Certificate No:
TAA000030Y

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
PoE HMI: JSmart705, JSmart707, JSmart710, JSmart715, JSmart721

Issued to
Exor International S.p.A.
San Giovanni Lupatoto VR, VR, Italy

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Temperature	**A**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**C / IP67**

Issued at **Hamburg** on **2021-06-22**
This Certificate is valid until **2026-06-21**.
DNV local station: **Italy/Malta CMC**

Approval Engineer: **Didier Girardin**

for **DNV**

Joannis Papanuskas
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

PoE HMI JSmart705, JSmart707, JSmart710, JSmart715, JSmart721
PCAP touchscreen HMI with TFT Displays

Type Name[1)]	Tech-Note [1)]	
JSmart705	800x480 pixel (5” TFT – 16M colors)	ARM Cortex-A9 dual core - 800 MHz
JSmart707	1024x600 Pixel (7” TFT – 16M colors)	ARM Cortex-A9 iMX.6 dual core - 800 MHz
JSmart710	1280x800 Pixel (10.1” TFT – 16M colors)	ARM Cortex-A9 dual core - 800 MHz
JSmart715	1366x768 Pixel (15.6” TFT – 16M colors)	ARM Cortex-A9 quad core - 800 MHz
JSmart721	1920x1080 Pixel (21.5” TFT – 16M colors)	ARM Cortex-A9 quad core - 800 MHz

Note 1: Wi-fi application tested in compliance with standards covered by present certificate.

Compass safe distance:
JSmart705: Standard 15 cm. Steering 10 cm
JSmart707: Standard 15 cm. Steering 10 cm
JSmart710: Standard 20 cm. Steering 15 cm
JSmart715: Standard 25 cm. Steering 20 cm
JSmart721: Standard 65 cm. Steering 50 cm

The safe distance shall be marked on the EUT or recorded as described in cl. 4.5.3 of EN 60945:2002

Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Each delivery to be provided with installation instruction MANJSMARTxxxU004 V.1.03 and MANJSMARTxxxU005 V.1.03 or later approved version

Limitation/Application

- Not suitable for control and monitoring of main function as defined by DNVGL Pt.1 Ch.1 S.1- Table 2
- “JSmart” POE Injector upstream equipment to be DNV type approved

Type Approval documentation

See Annex

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019.
For the bridge mounted components, the ‘‘Compass safe distance’ were measured according to sections 11.2 of IEC 60945, 4th edition (2002).

Marking of product

The products to be marked with:
- manufacturer name
- model name
- serial number
- power supply ratings

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.
END OF CERTIFICATE

ANNEX

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