

# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:  
**MEDB00001MY**  
Revision No:  
**2**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV AS under the authority of the Government of Norway.

## This is to certify:

**That the Bridge Navigational Watch Alarm System (BNWAS)**

with type designation(s)  
**K-Bridge BNWAS**

Issued to

**Kongsberg Maritime AS**  
**KONGSBERG, Norway**

is found to comply with the requirements in the following Regulations/Standards:

Regulation (EU) 2021/1158,  
item No. MED/4.57. SOLAS 74 as amended, Regulations V/18 & V/19, IMO Res. A.694(17), IMO Res. MSC.128(75), IMO Res. MSC.191(79), IMO Res. MSC.302(87), IMO MSC.1/Circ.1474

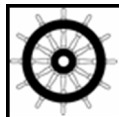
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2026-10-24**.

Issued at **Høvik** on **2021-10-25**

DNV local station:  
**Sandefjord**

Approval Engineer:  
**Steinar Kristensen**



Notified Body  
No.: **0575**

for **DNV AS**

.....  
**Sverre Olav Bergli**  
**Head of Notified Body**

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005, and amended by Decision No 1/2019 dated February 22nd, 2019.



The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.

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.



## Product description

Kongsberg Maritime K-Bridge BNWAS is implemented within the Kongsberg K-Bridge system platform, and comprises the following modules :

<b>Hardware:</b>		<b>Model/Type:</b>
• K-Bridge Operator Station	:	As defined in separate certificate*)
• Main Alarm Reset Panel	:	308358
or BNWAS Main Panel	:	425293
• Pre-Warning Reset Panel	:	8100319
or BNWAS Reset Panel	:	440700
• Alarm Buzzer (Bridge)	:	3700825
• Alarm Buzzer (Cabins)	:	3700688
<b>Option:</b>		
• Kongsberg Motion Sensor PA6810E	:	378592

### Software modules:

K-Bridge System Platform SW	:	As defined in separate certificate*)
-----------------------------	---	--------------------------------------

\*) Certificate TAA00000FJ for K-Bridge and K-Nav system platforms (see Type Examination documentation below) in its latest revision at the date of placing the system on the market is part of this certificate.  
For the relevant revision see also <https://approvalfinder.dnv.com/>.

## Application/Limitation

- Installation to be performed according to the manufacturer's documentation. See Type Examination documentation below for details.
- The K-Bridge BNWAS may be delivered in K-Bridge Console KM05 or as built-in version for other consoles incl. KM18.
- K-Bridge BNWAS may fulfil the additional DNV requirements for BNWAS used onboard ships with NAUT notifications, depending on system configuration and installation.

## Tests carried out

- |   |  |
|---|--|
| • Performance testing:                    | IEC 62616 (2010) and DNV Rules Pt.6 Ch.3 (July 2021) |
| • Environmental testing:                  | IEC 60945 (2002) incl. Corr.1 (2008)                 |
| • Serial interface testing:               | IEC 61162-1 (2016)                                   |
| • Presentation of Navigation information: | IEC 62288 (2014)                                     |
| • Bridge Alert Management:                | IEC 62923-1 (2018) and IEC 62923-2 (2018)            |

### Type Examination documentation

DNV No	Doc. Id	Rev.	Description
53	477915	C	Report: Kongsberg Maritime, K-Bridge and K-Nav CAM BAM Type Approval test report
51	HA462878	A	Drawing: Kongsberg Maritime, BNWAS Prewarning/reset panel IP56
50	440691	B	Drawing: Kongsberg Maritime, BNWAS Reset Panel flush mounted, Layout drawing
49	425294	A	Drawing: Kongsberg Maritime, BWMAS Main Panel Flush
48	329349	A	Drawing: Kongsberg Maritime, BWMAS Panel Sint 500 D Standard
44	463299	A	Report: Kongsberg Maritime, Motion detector Takex PA6810E, K-Bridge BNWAS Function Test
42	E14056.00	00	Report: Nemko, EMC and environmental test report for Passive IR sensor type 378592 (KM doc. no 254128)
38	E09778.00	00	Report: Nemko, EMC and environmental test report for PA6810E Motion Sensor
29	429327	D	Manual: Kongsberg Maritime, K-Bridge BNWAS, Operator Manual Release 8.2
27	TAA00000FJ	Latest rev.	Certificate: DNV, Type Approval certificate for K-Bridge and K-Nav system platforms
24	419028	A	Report: Kongsberg Maritime, K-Bridge BNWAS renewal test report
10	2011-10-25		Report: Kongsberg, K-Bridge BNWAS 4.0.x Type Approval System
9	2011-10-25		Report: Kongsberg, K-Bridge 5.1.x BNWAS Type Approval System
7	DANAK-1910004	2008-01-09	Report: DELTA, Type Approval testing of SONF1DC24G
3	334399	E	Manual: Kongsberg Maritime, K-Bridge BNWAS, Installation Manual

### Marking of product

The type designation and name and contact address of the manufacturer shall be affixed visibly, legibly and indelibly to the product. In addition the product shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.