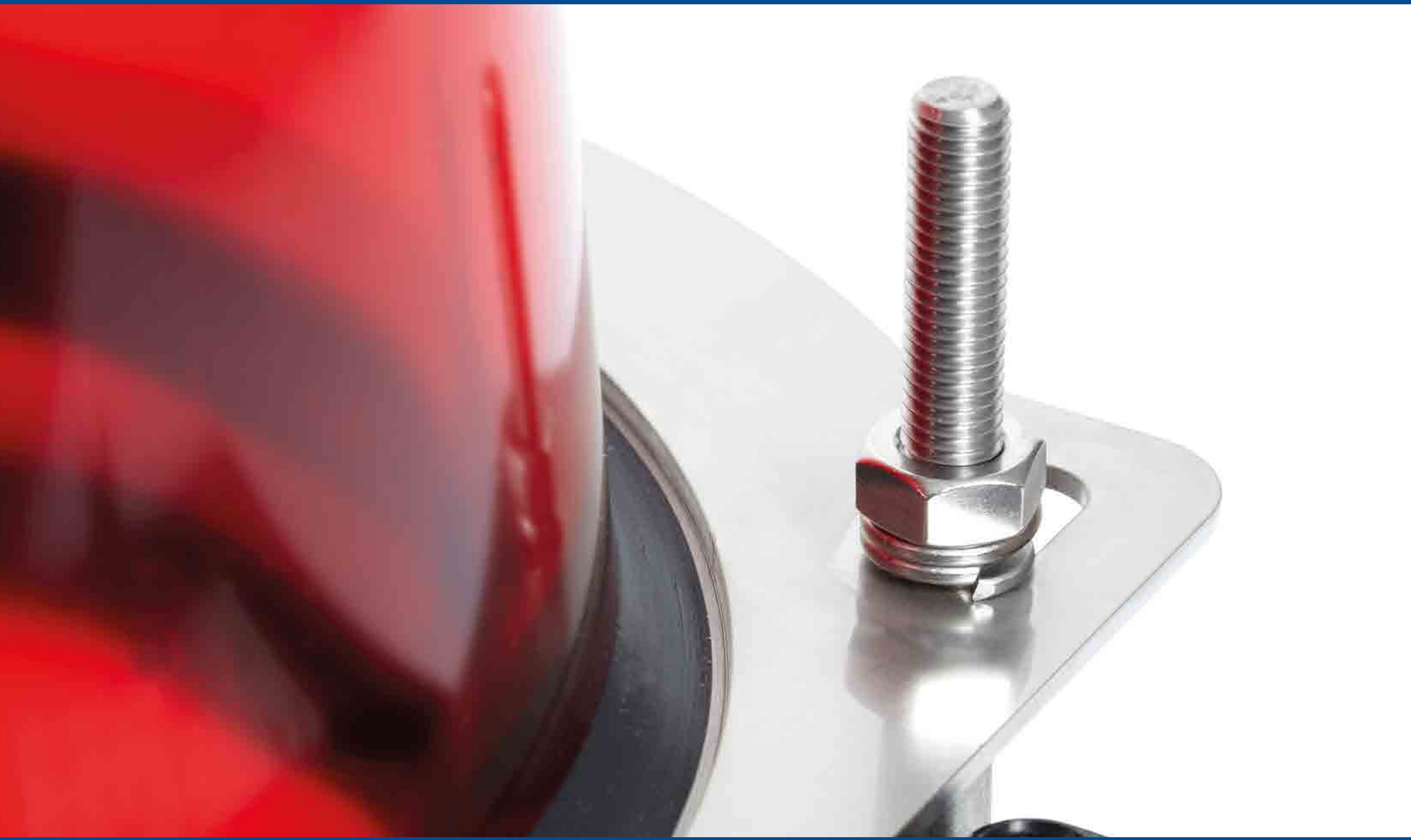
Options

Housing	Cabinet heater Stainless steel cabinet

Photos and dimensions may differ from reality.
*[2] Sizing for other configurations on request.

No articlecode available – all Control Panels are Custom made.

Accessories



IQL® Light Deflector

Overview

The glare-shield is custom made for the IMT IQL Centaur/Aquarius fitting. Made from marine grade stainless steel AISI 316L, the glare shield's design allows it to be fitted to the fixture under several different angles, as would be required by the situation in the field. The glare shield reflects and re-directs the light to where it is most needed and avoids unnecessary glare, enhancing visibility and increasing safety.

Technical Details

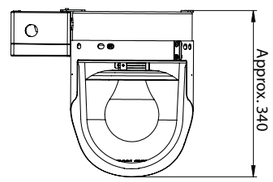
- Available in 3 lengths (275, 375 or 475 mm)
- Material: Stainless steel AISI 316L
- Including: M5x12 bolt (2x)
  Flange nut M5 (2x)
  M5 Nord-Lock ring (2x)

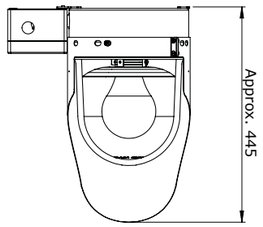
IQL® Light Deflector 275 mm

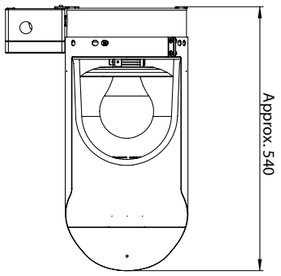
IQL® Light Deflector 375 mm

IQL® Light Deflector 475 mm

Technical Drawings







Custom Positionable Deflector

Articlecode	Version	Material	Weight
EDIHELI275KIT	IQL Light Deflector – 275 mm	Stainless steel AISI 316L	1.0 kg
EDIHELI375KIT	IQL Light Deflector – 375 mm	Stainless steel AISI 316L	1.2 kg
EDIHELI475KIT	IQL Light Deflector – 475 mm	Stainless steel AISI 316L	2.0 kg

IQL® & ILED® Strain Relief Kit

Overview

The IMT Strain Relief Kit is intended for use with new or previously installed IQL/ILED lighting fixtures that are likely to be subjected to heavy vibrations, severe dynamic motion or where extra safety is required.

Technical Details

- Material: Stainless steel AISI 316L
- Available in 2 different sizes:
  ILED and IQL

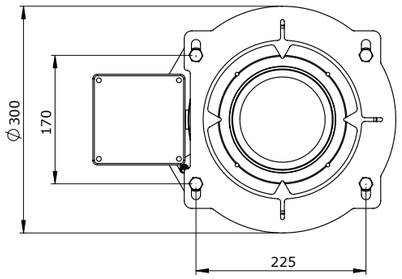
Strain Relief Kit for ILED® Taurus
Including: Strain Relief ring (1x)
Extension rod (4x)
M10 nut (12x)
Flat M10 nut (8x)
M10 Washer (8x)
M10 Spring washer (12x)

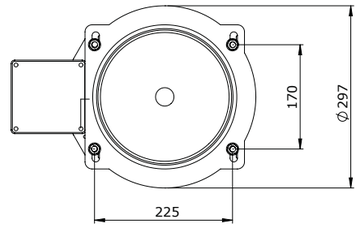
Strain Relief Kit for IQL® Taurus
Including: Strain Relief ring (1x)
M10 x 110 Bolt (4x)
Flat Nut M10 (12x)
M10 washer (8x)
M10 Spring washer (8x)

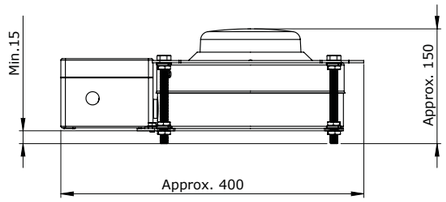
Strain Relief Kit ILED® Taurus

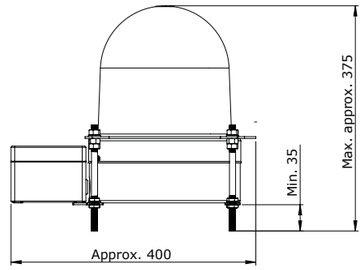
Strain Relief Kit IQL® Taurus

Technical Drawings









Articlecode	Version	Weight
EDISTRAINLOW	Strain Relief Kit for ILED Taurus	1.3 kg
EDISTRAINKIT	Strain Relief Kit for IQL Taurus	1.1 kg

Cable Glands

Overview

In accordance with our goal of minimizing maintenance and allowing our clients to focus on their core business, IMT offers a range of cable glands that is fully compatible with our fixtures and control panels. Made of Nickel Plated Brass, these cable glands are exceptionally well suited for the harsh marine environment and are (ATEX) certified for installation in hazardous area.

HWA-M25-B-H-SC

Type	Brass SC (Single compression)
Connection	M25 x 1.5
Marking	Ex e II 2G 1D
Area classification	Zone 1, 2, 21, 22
Make	Hummel
Gland type	Single compression
Cable range	10 – 16 mm
Material	Brass nickel plated
IP Rating	IP68
Ambient Temperature	-60 °C up to +105 °C

HWA-M20-B-H-SC

Type	Brass SC (Single compression)
Connection	M20 x 1.5
Marking	Ex e II 2G 1D
Area classification	Zone 1, 2, 21, 22
Make	Hummel
Gland type	Single compression
Cable range	7 – 12 mm
Material	Brass nickel plated
IP Rating	IP68
Ambient Temperature	-60 °C up to +105 °C

HWA-M20-B-K-DC

Type	Brass SC (Double compression)
Connection	M20 x 1.5
Marking	EExd-IIC-T6 / EExe-II ATEX II GD (T 80 °C)
Area classification	Zone 1, 2, 21, 22
Make	Kroma Mec
Gland type	Double compression
under armour	7 – 12 mm
Cable range	8 – 18 mm
Material	Brass nickel plated
IP Rating	IP66
Ambient Temperature	-20 °C up to +80 °C

locknut and washer inclueded

HWA-M25-B-K-DC

Type	Brass SC (Double compression)
Connection	M25 x 1.5
Marking	EExd-IIC-T6 / EExe-II ATEX II GD (T 80 °C)
Area classification	Zone 1, 2, 21, 22
Make	Kroma Mec
Gland type	Double compression
under armour	9 – 17 mm
Cable range	14 – 23 mm
Material	Brass nickel plated
IP Rating	IP66
Ambient Temperature	-20 °C up to +80 °C

locknut and washer inclueded

HWA-M25-K-J-SC

Type	Plastic SC (Single compression)
Connection	M25 x 1.5
Marking	Ex-II G Ex e II 2 D Ex tD A21
Area classification	Zone 1, 2, 21, 22
Make	Jacob
Gland type	Single compression
Cable range	8 – 17 mm
Material	Polyamide
IP Rating	IP66
Ambient Temperature	-55 °C up to +70 °C

HWA-M20-K-J-SC

Type	Plastic SC (Single compression)
Connection	M20 x 1.5
Marking	Ex-II G Ex e II 2 D Ex tD A21
Area classification	Zone 1, 2, 21, 22
Make	Jacob
Gland type	Single compression
Cable range	5.5 – 13 mm
Material	Polyamide
IP Rating	IP66
Ambient Temperature	-55 °C up to +70 °C

HWA-M20-B-K-SC

HWA-M25-B-K-DC

HWA-M25-K-J-SC
HWA-M20-K-J-SC

Articlecode	Version	Material	Connection
HWA-M20-B-H-SC	M20x1.5 – Cabel gland set (1 piece)	Brass	Single compression
HWA-M20-B-K-DC	M20x1.5 – Cabel gland set (1 piece)	Brass	Double compression
HWA-M20-K-J-SC	M20x1.5 – Cabel gland set (1 piece)	Plastic	Single compression
HWA-M25-B-H-SC	M25x1.5 – Cabel gland set (1 piece)	Brass	Single compression
HWA-M25-B-K-DC	M25x1.5 – Cabel gland set (1 piece)	Brass	Double compression
HWA-M25-K-J-SC	M25x1.5 – Cabel gland set (1 piece)	Plastic	Single compression

IQL® Helios Street Light Pole Adapter

Pole Adapter IQL® Helios 165 (angle)

Made from durable aluminium, the angle adapter allows for the ILQ Helios to be installed on a vertical pole under several angles between 0° and 16°. In addition, it allows for our IQL Helios 165 W to be mounted on a vertical pole, which would otherwise not be possible. Thus, the angle adapter greatly increases the flexibility of IMT IQL Helios fixtures and makes installation a breeze, regardless of the existing lantern pole.

Pole Adapter IQL® Helios 165 (reducer)

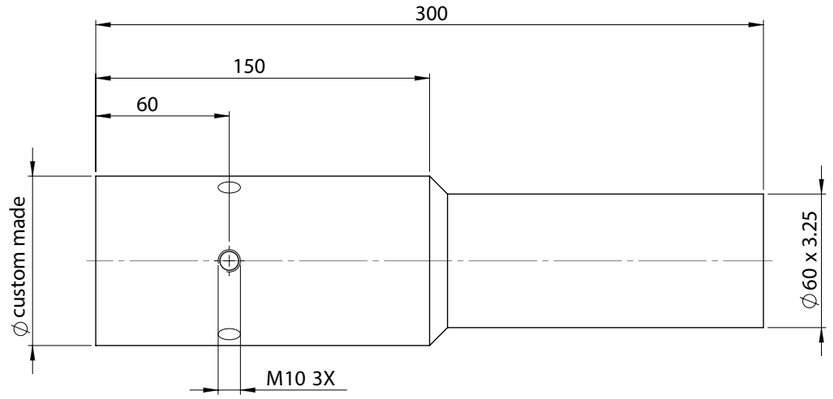
The reducing pole adapter allows for the IMT IQL Helios to be mounted on poles with diameters up to 76.1 mm.

Made of galvanized steel, the reducer is extremely durable and well-suited for outside installation. Thus, the reducer greatly increases the flexibility of IMT IQL Helios fixtures and makes installation a breeze, regardless of the existing lantern pole. Other sizes can be delivered upon request.

Pole Adapter
IQL® Helios 165

Reducing
Pole Adapter

Technical Drawings



Article Code	Version	Description	Weight
CDI0015	Pole adapter	IQL Helios 165 – Pole adapter with horizontal scale adjustment	0.5 kg
CDI0167	Reducing pole adapter	Custom made, for reducing the pole top	2.7 kg

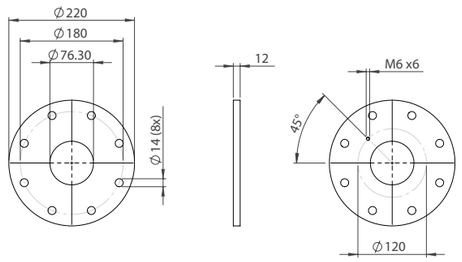
Pedestal for ILED® Dorado Lantern

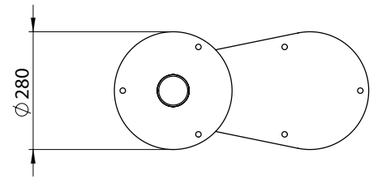
Overview

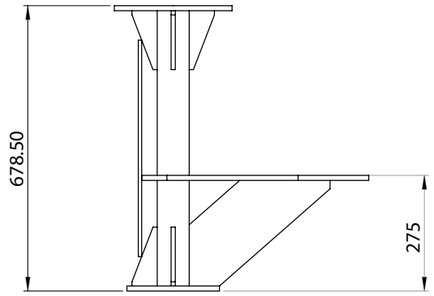
The pedestal allow mounting both the main and secondary IMT Dorado lantern on a single station with a small footprint, maximizing deck space and minimizing clutter. Made from marine grade Stainless steel AISI 316L these pedestals are durable and aesthetically pleasing as the ILED Dorado lanterns they were designed for.

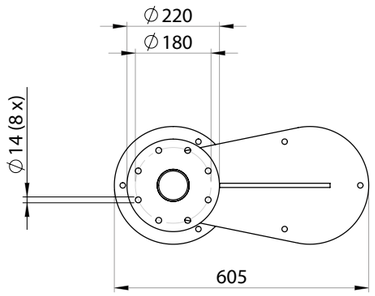
Material of Construction Stainless Steel AISI 316L

Technical Drawings

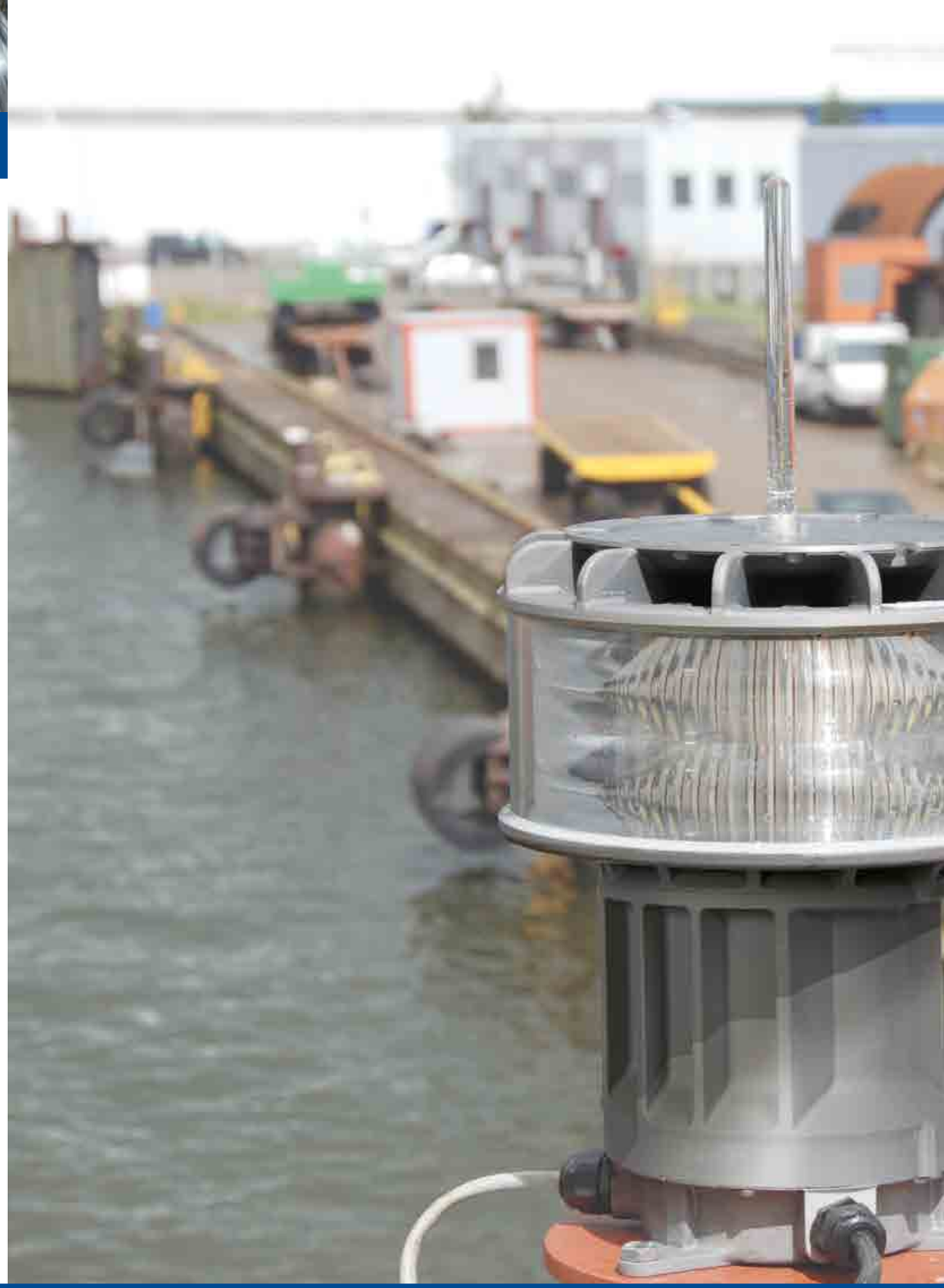








Articlecode	Weight
CDI0198	30 kg



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