



TYPE APPROVAL CERTIFICATE

Certificate No. : LDN37868-FD001 **Initial Approval** : 26th December, 2012

Product : Sounders and Strobes

Manufacturer : Eaton Electrical Products Ltd.
Llantarnam Park, Cwmbran, NP44 3AW, United Kingdom

Product Description : Type : BBR, BBQ, BBL Series

- BBR Series : Sounder
- BBQ Series : Sounder & Strobe
- BBL Series : Beacon

* Intended for : AutoSafe and AutoPrime Fire Detection System

- Applicant : Autronica Fire and Security AS
Bromstadveien 59, NO-7047, Trondheim, Norway

" See Appendix 1 "

Approval Condition : " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows and entered in the "List of Approved Manufacturers and Type Approved Equipment".

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships,
EN 60945 (2002), EN 54-3 (2001)+A1 (2002)+A2 (2006), EN 54-17 (2005)

This Certificate is valid until 25th December, 2022

Issued at Busan, Korea on 30th August, 2017



KOREAN REGISTER OF SHIPPING

C. H. Park
General Manager of
Marine & Ocean Equipment Team

- Note* : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Appendix 1

Product Description and/or Approval Condition

Certificate No : LDN37868-FD001

Date of Issue :30th August, 2017

A. Product Descriptions

1. Sounder

- 1) BBR-130
 - Sounder with base intended for indoor use
 - Configurable sound pattern
 - High/low volume setting (93 dB and 80 dB)
 - Enclosures Protection IP22
- 2) BBR-230, BBR-230/IP
 - Sounder intended for indoor use
 - Configurable sound pattern
 - High/low volume setting (103 dB and 90 dB)
 - Short circuit isolator in each unit
 - Enclosures Protection IP42 (BBR-230)
 - Enclosures Protection IP54 (BBR-230/IP)

2. Sounder / Strobe

- 1) BBQ-130
 - Sounder/strobe with base intended for indoor use
 - Automatic addressing
 - Configurable sound pattern
 - High/low volume setting (93 dB and 80 dB)
 - Enclosures Protection IP22
- 2) BBQ-230, BBQ-230/IP
 - Sounder/Strobe intended for indoor use
 - Configurable sound pattern
 - High/low volume setting (103 dB and 90 dB)
 - Enclosures Protection IP42 (BBQ-230)
 - Enclosures Protection IP54 (BBQ-230/IP)

3. Beacon

- 1) BBL-100, BBL-100/IP
 - Beacon for indoor use
 - 2 Candela output
 - Enclosures Protection IP32 (BBL-100)
 - Enclosures Protection IP66 (BBL-100/IP)

B. Documentation

1. Test Reports

- BRE Test Report No. TE 220788, TE243617 (EN 54-3 & EN 54-17)
- DNV Test report No. 2010-3107, rev.1 (URE 10 & IEC 60945)

2. Data Sheet No. 116-P-BBL100/100IP/BBQ130/BBQ230/BBQ230IP/BBR130/BBR230/BBR230IP

C. Approval Condition

1. Application and Limitation

- 1) This approval is granted on the basis of the test reports issued by BRE & DNV.
- 2) Unless specially directed by the Administration, this approval is not to be construed as a substitute for a flag Administration's approval. In order to be installed on board the Korean flag vessels in Korea, Product is to be type approved by the Korean Government.
- 3) The product or packing is to be marked with the applicant's name and type designation on a suitable position.

2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual Product Certification is not required.

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