

Marine Equipment Directive EC Type Examination Module B Certificate

This is to certify that TÜV SÜD DANMARK ApS did undertake the relevant type approval procedures for the equipment identified below, which was found to be in compliance with the Marine Equipment Directive (2014/90/EU) requirements, under the following Implementing Regulation for the listed types of equipment

Implementing Regulation	(EU)2020/1170
Certificate Holder and Manufacturer	Aquamate Products Limited T/a Echomax Champers Farm Bardfield End Green Thaxted Essex CM6 3PX United Kingdom
EC Representative	ScanMarine DK Aps Egensevej 25 2770 Kastrup Danmark
Product(s)	EchoMax – Model EM230 Radar Reflector
Product Sector	Life-saving Appliances
Product Type	MED/1.33 Radar Reflector for lifeboats and rescue boats (passive)

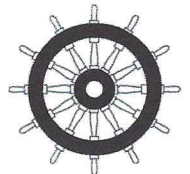
and on the basis of the Technical Data and information detailed in the Annex to this certificate.

Valid from: 01 January 2021


(Tom Twynam)

Expiry Date: 07 September 2022

This certificate has been issued in accordance with the TÜV SÜD Testing and Certification Regulations and constitutes page 1 of the combined Certificate and Annex.
The Conditions for the validity of this certificate are listed in the Annex.
For further details, related to this certification please contact BABT@TUV-SUD.co.uk



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TÜV SÜD DANMARK ApS • Strandvejen 125 • 2900 Hellerup • Denmark

Annex to Marine Equipment Directive Module B Type Examination Certificate

1 Equipment Description

Radar Reflector for lifeboats and rescue boats.

1.1 Models

Model	Variant Model
Echomax EM230 ^{Note 1}	Echomax EM230BR– EM230BM3

1.1.1 System Components

Model	Description
EM230	Reflector Unit

1.1.2 Optional Components

Model	Description
EM230DB	Deck Mount Bracket
EM230MB	Mast Mount Bracket
EM230BM3	Base Mount Fixture

1.1.3 Variant System Components

Model	Description
EM230BR	Reflector Unit

1.1.4 Variant Optional Components

Model	Description
EM230DB(BR)	Deck Mount Bracket
EM230MB	Mast Mount Bracket
EM230BM3	Base Mount Fixture

2 Assessed Requirements

2.1 Implementing Regulation (EU)2020/1170

2.2 Compliance Requirements for MED/1.33

IMO Resolutions	International Testing Standards	
IMO Res.A.384(X)	EN ISO 8729-1:1998	Ships and marine technology — Marine radar reflectors
IMO Res.A694(17)	IEC 60945:2002	General Requirements for Marine Navigation Equipment (Inc. Corr1:2008)

3 Technical Documentation

3.1 Declaration of Conformity

DECLARATION OF CONFORMITY

Modified

2020-12-10



Danmark

Annex to Marine Equipment Directive Module B Type Examination Certificate

3.2 User Guide

Lifeboat Mounting Instructions Dated 2012-09-05

3.3 Test Reports

3.3.1 EN ISO 8729 (1998) inc. IEC 60945 (2002) & Corr.1 (2008)

QinetiQ TT-03/03 Dated 2003-04-03
RR-Assess-01/2012, Iss.1 Dated 2012-08-24

3.4 Build Status

3.4.1 Hardware

Reflective Array Assembly STD EM230/230BR array Dated 2012-08-22
Reflector, Bill of Materials EM230/230BR Dated 2012-08-18

3.5 Notes

Note 1 This Radar Reflector does not meet the requirements of IMO Resolution MSC.164(78) and is certified under the provisional arrangements of the COSS Decision of 23rd April 2012 for use on lifeboats & rescue craft only.

4 Additional Information

ISO 8729, 2nd Edition published November 1997 was published in Europe as EN ISO 8729:1998 and in the UK as BS EN ISO 8729:1999 - all technical content is identical.

The EM230 and EM230BR are rigid designs of radar reflector and require mounting arrangements suitable to hold them substantially upright agreed with the lifeboat or rescue craft manufacturer. The optional deck or mast mount brackets, or base mount fixture may be used where suitable structures are available. Mounting height should be at least 2m above sea level.

The products listed on this certificate were originally assessed and certified by TÜV SÜD BABT under Notified Body number 0168, Certificate number BABT-MED000028 Issue 02.

5 Conditions of Validity

This certificate ceases to be valid if the manufacturer makes any changes or modifications to the approved equipment, which have not been notified to, and agreed with TÜV SÜD DANMARK ApS or a person appointed by TÜV SÜD DANMARK ApS to perform that role.

Should the specified regulations (internal conventions and the relevant resolutions and circulars of the IMO) or standards be amended and enforced through an Implementing Regulation during the validity of this certificate, the product(s) is/are to be reapproved prior to it/them being placed on the market or onboard vessels to which the amended regulations or standards apply.

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-control phase module (D, E, or F) of Annex B of the directive is fully complied with and controlled by a written inspection agreement with a notified body.

Signature:

(Tom Twynam)

Date:

2021-01-01

On behalf of TÜV SÜD DANMARK ApS