



Marine & Offshore

Certificate number: 77336/A0 BV

File number: MPA2401083

Product code: 4440I

*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**

Horten - NORWAY

*for the type of product*

**ALARM, MONITORING AND CONTROL SYSTEMS**

K-Chief 700

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships, Offshore Units and Yachts

EC Code: 31

*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: 19 Jul 2029**

**For Bureau Veritas Marine & Offshore,**

At BV OSLO, on 19 Jul 2024,

Rune MARSTEIN

***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. 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 4 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

K-Chief is an integrated system which can carry out following functions:

- Alarm and Monitoring
- Power Management
- Control of Machinery, Cargo, Ballast, Vessel Mode, Heating, Venting and Air Conditioning

	Components	Part No.
<b>Panels</b>	Tracker Ball Panel (TBP)	388930
	PBT Flat Version Black	8100318
	TPP Touch Pad Panel	388010
<b>Operator Control Panels</b>	COP-05 BU-AUT Panel	603529
	COP-05 ALC MkII	345242A2
	COP05 ALC Stand Alone	391890
	Panel ALC	603526
	Panel Input Mk3 COP 05	110-0049940
<b>Earth Failure Indicator</b>	EFI-16	321492
<b>Media Converter</b>	RMC-ST	321520
<b>Controller</b>	RCU 502i	421768
	RCU 601	477601
	RCU 602	383962
<b>IO Units</b>	RMP420	306712
	RTB 420	326843
	RMP420S	319824
	RDIOR420	306713
	RDIO420S	316564
	RMP422i	408442
	RMP422Si	408406
	RMP201-8	324400
	RSER200-4	603444
RHUB200-5	603442	
<b>LAN to CAN module</b>	L2C	404654, 406381
<b>Network component</b>	RTL8153B-USB3.0/3.1/3.2 to 4x Gb Ethernet	446030
<b>Extension Alarm and Watch Call Units</b>	WCC 600	373860

**AIM Basis Software No.** 8.3, 8.5, 8.6, 8.7, 8.8 , 8.10 and 8.12

### 2. DOCUMENTS AND DRAWINGS :

- COP-05 Hardware Module Description No. 300984 rev.E dated December 2023
- USB 3.2 Gen1 Ethernet datasheet No. 463242B DS
- RCU601 Hardware Module Description No. 110-0026741 rev.B dated January 2024
- Assembly Drawing No, 392044 rev.A dated 2018-01-29
- KM Module Declaration of Identity No. 482250 rev.A dated 27 Aug 2021
- AIM Revision History, No. 110-0001444 rev.B dated 13/02/2024
- Release Note AIM\_8.3 and updates, rev. D No. 342886 21 Aug 2013
- Revision History K Chief, K-Chief 700 and K-Safe, No. 110-0001444 rev.A dated 2022-03-30
- Release Note AIM-2000 version 8.8 and updates No. 418888 rev. A dated 11 Sept 2018
- Release Note AIM-2000 version 8.7 and updates No. 418821 rev.A dated 04 Oct 2016
- Release Note AIM\_8.5 and updates No. 368836 rev.B dated 21 Aug 2013
- Software Quality Plan and Life Cycle activities for K-chief, K-Chief 700 and K-Safe No. 434902 rev.B dated 2023-10-25
- Drawing No. 345242 rev.A1 dated 08-08-2010
- Alarm and Command Panel Datasheet No. 345410 rev.A
- COP-05 ALC Panel, Hardware Module Description, No. 300977/B dated October 2006
- COP-05 BU-AUT Panel, No. 301028/B dated May 2007
- EFI-16 Datasheet No. 353295/B
- Drawing No. 404663 rev.A dated 2015-12-12
- Pushbutton Telegraph (PBT) Datasheet No. 330199B

- Drawing No. HA462855 rev.A1 dated 2008-06-24
- RCU502i Datasheet No. 429810/C
- RCU502i Hardware Module Description, No. 429804/D
- RCU602 Datasheet No. 418371/C
- RCU602 Hardware Module Description, No. 408644/C
- RDIO420S- Remote Digital Input/Output No. 342966/C
- RDIO420S Hardware Module Description, No. 323936/H dated January 2021
- RDIO420 Hardware Module Description, No. 311163/D dated July 2016
- RDIO420- Remote Digital Input/Output No. 312745/B
- RHUB200-5 Communication HUB Datasheet No. 312740/C
- RHUB200-5 Hardware Module Description No. 300994/G dated Oct 2021
- RMC-ST Datasheet No. 353301/B
- Drawing No. 323520 Rev. C dated 2019-01-21
- RMP201-8 Hardware Module Description No. 330111/C dated Oct 2011
- RMP201-8 Datasheet No. 351489/ Rev.A dated November 2010
- RMP420 Hardware Module Description No. 311165/E dated July 2018
- RMP422i Hardware Module Description, No. 424828/B dated July 2013
- RMP422i Datasheet No. 424830/B
- RSER200-4 Hardware Module Description, No. 300993 rev. J dated June 2020
- RSER200-4 Datasheet No. 312741/C
- RTB420 Hardware Module Description, No. 326849/C dated November 2013
- RTB420 Datasheet No. 346615 Rev.A dated November 2010
- TBP Datasheet No. 389995 Rev.C
- TPP Touch Pad Panel Datasheet No. 389994 Rev.B
- Drawing No. 386576 Rev.B dated 2013-10-14
- WCC 600 Datasheet No. 381827E
- AIM Revision History, No. 110-0001444 rev.B dated 13.02.2024

### 3. TEST REPORTS :

- Test Report No. REP019643 dated 2024-01-17
- Test Report No. E19179.01 dated 2020-03-25
- Test Report No. REP008558 dated 2023-03-16
- Test Report No. E21088.03 dated 2021-10-28
- Test Report No. 69187 dated 31 Aug 2006
- Test Report No. DANAK-198195 Rev.1 dated 15 June 2007
- Test Report No. 69187 dated 31 August 2006
- Test Report No. DANAK-1910264 dated 01 Sept 2008
- Test Report No. DANAK-1910281 rev.1 dated 14 Oct 2008
- Test Report No. 19/16085 rev.A dated 15 Feb 2016
- Test Report No. DANAK-197561 dated 09 Aug 2004
- Test Report No. DANAK-197329 dated 30 January 2004
- Test Report No. E18081.01 dated 2019-02-19
- Test Report No. E15165.01 dated 2017-04-28
- Test Report No. DANAK-1910121 dated 27 March 2008
- Test Report No. DANAK-198696 dated 15 March 2007
- Test Report No. DANAK-1910541 dated 11 June 2009
- Test Report No. DANAK-198508 dated 17 October 2006
- Test Report No. E22067.01 dated 2022-04-20
- Test Report No. DANAK-1910280 dated 19 Sept 2008
- Test Report No. E13144.03 dated 2017-08-17
- Test Report No. DANAK-1910830 dated 19 March 2010
- Test Report No. DANAK-19/14440 Rev. B dated 04 Feb 2015
- Test Report No. 3P08182 rev.02 dated 2015-02-02
- Test Report No. E12103.01 dated 2012-10-22
- Test Report No. E14127.00 dated 2014-05-21
- Test Report No. E18040 dated 2019-07-04
- Test Report No. DANAK-19/12904 rev.1 dated 05 Sept 2013

### 4. APPLICATION / LIMITATION :

- 4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships, Offshore Units, and Yachts.
- 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: 31**

- 4.4 - The equipment fulfils the EMC requirements for installation in Bridge and Deck Zone
- 4.5 - Only Hardware and Firmware / Software successfully tested together in compliance with the rules as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.
- 4.6 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.
- 4.7 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:
- Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.
  - Inspection and testing before installation onboard is to be performed under the surveillance of the Society.
- 4.8 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

#### 5. PRODUCTION SURVEY REQUIREMENTS :

- 5.1 - The above types of product are to be supplied by **Kongsberg Maritie 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.
- 5.3 - BV product certificate is required.
- 5.4 - For information, **Kongsberg Maritime AS** has declared to Bureau Veritas the following production site:

<b>Kongsberg Maritime Ship Systems AS</b> <b>Bekkajordet 8a</b> <b>P.O.Box 1009</b> <b>N-3194 Horten</b> <b>NORWAY</b>	<b>Kongsberg Maritime China Jiangsu Ltd.</b> <b>No.711 Changjiang Road</b> <b>Zhenjiang, Jiangsu Province</b> <b>212002, Zhenjiang</b> <b>CHINA</b>	<b>Kongsberg Maritime Korea (KMK)</b> <b>9-7, Sandan 3-ro,</b> <b>Jeonggwan-eup, Gijang-gun</b> <b>BUSAN</b> <b>KOREA (REPUBLIC OF)</b>
<b>Kongsberg Maritime China Ltd.</b> <b>136 North Fute Road , China (Shanghai)</b> <b>Pilot Free Trade Zone</b> <b>Shanghai</b> <b>CHINA</b>	<b>Kongsberg Maritime AS</b> <b>POB 483</b> <b>Kirkegårdsveien 45</b> <b>3601 Kongsberg</b> <b>NORWAY</b>	

#### 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
- Ⓢ/ or Ⓞ conformity marking, as relevant

#### 7. OTHERS :

It is **Kongsberg Maritime AS'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.

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