



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAA0000049**  
Revision No:  
**2**

## This is to certify:

**That the Navigation Light Controllers**

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

Issued to

**R. Stahl 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**  
**DNV rules for classification – Ships**

## Application :

See page 2.

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

Issued at **Høvik** on **2023-06-23**

This Certificate is valid until **2025-10-05**.

DNV local unit: **Stavanger**

Approval Engineer: **Tommi Juhani Rifaat**



for **DNV**

Digitally Signed By: Elter, Frederik Tore  
Location: DNV Høvik, Norway

**Frederik Tore Elter**  
**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.

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 300,000 USD.



## Product description

'TEF 4900 Commander Navigation Lights Control System'  
 This system is containing the following main components :

Component	Part no.	Part description	Note
Main processor / CPU	4900902	Master CPU	Legacy: ALR / ACK NMEA
Operator panel	490X000	OPERATOR PANEL SIZE 1 - 5	Legacy: ALR / ACK NMEA
Main processor / CPU	4900903	Master CPU	BAM acc. IEC 62923-1:2018
Operator panel	490X100	OPERATOR PANEL SIZE 1 - 5	BAM acc. IEC 62923-1:2018
Nav Light output module	4900910	24V 4 Circuits	
Nav Light output module	4900911	24V 8 Circuits	
Nav Light output module LED	4900912	24V LED 4 Circuits	
Nav Light output module LED	4900913	24V LED 8 Circuits	
Nav Light output module	4900920	115/230V 4 Circuits	
Nav Light output module	4900921	115/230V 8 Circuits	
Relay output module	4900930	8 x Changeover Relay	
Digital in / out module	4900935	4 x Digital Out / 8 x Digital In	
Dimmer module	4900940	230VAC Signal light dimmer	
Flasher module	4900950	230VAC Signal light flash	

## Application/Limitation

Installation onboard the vessel is to be in accordance with the manufacturers Installation and User Manual.

The TEF 4900 Commander Navigation Lights 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.

The TEF 4900 is tested for Bridge Alert Management (BAM) and interface to a Central Alert Management (CAM) system, fulfilling DNV requirements in NAUT-OC/AW/OSV notations: Products supporting BAM acc. IEC 62923-1:2018 are to be used for interface with a CAM tested in accordance with IEC 62923-1:2018.

The TEF 4900 may support Legacy ALR / ACK NMEA alert for listed products part numbers. This interface is to be used for legacy Bridge Alert Panels only.

## Tests carried out

Environmental Tests:	IEC 60945 (2002)
Interface tests:	IEC 61162-1 (2016)
Performance Tests:	IMO Res. MSC.253(83)
Performance Tests Presentation:	IEC 62288 (2021)
Performance Tests BAM:	IEC 62923-1 (2018) and IEC 62923-2 (2018)

## Type Approval documentation

DNV No.	Document No.	Rev.	Title
30	1431-VA-006	Rev-2	Report: IEC 61162-1/ IEC 62923-1/2 Interface test Procedure / Report TEF 4900
29	1431-MA-001	00	Manual: TRANBERG TEF 4900 Commander Control system
27	1431-VA-005 / REP003769	1	Report: NEMKO IEC 60945, EMC Test Report - TEF 4900

DNV No.	Document No.	Rev.	Title
20	TUM2481	Version 2.8	Manual: Installation and User Manual Tranberg
19	TPD5282		Report: IEC62288 - Performance test, IEC 62288 2014 - TEF4900 Commander Navigation Lights Control System
15	TDP5342		Report: Test programme DNV Type Approval TEF4900 LED Control module.
10	TPS5164		Datasheet: TEF 4900 COMMANDER
6			Report: Test report from retest of functional tests - DNVGL TAP 824.21
1			Report: IEC69045 DELTA, Environmental test report

### 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

DNV's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in Class Programme DNV-CP-0338, Section 4.

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.