

Type Approval Certificate



[Annunciator]

Initial Approval 15th November, 2004
Manufacturer SELCO ApS
Betonvej 11, DK-4000, Roskilde, Denmark
Product Description Type : Analog Alarm Annunciator (M1000-24, 1000C, 1000D)

“ 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.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 14th November, 2024

Issued at Busan, Korea on 21st January, 2021



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME21002692146) and certificate No.(CPH16186-AC003).



KOREAN REGISTER

**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.

Product Description and/or Approval Condition

Date of Issue : 21st January, 2021

A. Product Description

1. Product Specification

1) Product Description (Type : M1000-24, 1000C, 1000D)

The M1000 unit has been installed aboard ships, at chemical plants, oil rigs and many other places where clear and concise alarm monitoring is required. Typical applications are engine monitoring, tank level monitoring or door monitoring.

- Power source : 12-24 VDC \pm 30 %
- Input : 10 Input channels, NO and NC contacts
- Output : 10 Output channels, Max. 150 mA per channel
- Amb. Temperature : -20 °C ~ +70 °C
- Degree of protection : IP56 (front)
- Communication : RS485 interface, Ethernet interface
- Firmware Version : M021008 (for M1000-24, M1000C),
01.00.11 (for M1000D)

2. Approved Drawings and Documents

1) Data sheet

- M1000 Process Alarm Monitor (M1095-111UK)
- M1000 Alarm Monitor Plus - D-version (M1000D, Rev.3)

2) Manual

- M1000 Alarm Monitor Plus (Rev.D)

3. Test Reports, etc.

1) Environmental / EMC Test Report

- No. 2001079220 of KIMM
- DANAK-198611, DANAK-19/14491, Delta K251196-3 rev.2 of DELTA
- P20-0110-5 issued by EKTOS (2020.10.27)

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) Degree of protection shall be complied with Rule Pt.6 Ch.1 Sec.2 201.2. (5).
- 3) The manufacturer should inform this Society of all kinds of revisions of the equipment including software. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.

2. Individual Product Cert. and Drawing Approval Requirement

1) Individual Product Certification is not required.

3. Marking

1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

Product Description and/or Approval Condition

Date of Issue : 21st January, 2021

4. Others

1) Test condition

Test	Condition	Remark
EMC	All locations including the bridge and deck zone	Up to 6GHz
Temperature	-20 ~ +70°C	-
Vibration	Acceleration $\pm 0.7g$, 4.0g	-
Degree of protection	IP56	-

2) Compass Safety Distance

Type	Standard Compass	Steering Compass
M1000	10cm	5cm

< End of Certificate >