



Marine & Offshore

Certificate number: 07936/F0 BV

File number: AP 3027

Product code: 3719H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

KOCKUM SONICS AB

MALMÖ - SWEDEN

for the type of product

LEVEL GAUGE - ELECTRO-PNEUMATIC TYPE

Type: LEVELMASTER H8.

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

EC Code : 31/21

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 10 Jul 2028

For Bureau Veritas Marine & Offshore,

At BV COPENHAGEN, on 10 Jul 2023,

Hans-erik ERICSSON

This certificate was created electronically and is valid without signature



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 Marine & Offshore. 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 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 Marine & Offshore 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 electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=aacwrmsrq>

BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation:

Levelmaster H8

- Product description:

Level gauging using the electro-pneumatic principle

Description	Makers	Art. N°
Sensor and Control Unit	Kockum Sonics	27000004
Power Supply	Kockum Sonics	2472 1205
Solenoid Valve	Alt.1: Geva Alt.2: Camozzi	24721085 6.5 W 20882489 24VDC, 5 W
Valve control board	Kockum Sonics	2063 3041

- IP 54 cabinet, optional IP65 when using ventilation plug with IP class IP65 or higher.

- Display unit DU 350 and DU 350 Draft.

This system, being based on pneumatic components installed in dangerous zones, doesn't need any intrinsically safe circuits.

2. DOCUMENTS AND DRAWINGS:

2.1 - User's guide for the display-unit DU350.

2.2 - According to notice: KSM 638 EN/0543.

2.3 - Levelmaster H8 User's guide KSM 657/1721.

2.4 - Levelmaster H8 System layout KSM 657/1721. Appendix A.

For E0 version:

Eldon

- MAS0503021R5 Mild Steel, Single Door enclosure, IP66

- Manual Level Master H8, No. KSM 657_2028

- Drawing No. P372.A001, dated 09/07/2018

- Drawing No. UTV11008, dated 2011-09-28

- Drawing No. RS200071938, dated 03-07-18

3. TEST REPORTS:

3.1 - Environmental test report n° 98-1195 Rev. n° 1 - May 1998.

3.2 - Report A504030-1 issued by DELTA on 13 July 2006.

For F0 version :

- Supplementary Test Report No. 119-32982-1, dated 2019-11-25

4. APPLICATION / LIMITATION:

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

4.2 - Approval also valid for ships to be granted with the notations: **AUT-UMS, AUT-CCS, AUT-PORT** and **AUT-IMS**.

4.3 - The equipment fulfills the EMC requirements for an installation on the General Power Distribution Zone.

4.4 - BUREAU VERITAS Environmental Category, **EC Code : 31/21**

4.5 - No electric equipment is to be fitted in hazardous areas.

4.6 - Materials should be compatible with the cargoes transported.

4.7 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **KOCKUM SONICS AB** 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 - **KOCKUM SONICS AB** 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 - **KOCKUM SONICS AB** has declared to Bureau Veritas the following production site:

KOCKUM SONICS AB
Box 1035
Industrigatan 39, 212 28 Malmö
212 10 MALMÖ
Sweden

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.

7. OTHERS:

7.1 - It is **KOCKUM SONICS AB**'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. 07936/E0 BV issued on 01 Sept 2017 by the Society.

***** END OF CERTIFICATE *****