



Certificate No:
TAA00003BW

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Conning Display

with type designation(s)
ARINE-CID

Issued to

SAN Engineering Co.,Ltd.
Seongnam-si, Gyeonggi-do, Korea, Republic of

is found to comply with

DNV rules for classification – Ships
IMO Resolution MSC.302(87) Performance standards for Bridge Alert Management
MSC.191(79) Performance standards for presentation of navigation-related information on shipborne navigational displays
IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the global maritime distress and safety system (GMDSS) and for electronic navigational aids

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2024-04-15**

This Certificate is valid until **2029-04-14**.

for **DNV**

DNV local unit: **Seoul**

Approval Engineer: **Tommi Juhani Rifaat**

Frederik Tore Elter
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

The Conning Information Display, ARINE-CID, consists of the following components:

Description	Type	Location
Processor Unit	HTC03-i5-AC-yzzzzzz or DPC-OT-22B	Protected
Display Unit	HD27T22 MMD-MA4-FAGA or ER2701	Protected
Keyboard & Trackball	RKCT92S0001-W-MC1	Protected
Network Hub	EDS-208A	Protected
Mini DP to DP Cable	HA-VGA-2M-32 HA-SDM-2M CD075414JHC00FMB-D VSD101004-1 C-HM/HM-6 RC3473 / HT DPM2DVI-DF-A1 VSDDPVGA340 / HT DPM2VGAF-A1	Protected
Power Cable	TP52/TC01-1.8M TP11/TC01-1,8M	Protected
Sensor Adapter	PCA100297-1	Protected

Software version: 1.0.x where x is higher than 0

Operating system: Windows 10

Application/Limitation

- The installation shall be verified and tested onboard according to manufacturer's installation instruction.
- For installation onboard ship with NAUT notation, information about display layout and information presented shall be submitted for assessment.
- ARINE-CID may be used as an additional user interface for ARINE-BAM Central Alert Management System.

Type Approval documentation

DNV No	Drw No	Rev	Title
11	TAA000039Z		Certificate: DNV, Orion Technology ER2701 Monitor
10	TAA000006N	Rev.5	Certificate: DNV, Moxa Switches
9	DANAK-19/14501		Report: Delta, Enviromental Test Report Keyboard with Trackball
8	MRA000003D	Rev.1	Certificate: DNV, Hatteland Computers
7	MRA0000016	Rev.5	Certificate: DNV, Hatteland Monitors
6		15	Doc: Hatteland, Datasheet Cables and Connectors
5	MRA00000T	Rev.2	Certificate: DNV, Orion Technology Computers & PLCs
4	MRA000004	Rev.4	Certificate: DNV, Orion Technology Monitors
3	ARINE-CID-IM-005	5.0.0	Manual: SAN ENGR, ARINE-CID Instruction Manual
2	ARINE-CID SP-R003	3.0	Report: SAN ENGR, ARINE-CID Software Performance Test

Tests carried out

- Environment testing: IEC 60945 (2002)
- Serial Interface testing: IEC 61162-1 (2016)
- LAN interface testing: IEC 61162-450 (2018)
- Bridge Alert Management testing: IEC 62923-1 (2018) and IEC 62923-2 (2018)
- Presentation testing: IEC 62288 (2021)
- Performance testing: DNV Type Approval program 847.60 for Conning Display
- DNV-RU-SHIP Pt.6 Ch.3. Sec. 3 (2023)

Marking of product

The manufacturer and Type Designation to be applied to the equipment in a clear visible location and in addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.