



TYPE APPROVAL CERTIFICATE

Certificate No:
TAA000015U
Revision No:
1

This is to certify:

That the Network and Communication Components

with type designation(s)
DDW-142

Issued to

Westermo Network Technologies AB
STORA SUNDBY, Sweden

is found to comply with

DNV 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.

Location classes:

Temperature	D
Humidity	B
Vibration	A
EMC	B
Enclosure	A / IP40

Issued at **Høvik** on **2022-01-21**

for **DNV**

This Certificate is valid until **2026-12-31**.

DNV local station: **Sweden CMC**

Approval Engineer: **Ståle Sneen**

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Trond Sjøvåg
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.

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.



Form code: TA 251

Revision: 2021-03

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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, 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 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

DDW-142 User Guide: 6642-22501 Rev.J, dated 2016-04
Schematics: 2010-5252-C Rev.02, 5011-3000-C Rev.03, 5011-3110-C Rev.01
Test report: DELTA REC-E703230 Rev.A, dated 2012-10-02
DELTA REC-702992 Rev.-, dated 2012-04-19
DELTA REC-E704492_4 Rev.-, dated 2016-09-22
Assessment report: Renewal assessment report, DNV Sweden CMC 2022-01-03

Tests carried out

Applicable tests according to class guideline DNV-CG-0339, August 2021.
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