DNV·GL

Certificate No:
MEDB000014H

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive (EU) 2015/559, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate.
This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Alarm devices - Sounders

with type designation(s)
Interactive sounding devices

Issued to
Autronica Fire and Security AS
TRONDHEIM, Norway

is found to comply with the requirements in the following Regulations/Standards:
Annex A.1, item No. A.1/3.53 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/7 & X/3, 1994 HSC Code 7, 2000 HSC Code 7, FSS Code 9 and IMO MSC.1/Circ.1242

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

This Certificate is valid until **2021-03-28**.
Issued at **Høvik** on **2016-06-30**

DNV GL local station:
Trondheim

Approval Engineer:
Nils Jarem

Notified Body
No.: **0575**

for **DNV GL AS**
Digitally Signed By: Nesvåg, Odd Magne
Location: DNV GL Høvik, Norway
Signing Date: 2016-07-01, on behalf of

Vidar Dolonen
Head of Notified Body

NORWEGIAN ACCREDITATION PROD 019

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 Council Directive 96/98/EC, as amended.
This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment.
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

This certificate comprises fire alarm sounders in a fixed installation intended to signal an audible warning of fire between a fire alarm system and the occupants of the vessel. The devices derive their operating power by means of a physical electrical connection to an external source as a fire alarm system. The sounder provides different advanced sound patterns according to configuration. All sounders within the same loop will have synchronized sound outputs, so two sounders located near each other will be perceived as one. The maximum number of sounders on a detection loop must be calculated according to the limitation of the system in question. All devices are designed for use with Autronica's interactive fire alarm system.

BBQ-130
BBQ-130 is a combined detector base and addressable sounder/strobe that is connected directly to the detection loop.
Sound output on 80 / 90 dB(A) @ 1m, designed for indoor applications (type A).

BBR-130
BBR-130 is a combined detector base and addressable sounder that is connected directly to the detection loop.
Sound output on 80 / 90 dB(A) @ 1m, designed for indoor applications (type A).

BBR-230
BBR-130 is an addressable sounder that is connected directly to the detection loop.
Sound output on 90 / 100 dB(A) @ 1m, designed for indoor applications (type A).

BBR-230/IP
BBR-230/IP is an addressable sounder that is connected directly to the detection loop.
Sound output on 90 / 100 dB(A) @ 1m, designed for outdoor applications (type B).

BBQ-230
BBQ-230 is a addressable sounder/strobe that is connected directly to the detection loop.
Sound output on 90/ 100 dB(A) @ 1m, designed for indoor applications (type A).

BBQ-230/IP
BBQ-230/IP is an addressable sounder/strobe that is connected directly to the detection loop.
Sound output on 90 / 100 dB(A) @ 1m, designed for outdoor applications (type B).

BBR-110
BBR-110 is a combined detector base and addressable sounder that is connected directly to the detection loop.
Sound output on 86 dB(A) @ 1m, designed for indoor applications (type A).

BBR-200
BBR-200 is an addressable sounder that is connected directly to the detection loop.
Sound output on 100 dB(A) @ 1m, designed for indoor applications (type A).
Following sub models are included: BBR-200, BBR-200/W, BBR-200/NL, BBR-200IP and BBR-200IP/NL.

Job Id: **344.1-001926-3**
Certificate No: **MEDB000014H**

Application/Limitation

MODEL	TEMPERATURE	VIBRATION	EMC	ENCLOSURE (IP)
BBQ-130	TEM-B	VIB-B	EMC-B	ENC-A2
BBR-130	TEM-B	VIB-B	EMC-B	ENC-A2
BBR-230	TEM-B	VIB-B	EMC-B	ENC-A2
BBR-230/IP	TEM-D	VIB-B	EMC-B	ENC-C
BBQ-230	TEM-B	VIB-B	EMC-B	ENC-A2
BBQ-230/IP	TEM-D	VIB-B	EMC-B	ENC-C
BBR-110	TEM-B	VIB-B	EMC-B	ENC-A1
BBR-200	TEM-D	VIB-B	EMC-B	ENC-B (BBR-200, BBR-200/W, BBR-200/NL) ENC-C (BBR-200IP and BBR-200IP/NL)

Definition of the location classes with reference to relevant standards:

Temperature

TEM-B Location (5°C/+70°C) *(ref. IEC 60092-504 (2001) table 1 item 6-7)*

TEM-D Location (-25°C/+70°C) *(ref. IEC 60092-504 (2001) table 1 item 6-7)*

Vibration

VIB-B For eq. on reciprocating machines etc. (*ref. IEC 60092-504 (2001) table 1 item 10)*

EMC

EMC-B Bridge and open deck zone *(ref. IEC 60092-504 (2001) table 1 item 19-20)*

Enclosure

ENC-A1 Dry control room, accommodation (IP20) *(ref. IEC 60092-201 table 5*)

ENC-A2 Control room, accommodation, bridge (IP22) *(ref. IEC 60092-201 table 5*)

ENC-B Engine room (IP44) *(ref. IEC 60092-201 table 5*)

ENC-C Outdoor (IP56) *(ref. IEC 60092-201 table 5*)

Type Examination documentation

Equipment	Scope	Document	No.
BBQ-130	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01	15
	Product data	Autronica, DS, 116-P-BBQ130, Rev. C, 2014-06-25	17
BBR-130	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01	15
	Product data	Autronica, DS, 116-P-BBR130, Rev. B, 2011-02-21	18
BBR-230	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01	15
	Product data	Autronica, DS, 116-P-BBR230, Rev. B, 2011-02-21	19
BBR-230/IP	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01 Abtest Limited, ENV778, dated 2007-02-05	15 23
	Product data	Autronica, DS, 116-P-BBR230IP, Rev. B, 2011-02-21	20
BBQ-230	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01	15
	Product data	Autronica, DS, 116-P-BBQ230, Rev. C, 2014-06-25	21
BBQ-230/IP	EN 54-3	BRE, Test Report, TE 243617 dated 2010-10-15	16
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01 Abtest Limited, ENV778, dated 2007-02-05	15 23
	Product data	Autronica, DS, 116-P-BBQ230IP, Rev. C, 2014-06-25	22
BBR-110	EN 54-3	BRE, Test Report, TE 220788 dated 2005-06-29	3
	IEC 60092-504, IEC 60533	DNV, Test Report, 2010-3107 rev.01	15
	Product data	Autronica, DS, 116-P-BBR110, Rev. C, 2011-09-29	12
BBR-200	EN 54-3	BRE, Test Report, TE 221656 dated 2005-08-18	4
	IEC 60092-504, IEC 60533	DNV, Test Report, 98-1390 rev.01 DNV, Test Report, 99-1491 rev.02 DNV, Test Report, 2001-3252 rev.01	5 6 7
	Product data	Autronica, DS, 116-P-BBR200, Rev. F, 2011-09-29	13

Tests carried out

- IEC 60092-504 (2001) incl. Corr. 1(2011)
- IEC 60533 (2015)
- EN 54-3 (2014)

Marking of product

In general and for identification to this type examination certificate the products shall be marked with:

- Manufacturer's name or trade mark
- Type designation
- Mark of Conformity (see below)

Mark of Conformity

The manufacturer is allowed to affix the Mark of Conformity according to Article 11 in the Council Directive 96/98/EC on Marine Equipment and shall issue a Declaration of Conformity, only when the module D or E or F of Annex B in the same directive is fully complied with.

Module D: The quality system for production and testing shall be approved by the Notified Body.

Module E: The quality system for inspection and testing shall be approved by the Notified Body.

Module F: Compliance of the products to type as described in this EC Type-Examination Certificate must be verified by the Notified Body who also shall issue a of Certificate Conformity.