



Marine & Offshore
Division

Certificate number: 09508/D0 BV

File number: ACE 10/801/01

Product code: 3741H

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

KFG Level AG

Baar - SWITZERLAND

for the type of product

LEVEL TRANSMITTERS

KSR-Control Units

MUL... and GL... series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

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 will expire on: 13 Oct 2020

For **BUREAU VERITAS**,

At BV HAMBURG, on 13 Oct 2015,

Sandro Schmidt



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.

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BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

KSR-Control Units MUL.. and GL.. series as per publication 1011

The KSR-Control Units convert a resistance input to a proportional analogue output.

1.1 - Main characteristics:

Degree of protection: IP40/ IP20 (for terminals).

1.2 - Types:

Type	Power supply	Inputs	Outputs
MULD - Control unit with 4-digit 7-segment LED display			
MULD21	18 ... 36V DC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULD22	115V AC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULD23	230V AC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULD41	18 ... 36V DC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
MULD42	115V AC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
MULD43	230V AC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
MULE - Control unit with 4-digit 7-segment LED display; linearisable			
MULE21	18 ... 36V DC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULE22	115V AC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULE23	230V AC	1 to 100 kOhm	0/4 to 20 mA; 2Relays (NO)
MULE41	18 ... 36V DC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
MULE42	115V AC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
MULE43	230V AC	1 to 100 kOhm	0/4 to 20 mA; 4Relays (NO)
Leakage detector GL			
GL1002	115V AC	Floor electrodes	2 Relays (1 NO, 1CO)
GL1003	230V AC	Floor electrodes	2 Relays (1 NO, 1CO)
GL1101	24V DC	Floor electrodes	2 Relays (2 CO)

2. DOCUMENTS AND DRAWINGS:

Catalogue: 1011.

3. TEST REPORTS:

Test reports:

- QNL K 317-05-8; QNL-E581-05-3-e

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules and Regulations 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**.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **Heinrich Kübler AG** 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.

5.3 - **Heinrich Kübler AG** or **KFG Level AG** have to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

Heinrich Kübler AG
Ruessenstrasse 4
CH-6341 Baar
SWITZERLAND

5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trade mark.

- Equipment type or model identification.

- Date of manufacture and/or serial number.

7. OTHERS:

7.1 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **KFG Level AG - SWITZERLAND**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 09508/C0 BV issued on 29 Oct 2010 by the Society.

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