



Marine & Offshore

Certificate number: 04895/H0 BV

File number: AP 1662

Product code: 3992H

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

SELCO

Roskilde - DENMARK

for the type of product

SUB-ALARM SYSTEMS

Alarm Annunciator Type M1000C, M1000D

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

EC Code: 31

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: 02 May 2023

For Bureau Veritas Marine & Offshore,

At BV FREDERICIA, on 02 May 2018,

Jesper Jensen



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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

M1000C/D is a compact 10 channels programmable Alarm Annunciator and Controller.

M1000C/D may be used on genset or other equipment where alarm annunciation is necessary.

Main Specifications:

ALARM ANNUNCIATOR Type M1000C	ALARM ANNUNCIATOR Type M1000D
<ul style="list-style-type: none"> - Supply Voltage: 12-24VDC or 48-110VDC - 10 Alarm Input Contacts, NO and NC contacts - 10 Open Collector Outputs, 150 mA max. - 2x10 LEDs for Alarms Indication. - RS232 Interface for PC based Configuration - RS485 Interface for Field-bus Communication - Siren Relay Contact: 220V AC/2A, 30V DC /2A - Degree of Protection of Front Side: IP 32 or IP 54 - Insulation Monitoring with insulation test available. - Voltage Monitoring - Cable Monitoring - Firmware Version: 021008 	<ul style="list-style-type: none"> - Supply Voltage: 12-24VDC or 48-110VDC - 10 Alarm Input Contacts, NO and NC contacts - 10 Open Collector Outputs, 150 mA max. - 2x10 LEDs for Alarms Indication. - USB Interface for PC based Configuration - RS485 Interface for Field-bus Communication - Ethernet MODBUS TCP Communication - Event Logging - Siren Relay Contact: 220V AC/2A, 30V DC /2A - Degree of Protection of Front Side: IP 54 - Insulation Monitoring with insulation test available. - Voltage Monitoring - Cable Monitoring - Firmware Version:-01.00.10

2. DOCUMENTS AND DRAWINGS:

According to documents filed under BV N° 1662 AP.

Process MAP (FAT) No. 201 Production dated 16-04-2008.

For modification H0 version:

Datasheet M1000 Alarm Monitor Plus - D-version, Rev. 2-M1000D

User manual M1000 Alarm Monitor Plus - HW revision: D, dated 28 Aug. 2016

3. TEST REPORTS:

DELTA test report N° K251196-3 - Rev. 2 dated 2001-01-08

GL - Type Approval Software ref. SW-E-AK3.doc 19.01.96

DELTA test report N° DANAK-198611, dated 20 Dec. 2006

For modification H0 version:

DELTA test report N° DANAK-19/14491, dated 18 Sep. 2014

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: 31.**

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

4.5 - 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.

4.6 - The M1000C/D is not intended to be used in Machinery Protection.

4.7 - Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II Equipment.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **SELCO** 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 - **SELCO** 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 - For information, **SELCO** has declared to Bureau Veritas the following production site:

SELCO
Betonvej 11
DK-4000 Roskilde
DENMARK

6. MARKING OF PRODUCT:

- Trade name
- Date of manufacture and serial number,
- Equipment type or model identification under which it was type-tested.
- The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.

7. OTHERS:

7.1 - It is **SELCO**'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. 04895/G0 BV issued on 02/02/2012 by the Society.

*** END OF CERTIFICATE ***