



Marine & Offshore  
Division

Certificate number: 40613/A0 EC

File number: NAV 8/47678/6

Annex A1 Item number: A.1/6.1

This certificate is not valid when presented without the full  
attached schedule composed of 7 sections  
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Notified Body 0062 - MARINE EQUIPMENT DIRECTIVE 96/98/EC

## EC TYPE EXAMINATION CERTIFICATE

as per Module B of European Union Council Directive 96/98/EC on marine equipment  
as amended by Commission Directive 2013/52/EU

This certificate is issued to

**Den Haan Rotterdam B.V.**

Capelle aan de IJssel - NETHERLANDS

for the type of product

**NAVIGATION LIGHTS**

DHR80 Navigation Light

### Requirements:

COLREG Annex I/14

IMO Res. A.694(17), IMO Res. MSC.253(83),

EN 14744 (2005) incl. AC (2006), IEC 60945 Ed. 4.0 (2002) + /Corr.1 (2008).

This certificate is issued on behalf of the French Maritime Authorities to attest that BUREAU VERITAS did undertake the relevant type-examination procedures for the product identified above which was found to comply with the relevant requirements of the Council Directive 96/98/EC of 20 December 1996 as amended.

**This certificate will expire on: 25 Mar 2020**

For BUREAU VERITAS Notified Body 0062,

At BV GRONINGEN, on 25 Mar 2015,

John Mondt



This certificate does not allow to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark ) to the products corresponding to this type. To this end, the production-control phase module (D, E or F) of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a notified body.

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. BUREAU VERITAS is designated by the French Maritime Authority as a "notified body" under the terms of the French Regulations Division 140 Chapter 140-2. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

Product model or type description :

#### **DHR80 LED Series**

Product description :

Navigation Lights

<b>Sector Lights</b>	<b>Min. Visibility</b>	<b>LED Colour</b>
Starboard	3 NM	Green
Port	3 NM	Red
Masthead	6 NM	White
Stern	3 NM	White
Stern Red	3 NM	Red
Towing	3 NM	Yellow

  

<b>All-round Lights</b>	<b>Min. Visibility</b>	<b>LED Colour</b>
White	3 NM	White
White (Manoeuvring)	5 NM	White
Red	3 NM	Red
Green	3 NM	Green
Yellow	3 NM	Yellow

Power supply : 24VDC -20% +30%

Protection class : IP x6

Operation temperature : -25°C up to +55°C

### 2. DOCUMENTS AND DRAWINGS:

#### **Den Haan Rotterdam B.V.:**

- 150120 DHR - Technical Manual DHR80 LED V2.0, dated Dec 2014
- 150119 DHR - Calibration Certificates and Reports, dated Jan 19, 2015

### 3. TEST REPORTS:

#### **CE-test:**

- EMC test report No.2200/DHR60/EMC, dated Jan 17, 2013

#### **Sebert:**

- Vibration, shock and climate tests report No.M14.001-P14.001, dated Jun 16, 2014

#### **Den Haan Rotterdam B.V.:**

- Photometric & colorimetric tests according to EN 14744, dated Jan 19, 2015

#### **Dekra:**

- Rain & spray tests No. 2173024.01-INC, dated July 08, 2014

### 4. APPLICATION / LIMITATION :

4.1 - For use on board of power driven vessels of 50 m or more in length.

4.2 - For use on board of power driven vessels of unlimited length, as manoeuvring light in compliance with regulation 34(b)iii of COLREG 1972, as amended.

4.3 - Lifetime Control of Led Navigation Light:

Measurements of the navigation light and specifications retrieved from the OEM, show a conformity with the minimum requirements of Colregs at an operational lifetime of 50.000 hrs.

To guarantee a proper use of the LED navigation lights, the manufacturer advises the following:

4.3.1 - Use the navigation light in combination with a DHR-specified control system, which monitors the status and operational life time of each individual navigation light.

4.3.2 - Each navigation light needs to undergo a quality check at least every 5 years of use to verify it still meets the requirements of Colregs.

**5. PRODUCTION SURVEY REQUIREMENTS :**

5.1 - This certificate alone does not allow the applicant to issue the Declaration of Conformity and to affix the mark of conformity (wheelmark) to the products corresponding to this type. To this end, the production-control phase module D "Production Quality Assurance" or E "Product Quality Assurance" or F "Product Verification" of Annex B of the Directive is to be complied with and controlled by a written inspection agreement with a Notified Body.

5.2 - For information concerning the production phase modules, **Den Haan Rotterdam B.V.** has declared that the product may be manufactured at the following manufacturing places :

**Den Haan Rotterdam B.V.**  
**Fascinatio Boulevard 1182**  
**2909 VA Capelle aan de IJssel**  
**NETHERLANDS**

**6. MARKING OF PRODUCT:**

Each navigation light shall be marked permanently in a position clearly visible even after installation on board, with the following information:

6.1 - Zero signal direction by a mark on the reference circle lights

6.2 - Range in nautical miles

6.3 - Origin mark (manufacturer's identification mark)

6.4 - Markings as per MED 96/98/EC:

⊗ YYYY/XX where YYYY is the number of the Notified Body undertaking surveillance module (when BV, 0062) and where XX are the last two digits of year mark affixed.

6.5 -Type designation

6.6 - Nominal wattage of the light source in watts, if different values lead to different ranges.

6.7 - Three-bladed propeller for navigation lights that have a vertical light distribution only for motor boats (COLREG annex I, 10(a)).

**7. OTHERS :**

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Den Haan Rotterdam B.V. - NETHERLANDS** will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*