



TYPE APPROVAL CERTIFICATE

Certificate no.:
TAE00002AU
Revision No:
3

This is to certify:
that the Light Fitting

with type designation(s)
4000-x...-...-...-...

issued to
WISKA Hoppmann GmbH
Kaltenkirchen, Germany

is found to comply with
DNV 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.

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 **Høvik** on **2024-10-10**

for **DNV**

This Certificate is valid until **2029-09-04**.

DNV local unit: **Hamburg**

Approval Engineer: **Uwe Supke**

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

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 colour:	5600K, optional other colours
Material:	Housing, fixing elements and connection elements: Different plastic UL94 V0 flame retardant, halogen free
LED stripes type:	WISKA LED Strip Generation 3

Application/Limitation

Installation instruction of the manufacturer to be followed.

Location classes:

EMC:	B
Humidity:	B

Type Approval documentation

EMC report TÜV Nord no. 14172-1-R00;

Report Paconcult 14-6144

Data sheet L4000LED: 2014-08-05

New LED stripes: (Generation 3)

TREO No.179-22 dated 2022-05-31 (EMC)

WISKA KE2022-006 Rev. 01 dated 2022-05-17 (heat, cold, damp heat)

Cplusw GmbH #2022-05-20_1+2 dated 2022-05-22 (vibration)

Tests carried out

Applicable tests according to DNV Guideline DNV-CG-0339, Edition August 2021, IEC60598-1:2008, 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