

TEF 2870 Ex NAVIGATION LIGHT USER MANUAL



IMPORTANT

Read this instruction carefully before installing the product

WARNING!



DO NOT OPEN, MAINTAIN OR SERVICE IN AN AREA WHERE AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT.

INTRODUCTION

Thank you for purchasing this product!
For installation, maintenance and assurance of a long life of this product, please follow this manual.

CONTENT IN BOX

The product is fully assembled, and ready for installation.

SAFETY PRECAUTIONS

Note that changes made to the product and/or installation of components which do not conform to the approval, may be a safety violation. The manufacturer will in no circumstance be held responsible for such activity. For your health and safety, always use safety gear suited for the task. Be certain to follow codes, regulations and/or specific procedures that are related to the installation.

IMPORTANT INFORMATION

The navigation lights are supplied with galvanic isolators. These should be placed between the navigation light and the wall, thus preventing corrosion to either. There should be used acid resistant stainless steel fixing screws/bolts. Never paint navigation light or any of its components. Use only spare parts as described.

TOOLS REQUIRED

Regular tools required for installation.

- Wrench(es) suitable for selected M10 bolts for fixing navigation light to mast / ships structure.
- Flat screwdriver for opening junction box.
- 27mm wrench for installing of cable gland.
- Small flat screwdriver for terminating wires.

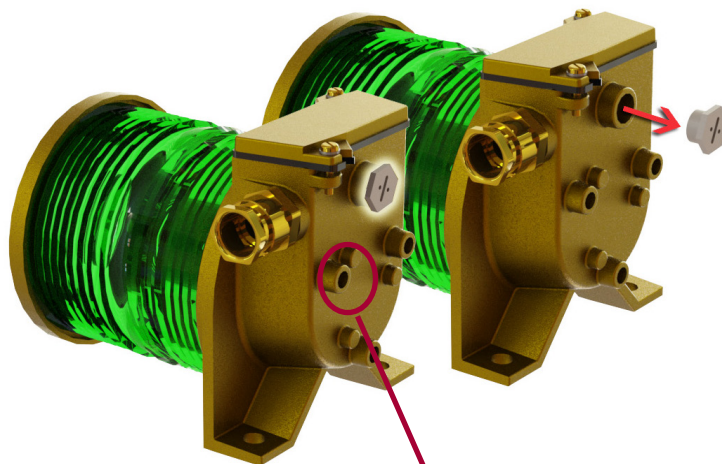
MAINTENANCE INSTRUCTIONS

Gasket for junction box shall be replaced at intervals of one year. (Part No. 5003 0164). Gasket shall be of same type as original. One replacement gasket is included in shipment.

The navigation light should be inspected according to Company routines. The manufacturer suggests regular check for water intrusion / condensation which should be removed immediately. When cleaning, use only mild detergents. Alcohol or petroleum based products may damage lens, paint or plastic components.

At intervals according to company routines, the restricted breathing properties should be verified. Remove stopping plug at test port (PG9). See illustration below.

Connect pressure meter / vacuum pump and conduct test according to IEC 60079-15(2010) 23.2.3.2.1.1. Note: PG9 gland for connection of Ø3.5-8mm hose is included in shipment. Note: According to approval, test of restricted breathing properties is not required.



Point for connecting bonding wire

INSTALLATION INSTRUCTIONS

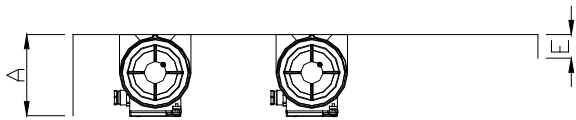
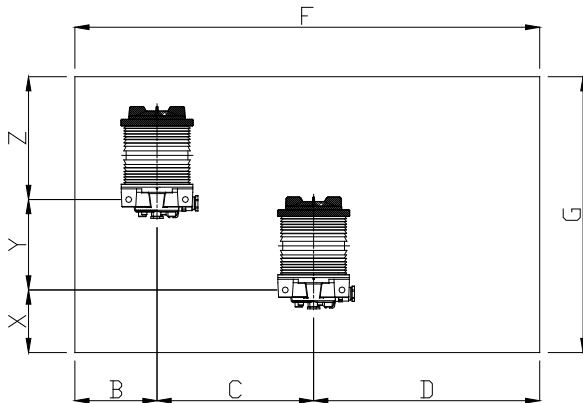
The navigation light should be installed according to IMO regulations and other relevant rules and regulations for electrical installations onboard ships.

Consider the difference in material between the navigation light (seawater resistant brass) and the wall/mast it is to be installed on. **Use galvanic isolators whenever there is a risk of corrosion.**

- Fix navigation light to mast / ships structure using 2x M10 bolts (not supplied). Use acid resistant screws/bolts. Tight firmly, max. 25 Nm.
- Open junction box, install and secure electrical cable. The cable must be clamped near up to the navigation light according to relevant rules and regulations for electrical installations onboard ships.
- Connect electrical wires. Max. 2.5mm². Strip length 8mm. Tightening force 0.6-0.8nm. Connect ground wire to M5 earth screw in junction box.
- Screw on junction box lid. Max. tightening force: 5 Nm. Make sure that gasket is centered and covering the whole perimeter.
- External bonding conductor. Connect bonding wire to point shown in illustration above. M8 screw.

For mounting and screening of side navigation lights, see illustration next page.

SCREENING DATA FOR SIDE



280A105557

NOTE:

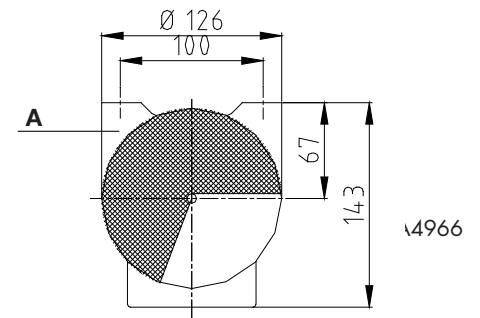
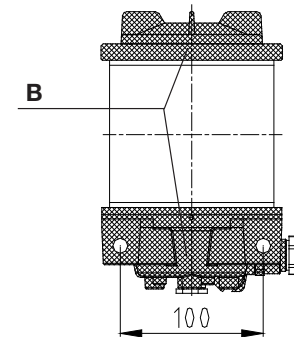
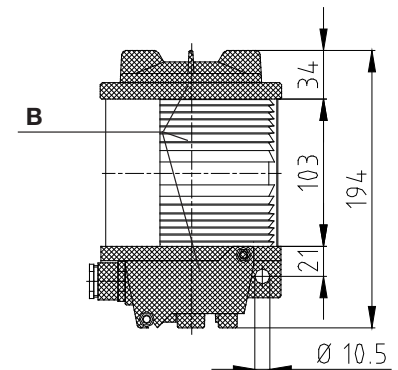
All measurements in millimeters
 All tolerances +/-1mm
 Minimum measurements indicated by an asterix (*)

Formula:

	A	B	C*	D	E	F*	G*	X*	Y*	Z*
TEF 2870	$<B*2$	≥ 200	175	$\geq Cx2$	$67-(0,026xD)$	700	465	55	200	210

Recommended practical measurements:

	A	B	C*	D	E	F*	G*	X*	Y*	Z*
TEF 2870	400	200	175	350	58	700	465	55	200	210



LAMP REPLACEMENT



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Use a 19mm wrench to screw off lid. Twist off lamp and replace. Screw lid back on. Tightening force: 5 Nm.

Recommended mounting method of double tier navigation lights.



SPARE PARTS

Description	Part No.
Light source, P28S 24V 40W	9400 049
Light source, P28S 230V 65W	9400 052
Mounting bracket for 1" pipe	0000 2600
Mounting bracket for 2" pipe	0000 2440
Lamp holder P28S	5088 0019
Gasket, junction box	5003 0164
O-ring, top lid	5000 0051
Cable gland M20 M20 Ex nR Ø6.5-14mm	5030 0000
Gland PG9 Ø3.5-8mm for restricted breathing test	5656

TECNICAL DATA

Material:	Brass, lens of through-coloured glass
Input voltage:	According to installed light bulb. Max. 230V.
Light source:	40W for 24V versions. 65W for 115/230V versions.
Lamp base:	P28S
Power consumption:	40-65 Watt
Ingress protection:	IP56
Cable gland:	M20 Ex nR Ø6.5-14mm
Area of use:	Ex zone 2 and safe area.
Ex classification:	⊕II3G Ex nR IIC Gc T5
Operating temperature:	-52°C to +50°C
Certificate No.	EC type examination MED-B-6820 issued by DNV Product quality system MED-D-1497 issued by DNV PRESAFE 14 ATEX 5436X IECEX PRE 14.0055X

Special conditions: Resistance to impact is tested with reduced values, according to IEC 60079-0(2011) 26.4.2, "low risk of mechanical damage".

Compliance standards: Directive 96/98/EC Annex A.1 item No. A.1/6.1 and Annex B module B, COLREG 72 as amended, Annex I/14, IMO Res A.694(17), IMO Res MSC.253(83) IEC 60079-15(2010), IEC 60079-0(2011)



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Declaration of Conformity

We,
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P. O. Box 8033, N-4068 Stavanger, Norway.
Responsible representative: Tranberg AS, Address: Strandsvingen 6, Gausel.
P. O. Box 8033, N-4068 Stavanger, Norway.

Declare under our sole responsibility that the Products

Navigation Lights with Type designations
TEF 2840, TEF 2850, TEF 2870, TEF 2898

application of Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by Directive 2009/26/EC, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate,

to which this Declaration relates, to conforms to the following Regulations/Standards:

Annex A.1, item No. A.1/6.1 and Annex B, Module B in the Directive. COLREG 72 as amended, Annex I/14, IMO Res. A.694(17) and IMO Res. MSC.253(83)

For assessment, see

- EC Type-Examination (Module B) Certificate MED-B-7473 issued by DNV
- Product Quality System (Module D) Certificate MED-D-1497 issued by DNV

This Declaration is issued according to the provisions of European Council Directive 98/98/EC on Marine Equipment as amended by Directive 2009/26/EC.

Stavanger,
Date: 2011.05.02
Updated: 2011.05.12
Updated: 2015.02.26

Torstein Rysstad

Torstein Rysstad
Discipline Lead Electronics