



Marine & Offshore
Division

Certificate number: 40674/A0 BV

File number: ACE11/322/3

Product code: 3896H

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

ISKRA d.d.

LJUBLJANA - SLOVENIA

for the type of product

MEASURING DEVICE TRANSDUCERS

Measuring centre MC3X0 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: 26 Mar 2020

For BUREAU VERITAS,

At BV RIJEKA, on 26 Mar 2015,

Slaven Celic



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 2 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

The **Measuring centre MC3X0 series** are meters intended to monitor and measure electrical quantities of single and three-phase electric energy system.

1.1 - Specification:

Voltage measuring range:	10 to 600V
Max. measured value:	600V LN, 1000V LL
Current measuring range:	0.01 to 10A
Max. measured value:	12.5A
Communications:	RS232, RS485, USB
Degree of protection:	Up to IP54

2. DOCUMENTS AND DRAWINGS :

Technical documentation provided by the manufacturer.

3. TEST REPORTS :

ISKRA:

- Tests report No. 17/2014, dated 28.Jan.2015.

SIQ:

- Tests report No. T211-0624/14, dated 01.Dec.2014.
- Tests report No. T223-0494/14, dated 26.Nov.2014.
- Tests report No. T251-0049/15, dated 27.Jan.2015.
- Test report No. T212-0056/11, dated 13.May.2011.

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.**

4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**

4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The **Measuring centre MC3X0 series** are to be supplied by **ISKRA d.d.** 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 - **ISKRA d.d.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

ISKRA d.d., PE Instrumenti
Otoce 5a
SI-4244 PODNART
SLOVENIA

6. MARKING OF PRODUCT :

6.1 - Trade name.

6.2 - Date of manufacture and serial number.

6.3 - Equipment type or model identification under which it was type-tested

7. OTHERS :

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 **ISKRA d.d.**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

*** END OF CERTIFICATE ***