



Marine & Offshore
Division

Certificate number: 23603/B0 BV

File number: AP 4217

Product code: 4001H

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

Autronica Fire and Security AS
TRONDHEIM - NORWAY

for the type of product

HORNS / SIRENS

Beacons, types BBL-100 and BBL-100IP
Sounders, types BBR-110, BBR-130, BBR-230 and BBR-230IP
Strobes, types BBQ-130, BBQ-230 and BBQ-230IP

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships,
EN 60945 (2002), EN 54-3 (2001)+A1 (2002)+A2 (2006), EN 54-17 (2005).

EC Code: 31B/41B

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate is a renewal of certificate N° 23603/A0 BV expiring on 19/08/2016

This certificate will expire on: 19 Aug 2021

For BUREAU VERITAS,

At BV OSLO, on 24 Jun 2016,

Rune MARSTEIN

Rune Marstein



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. 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 Division 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 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.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation :

Beacons (BBL series), Sounders (BBR series) and BBQ Sounders / Strobes (BBQ series)

- Product description:

AUTRONICA Beacons (BBL series), Sounders (BBR series) and BBQ Sounders / Strobes (BBQ series), addressable and loop powered for connection to AutoSafe alarm systems:

1.1 - Main Characteristics:

1.1.1 - Beacons: BBL-100 and BBL-100/IP

	BBL-100	BBL-100/IP
Lens Colour	Red translucent	Red translucent
Flash Power/Rate	2 Cd on axis @24V/1 Hz	2 Cd on axis @24V/1 Hz
Protection Index	IP 32C (Indoor)	IP 66 (Outdoor)
Working Temperature	-15°C to +70°C	-15°C to +70°C
Power Supply	17-25 VDC	17-25 VDC
Software Version	0.15	0.15
Testing Standard	EN 54-17	EN 54-17

1.1.2 - BBR Sounders: BBR-110, BBR-130, BBR-230 and BBR-230/IP

	BBR-110	BBR-130	BBR-230	BBR-230/IP
Sound Output @ 1m	86 dB(A) @24 V	96 dB(A) ± 3 (17-25 V)	100 dB(A) ± 3 (17-25 V)	100 dB(A) ± 3 (17-25 V)
Low Volume Setting	N/A	80 dB(A) ± 3	90 dB(A) ± 3	90 dB(A) ± 3
Protection Index	IP 20 (Indoor)	IP 22 (Indoor)	IP 42 (Indoor)	IP 66 (Outdoor)
Working Temperature	-10°C to +70°C	-10°C to +70°C	-10°C to +70°C	-25°C to +70°C
Power Supply	14-27 VDC	17-25 VDC	17-25 VDC	17-25 VDC
Software Version	0.15	0.15	0.15	0.15
Testing Standard	EN 54-3	EN 54-3 and EN 54-17	EN 54-3 and EN 54-17	EN 54-3 and EN 54-17

1.1.3 - BBQ Sounders / Strobes: BBQ-130, BBQ-230 and BBQ-230/IP

	BBQ-130	BBQ-230	BBQ-230/IP
Sound Output @ 1m	90 dB(A) ± 3 (17-25 V)	100 dB(A) ± 3 (17-25 V)	100 dB(A) ± 3 (17-25 V)
Low Volume Setting	80 dB(A) ± 3	90 dB(A) ± 3	90 dB(A) ± 3
Flash Power/Rate	2 Cd around @24V/1 Hz	2 Cd on axis @24V/1 Hz	2 Cd on axis @24V/1 Hz
Protection Index	IP 22 (Indoor)	IP 42 (Indoor)	IP 66 (Outdoor)
Working Temperature	-10°C to +70°C	-10°C to +70°C	-25°C to +70°C
Power Supply	17-25 VDC	17-25 VDC	17-25 VDC
Software Version	0.15	0.15	0.15
Testing Standard	EN 54-3 and EN 54-17	EN 54-3 and EN 54-17	EN 54-3 and EN 54-17

2. DOCUMENTS AND DRAWINGS:

Autronica:

- Data Sheets , Ref. 116-P-BBR110/CE, Rev.A, 2006-04-07.

Cooper:

- Letter "Autronica parts manufactured by Fullcon", dated 25th Feb. 2008.

For modification B0 version:

Autronica:

- Data Sheets Ref. 116-P-BBL100/CGB, Rev.C, 2014-06-25, Ref. 116-P-BBL100IP/CGB, Rev C, 2014-06-25, Ref. 116-P-BBQ130/CGB, Rev. C, 2014-06-25, Ref. 116-P-BBQ230/CGB, Rev. C, 2014-06-25, Ref. 116-P-BBQ230IP/CGB, Rev. C, 2014-06-25, Ref. 116-P-BBR100/CGB, Rev. C, 2011-09-29, Ref. 116-P-BBR130/CGB, Rev. B, 2011-02-21, Ref. 116-P-BBR230/CGB, Rev. B, 2011-02-21, Ref. 116-P-BBR230IP/CGB, Rev. B, 2011-02-21

3. TEST REPORTS:

Issued by **BRE:**

Technical Evaluation of the Squashni Micro to EN 54-3, Test Report No. TE220788 dated 29 June 2005

Technical Evaluation of the Autronica Beacons, Sounders and Strobes to EN 54-3 and EN 54-17, Test Report No. TE243617 dated 15 October 2010

Software Evaluation of the AFS, 116 Series of Sounders & Strobes, Test Report No. TE243617 dated 19 October 2010.

Issued by **DNV:**

Maritime testing of I/O and A/V Units, Test Report No. 2010-3107 Rev. 01 dated 2010-05-05.

4. APPLICATION / LIMITATION:

4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.

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: 31B/41B**

4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.

4.5 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.

4.6 - The equipment, once installed on board ship, is to be tested in accordance with the above referred Regulations under the supervision of a Society's Surveyor.

4.7 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer are covered by this certificate.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **Autronica Fire and Security AS** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Autronica Fire and Security AS** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - **Autronica Fire and Security AS** has declared to Bureau Veritas the following production site(s):

Autronica Fire and Security AS
Haakon VII's gate 4
7483 TRONDHEIM
NORWAY

Cooper Fulleon Limited
Llantarnam Park
Cwmbran - South Wales
NP44 3AW
UK

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.
- According to EN 54-3 and EN 54-17

7. OTHERS:

7.1 - It is **Autronica Fire and Security AS - NORWAY'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.

7.2 - This certificate supersedes the Type Approval Certificate No. 23603/A0 BV issued on 19 Aug 2011 by the Society.

*** END OF CERTIFICATE ***