

# TYPE APPROVAL CERTIFICATE

Certificate no.:  
**TAS0000128**  
Revision No:  
**2**

**This is to certify:**  
that the **Underwater Lights**

with type designation(s)  
**SY 22x, SY 25x, SY 30x, SY 31x**

issued to  
**Garmin (Europe) Limited**  
**Southampton, United Kingdom**

is found to comply with

**IEC 60529 Ed. 2.2 (2013-08) Degrees of protection provided by enclosures (IP Code)**

## Application:

**Product approved by this certificate are accepted for installation on all vessels classed by DNV.**

Issued at **Høvik** on **2022-07-05**

This Certificate is valid until **2027-07-04**.

DNV local unit: **Southampton**

Approval Engineer: **Inga-Kristin Schröder**



for **DNV**

This document has been digitally signed and will therefore not have handwritten signature

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

## Product description

These Underwater Lights are certified as watertight appliances for use in the hull of vessels classed by DNV, covering pressure resistance of the Underwater Light body for installation in aluminium and steel structures in marine and offshore use.

IP rating has been proven by testing to a pressure of 5 bar.

## Application/Limitation

- 1) The present certificate is based on the documentation listed below and is valid only for a construction and material as specified in the approved drawings and the given instructions.
- 2) Inspections and survey procedures are to be performed as required by the Rules and Regulations of DNV.
- 3) The mounting location and details remain subject to examination and approval for each individual project and are to be submitted by the yard or design office to DNV prior to installation on board.
- 4) The degree of protection provided by enclosure is IP X8, as tested.
- 5) The manufacturer's recommendations and instructions regarding location and operation must be observed. The operation of the light is limited to the (permanently) submerged condition of the lens.
- 6) The materials as given in the drawings are acceptable for use in DNV vessels, provided the material is suitable for the hull in which the appliance is fitted. Aluminium materials must be coated with corrosion protection in addition.
- 7) IP 68 Cable Glands are acceptable if tested along with the appliance. Cable Glands not tested in combination with the appliance shall be certified and tested to withstand a minimum hydrostatic pressure of 5bar for at least 30 Minutes. Certification must be presented to DNV along with the installation documentation.

## Type Approval documentation

47-0013 Rev.A	SY 22x – Dimensions
47-0014 Rev.B	SY 22x – Exploded View
47-0015 Rev.A	SY 25x – Dimensions
47-0016 Rev.B	SY 25x – Exploded View
47-0017 Rev.A	SY 30x – Dimensions
47-0018 Rev.A	SY 30x – Exploded View
47-0019 Rev.B	SY 31x – Dimensions
47-0020 Rev.B	SY 31x – Exploded View

## Tests carried out

Test Report dated 2017-03-17, witnessed by a DNV GL Southampton.

## Marking of product

n/a

## Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the approval are complied with. Reference is made to DNV-CP-0338.

## Manufactured by:

**Garmin (Europe) Ltd**  
**Unit D12**  
**Upper Fforest Way**  
**Swansea Enterprise Park**  
**Swansea**  
**SA6 8QR**