



## EC-Declaration of Conformity

### **In accordance with the Marine Equipment Directive 2014/90/EU**

we herewith declare that the following product is in accordance with the design described in EC Type Examination (Module B) Certificate No. MEDB000024X issued by DNV•GL and produced and tested in accordance with the Quality System (Modul D) as certified by DNV•GL Certificate No. MEDD000013V.

In case of alteration of the product without our agreement, this declaration loses its validity.

#### **Manufacturers name:**

Wärtsilä ELAC Nautik GmbH  
Neufeldtstrasse 10  
D-24118 Kiel  
Tel.: +49 (0) 431 883-0

#### **Description of the electrical equipment:**

- function: Echo-sounding equipment
- type/model: Navigation Echo Sounder LAZ 5200
- part number: 52 614 8001; 52 614 8002

This declaration is valid for all units manufactured according to the actual valid production drawings at the issuing date of this declaration.

#### **Reference to the applied standards:**

- ISO 9875 (2000) incl. Corrigendum 1 (2006)
- IEC 60945 (2002) incl. Corr.1 (2008)
- IEC 61162-1 (2010 and 2016), IEC 61162-2 (1998), IEC 61162-450 (2011) incl. Amd.1 (2016) and IEC 61162-460 (2015), Sect.10.3 and 10.4 (450-node)
- IEC 61924-2 (2012) incl. Corr.1 (2013), Annex J
- IEC 62288 (2014)

**Place/Date:** Kiel, March 12, 2018

#### **Signature:**

(name, position)

i. A. Hans-Hermann Lund; CE- Coordinator

# Material Declaration

<Date of declaration>

Date	2018-04-04
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<MD ID number>

MD-ID-No.	107126
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<Supplier (respondent) information>

Company name	Wärtsilä ELAC Nautik GmbH
Division name	
Address	Neufeldtstrasse 10, 24118 Kiel, Germany
Contact person	Hans- H. Lund
Telephone number	+49 431 883 421
Fax number	+49 431 883 489
E-mail address	hans-hermann.lund@elac-wartsila.de
SDoC ID-No.	107127

<Other information>

Remark 1	
Remark 2	
Remark 3	

<Product information>

Product name	Product number	Delivered unit		Product information
		Amount	Unit	
Navigation Echo Sounder LAZ 5200	52 614 8001/8002		piece	including transducer (LSE 131, 297, 313, 329 or 179) cable and connection box

<Material information>

This materials information shows the amount of hazardous materials contained in

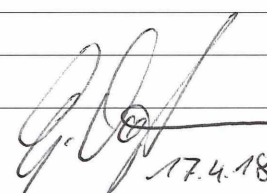
	Unit
1	

Table	Material name	Threshold level	Present above threshold level	If yes, material mass		If yes, information on where it is used	
			Yes/No	Mass	Unit		
Table A** (materials listed in appendix 1 of the Convention)	Asbestos	0.1%*	No				
	Polychlorinated biphenyls (PCBs)	50 mg/kg	No				
	Ozon depleting substance	Chlorofluorocarbons (CFCs)	no threshold level	No			
		Halons		No			
		Other fully halogenated CFCs		No			
		Carbon tetrachloride		No			
		1,1,1-Trichloroethane		No			
		Hydrochlorofluorocarbons		No			
		Hydrobromofluorocarbons		No			
	Methyl bromide	No					
Bromochloromethane	No						
	Anti-fouling systems containing organotin compounds as a biocide	2,500 mg total tin/kg	No				
Table B** (materials listed in appendix 2 of the Convention)	Cadmium and cadmium compounds	100 mg/kg	No				
	Hexavalent chromium and hexavalent chromium compounds	1,000 mg/kg	No				
	Lead and lead compounds	1,000 mg/kg	No				
	Mercury and mercury compounds	1,000 mg/kg	No				
	Polybrominated biphenyl (PBBs)	50 mg/kg	No				
	Polybrominated dephenyl ethers (PBDEs)	1,000 mg/kg	No				
	Polychloronaphthalenes (Cl >= 3)	50 mg/kg	No				
	Radioactive substances	no threshold level	No				
Certain shortchain chlorinated paraffins	1%	No					
Annex II*** (Additional materials)	Perfluorooctane sulfonic acid (PFOS)	no threshold level	NA				
	Brominated Flame Retardant (HBCDD)	no threshold level	NA				

\*Please refer to footnote 18 on the "Form of Material Declaration" in the IMO Guidelines Resolution MEPC.269(68).

\*\*Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (SR/CONF/45).

\*\*\*Regulation EU No. 1257/2013 of the European Parliament and of the Council of 20 November 2013 on Ship Recycling and amending Regulation EC No. 1013/2006 and Directive 2009/16/EC



# EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

**This is to certify:  
That the Echo-sounding equipment**

with type designation(s)  
**LAZ 5200**

Issued to  
**Wärtsilä ELAC Nautik GmbH**  
**Kiel, Germany**

is found to comply with the requirements in the following Regulations/Standards:  
Regulation **(EU) 2017/306**,  
**item No. MED/4.6. SOLAS 74 as amended, Regulations V/18, V/19 & X/3, IMO Res. A.224(VII), IMO Res. A.694(17), IMO Res. MSC.36(63), IMO Res. MSC.74(69), IMO Res. MSC.97(73), IMO Res. MSC.191(79), IMO Res. MSC.302(87)**

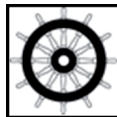
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-03-05**.

Issued at **Hamburg** on **2018-03-06**

DNV GL local station:  
**Hamburg**

Approval Engineer:  
**Jörg Rebel**



Notified Body  
No.: **0098**



for **DNV GL SE**  
Digitally Signed By: Dudszus, Sven  
Location: DNVGL Hamburg

**Sven Dudszus**  
**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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.

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 GL SE 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.



## Product description

The echo-sounding equipment LAZ 5200 consists of following components necessary for operation:

Designation	Type Designation	Version no.	
		Hardware	Software
Main Unit	LAZ 5200	Rev.E	1.1292.x.y
Echo sounder transducer	LSE 131 (Working frequency 30 kHz) and/or		
Echo sounder transducer	LSE 297 (Working frequency 50 kHz) and/or		
Echo sounder transducer	LSE 313 (Working frequency 200 kHz) and/or		
Echo sounder transducer	LSE 329 (Working frequency 100 kHz)		

Optional additional components:

Designation	Type Designation
Digital display	Wärtsilä ELAC DAZ 25
Digital display	Wärtsilä SAM 4900 Universal Digital Display
Remote display and control function <sup>(1)</sup>	a) LAZ 5200 ConsoleApp b) LAZ 5200 Remote Function Network Interface
Echo sounder transducer	LSE 179 (Working frequency 15 kHz) <sup>(2)</sup>

<sup>(1)</sup> Use of a) requires a display that permanently shows the LAZ 5200 ConsoleApp in a window of at least 20 cm x 16 cm. The display is to be certified according to IEC 60945 (2002) including Corr.1 (2008) and to IEC 62288 (2014).

Use of b) requires additional certification of the display and control functions implemented by the bridge integrator according to ISO 9875 (2000) including Corr.1 (2006).

<sup>(2)</sup> Not tested for compliance with IEC 60945 (2002)

## Application/Limitation

The echo-sounding equipment LAZ 5200 fulfills the requirements for a 450-node according to IEC 61162-460 (2015).

## Type Examination documentation

DNV GL No	Document ID	Rev.	Description
1	89732	2017-12-18	Report: Tests acc. to ISO9875
2	89965	2017-12-20	Report: Tests acc. to IEC61162-x
3	105402	2017-12-21	Report: Annexes to DNV GL no.2
4	100649	2017-12-18	Report: Tests acc. to IEC60945
5	89041	2017-12-18	Report: Tests acc. to IEC62288
6	ZP 52 614 8001	2018-01-17	Report: Performance tests during temperature tests acc. to IEC60945, Sect.8
7	17-9398	Rev.1, 2017-12-12	Report: Tests acc. to IEC60945, Sect. 8, and IEC60529
8	071821.196.17_IEC	V1.0, 2017-11-08	Report: Tests acc. to IEC60945, Sects. 9, 10 and 11.2
9	F172234E1	2017-12-19	LAZ 5200 IEC 62288 (tlw) F172234E1
10	102095	2017-09-19	Release Note: Protection against salt fog
11	TH 52 614 8001 EN	01/2018	Manual: Operating Instructions ELAC LAZ 5200
25	106306	2018-02-15	Report: Interface tests during temperature tests acc. to IEC60945, Sect. 8

### Tests carried out

- Performance testing: ISO 9875 (2000) incl. Corrigendum 1 (2006)
- Environmental testing: IEC 60945 (2002) incl. Corr.1 (2008)
- Serial interface testing: IEC 61162-1 (2010 and 2016), IEC 61162-2 (1998), IEC 61162-450 (2011) incl. Amd.1 (2016) and IEC 61162-460 (2015), Sect.10.3 and 10.4 (450-node)
- Bridge Alert Management compliance: IEC 61924-2 (2012) incl. Corr.1 (2013), Annex J
- Presentation of navigational information: IEC 62288 (2014)

### Marking of product

According to Article 10 of the Council Directive (MED):

- The wheel mark shall be affixed visibly, legibly and indelibly to the product or to its data plate and, where relevant, embedded in its software. Where that is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging and to the accompanying documents.
- The wheel mark shall be affixed at the end of the production phase.
- The wheel mark shall be followed by the identification number of the notified body, where that body is involved in the production control phase, and by the year in which the mark is affixed.
- The identification number of the notified body shall be affixed by the body itself or, under its instructions, by the manufacturer or the manufacturer's authorised representative.

For specific products, manufacturers may use an appropriate and reliable form of electronic tag instead of, or in addition to, the wheel mark.

Each unit of equipment normally to be installed in a distance of 5 m or less from a standard or a steering magnetic compass shall be clearly marked with the minimum safe distance at which it may be mounted from such compasses.

Alternatively, the minimum safe distance for fixed equipment may be given in the equipment manual.

END OF CERTIFICATE

# QS - CERTIFICATE OF ASSESSMENT - EC (MODULE D)

Certificate No:  
**MEDD000013V**  
Revision No:  
**1**

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

**This is to certify:****That the Quality System for the products**

with type designation(s) as specified in the Appendix to this Certificate

Issued to

**Wärtsilä ELAC Nautik GmbH**  
**Kiel, Germany**

is found to comply with the applicable requirements.

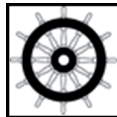
The quality system has been assessed with respect to the procedure of conformity assessment described in Annex II, Module D in the directive 2014/90/EU and regulation (EU) 2017/306.

This Certificate is valid until **2020-01-06**.

Issued at **Hamburg** on **2018-03-06**

DNV GL local station:  
**Hamburg**

Approval Engineer:  
**Jörg Rebel**



Notified Body  
No.: **0098**



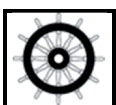
for **DNV GL SE**

Digitally Signed By: Dudszus, Sven

Location: DNVGL Hamburg

**Sven Dudszus**  
**Head of Notified Body**

The manufacturer is allowed to affix the U.S. Coast Guard approval number(s) as stated in the appendix attached hereto and as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004.



0098/yyyy

0098: Notified Body number undertaking quality surveillance  
yyyy: The year in which the mark is affixed

The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate authorizes the manufacturer in conjunction with the valid EC Type Examination (Module B) Certificate(s) of the equipment listed before to affix the Mark of Conformity (wheelmark) to the product described herein.

This certificate loses its validity if the manufacturer makes any changes to the approved quality system, which have not been notified to, and agreed with the notified body named on this certificate. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

The Manufacturer has to apply for periodical audits to verify the maintenance and application of the quality system every 12 months.



Job Id: **344.1-006854-2**  
Certificate No: **MEDD000013V**  
Revision No: **1**

## APPENDIX

### Item no. MED/4.6 Echo-sounding equipment

Type designation	EC Type-Examination Certificate No.	Expiry date	Notified Body No.	USCG approval number
LAZ 5200 <sup>1</sup>	MEDB000024X	2023-03-05	0098	165.107/EC0098 /MEDB000024X
ES 5100 <sup>1</sup>	4581/001/4062682/15	2020-01-06	0735	165.107/EC0735 /4581-001-4062682-15 /EC0098
LAZ 5100 <sup>1</sup>	4581/001/4062757/15	2020-01-06	0735	165.107/EC0735 /4581-001-4062757-15 /EC0098

### Places of production

1. Wärtsilä ELAC Nautik GmbH, Neufeldtstr. 10, Kiel, Germany

## Supplier's Declaration of Conformity for Material Declaration Management

- 1) SDoC No.: 107127
- 2) Issuer's name: Wärtsilä ELAC Nautik GmbH  
Issuer's address: Neufeldtstrasse 10, 24118 Kiel
- 3) Object(s) of declaration: 1) Navigation Echo Sounder LAZ 5200; MD-ID-No.: 107126  
2)  
3)  
4)

4) The object(s) of the declaration described above is/are in conformity with the following documents:

5) **Applicable Regulations or other stipulated requirements and documents**

Document No.	Title	Edition	Date of issue
DIN EN ISO 9001	Quality management systems	3.0	2008-12-01
WN 93 015 0102	List of prohibited, declareable and avoidable hazards	A	2016-02-23

6) **Additional Information:**

Signed for and on behalf of: Wärtsilä ELAC Nautik GmbH

Kiel

Place of issue

2018-04-24

Date of issue

7) i. A. H.-H. Lund, QHSE Manager

Name, function

**Wärtsilä ELAC Nautik GmbH**  
Neufeldtstrasse 10  
24118 Kiel / Germany



Signature