Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer	**Exor International SpA**
Address	Via Monte Fiorino, 9-13, San Giovanni Lupatoto, Verona, 37057, Italy
Type	Human Machine Interface
Description	HMIs (Human Machine Interfaces) with display and touchscreen, and plug-in accessories
Trade Name	eX700 Series (eX705, eX707(M), eX710(M), eX712(M), eX715(M), eX721(M)) with plug-in modules PLCM01, PLCM04, PLCM05, PLIO03, PLIO06
Application	Marine, Offshore and Industrial application for use in environmental categories ENV1 and ENV2 as defined in Lloyd's Register Type Approval System, Test Specification Number 1, 2015.
Specified Standard	Manufacturer's Specification
Ratings	See Appendix

Additional Tests

Compass Safe Distance, according to IEC 60945:2002

	standard compass [m]	steering compass [m]
eX705	0.15	0.10
eX707(M)	0.85	0.40
eX710(M)	1.15	0.75

Matteo Roiaz

Electrical & Control - Specialist to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

Type Approval Certificate

eX712(M)	0.40	0.10
eX715(M)	1.80	1.30
eX721(M)	2.20	1.30

Cold test, IEC 60068-2-1, cl.6: at -25°C, 5 hours
Dry Heat test, IEC 60068-2-2, cl.6: at +55°C, 16 hours

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 17/00112

The Design Appraisal Document LR23361343DA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

TA01 2.0

RATINGS

Power supply: 24 V dc
Protection Index: IP 66 (front)
                        IP 20 (rear)

eX705		**eX707M**
- Display – Colours:	5" TFT 16:9 LED – 64K	
- Resolution:	800x480 WVGA	
- Touchscreen:	True glass projected capacitive, multitouch	
- CPU:	ARM Cortex-A8 – 1 GHz	
- Operating System:	Linux RT	
- Interfaces	n.2 Ethernet port	
	n.1 USB port	
	n.1 serial port (n.2 using plug-in modules)	
	SD card slot	
	n.1 plug-in module slot for system expansion	
eX707		**eX707M**
- Display – Colours:	7" TFT 16:9 LED – 16M	"
- Resolution:	800x480 WVGA	"
- Touchscreen:	True glass projected capacitive, multitouch	"
- CPU:	ARM Cortex-A9 dual core 800 MHz	64-bit RISC quad core – 1.6 GHz
- Operating System:	Linux RT	"
- Interfaces	n.3 Ethernet port	"
	n.2 USB port	
	n.1 serial port (n.3 using plug-in modules)	
	SD card slot	
	n.2 plug-in module slot for system expansion	
eX710		**eX710M**
- Display – Colours:	10.1" TFT 16:9 LED – 16M	"
- Resolution:	1280x800 WXGA	"
- Touchscreen:	True glass projected capacitive, multitouch	"
- CPU:	ARM Cortex-A9 dual core 800 MHz	64-bit RISC quad core – 1.6 GHz
- Operating System:	Linux RT	"
- Interfaces	n.3 Ethernet port	"
	n.2 USB port	
	n.1 serial port (n.3 using plug-in modules)	
	SD card slot	
	n.2 plug-in module slot for system expansion	
(Continues)		

APPENDIX to Certificate no. LR23361343TA

eX712		**eX712M**
- Display – Colours:	12.3" TFT 16:9 LED – 16M	"
- Resolution:	1920x720 HD	"
- Touchscreen:	True glass projected capacitive, multitouch	"
- CPU:	32-bit RISC quad core – 800 MHz	64-bit RISC quad core – 1.6 GHz
- Operating System:	Linux RT	"
- Interfaces	n.3 Ethernet port	"
	n.2 USB port	
	n.1 serial port (n.3 using plug-in modules)	
	SD card slot	
	n.2 plug-in module slot for system expansion	
eX715		**eX715M**
- Display – Colours:	15.6" TFT LED – 16M	"
- Resolution:	1366x768 HD	"
- Touchscreen:	True glass projected capacitive, multitouch	"
- CPU:	ARM Cortex-A9 quad core 800 MHz	64-bit RISC quad core – 1.6 GHz
- Operating System:	Linux RT	"
- Interfaces	n.3 Ethernet port	"
	n.2 USB port	
	n.1 serial port (n.3 using plug-in modules)	
	SD card slot	
	n.2 plug-in module slot for system expansion	
eX721		**eX721M**
- Display – Colours:	21.5" TFT LED – 16M	"
- Resolution:	1920x1080 HD	"
- Touchscreen:	True glass projected capacitive, multitouch	"
- CPU:	ARM Cortex-A9 quad core 800 MHz	64-bit RISC quad core – 1.6 GHz
- Operating System:	Linux RT	"
- Interfaces	n.3 Ethernet port	"
	n.2 USB port	
	n.1 serial port (n.3 using plug-in modules)	
	SD card slot	
	n.2 plug-in module slot for system expansion	

Accessories:	
PLCM01	CAN interface, DB9 CAN connector
PLCM04	RS-422/485 interface with optical insulation
PLCM05	Bus-Extender; optionally CODESYS Module to activate the CoDeSys run-time in the HMI
PLIO03	I/O module - 20 digital input - 12 digital output - 8 analog input - 1 Pt100 cold junction input - 4 analog output
PLIO06	I/O module, compact - 8 digital input - 6 digital output - 1 relay output