



+
WHERE EVERY
LIGHT IS
A PROMISE
OF SAFETY
+

ADVANCED LIGHTING SOLUTIONS FOR SUBMARINES



Submarines operate in some of the most complex and restricted environments at sea, where every system must guarantee maximum performance, safety, and reliability. Limited space, harsh operational conditions, and the absence of natural daylight create unique challenges that demand advanced, compact, and highly efficient lighting solutions.

Acerbi 1906, together with its long-standing partner Karl Dose, is proud to contribute to the new Italian Navy U212 NFS program, providing the main lighting system for this new class of submarines. This strategic collaboration reflects our proven expertise in delivering solutions for submarine applications, where resilience, efficiency, and innovation are essential. Since 1987, Acerbi 1906 has been the authorized representative and exclusive distributor of Karl Dose in Italy. For more than 35 years, our two companies have worked side by side to supply advanced lighting systems to the Italian Navy. Combining Karl Dose's technological excellence in lighting systems for critical environments with Acerbi 1906's excellent service capability, our partnership has become a trusted reference point for submarine programs.

Over the years, we have successfully equipped many naval platforms, including the current U212A submarines, where a significant lighting portfolio has already been installed and proven in service.



Our modern LED lights are not only ideal for equipping newbuilds but also for retrofitting existing boats, ensuring continuity, efficiency, and long-term value across the fleet. Building on this legacy, we now deliver state-of-the-art solutions that retain form, fit, and function consistency while introducing the most advanced technical features.

Acerbi 1906 provides the main lighting system for every part of the submarine, integrating a complete portfolio of technical luminaires, specialised fittings, and

custom solutions in full compliance with Defense technical specifications. Modern LED technology guarantees extended lifetime, reduced maintenance, and optimised light scenarios that adapt to operational and living needs, supporting both mission effectiveness and crew performance.

We provide innovative LED technologies that offer greater efficiency, generate minimal thermal heat, and significantly improve the service life of our luminaires.





Maintenance intervals are reduced to a minimum and the simple design enables the fast replacement of spare parts. Moreover, the open system simplifies installation and maintenance improving operational autonomy meeting the standards of the U212 NFS fleet modernization program, which is setting new standards for performance and reliability beneath the surface.

Operational Safety

Submarines operate in the harshest and most confined conditions, where every system must guarantee absolute dependability. Our lighting solutions are engineered to withstand shock, electromagnetic compatibility, extreme temperatures, corrosion and handle photobiological safety, ensuring continuous functionality in every operational scenario. By delivering resilient and compliant systems, Acerbi 1906 supports the highest levels of safety and reliability beneath the surface.

Human Performance

In an environment without natural daylight and with restricted living space, lighting directly impacts crew efficiency and focus. Our advanced LED systems with human-centric design simulate optimal light conditions to sustain circadian rhythms, reduce fatigue, and support alertness during extended missions.

Innovation & Sustainability

Modern submarine operations demand compact, energy-efficient, and low-maintenance systems. Our LED technology is designed both for newbuilds and for retrofitting existing fleets, reducing operational costs while extending service life. With our modular and customised solutions, we ensure innovation with sustainability satisfying the Standards and Regulations required in the Purchased and Technical Specifications.



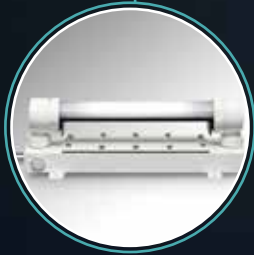
LED naval light

Whole Submarine

Cutting-edge dimmable LED solutions designed for submarines: compact, easy to retrofit and efficient with very low maintenance. Ensure comfort, low heat emissions, resilience, safety and compliance with the strictest naval standards.

Available in:

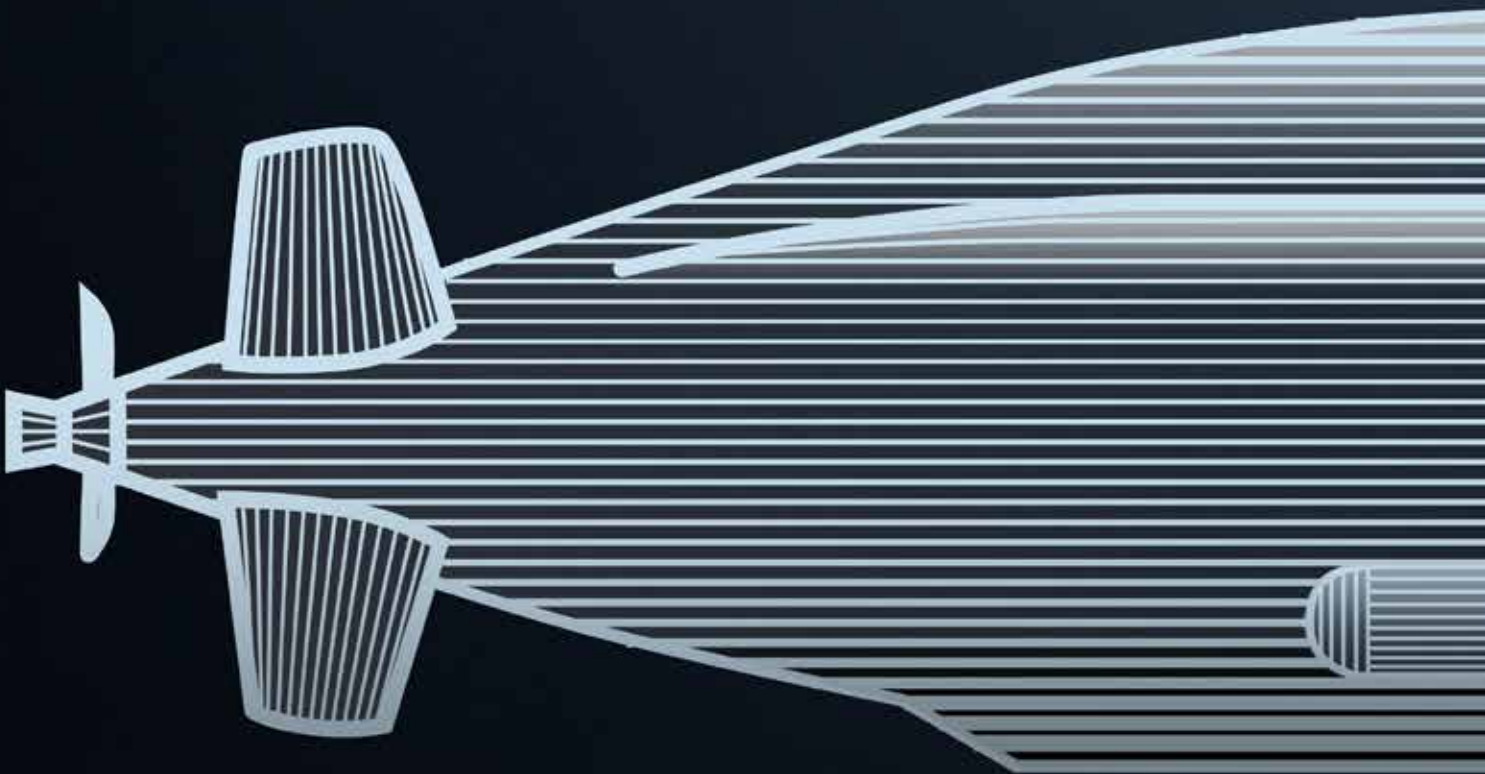
- + White >> for Whole submarine
- + White/Red >> for Combat Information Centre
- + White/Blue >> for Cabins, Mess, Torpedo Room



battery room lights

Litium battery room

Battery rooms demand specialised lighting designed for safety and performance in confined spaces. Our luminaires, including ATEX- and IECEx-certified models, feature compact designs and homogeneous light distribution. Manufactured without rare earths, they provide energy efficiency and reliability while ensuring safe operation in sensitive environments.





kitchen & galley lights

Galley

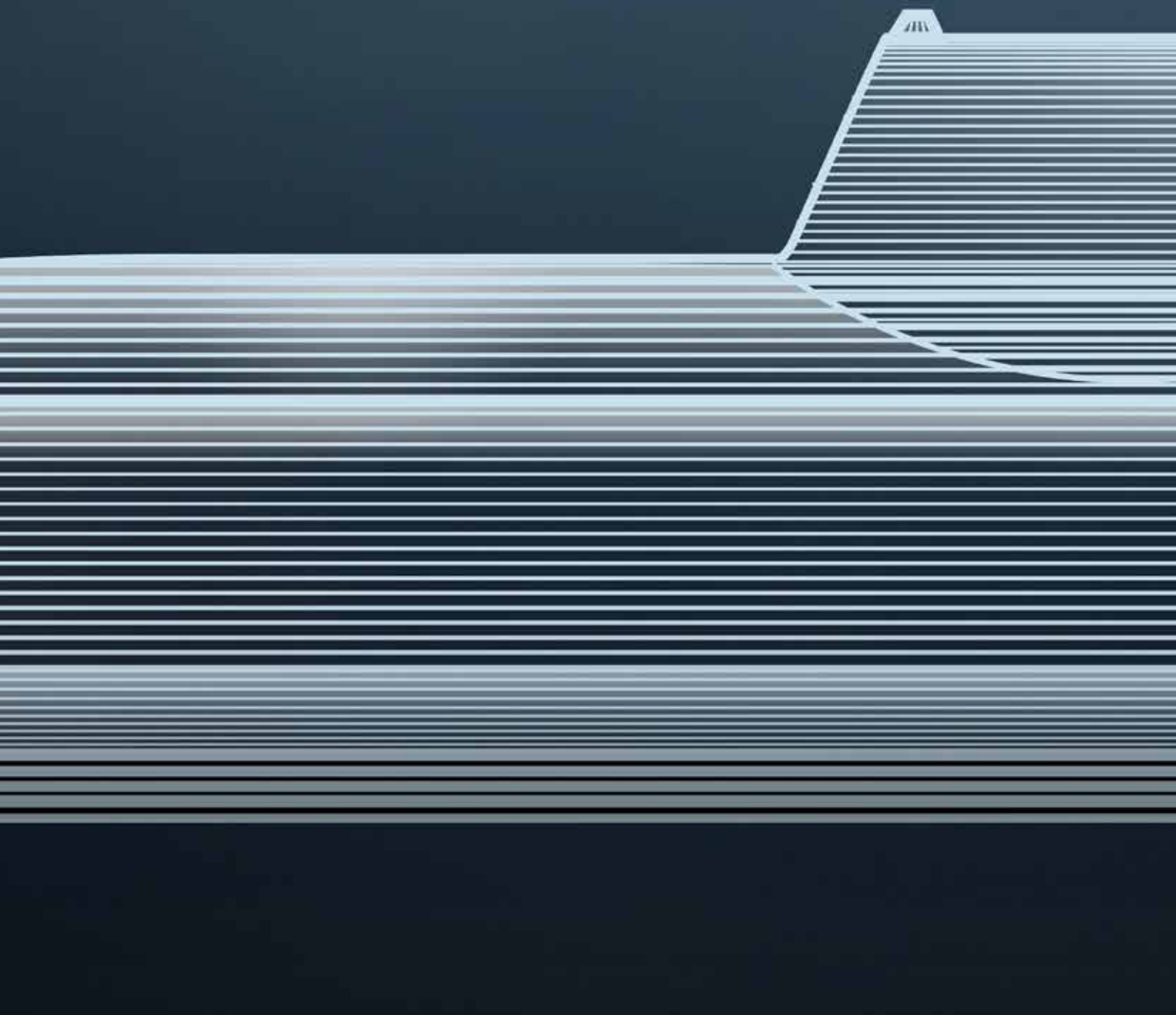
Resilient and compliant with strict hygiene standards our products are built to withstand high temperatures. Easy to clean and resistant to grease and moisture, they guarantee dimmable illumination and long-term performance around cooker hoods and food preparation areas.



coaming lights

Periscope coaming

Compact and reliable, with dimming functionality and high color rendering. Designed to provide clear illumination and enhance crew safety in demanding operational conditions.





ceiling lights

Whole submarine

Engineered for areas where space is limited, our submarine ceiling lights, including recessed lights, combine robust construction with advanced LED technology. They feature adjustable intensity, optional combat lighting, and flicker-free illumination, ensuring safety and comfort across operational and living areas. Featuring dimming options and excellent colour rendering, they ensure comfortable and functional illumination with low energy consumption. Retrofitting kits allow easy upgrades from conventional lighting to energy-efficient LEDs.



berth lights

Cabins

Lighting also plays a key role in crew well-being. Our berth lights create a warm, customisable atmosphere in resting areas. Featuring dimmable and rotatable LED units for indirect light, as well as integrated USB charging ports, they combine functionality with comfort for life on board.



installation materials

Whole submarine

Our range of installation materials provides safe and flexible solutions for all submarine environments. Junction boxes, push-buttons, sockets and switches are available in multiple configurations, built from corrosion-resistant brass or aluminium. Switches and push-buttons are also available with indicator lights offering durability along with an embedded optical signal. Compact in design yet highly durable, they withstand shock, vibration, and seawater exposure while offering easy installation and customisable combinations for every operational need.



Solution provider

We offer the comprehensive solution for the main lighting system throughout every area of the submarine, tailored to meet technical demands and also to support the crew's well-being. From concept design and custom product development to Standards and Regulations compliance, and pre-, during-, and post-sales services, we deliver the complete package.

- + Project Management, Activities & Assistance: management of supply program, time scheduling, progress reports, quality assurance, configuration management, status reports.
- + Performance of the required tests: compliance with the main environmental rules: Shock, EMC, Vibration, Magnetism, Inclination, Humidity and temperatures and Pressure tests.
- + Technical Documentation.
- + Obsolescence Management: monitoring of each subsystem/equipment to ensure availability for production, warranty and spare parts.
- + Services on Request: technical support, installation assistance, setting to work, commissioning, integration tests, evaluation of tests and certification, problem solving within supplier's scope.





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