



TYPE APPROVAL CERTIFICATE

N. ELE359617CS



This is to certify that the product below is found to be in compliance with the applicable requirements of the RINA type approval system.

Description	Navigation Lights
Type	GEMINI T-LED
Applicant	TREM Srl Via Friuli 5 40060 Osteria Grande (BO) ITALY
Manufacturer	TREM Srl Via Friuli 5 40060 Osteria Grande (BO) ITALY
Testing Standards	International Regulation for preventing collision at sea, 1972 ed. 2003 (ref. to Italian Law 27th December 1977 n. 1085) Rules for Classification of Ships – Part C – Machinery, Systems and Fire protection – Ch.3, Sect. 6, Tab. 1

Issued in Genova on November 30, 2017.

This certificate is valid until November 29, 2022

RINA Services S.p.A.



TYPE APPROVAL CERTIFICATE

N. ELE359617CS



Navigation light for recreational vessels having length $L < 20$ meters

Type : GEMINI T-LED White All Round

- rated voltage: 12Vdc and 24Vdc (*)
- rated power: 1.5 W
- mechanical protection : IP X6
- visibility: 360° 2NM

(*) Max supply voltage variation allowed : 9 Vdc to 31.2 Vdc (within COLREG Requirements)

Test Reports

Istituto Giordano doc. 280430 (24/03/2011), doc. 284100 (30/06/2011), doc. 283608 (27/06/2011)

TesLab report n. 119187E (26/09/2011)

TREM Statement for power supply variation (29/09/2011)

Reference documents.

TREM data sheet: Gemini 360° LED Navigation Light Technical File (28/01/2011)

Navigation light for recreational vessels having length $L < 12$ meters

Type : GEMINI T-LED - Green Starboard Side light

- rated voltage: 12Vdc and 24Vdc (*)
- rated power: 1.5 W
- mechanical protection : IP X6
- visibility: 112,5° 1NM

(*) Max supply voltage variation allowed : 9Vdc to 31.2Vdc (within COLREG Requirements)

Test Reports

Qualilab Report n. 255-QL12-R03 ver. 0

TesLab Report; n. 11C255A (29/12/2011)

Reference documents.

TREM data sheet: Gemini T-led Green Navigation Light Technical File (11/05/2011)

Type : GEMINI T-LED - Red Port Side light

- rated voltage: 12Vdc and 24Vdc (*)
- rated power: 1.5 W
- mechanical protection : IP X6
- visibility: 112,5° 1NM

(*) Max supply voltage variation allowed : 9Vdc to 31.2Vdc (within Colreg Requirements)

Test Reports

Qualilab Report n. 255-QL12-R02 ver. 0

TesLab Report n. 11C255A (29/12/2011)

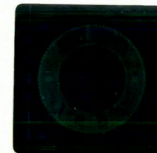
Reference documents.

TREM data sheet: Gemini T-led Red Navigation Light Technical File (11/05/2011)



TYPE APPROVAL CERTIFICATE

N. ELE359617CS



Navigation light for recreational vessels having length L <12 meters

Type : GEMINI T-LED - Bicolor light RED / GREEN 112,5°+112,5°

- rated voltage: 12Vdc and 24Vdc (*)

- rated power: 1.5 W

- mechanical protection : IP X6

- visibility: 112,5° + 112,5° 1NM

(*) Max supply voltage variation allowed : 9Vdc to 31.2 Vdc (within COLREG Requirements)

Test Reports

Qualilab Report n. 255-QL12-R01 ver. 0

TesLab Report n. 11C255A (29/12/2011)

TesLab Report n. 129165E-a ; 129165E-b (18/10/2012)

Reference documents.

TREM data sheet: Gemini T-led Bicolor Side Navigation Light Technical File (11/05/2011)

Remarks

Navigation lights to be installed according to COLREG 72 Requirements as well as the manufacturer instructions.