



Marine & Offshore

Certificate number: 29150/C0 BV

File number: AP4338

Product code: 3896H

*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*

**NORIS Automation GmbH**

Rostock - GERMANY

*for the type of product*

**MEASURING DEVICE TRANSDUCERS**

Signal Converter

SA502-3G

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33

*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: 21 Feb 2028**

**For Bureau Veritas Marine & Offshore,**

At BV HAMBURG, on 21 Feb 2023,

Dirk Hoepfner

***This certificate was created electronically and is valid without signature***



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](http://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 **SA502-3G** is a DIN rail mounted device for converting of a potentiometer signal into analogue signals.

#### **Main characteristics:**

Power supply: 24V DC  
 Input: 1x potentiometer (2...10kOhm)  
 Output: 1x 0...10V, 1x 0...20mA, 1x relay wire break monitoring  
 Degree of protection: IP20  
 Hardware version: d

### 2. DOCUMENTS AND DRAWINGS:

- 090.002.03.1xx, 090.002.03.20x.x, 090.002.03.400 dated 14.04.2011  
 - 090.002.03.209.A dated 07.09.2011, 090.002.03.500 dated 13.04.2011  
 - SAR38 Rev. d dated 12.10.2010

For C0 version:

- Data sheet V.1.03 dated 06/09/12  
 - NAR-KD-0103-1-en V. 1.04 dated 07/10/11; NAR-PD-0103-2-en V.1.03 dated 25/11/20  
 - SL38-d\_v129-dated 20.04.2018

### 3. TEST REPORTS:

- Noris Automation GmbH: NAR-PB-0103-1-en\_V006 dated 2011-09-28; NAR-PB-0103-1-en\_V101 dated 2012-02-29  
 TTBM11-001\_NAR Version 01 dated 23.11.2011; FMEA: SA502-3G Rev. d dated 26.05.2011  
 - TÜV Rheinland LGA Products GmbH: E 5.664 Part C dated Dec.13,2011; 3056096 060 dated 03.08.2012  
 - Teseq GmbH: D/11/3863/06 dated 2011-09-26

For C0 version:

- Ametek: 5297/043 dated 2021-09-29

### 4. APPLICATION/LIMITATION:

4.1 - Bureau Veritas Rules for the Classification of Steel Ships  
 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**  
 4.3 - Bureau Veritas Environmental Category, **EC Code: 33**  
 4.4 - The equipment fulfills the EMC requirements for installation on the Bridge and Deck Zone.  
 4.5 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev8.

### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned device is to be supplied by **NORIS Automation GmbH** in compliance with the type described in this certificate.  
 5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.  
 5.3 - **NORIS Automation GmbH** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

**NORIS Automation GmbH  
 Friedrich-Barnewitz-Str. 10  
 18119 Rostock - GERMANY**

### 6. MARKING OF PRODUCT:

- Maker's name or trademark  
 - Date of manufacture and/or serial number  
 - Equipment type or model identification

### 7. OTHERS:

7.1 - It is the responsibility of **NORIS Automation GmbH** 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 N° 29150/B0 BV issued on 19 Feb 2018 by the Society.

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