DNV·GL

Certificate No:
TAA00000N8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
X2 HMI Panel family

Issued to
Beijer Electronics, Inc.
Salt Lake City UT, United States

is found to comply with
DNV GL rules for classification – Ships

Application :

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

Temperature	**B**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**B, front: IP65, rear: IP20**

This Certificate is valid until **2021-09-11**.

Issued at **Hamburg** on **2016-09-12**

for **DNV GL**

DNV GL local station: **Long Beach**

Approval Engineer: **Jens Dietrich**

Duy Nam Le
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.

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Product description

Type name	CPU	Display Size
X2 pro 4 - B2	IMX4 Basic	4.3”
X2 control 4 - B2	IMX4 Advanced	4.3”
X2 motion 4 - B2	IMX4 Advanced	4.3”
X2 pro 7 - B2	IMX4 Basic	7”
X2 control 7 - B2	IMX4 Advanced	7”
X2 motion 7 - B2	IMX4 Advanced	7”
X2 marine 7 - B2	IMX4 Basic	7”
X2 marine 7 - B2 SC	IMX4 Advanced	7”
X2 marine 7 - B2 HB	IMX7 Advanced	7”
X2 marine 7 - B2 HB SC	IMX7 Advanced	7”
X2 pro 10 - B2	IMX7 Basic	10.1”
X2 control 10 - B2	IMX7 Advanced	10.1”
X2 motion 10 - B2	IMX7 Advanced	10.1”
X2 pro 12 - B2	IMX7 Basic	12.1”
X2 control 12 - B2	IMX7 Advanced	12.1”
X2 motion 12 - B2	IMX7 Advanced	12.1”
X2 pro 15 - B2	IMX7 Basic	15.4”
X2 control 15 - B2	IMX7 Advanced	15.4”
X2 motion 15 - B2	IMX7 Advanced	15.4”
X2 marine 15 - B2	IMX7 Basic	15.4”
X2 marine 15 - B2 SC	IMX7 Advanced	15.4”
X2 marine 15 - B2 HB	IMX7 Basic	15.4”
X2 marine 15 - B2 HB SC	IMX7 Advanced	15.4”
X2 pro 7 - B2 Key	IMX4 Basic	7”
X2 pro 10 - B2 Key	IMX4 Basic	10.4”

All models are touch operator panels except –Key types,
-HB: High Brightness variants, -SC: Software Option SoftControl,
-motion variants: with SW add-on SoftMotion CNC,

Additional HW options:
-ciX CAN module,

Power Supply: 24V DC.

Compass Safe Distance:	Standard compass	Steering compass
X2 pro 10 - B2	75cm	40cm
X2 pro 12 – B2	40cm	30cm
X2 marine 15 – B2 HB SC	60cm	45cm
X2 control 15-B2 SC	70cm	45cm
X2 pro 4 – B2	35cm	20cm
X2 control 7 –B2 SC	85cm	45cm
X2 marine 7 –B2 SC	80cm	35cm
X2 pro 7 – B2 Key	90cm	35cm
X2 pro 10 – B2 Key	95cm	85cm
X2 marine 7 – B2 HB	45cm	25cm

For types not measured worst case minimum compass safe distance (95cm/85cm) is to be observed.

Application/Limitation

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 the applicable rule set for classification.

Product certificate
If specified in the Rules, Pt.4 Ch.9, Sec.1 the system in which the above listed hardware is used shall be delivered with a product certificate. For each such delivery the certification test is to be performed at the manufacturer of the application system before the system is shipped to the yard. The test shall be done according to an approved test program. After the certification the clause for application software control will be put into force.

Type Approval documentation

Tests carried out

Applicable tests based on DNV GL CG-0339, edition Nov. 2015; Tests according to IEC60529,
EMC Tests according to section 10 of IEC60945 (2002),
Compass safe distance according to section 11.2 of IEC 60945 4th edition (2002),
IACS UR E10 (Rev. 6, Oct. 2014).

Marking of product

The products to be marked with model name, manufacturer name, serial number and power supply specification.

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 at least once during validity period and at renewal of this certificate.

END OF CERTIFICATE