

SEALED®

MY / SERIES



STEEL HULLS VERSION

THE GUARANTEE OF
SAFETY, POWER AND
EFFICIENCY

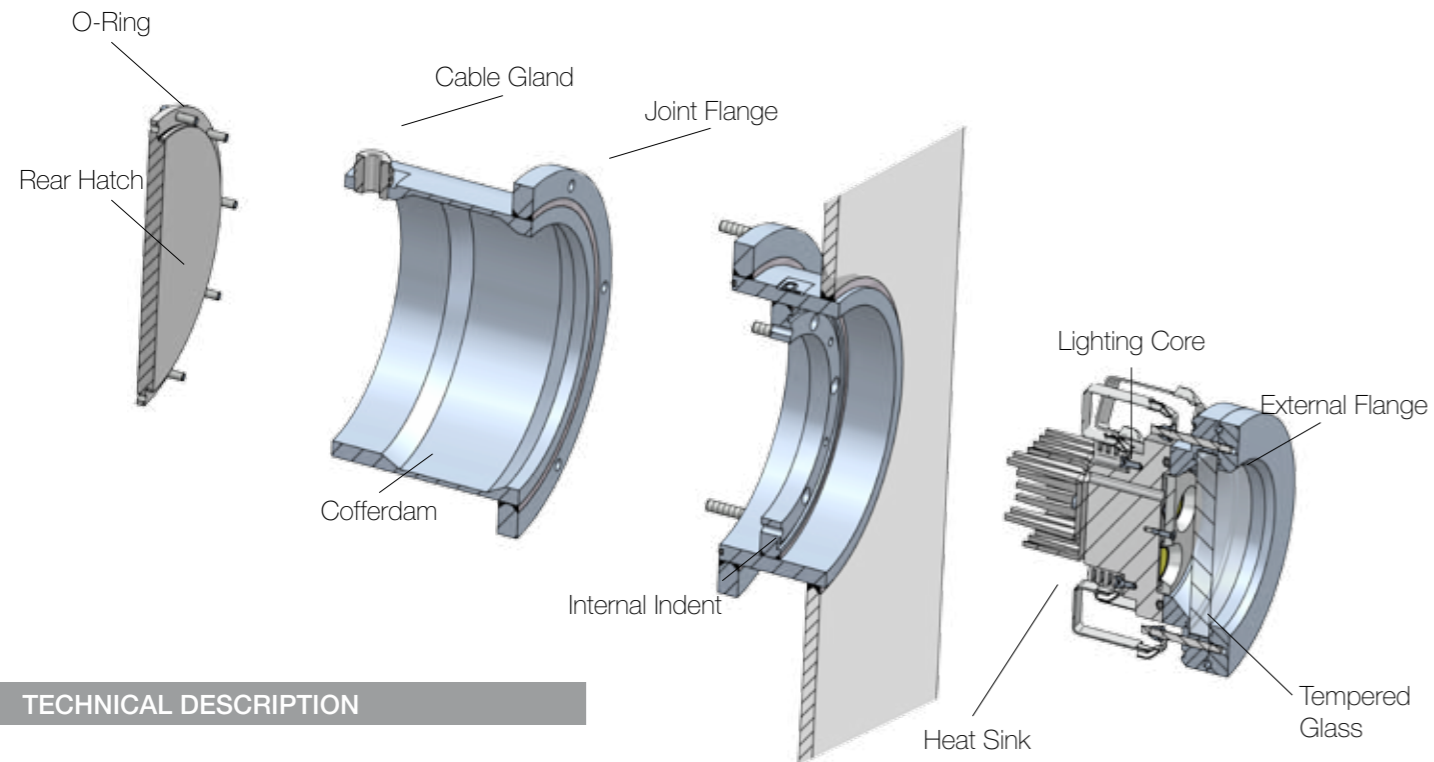


“ The SEALED® MY series introduces the widest and most innovative range of underwater lights for megayachts. All SEALED® lights are serviceable from inside the yacht for a quick and easy inspection of the light body.

SEALED® MY lights are more powerful to create a beautiful halo effect around the yacht. They are born to guarantee the maximum safety onboard: three barriers are interposed between the hull and the inside of the yacht to ensure a perfect watertight protection in respect of the marine certifications.

SEALED® MY are also available in RGB+W with Bus multimedia control to offer the most versatile and easy-to-use experience through a variety of standards and devices such as last generation of smartphones and tablets.”

EXPLODED VIEW DRAWING



TECHNICAL DESCRIPTION

The care for the details guarantees the extreme reliability and safety of the SEALED® MY. The exploded view drawing (fig.1) shows a dedicated design focused on the simplicity for an easy installation and inspection of the light. The Tempered Glass couples the cofferdam with the external flange.

This assembly is accurately designed to create the most resistant and safest barrier between the submerged hull and the inside whilst leaving a smooth and even flush-mount welding. The advantage of this system is that both the material and the tunneling effect of deep cofferdams are minimized, which positively affects drag, fuel economy and lamina flow performances.

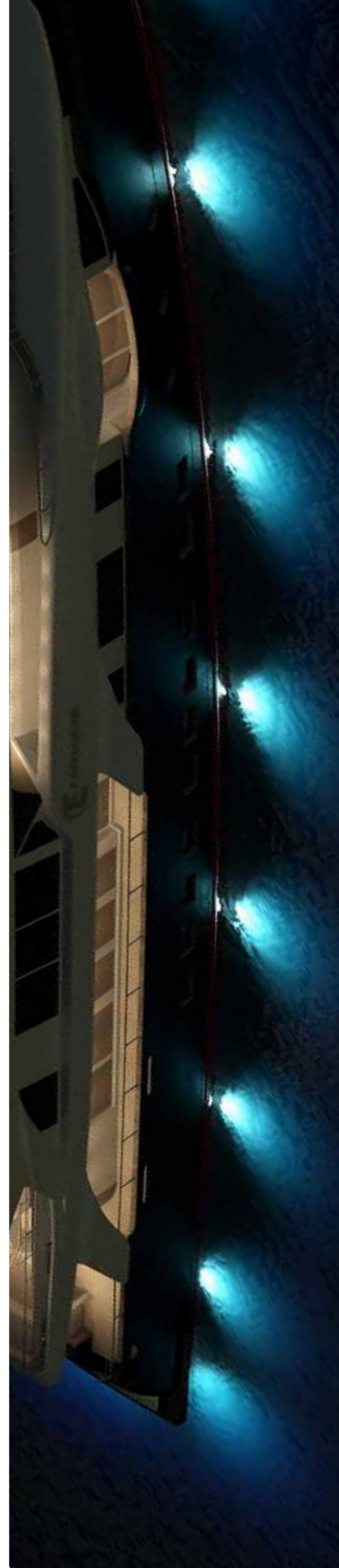
The simple installation procedure makes it easy the inspection of the light too. The very innovative design of the half shell Cofferdam makes both operations quick and hassle free.

The External Flange and the glass form the first and most important safety level in compliance with the regulations of the naval certifications. The Lighting Core is screwed to the Glass to form the second protection barrier.

The Rear Hatch bolted to the Cofferdam grants the perfect watertight protection to the case i.e. the third and ultimate safety level. The quality of the materials used and the perfect design of the Heat Sink are the unique points of strength for the light efficiency.



Fig.1



FIXTURE COMPOSITIONING

SEALED® MY are designed and manufactured to perform at the highest levels. The materials used are of the best quality to work in the harshest environments. The light body (fig.1) is assembled and sealed in one piece in the factory to grant the highest watertight protection. It is composed by three elements: External Flange – Glass – Lighting Core.

The Tempered Glass is 15mm thick and highly resistant to the impacts.

The aluminum reflector, protected from the environment by a film of sprayed metallic paint, offers the widest beam angle for the maximum light efficiency.

The light body guarantees, through allen screws and O-Rings, the perfect mechanical holding. Everything has been tested in compliance with the highest standard and regulations.

The half shelf Cofferdam facilitates the operation for the removal of the Lighting Core.

Figure 2 shows how easy it is to remove the Lighting Core from inside the hull without hauling the yacht should servicing ever be required.

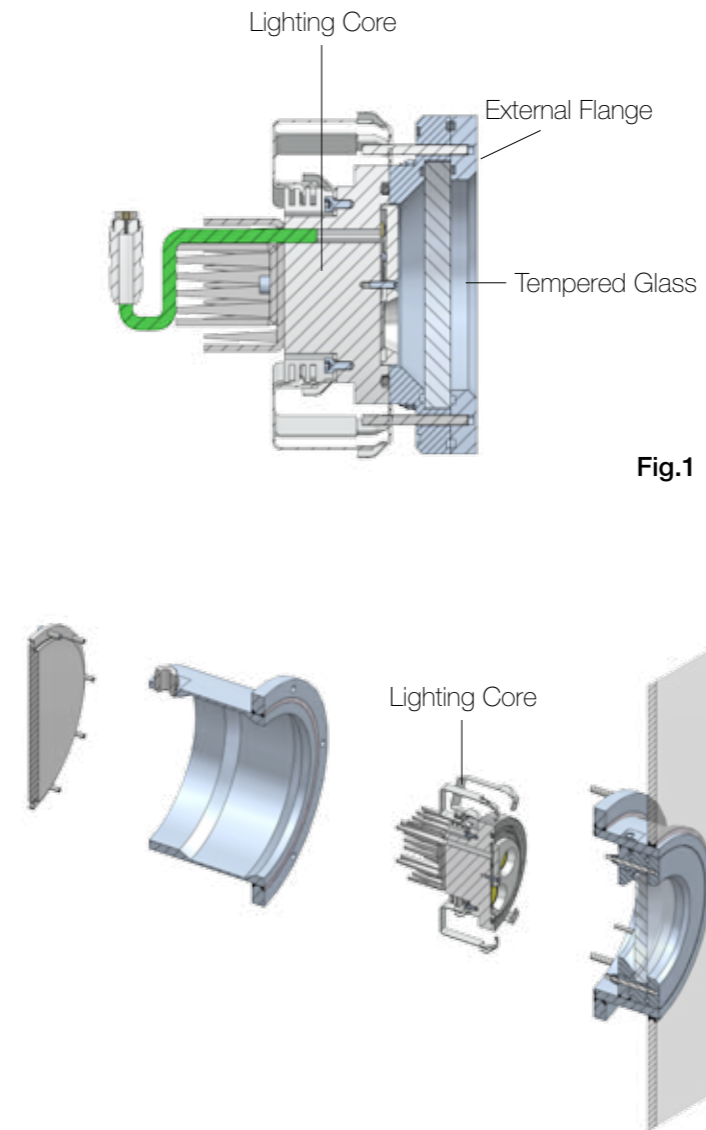


Fig.1

Fig.2

WATERTIGHT PROTECTION

The SEALED® MY are designed to offer three protection barriers (fig.3) against the external water pressure. Each barrier is tested through dedicated procedures in compliance with the naval certifications:

1st Barrier: External Flange – Tempered Glass – Counter Flange screwed to the cofferdam. This is the first and most important protection against the water pressure. The External Flange, the Tempered Glass and the Counter Flange hinged to the Cofferdam form a single body that guarantees the perfect watertight protection. In the lab a 320 kPa pressure is applied to this part to pass the tests.

2nd Barrier: Lighting Core. The Lighting Core is screwed to the first barrier through four allen screws. As for the first barrier a 320 kPa pressure is applied to this part to pass the tests.

3rd Barrier: Cofferdam. The Joint Flange and the Rear Hatch close the Cofferdam making the case completely watertight. This is the last and ultimate barrier against the accidental water ingress. It grants the maximum safety level to the SEALED® MY. The cable gland located on the Cofferdam is watertight and capable to resist to the highest pressures.

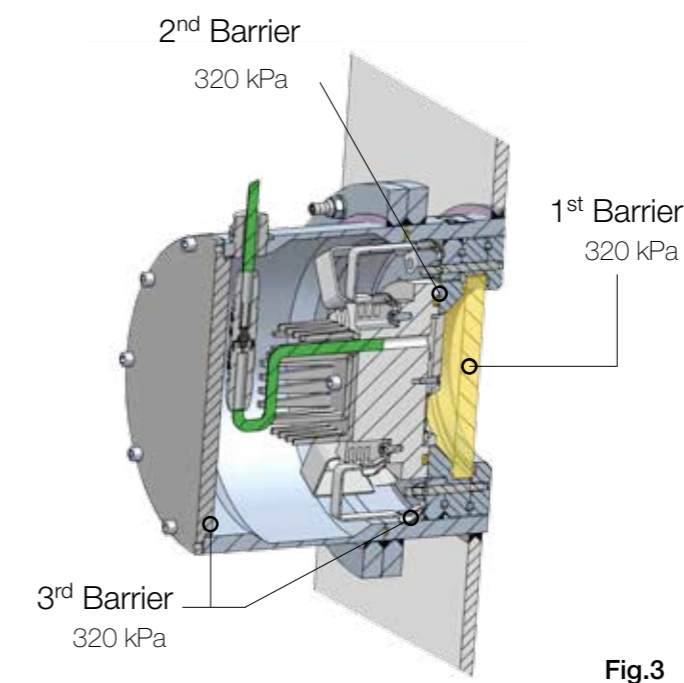


Fig.3

STANDARD INSTALLATION

The SEALED® MY are the most innovative underwater lights present on the market place. Thanks to the special design the Cofferdam can be flush mounted to the hull. (fig.1)

This way the Cofferdam is completely aligned to the surface of the hull to avoid the anesthetic and non-functional recesses that are present in all underwater lights models today.

Furthermore those recesses offer a high resistance to the lamina flow and cavitation decreasing the speed performances of the yacht.

The half shell design of the Cofferdam facilitates the welding and the installation: the Cofferdam can be easily handled by a single operator thus saving time and costs.

The stainless steel Cable Gland on the cofferdam is IP68 certified. It allows the power cable to go from the Lighting Core to the driver.

The light, the power cable and the driver are made with a EMC tested shield. IP68 Plug & Play connectors are used at both ends of the cable.

TANK INSTALLATION

The SEALED® MY is a very clever and flexible product that can be installed also in presence of water tanks (prior approval supplied by the naval certifications).

In presence of a tank along the yacht (fig.2) the SEALED® MY shows its greatest versatile attitude: the Cofferdam is watertight and is equipped with IP68 rated stainless steel cable gland.

The shield cofferdam prevents the water ingress in case of inspection of the light from outside of the hull. The conduit extension, tailored by the shipyard, brings the power cable from the light to the driver.

In this installation the length of the power cable must be ordered according to the needs.

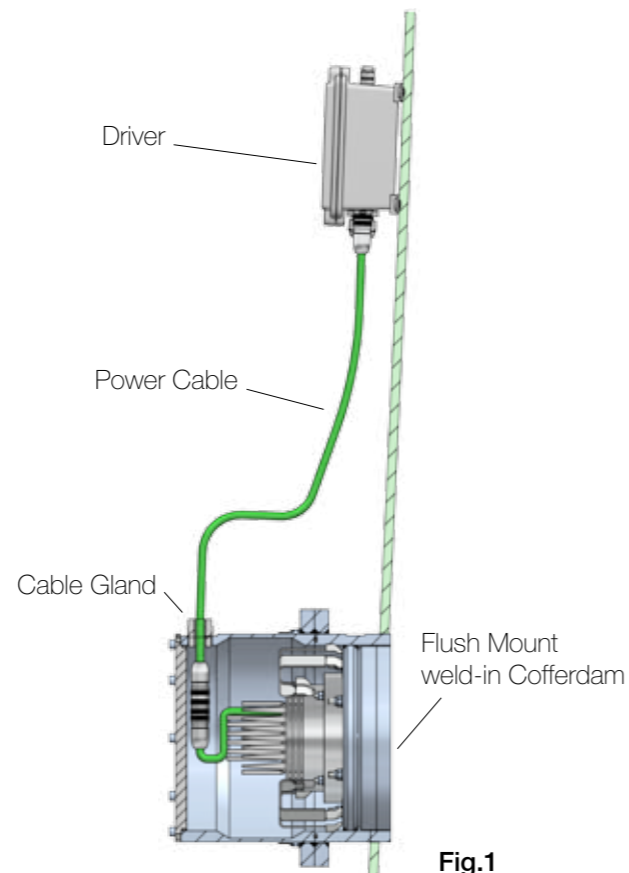


Fig.1

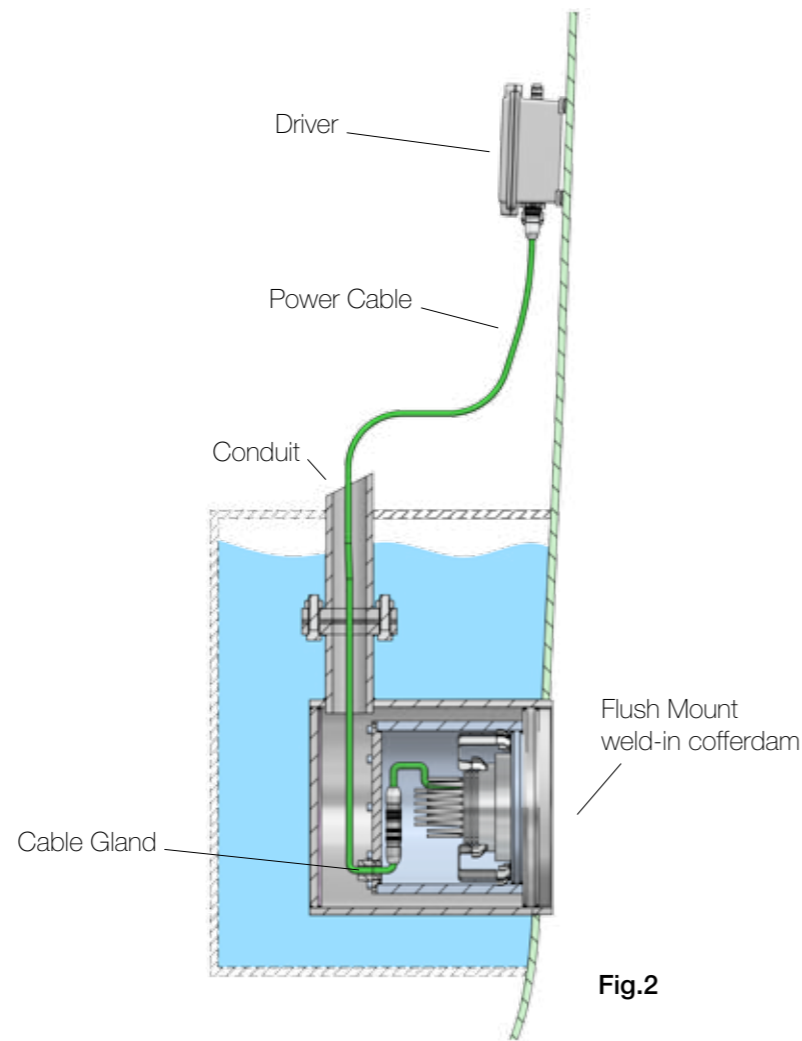


Fig.2



COFFERDAM

The Cofferdam (fig.1) is made of carbon Steel API5LX52 protected with anti-corrosion primer. Inside the Cofferdam there are indents to secure the mechanical tightness of the Light Body. The Cofferdam and the Light Body form a single piece compact and resistant thus safe.

All weldings into the Cofferdam are made by expert and qualified operators in compliance with the UNI EN ISO 3834:2006 standards. The weldings are certified and checked with the utmost accuracy. With every Cofferdam we give a quality assurance certification to guarantee them.

The Cofferdam is 12mm thick which is far above the standards and the requirements for installations on large superyachts. This tiny but important detail shows the care and the focus posed on the design since the initial phases of the project of the SEALED® MY.

Upon request we can supply a longer Cofferdam to be customized by the shipyard.

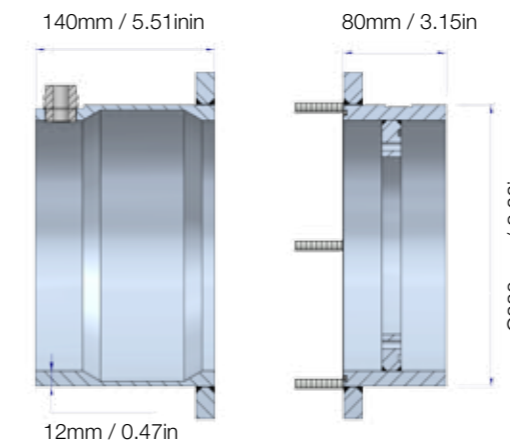


Fig.1

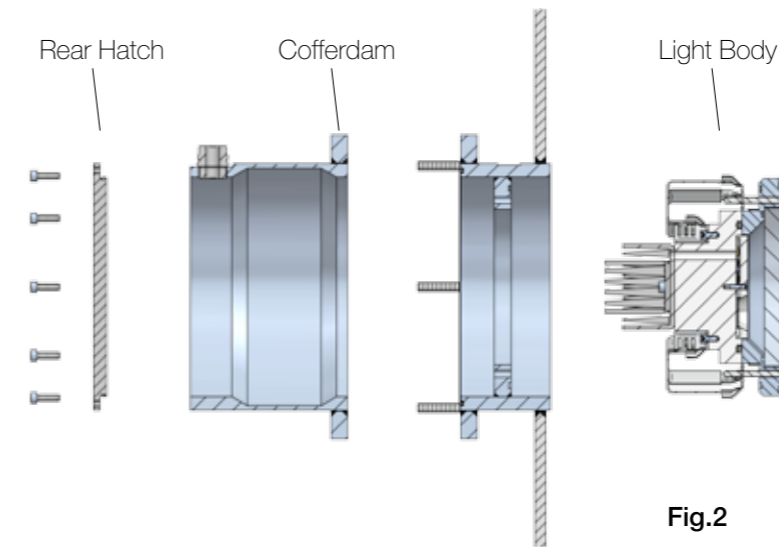


Fig.2

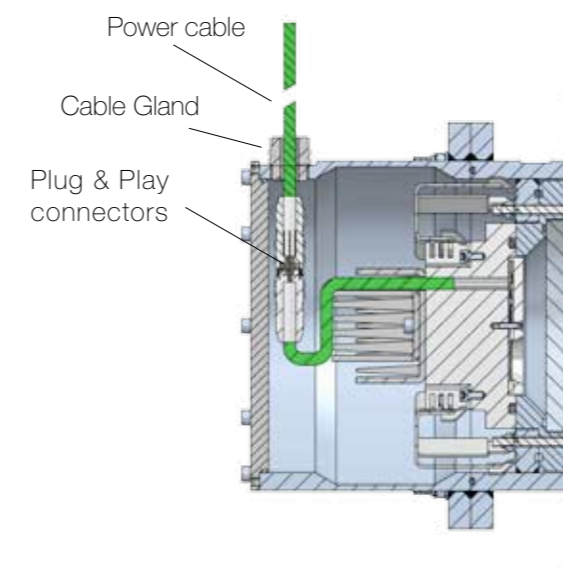


Fig.3

MOUNTING SYSTEM

The Light Body comes already pre-assembled and factory-sealed to guarantee the watertightness since the first installation.

The Light Body is coupled to the Cofferdam with four allen screws. (fig.2)

The SEALED® MY is now tightened to the Cofferdam structure becoming the second safety barrier.

The Power Cable is plugged into the Lighting Core through the Plug & Play Lumberg IP68 rated connector, passes through the Cable Gland connects to the DC voltage driver.

FINAL INSTALLATION STAGE

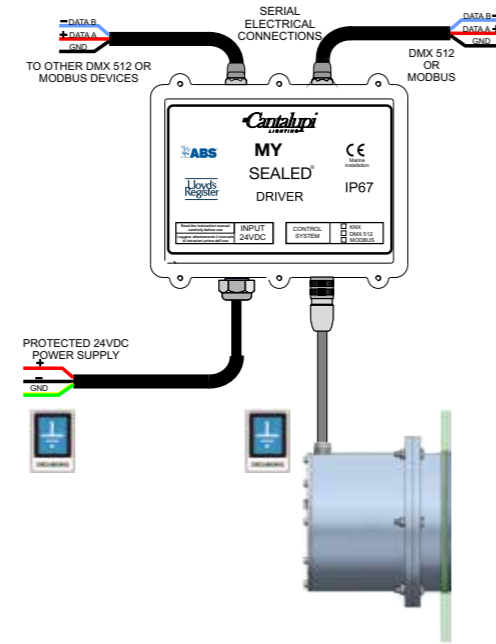
When the Light Body is fixed inside the half shelf Cofferdam, pass the Power Cable through the cable gland.(fig.3)

By bolting the Rear Hatch to the Cofferdam the case becomes 100% watertight: this is the last and ultimate safety barrier.

The highest quality of the materials used and the thermal control guarantee the best light performances and the longest lifespan to the LEDs.

DRIVER SPECIFICATION

Input Voltage	24 V DC
Min / max operating voltage	20 - 32 V DC
Width	200mm
Length	170mm
Height	80mm
Connector Type	IP68
DMX / ModBus Compatible	Yes
IP Rating of Unit	IP67
Over / Under voltage protection	Yes
Reverse polarity protection	Yes
Transient spike protection	Yes
EMC Compliant	Yes



EMC / RADIO MARINE TEST

Electromagnetic Compatibility:

1. Radiated Radio Frequency emission test
2. Immunity to conducted disturbance, inducted by radio frequency fields.



DOMOTIC SPECIFICATIONS

Domotic interface enhances the options of the lighting project and make life easier and more functional thanks to the use of most advanced technologies like ModBus or DMX 512.

The system can be applied in any living area onboard like the comfort, the safety, the energy saving, the multimedia and the control from remote.

The system is ready to integrate any application or device right from the beginning without limiting the future upgrades to new systems or communication standards.



MY18

ORDER CODE: 90SEALEMY18SS

LUMENS: 18.000 WATTS: 200 W

SEALED® MY18 includes the cofferdam with dimension of Ø 220 mm / 66.63 in, the IP67 rated driver at 24 V DC and 5 mt power cable with IP68 Lumberg Plug & Play connectors.

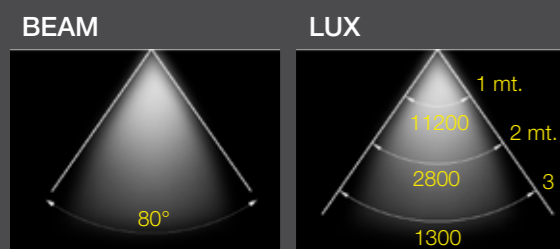
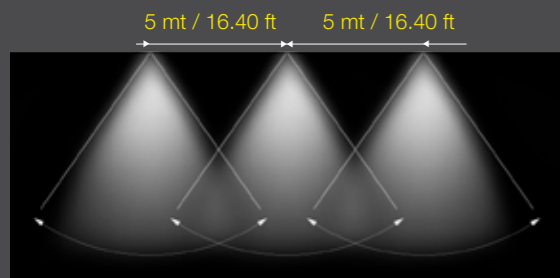
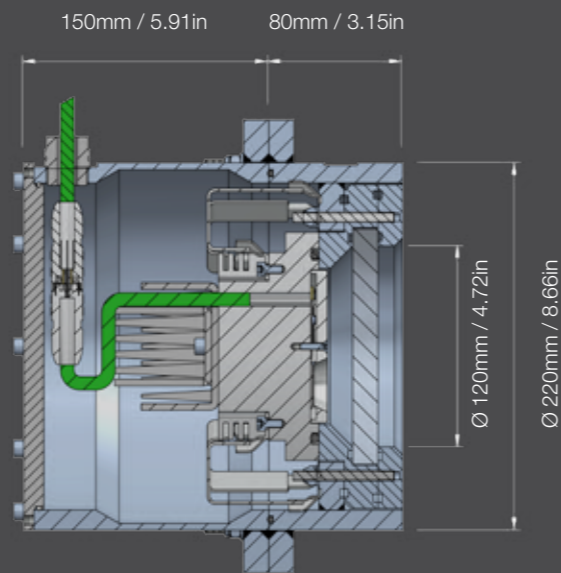
Technical Data:

- Power: 200 W
- Power Supply: 24 V DC
- Current / Amp draw: 8.5 A @ 24 V DC
- Efficiency: 90 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC



LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®. The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 5mt one from the other.



MY13

ORDER CODE: 90SEALEMY13SS

LUMENS: 13.000 WATTS: 160 W

SEALED® MY13 includes the cofferdam with dimension of Ø 220 mm / 66.63 in, the IP67 rated driver at 24 V DC and 5 mt power cable with IP68 Lumberg Plug & Play connectors.

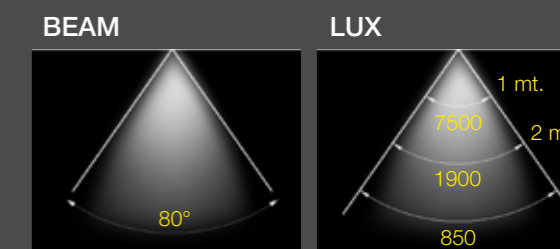
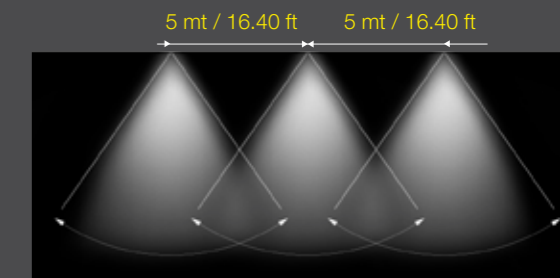
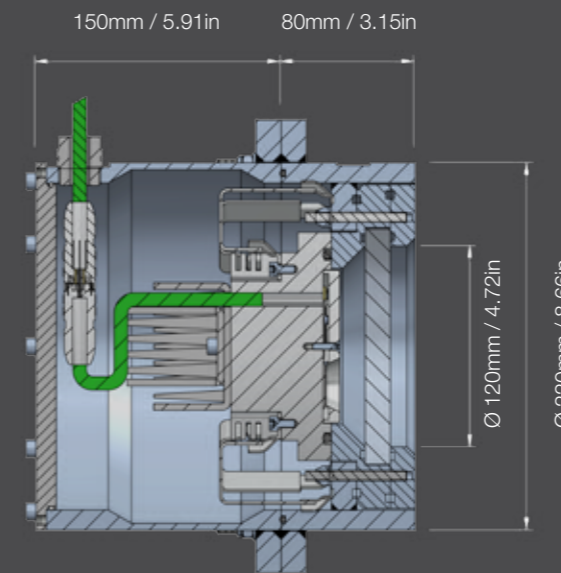
Technical Data:

- Power: 160 W
- Power Supply: 24 V DC
- Current / Amp draw: 6.5 A @ 24 V DC
- Efficiency: 81 Lm/W
- Color Temperature: 5000 K
- Optional Power Supply: 110 - 220 V AC



LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®. The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 5mt one from the other.



MYR7

ORDER CODE: 90SEALEMYR7SS

WATTS: 150 W

The SEALED® MYR7 brings millions of colours into your life. Any colour can be selected to best suit your personal taste or to maximize the effect in the water in every condition. Colours can be controlled via any devices with a colour palette through a third party interface. The most advanced LEDs can combine up to 16 million shades of colours for a superior effect in the water.

SEALED® MYR7 includes the cofferdam with dimension of Ø 220 mm / 66.63 in, the IP67 rated driver at 24 V DC and 5 mt power cable with IP68 Lumberg Plug & Play connectors.

Technical Data:

- Power: 150 W
- Power Supply: 24 V DC
- Current / Amp draw: 6,25 A @ 24 V DC
- Efficiency: 47 Lm/W
- Color Temperature: RGB+W
- Optional Power Supply: 110 - 220 V AC



LIGHT POSITIONING

In order to create the best lighting effect around the yacht, we will provide advice about quantity, depth of fixture and spacing between each SEALED®.

The effect in the water can vary from straight spears of light to a nice and relaxing halo around the hull simply positioning the lights at the desired distance one from the other. As a general rule we advise to place the lights at a maximum distance of 5mt one from the other.

