



Certificate No:
TAA0000309

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Burner Management System

with type designation(s)
Burner Sequencer Controller SBS-BSC-1

Issued to

SBS Europe d.o.o.
Rijeka, Croatia

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Temperature	D
Humidity	B
Vibration	A
EMC	A
Enclosure	Required protection according to the Rules to be observed

See also Application/Limitation

Issued at **Hamburg** on **2021-06-02**

This Certificate is valid until **2026-06-01**.

DNV local station: **Rijeka**

for **DNV**

Approval Engineer: **Marco Rinkel**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

Burner Sequencer Controller based on

1. Siemens PLC; SIMATIC S7-1200, CPU 1215C)
Correction: Siemens PLC
 - a) SIMATIC S7-1200, CPU 1214C
 - b) SIPLUS S7-1200, CPU1214C
2. I/O cards SIMATIC S7-1200, Digital output SM 1222
Correction: I/O cards
 - a) SIMATIC S7-1200, Digital output SM 1222
 - b) SIPLUS S7-1200, Digital output SM 1222
3. aux relays see 3RQ3 (or equivalent)

Application Software version and revision: V1.0

Application/Limitation

The type approval certificates of the above listed components needs to be valid at date of installation. For vessels contracted after the 31st December 2021 the components needs to comply with CG-0339 revision 2019 with regard to electromagnetic emissions and field test.

When the system is used in applications to be classed by DNV, documentation for the actual application including valid TAs of the components is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems. A Product Certificate is not required.

Tests according to "Test procedure for Sea Acceptance Test (SAT)" – 20153-111 rev.0 are to be carried out on board.

Type Approval documentation

See ANNEX.

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016 have been carried out with above listed components (see related certificates).

Functional tests according to "Test procedure at Manufacturer (FAT)" – 20-153-110 rev.1

Marking of product

SBS-BSC-1
DNV TA: TAA0000309
PROJ: 2x-xxx

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

An assessment will be performed at renewal of the certificate.

END OF CERTIFICATE



Job Id: 262.1-035614-1
Certificate No: TAA0000309

ANNEX
Type Approval documentation
(hidden).