Certificate No:
TAA00003AV

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Data Collection Infrastructure

with type designation(s)
WinGD Integrated Digital Expert (WiDE) System

Issued to
Winterthur Gas & Diesel Ltd.
Winterthur, ZH, Switzerland

is found to comply with
DNV rules for classification – Ships Pt.6 Ch.5 Sec.21 Cyber security

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.
This type approval covers security capabilities for DNV security profile 0 (SP0), subject to conditions stated in this certificate.

Scope
Temperature
Humidity
Vibration
EMC
Enclosure

Issued at **Høvik** on **2023-09-25**
This Certificate is valid until **2025-09-24**.
DNV local unit: **Augsburg**

Approval Engineer: **Qitao Gan**

for **DNV**

Jarle Coll Blomhoff
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 following components of the **WinGD Integrated Digital Expert (WiDE) System** are covered:

Component Description	Type Designation /HW version	OS/Platform SW version	Application SW version
WiDE system software package	-	Windows 10 Pro	Main WiDE system SW version is: V1(.y.z) [1] where y.z is 0.0 or newer Including [2] DCM UI 2(.y.z) where y.z is 0.10 or newer EDS SW & UI 1(.y.z.w) (Single) where y.z.w is 5.6.1 or newer, 1(.y.z.w) (Twin) where y.z is 5.6.2 or newer
WiDE system hardware package	Single engine: WECS: PAAD280423 (C) [3] UNIC: PAAD282162 (C) UNIC DF: PAAD306442 (C) WiCE: PAAD330120 (A) WiCE w/ IEX: PAAD372161 Twin engine: WECS: PAAD306443 (C) UNIC: PAAD306444 (C) UNIC DF: PAAD306446 (C) WiCE: PAAD330121 (A) WiCE w/ IEX: PAAD372162	-	-
Fast Signal Module (FSM, optional)	-	-	-
DCM Computer Unit	-	-	-
DCM Interface Unit	-	-	-
DCM Bridge Unit	-	-	-

Note:

1. The software version shall follow format "X.Y.Z.W" where, X is major version, Y is Minor version, Z is patch, and the optional W refers to single or twin.
2. And other SW components as specified in type approval documentation below “Asset Inventory specification”
3. The Hardware version shall follow format "Part.number (Revision)" where, “Part.number” is a Major version and “Revision”: Minor version.

Approval conditions

The following documentation of the actual application is to be submitted for approval in each case:

- Reference to this Type Approval Certificate
- (F071) Inventory list
- (I030) System block diagram (topology)
- (Z262) Report from test at manufacturer

Any modifications in the system to be delivered compared with the type approved system covered by this certificate shall be documented and submitted for approval in each case.

Major changes of the type approved system affecting future deliveries shall be informed to DNV. If the changes are considered to affect functionality for which rule requirements apply, a new functional type test may be required, and the certificate may have to be renewed to identify the new version.

Minor changes are covered by this type approval.

Application/Limitation

This type approval covers cyber security capabilities at DNV **security profile 0** (SP0) in accordance with DNV-RU-SHIP Pt.6 Ch.5 Sec.21 [4] for hardware and software listed in Product description.

The verified security capabilities are implemented in the product which provides services to WinGD's customers. Customer data/application is not necessarily subject to the same security functions.

The approval is valid when the internal network interface is connected to a trusted zone. Only the external network interface may be connected to an untrusted zone.

The data flows shall be according to the Zone and Conduits Diagram (ref. TA documentation) for WiDE system as was approved per this certificate. Any other direct data flows from DCM Bridge Unit to DCM Interface Unit (or vice versa) should be documented.

In the current firewall settings, all communications to and from untrusted networks are encrypted; allowed FTP connections (TCP port 21, i.e. unencrypted communications) shall be only used for legacy installations.

Remote connections via untrusted networks through TeamViewer are configured with "Custom settings", and they are normally shut down and blocked by the IT department of vessel owners. Once the connection is established, it's the authorized personnel onboard responsibility to monitor the activities performed via TeamViewer, i.e. to deny access if not approved.

Tests carried out

All hardware and software versions were tested July 24th ~ 25th 2023 at WinGD site in Winterthur, Switzerland, in accordance with requirements for DNV security profile 0 (SP0) for

- Cyber secure, ref. DNV-RU-SHIP Pt.6 Ch.5 Sec.21 (2023-07 Edition)
- Cyber security capabilities of systems and components , ref. DNV-CP-0231 (2021-09 Edition)

Marking of product

The type designation and the manufacturer name and contact address shall be affixed visibly, legibly and indelibly to the product. In addition, the product shall be marked with:

- model name
- serial number
- power supply rating

Place of manufacture

- Winterthur Gas & Diesel Ltd. (WinGD), Winterthur, Switzerland

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE