



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

Certificate No:
MRA000001K
Revision No:
4

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

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

for

Monitors, Terminals

with type designation(s)

eX705/M, eX707/G/M, eX710/M, eX710MG, eX712M, eX715, eX715MG, eX715MH, eX721/M, eXware 703M, eXware707M

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°C and 55°C
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 **2028-06-28**.

Issued at **Hamburg** on **2026-05-28**

DNV local unit: **Italy/Malta CMC**

Approval Engineer: **Holger Jansen**



for **DNV**

Digitally signed by: Dariusz Lesniewski
Location: DNV SE, Germany

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

Power supply voltage 24 Vdc

Model name	Description
eX705	<ul style="list-style-type: none"> - 5" TFT color display, resolution 800x480 pixel, 64K colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 2 Ethernet ports - SD Card slot - 1 Plug-in module slot for system expansion - Standard Compass Safe Distance: Standard: 15 cm, Steering: 10 cm
eX705M	<ul style="list-style-type: none"> - 5" TFT color display, resolution 800x480 pixels, 64K colors. - Dimmable LED backlight - Projected capacitive touchscreen. True glass design. Multitouch operation - 2 Ethernet ports - SD Card slot - 1 Plug-in module slot for system expansion - Standard Compass Safe Distance: Standard: 20 cm, Steering: 10 cm
eX707 eX707M	<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
eX707G	<ul style="list-style-type: none"> - 7" TFT color display, resolution 800x480 pixel, 16M colors, high brightness - 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: 30 cm, Steering: 20 cm
eX710 eX710M	<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
eX710MG	<ul style="list-style-type: none"> - 10.1" TFT color display, resolution 1280x800 pixels, 16M colors, high brightness - 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: 60 cm, Steering: 45 cm
eX712M	<ul style="list-style-type: none"> - 12.3" TFT color display, resolution 1920x720 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: 40 cm, Steering: 10 cm

eX715	<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
eX715MG	<ul style="list-style-type: none"> - 15.6" 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: 85 cm, Steering: 60 cm
eX715MH	<ul style="list-style-type: none"> - 15.6" TFT color display, resolution 1280x800 pixels, 16M colors, high brightness - 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: 70 cm, Steering: 40 cm
eX721 eX721M	<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

Model name	Description
eXware703M	<ul style="list-style-type: none"> - 2 Ethernet ports - SD Card slot - 1 Plug-in module slot for system expansion - Standard Compass Safe Distance: Standard: 35 cm, Steering: 25 cm
eXware707M	<ul style="list-style-type: none"> - 3 Ethernet ports - SD Card slot - 2 Plug-in module slots for system expansion - Standard Compass Safe Distance: Standard: 40 cm, Steering: 30 cm

MODEL NAME:

Model name can be followed by 1 or 2 or 3 characters.

BRANDING:

EXOR

700 Series Part number:

EX7aaX5PZ, where:

EX7aa(a)=Model Name

X = one or two digit - any letter or number (brand)

5 = one digit - fixed for front glass

P = one digit - fixed only P for conformal coating machine

Z = one digit - any letter or number (customization)

eXware700 Series Part number:

EXW7aaX0PZ, where:

EXW7aa(a)=Model Name "eXware7aa(a)"

X = one or two digit - any letter or number (brand)

0 = one digit - fixed for "No Display"

P = one digit - fixed only P for conformal coating machine or 0 for no conformal coating

Z = one digit - any letter or number (customization)

OPTIONAL MODULES with brand EXOR	
Module name	Description
PLCM01	CAN Interface - DB9 CAN connector
PLCM04	RS-422/485 interface with optical insulation
PLCM05	Plug-in Extender Module
PLIO03	Multifunction I/O Module - 20 Digital Inputs configurable as counter/encoder channels - 12 Digital Outputs - 8 Analog Inputs configurable for voltage, current or temperature measurement - 1 PT100 input for cold junction compensation of thermocouples - 4 Analog Outputs configurable for voltage or current
PLIO06	Compact I/O Module - 8 Digital Inputs - 6 Digital Outputs - 1 Relay Output

MODULE NAME

Module name can be followed by 1 or 2 or 3 or 4 or 5 characters

Part number:

PLaannXYPZ, where:

PLaann = Module name

X = one or two digits - any letter or number (brand)

Y = one digit - any letter or number

P = one digit - fixed only P for conformal coating

Z = one digit - any letter or number (customization)

Manufactured by

Exor International S.p.A.

Via Monte Fiorino 9-13

IT-37057 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 are 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.

Required protection according to the Recognised Organisation's Rules shall be provided upon installation on board.

The touch functionality is not covered by this certificate.

Type Approval documentation

See ANNEX

Marking of product

The products to be marked with:

- Model name
- Manufacturer name
- Serial number (composed of 20 digits, the third of which must be "0" identifying the authorized production site "Exor International S.p.A. - Via Monte Fiorino 9-13 - IT-37057 San Giovanni Lupatoto (VR) - Italy")
- Power supply ratings
- (Optionally labeled with EXOR or CORVINA Trademark)

Other Conditions

The units have been verified for compliance with EU Mutual Recognition Technical Requirements for Display Monitors, Video Screens and Terminals version 0.6, dated 2023-01-01.

EU Mutual Recognition Technical Requirements for Computers and programmable logic controllers (PLC) version 0.8, dated 2023-01-01 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

ANNEX

Type Approval documentation

(hidden)

Title	Drw No	Rev	
ALUMINIUM ENCLOSURE FOR 10" eTOP610	COPERT4661		1
eTOP721 ALL. FRAME	CORNICE4812		4
eTOP610 ALL. FRAME	CORNICE4660		5
eTOP621 ALL. ENCLOSURE	COPERT4813		1
eTOP715 ALL. ENCLOSURE	COPERT4827		2
eTOP715 ALL. FRAME	CORNICE4826		2
eXware703 ALL. BASE	COPERT4987		2
eXware707 ALL. BASE	COPERT5068		4
eX705 TECH. NOTE	PTN0589		1.6
eX707 TECH. NOTE	PTN0590		1.7
eX707G TECH. NOTE	PTN0622		1.4
eX710 TECH. NOTE	PTN0591		1.8
eX715 TECH. NOTE	PTN0592		1.8
eX721 TECH. NOTE	PTN0593		1.8
eX710G TECH. NOTE	PTN0623		1.6
eX707M TECH. NOTE	ptn0689		1.3
eX710M TECH. NOTE	ptn0690		1.3
eX712 TECH. NOTE	ptn0669		1.2
eX712M TECH. NOTE	ptn0691		1.3
eX715M TECH. NOTE	ptn0692		1.3
eX715MG Tech Note	ptn0698		1.2
eX721M TECH. NOTE	ptn0693		1.3
eXware703 TECH. NOTE	PTN0594		1.8
eXware707 TECH. NOTE	PTN0615		1.4
INSTALLATION GUIDE E7xx	MANEX7xxU002	1.08	
INSTALLATION GUIDE EX705	MANEX705U002	1.07	
INSTALLATION GUIDE EX7xxG	MANEX7xxGU002		1.01
INSTALLATION GUIDE eX710G	MANEX710GU001		1.03
INSTALLATION GUIDE eXware703	MANEXW70xU003		1.09
INSTALLATION GUIDE eXware707(Q)	MANEXW707U003		1.09
PRESSOFUSED COVER eTOP504 page 1	COPERT4241		1
PRESSOFUSED COVER eTOP504 page 2	COPERT4241		1
PRESSOFUSED COVER eTOP507	COPERT4346		3
PRESSOFUSED FRAME eTOP507	CORNICE4348		4
PRESSOFUSED FRAME eTOP605	CORNICE4787		2
eXware703 plastic BASE	STAFFA&0160		1
eXware703 plastic COVER	COPERT&0159		1
TEST REPORT E16248401	E16248401		1.0
TEST REPORT E16252001	E16252001		1.0
TEST REPORT E16252201	E16252201		1.0
TEST REPORT E16253201	E16253201		1.0
TEST REPORT E16253501	E16253501		1.0
TEST REPORT R16200901	R16200901		1.0
TEST REPORT R16210601	R16210601		1.0
TEST REPORT R16210801	R16210801		1.0
TEST REPORT R16221801	R16221801		1.0
TEST REPORT R16222601	R16222601		1.0
TEST REPORT R17012301	R17012301		1.0
TEST REPORT R17012401	R17012401		1.0
TEST REPORT R17012501	R17012501		1.0
TEST REPORT R17012601	R17012601		1.0
TEST REPORT R17012701	R17012701		1.0
TEST REPORT R17020501	R17020501		1.0
TEST REPORT R17022401	R17022401		1.0
TEST REPORT R17044701	R17044701		1.0
TEST REPORT S16254201	S16254201		1.0
TEST REPORT S16254301	S16254301		1.0
TEST REPORT S16254401	S16254401		1.0
TEST REPORT S16254501	S16254401		1.0
TEST REPORT S16254601	S16254601		1.0



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TEST REPORT V16247301	V16247301	1.0
TEST REPORT V16247701	V16247701	1.0
TEST REPORT V16251301	V16251301	1.0
TEST REPORT V16251801	V16251801	1.0
TEST REPORT V16253001	V16253001	1.0
TEST REPORT S16163402	S16163402	1.0
TEST REPORT S16163401	S16163401	1.0
TEST REPORT V16247601	V16247601	1.0
TEST REPORT V16251901	V16251901	1.0
TEST REPORT V16252101	V16252101	1.0
TEST REPORT V16253102	V16253102	1.0
TEST REPORT V16253401	V16253401	1.0
TEST REPORT E13048801	E13048801	1.0
TEST REPORT V13052501	V13052501	1.0
TEST REPORT R12160801	R12160801	1.0
TEST REPORT S13062001	S13062001	1.0
TEST REPORT S12010301	S12010301	1.0
TEST REPORT R13068104	R13068104	1.0
TEST REPORT E18053701	E18053701	V1.0
TEST REPORT R17263401	R17263401	V1.0
TEST REPORT R18096201	R18096201	V1.0
TEST REPORT S18053801	S18053801	V1.0
TEST REPORT V18053601	V18053601	V1.0
TEST REPORT V18056201	V18056201	V1.0
TEST REPORT E18053101	E18053101	1.0
TEST REPORT E18053401	E18053401	1.0
TEST REPORT E18195101	E18195101	1.0
TEST REPORT R17065201	R17065201	1.0
TEST REPORT R18005501	R18005501	1.0
TEST REPORT R18100501	R18100501	1.0
TEST REPORT R18100701	R18100701	1.0
TEST REPORT R18105901	R18105901	1.0
TEST REPORT R18191801	R18191801	1.0
TEST REPORT R18195401	R18195401	1.0
TEST REPORT R18264001	R18264001	1.0
TEST REPORT R18264101	R18264101	1.0
TEST REPORT S18053201	S18053201	1.0
TEST REPORT S18053501	S18053501	1.0
TEST REPORT S18195201	S18195201	1.0
TEST REPORT S18232201	S18232201	1.0
TEST REPORT S18232301	S18232301	1.0
TEST REPORT V18053301	V18053301	1.0
TEST REPORT V18115501	V18115501	1.0
TEST REPORT V18194801	V18194801	1.0
TEST REPORT V18257101	V18257101	1.0
TEST REPORT R21022401	R21022401	1.0
TEST REPORT R20061501	R20061501	1.0
TEST REPORT R20118101	R20118101	1.0
TEST REPORT R21089701	R21089701	1.0
TEST REPORT R21052601	R21052601	1.0
TEST REPORT R21052201	R21052201	1.0
TEST REPORT R21059101	R21059101	1.0
TEST REPORT E21272401	E21272401	1.0
TEST REPORT R21172201	R21172201	1.0
TEST REPORT R21172701	R21172701	1.0
TEST REPORT S21279801	S21279801	1.0
TEST REPORT E16165203	E16165203	1.0
TEST REPORT V21272201	V21272201	2.0
PLCM04 Tech-Note	ptn0601	1.2
eXware703M Tech-Note	ptn0795	1.1
eX715MH – Tech Note	ptn0777	1.0
eX710MG Tech-Note	ptn0807	1.1
eX705M – Tech Note	ptn0794	1.1
TEST REPORT R25007101_rev20	R25007101_rev20	2.0
TEST REPORT R25197401	R25197401	1.0



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TEST REPORT R25007201_rev20	R25007201_rev20	2.0
TEST REPORT S26002401	S26002401	1.0
TEST REPORT V25136501	V25136501	1.0
TEST REPORT E25165901	E25165901	1.0
TEST REPORT R25226001	R25226001	1.0
TEST REPORT R23158001	R23158001	1.0
TEST REPORT R23157901	R23157901	1.0
TEST REPORT S25225901	S25225901	1.0
TEST REPORT E25225701	E25225701	1.0
TEST REPORT R26019901	R26019901	1.0
TEST REPORT R24184301	R24184301	1.0
TEST REPORT R24184201	R24184201	1.0
TEST REPORT S26005901	S26005901	1.0
TEST REPORT E26005801	E26005801	1.0
TEST REPORT V25225501	V25225501	1.0

Generic Statement for EU RO MR Type Approval Certificate

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.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).