DNV·GL

Certificate No:
TAA0000049

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Navigation Light Controllers

with type designation(s)
TEF 4900 Commander Navigation Lights Control System

Issued to
Tranberg AS
STAVANGER, Norway

is found to comply with
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 Res.MSC.253(83) Performance standards for navigation lights, navigation light controllers and associated equipment
Det Norske Veritas' Rules for Classification of Ships and Det Norske Veritas' Offshore Standards

Application :

See page 2.

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

This Certificate is valid until **2020-10-25**.
Issued at **Høvik** on **2015-10-26**
DNV GL local station: **Stavanger** for **DNV GL**

Approval Engineer: **Frederik Tore Elter**

Jan Tore Grimsrud
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.

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Product description

Product	Part No.	SW version
Control Panel	490x000	4900-A ver. 8
Main processor	4900902	4900-F ver. 4, 4900-G ver. 1, 4900-DNV1 ver. 8
Output modules	49009xx	4900-B ver.3, 4900-C ver. 4, 4900-D ver. 4, 4900-E ver. 1
Output modules LED	4900912 4900913	4900-C ver. 4

- 4900-B: Relay output module
- 4900-C: Lamp monitoring output module
- 4900-D: Dimmer/Flasher module
- 4900-E: Digital I/O module

Application/Limitation

Control system shall only be connected to lights required in COLREG and signal lights required by various canal and water way authorities. LED output modules are to be connected to LED lights that fulfil the requirements stated in product Installation and User Manual

Note

With respect to communication to central alarm panel the TEF 4900 Commander Navigation Lights Control System comply with the requirements for the NAUT-OC/AW/OSV notations.

Type Approval documentation

Tests carried out

- Environmental Tests, IEC 60945 (2002)
- Interface tests, IEC 61162-1 (2010)
- Performance Tests, IMO Res. MSC.253(83)
- Performance Tests, IEC 62288 (2014)

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 supply voltage.

Periodical assessment

A retention survey is to be performed at least once every second year, and again upon renewal of this certificate.

The scope of the retention/renewal survey 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