

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Navigation Light Controllers

with type designation(s)
WS-NLC-T-001

Issued to

Woosung Engineering Co.
Gimhae-si, Gyeongsangnam-do, Korea

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IMO Res.MSC.253(83) Performance standards for navigation lights, navigation light
controllers and associated equipment

IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the
global maritime distress and safety system (GMDSS) and for electronic navigational aids
IMO Resolution MSC 191(79)

IMO Resolution MSC.302(87) Performance standards for Bridge Alert Management

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed
by DNV GL.

Issued at **Busan** on **2018-04-20**

This Certificate is valid until **2023-04-19**.

DNV GL local station: **Gimhae Station**

for **DNV GL**

Approval Engineer: **Eun Sook Kim**

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Michael Jost Auf der Stroth
Head of Section

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.



Job Id: **262.1-010363-3**
Certificate No: **TAA00001TV**

Product description

WS-NLC-T-001, navigation light controller, consists of following components:

Part Name	Software	Location class
Navigation Light Controller	NLC-T-DPC-02.x	Protected
Navigation Light Relay Box	NLC-T-DPRC-02.x	Protected

Application/Limitation

The controller shall be installed in accordance with manufacturer's document.

Type Approval documentation

Tests carried out

- IEC60945 (2002)
- IEC61162-1(2016)
- IEC62288 (2014)
- IMO Resolution MSC.253(83)
- DNVGL Rule (2018 Jan) Pt.4 Ch.8

Marking of product

The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.

END OF CERTIFICATE