DNV·GL

Certificate No:
TAA00001WW

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
NA5 Series Programmable Terminal

Issued to
Omron Europe B.V.
S-HERTOGENBOSCH, Netherlands

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 GL.

Location classes:

Temperature	**A**
Humidity	**B**
Vibration	**A**
EMC	**B***
Enclosure	**A**

***See Application/Limitation**

Issued at **Høvik** on **2018-06-14**
This Certificate is valid until **2023-06-30**.
DNV GL local station: **Rotterdam**

Approval Engineer: **Nils Jarem**

for **DNV GL**

Odd Magne Nesvåg
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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Job Id: **262.1-016733-4**
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Product description

NA5-Series programmable touch panel terminals:

Type Number	Type Number	Display type	Resolution
NA5-7W001S	NA5-7U001S	TFT 7"	800 x 480
NA5-7W001B	NA5-7U001B	TFT 7"	800 x 480
NA5-9W001S	NA5-9U001S	TFT 9"	800 x 480
NA5-9W001B	NA5-9U001B	TFT 9"	800 x 480
NA5-12W101S	NA5-12U101S	TFT 12"	1280 x 800
NA5-12W101B	NA5-12U101B	TFT 12"	1280 x 800
NA5-15W101S	NA5-15U101S	TFT 15"	1280 x 800
NA5-15W101B	NA5-15U101B	TFT 15"	1280 x 800

Colour determined by suffix: S-Silver, B-Black.
Nominal voltage 24V DC.

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.

Application/Limitation

Noise filter TAH-06-683 manufactured by Cosel Co.,Ltd. or FN-2080-XX manufactured by Schaffner or equivalent should be connected between terminals of NA5-series and the power supply if NA5-series are installed on the bridge to assure EMC class "B ".

Type Approval documentation

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.

Marking of product

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

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