

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Light Fitting

with type designation(s)

4000-X..-...-...-...

Issued to

WISKA Hoppmann GmbH
Kaltenkirchen, Schleswig-Holstein, Germany

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Vibration class	B
Degree of protection	IP66 / IP67 / IP68
Temp. class	D
Voltage (V)	110/115, 220/230 AC, 24 DC
Suitable for Hazardous areas	No

Issued at **Hamburg** on **2018-08-30**

This Certificate is valid until **2019-08-31**.

DNV GL local station: **Hamburg**

for **DNV GL**

Approval Engineer: **Uwe Supke**

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Arne Schaarmann
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.



Product description

Watertight LED Tube Luminaire: 4000-.x.-...-.-.-...
Rated voltage: 220/230, 110/115 AC
Emergency version: 24V or Battery Backup
Rated power: 13/26W per tube
Frequency: 50-60Hz
Degree of protection: IP66 / IP67 / IP68
Ambient temperature: -30°C up to +55°C
Suitable for open deck: Yes
Type of tube: Short or long
Luminous color: 5600K, optional other colours
Material: Housing, fixing elements and connection elements:
Different plastic UL94 V0 flame retardant, halogen free

Application/Limitation

Installation instruction of the manufacturer to be followed.
Location classes:
EMC: B
Humidity: B

Type Approval documentation

Tests carried out

Applicable tests according to GL Guidelines for the Performance of Type Approvals, Chapter 2- Test Requirements for Electrical / Electronic Equipment and Systems (VI-7-2), Edition 2012
IEC60598:2008, IEC 60092-306:2009

Marking of product

The products to be marked with:

- Manufacturer name
- Model name
- Serial number
- Power supply ratings
- Degree of protection

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

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.

END OF CERTIFICATE