



Marine & Offshore

Certificate number: 28119/B0 BV

File number: ACE9/853/1

Product code: 2842I

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Böning Automationstechnologie GmbH & Co. KG
Ganderkesee - GERMANY

for the type of product

NAVIGATION LIGHT SWITCHBOARDS AND CONTROL PANELS
Navigation Light Controller
AHD-DPS02

Requirements:

Bureau Veritas Rules and Regulations for the Classification of Steel Ships.
IMO Res. MSC.253(83)

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 17 Dec 2023

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 17 Dec 2018,

Dirk Hoepfner



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 Marine & Offshore. 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. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore 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 Marine & Offshore 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **AHD-DPS02** is a modular navigation light controller with operation hour counter for each lantern.

1.1 - Components:

Type	Description	SW-Vers.
AHD-DPS02 BS	Bridge control module; 4 x panel communication	3.0
AHD-DPS02 G14	Main module; 14 relay outputs; ext.connections: 1x serial, 1x CAN	3.39
AHD-DPS02 A07	Extension module; 7 relay outputs	12.0
A250	Selector switch for main / emergency power supply	-

1.2 - Main characteristics:

Power supply: 24V DC; 115V AC; 230V AC

Degree of protection: IP 22 (Bridge control module); IP 20 other modules and selector switch

2. DOCUMENTS AND DRAWINGS:

- Operating Manual: SoT-1690 dated 01.09.2009; Software versions dated 2012-01-13

- AHD-DPS02_A07_080101DD-A Rev.12 dated Jan. 16, 2008; AHD-DPS02_G14D1_080102DD-A Rev. 12 dated Jan. 17, 2008

3. TEST REPORTS:

Bundesamt für Seeschifffahrt und Hydrographie (BSH): - 537 dated 07 November 2007

Carl Zeiss Jena GmbH: - SPU-QK/EMV 017/2012 dated 2012-04-27

EMV Services GmbH & Co. KG: - 07/7100-9-3 dated Nov. 09, 07

Paconsult GmbH: - 07-1692 Rev. 1 dated 21 January 2008; 08-1930 dated 27 February 2008

4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships and MSC.253(83).

4.2 - Bureau Veritas Environmental Category, **EC Code: 31**

4.3 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.

4.4 - Documents relating to each application are to be submitted to the Society's examination prior fitting on board.

4.5 - Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II Equipment.

4.6 - Lifetime monitoring of LED lamps are to be adjusted according to expected lifetime specified by lamp manufacturer.

4.7 - The minimum safe distance at which the equipment may be mounted from a standard or a steering magnetic compass is not to be less than 1,7 m.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **Böning Automationstechnologie GmbH & Co. KG** in compliance with the type described in this certificate.

5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.

5.3 - Bureau Veritas product certificate is required.

5.4 - For information, **Böning Automationstechnologie GmbH & Co. KG** has declared to Bureau Veritas the following production site(s):



Böning Automationstechnologie GmbH & Co. KG
Am Steenöver, 4
27777 Ganderkesee
GERMANY

6. MARKING OF PRODUCT:

- Maker's name or trade mark.

- Equipment type or model identification.

- Date of manufacture and/or serial number.

-  or  conformity marking, as relevant.

7. OTHERS:

7.1 - It is **Böning Automationstechnologie GmbH & Co. KG's** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate No. 28119/A0 BV issued on 20-Nov-2013 by the Society.

*** END OF CERTIFICATE ***