

**EUROPEAN UNION RECOGNISED
ORGANISATION (EU RO) MUTUAL
RECOGNITION TYPE APPROVAL
CERTIFICATE**

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

DEIF A/S
Skive, Midtjylland, Denmark

for

Monitors, Terminals

with type designation(s)

AGI 407, AGI 410, AGI 415, AGI 421

The product is found to comply with

**EU RO Mutual Recognition Technical Requirements for Display Monitors, Video Screens,
Terminals****EU RO Mutual Recognition Technical Requirements for Computers and Programmable Logic
Controllers**

Intended service

**Application of the control, monitoring and safety systems which are subject for approval of
the individual RO classing the vessel.****Temperature [°C]: -25 and 55****Vibration: ±1 mm / 0.7 g****EMC: All locations including bridge and open deck****IP Code: Front side IP66, back side IP20****This is to certify:**

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2024-01-24**.Issued at **Høvik** on **2019-01-25**DNV GL local station: **Aalborg**for **DNV GL**Approval Engineer: **Nils Jarem**

Jan Tore Grimsrud
Head of Section

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

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.



Product description

Model name	Description
AGI 407	<ul style="list-style-type: none"> - 7" TFT color display, resolution 800x480 pixel, 16M colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 3 Ethernet ports - SD Card slot - 2 Plug-in module slots for system expansion - Standard Compass Safe Distance: Standard: 85 cm, Steering: 40 cm
AGI 410	<ul style="list-style-type: none"> - 10.1" TFT color display, resolution 1280x800 pixel, 16M colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 3 Ethernet ports - SD Card slot - 2 Plug-in module slots for system expansion - Standard Compass Safe Distance: Standard: 115 cm, Steering: 75 cm
AGI 415	<ul style="list-style-type: none"> - 15.6" TFT color display, resolution 1366x768 pixel, 16M colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 3 Ethernet ports - SD Card slot - 2 Plug-in module slots for system expansion - Standard Compass Safe Distance: Standard: 180 cm, Steering: 130 cm
AGI 421	<ul style="list-style-type: none"> - 21.5" TFT color display, resolution 1920x1080 pixel, 16M colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 3 Ethernet ports - SD Card slot - 2 Plug-in module slots for system expansion - Standard Compass Safe Distance: Standard: 220 cm, Steering: 130 cm

OPTIONAL MODULES with brand EXOR	
Module name	Description
EXM CAN	CAN Interface - DB9 CAN connector
EXM AGIO06	Compact I/O Module - 8 Digital Inputs - 6 Digital Outputs - 1 Relay Output

Manufacturers Ratings: Power supply voltage 24 Vdc

Firmware version: AGI 400 Firmware 1.0.344

Manufactured by
 EXOR INTERNATIONAL SPA
 San Giovanni Lupatoto VR, Italy

Application/Limitation

This approval covers hardware only. This excludes firmware, application software, and hardware designed for specific applications subject to classification. Firmware, system software, and application software is subject to additional separate approval, according to UR E22 and the rules of the classing RO (FAT and on-board review / tests).

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

The touch functionality is not covered by this certificate.

Type Approval documentation

See ANNEX

Marking of product

Model name: As listed under Product description
Serial number: Unique for each delivered item

Other Conditions

The units have been verified for compliance with EU Mutual Recognition Technical Requirements for Display Monitors, Video Screens and Terminals version 0.3, dated 2016-04-01, except the "Acoustic noise and signals measurement".

EU Mutual Recognition Technical Requirements for Computers and programmable logic controllers (PLC) version 0.3, dated 2016-04-01 have additionally been verified.

Environmental test parameters

Temperature: -25°C and 55°C

Vibration: ±1 mm / 0.7 g

EMC: All locations including bridge and open deck

Enclosure: Front side IP66, back side IP20

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

Periodical assessment is to be performed annually and at renewal of this certificate.

END OF CERTIFICATE

Job Id: **262.4-000157-1**
Certificate No: **MRA0000027**

ANNEX

Type Approval documentation
(hidden)