



Marine & Offshore

Certificate number: 51847/A0 BV

File number: MPA1703350

Product code: 4502I

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

Kongsberg Maritime AS
Kongsberg - NORWAY

for the type of product

NETWORK COMMUNICATION SYSTEMS

K-IMS

Remote Services and Data Exchange

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships,

IEC 60945 Ed. 4.0 (2002) + /Corr.1 (2008),

IEC 61162-460 Ed. 1.0 (2015).

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.

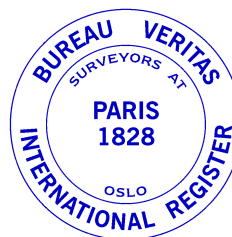
This certificate will expire on: 26 Feb 2023

For Bureau Veritas Marine & Offshore,

At BV OSLO, on 26 Feb 2018,

Rune MARSTEIN

Rune Marstein



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 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The K-IMS Remote Services and Data Exchange solution is intended to be used for secured data collection and remote support purposes in Kongsberg Maritime industrial systems installed onboard vessels.

Onboard K-IMS equipment covered by this certificate :

Type	Unit	Hardware	Software Version
Gateway	Router/Firewall	Cisco C892	GSN 2.y.z.(p)
Gateway	Malware Protection System (MPS)	Data Respons 7" Marine Touch Panel Computer	MPS 3.y.z.(p)
Node	K-IMS Connect	MP8300 MP5810	K-IMS Connect 4.9.3 or 5.y.z.(p)

Onshore equipment tested together with the above :

Type	Unit	Hardware	Software Version
Border Gateway	Bomgar appliance	B300	15.1.3
Border Gateway	Backend GSN HUB	Cisco ISR4331/K9	15.4(3)S2
Border Gateway	PKI and GSN admin tools	Centralized KM solution	NA

2. DOCUMENTS AND DRAWINGS :

Documents and drawings are stored under Product Design Review number 21176U/EQP/K-IMS in particular the following :

- 2.1 - 403843 Revision E - Kongsberg Remote Services - Layout Drawing
- 2.2 - 17035-RET Revision V2 - Risk Analysis - Cyber Security Services applied to K-IMS solution for data collection

3. TEST REPORTS :

Test reports are stored under Product Design Review number 21176U/EQP/K-IMS in particular the following :

- 3.1 - 421863 Revision A07s - Remote Services & Data Exchange Type Approval Test Program

4. APPLICATION / LIMITATION :

- 4.1 - According to 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 : **SYS-COM**.
- 4.3 - The equipment fulfils the EMC requirements for installation on the bridge and deck zone.
- 4.4 - K-IMS components are to be kept away from a corrosive atmosphere.
- 4.4 - Only Hardware and Firmware successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.
- 4.5 - The installation shall comply with the Manufacturer's recommendation described in documentations.
- 4.6 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.
- 4.7 - In order to lower the conducted and radiated emissions, the equipment listed in clause 1 shall be fitted in appropriate shielded cabinets and used with screened cables.
- 4.8 - In order to lower the conducted emissions, the power supplies of equipment listed in clause 1 shall be fitted with appropriate on line filters.

5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The NETWORK COMMUNICATION SYSTEMS are to be supplied by **Kongsberg Maritime AS** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320. BV product certificate is required.
- 5.3 - For information, **Kongsberg Maritime AS** has declared to Bureau Veritas the following production site(s):

Kongsberg Maritime AS
POB 483
Kirkegårdsveien 45
3601 Kongsberg
NORWAY

6. MARKING OF PRODUCT :

- Maker's name or trade mark,
- Serial number of the units,
- Equipment type number or model identification under which it was type-tested,
- Compass safe distance.

7. OTHERS :

It is **Kongsberg Maritime AS** 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.

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