

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Network and Communication Components**with type designation(s)
DDW-142

Issued to

Westermo Teleindustri AB
STORA SUNDBY, Sweden

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 D**
Humidity B
Vibration A
EMC B
Enclosure A / IP40Issued at **Høvik** on **2017-05-05**This Certificate is valid until **2021-12-31**.DNV GL local station: **Stockholm**for **DNV GL**Approval Engineer: **Ståle Sneen**

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.



Job Id: **262.1-013835-2**
Certificate No: **TAA000015U**

Product description

Wolverine Industrial Ethernet Extender (10/100 Mbit/s) for DIN-rail mounting:

Model	Art. No.	Rated voltage	Rated current @ 24 VDC	Rated current @ 48 VDC
DDW-142	3642-0300	24-48 VDC	245 mA (405 mA) (with 500 mA USB load)	124 mA (200 mA) (with 500 mA USB load)

DDW-142 has been tested and approved for direct connection to 24 VDC distribution boards (test voltage: 18.0–31.2 VDC).

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 DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Compass safe distance	Standard	Steering
DDW-142	30 cm	20 cm

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.

For the bridge mounted components the 'Compass safe distance' was measured according to section 11.2 of IEC 60945 4th edition (2002).

Marking of product

Manufacturer: Westermo

Model number as listed under Product description

Unique 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